

NATIONAL INSTITUTES OF HEALTH

Research Grants

Fiscal Year 1979



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service National Institutes of Health

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U.S. NATIONAL INSTITUTES OF HEALTH.
00 *Division of Research Grants*

Research Grants

Fiscal Year 1979

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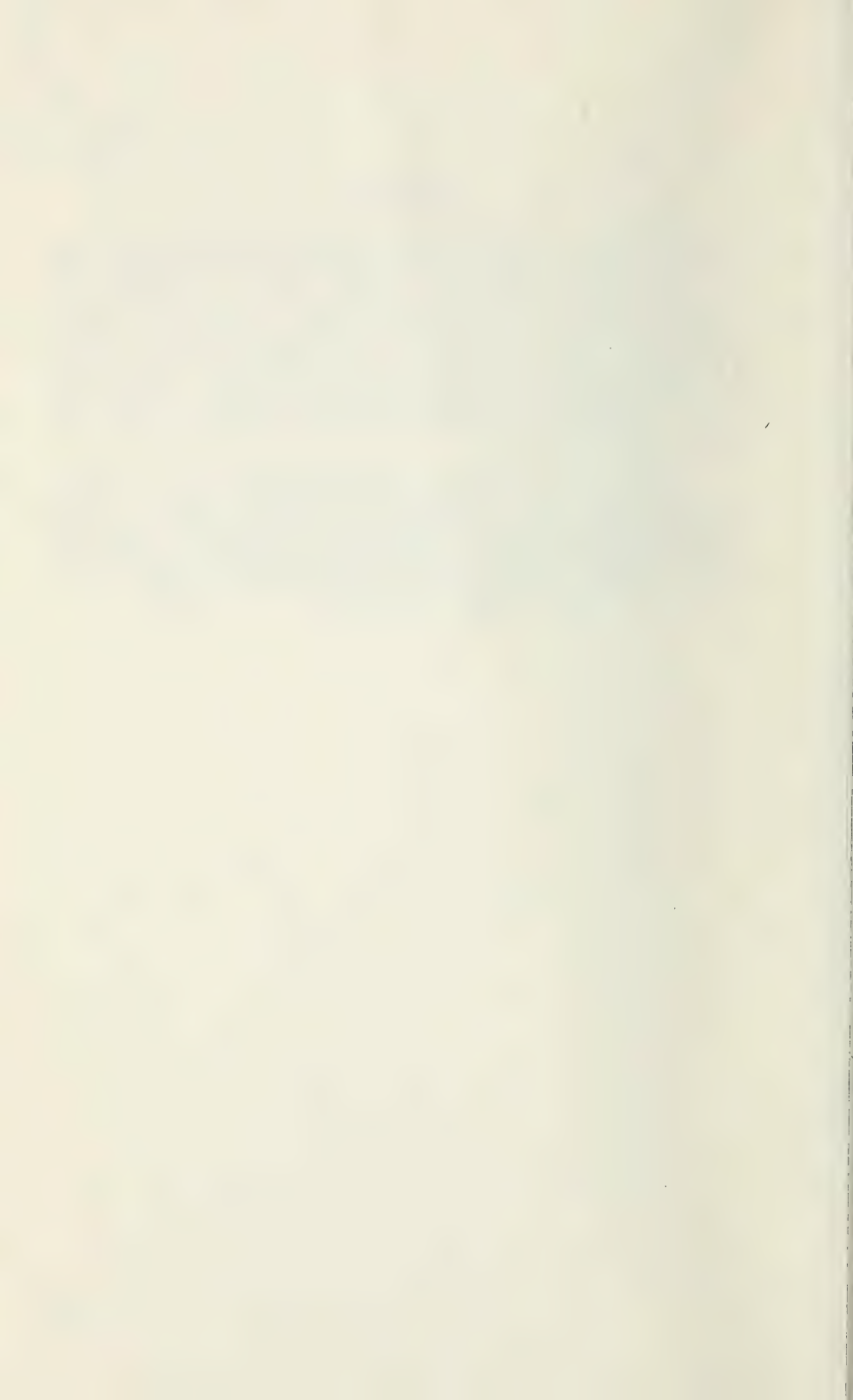
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Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the research contract mechanism is used under appropriate circumstances.

Listings of NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents a listing of the research grants (including the research career development awards) awarded by NIH from fiscal year 1979 funds. Research grants awarded by other constituent agencies of the Public Health Service are not included in this volume.



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TECHNICAL NOTE

Cancer Control Grants

The research demonstration and dissemination projects of the National Cancer Institute are no longer being included in this volume for the sake of conformity with their treatment in the budgetary process. These grants, commonly referred to as cancer control grants, are shown separately from research grants in the budget, and their exclusion from this volume reflects their treatment generally in analytical studies. Accordingly, the cancer control grants will be shown as a separate table in another volume of this series.

Organization Identification

In the presentation of grants made from fiscal year 1979 funds, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the principal investigator lies. Study of the structure of grantee organizations in the United States (primarily universities and colleges, and State Departments of Mental Health or their equivalents) has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education is comprised of two or more campuses reporting directly to the central administration, each campus is listed separately.
2. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and the organization is listed as many times within a given city as there are components of the organization receiving grants.
3. If a foundation has been established for the purpose of receiving and administering funds for grants, the name and location of the organization having professional responsibility for the grant are shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
4. If an association receiving a grant has a fixed national headquarters, the grants are listed at the headquarters location. If however, the association does not have a fixed headquarters, the grants are listed in the city shown for this organization in either the Encyclopedia of Associations (1) or the Research Centers Directory (2).

These qualifications do not apply to foreign institutions or to some domestic organizations, because a systematic study of their organizational structure has not been made. Organizations which require a clarifying comment, or which appear in more than one geographical location are listed alphabetically in the Appendix.

Supplemental Awards

In this publication, supplemental awards are combined with the parent grant, or with other supplements, when both awards are made from the same fiscal year funds. Supplemental grants awarded in fiscal year 1979 to parent grants awarded in a previous fiscal year are shown separately; if two or more such supplements were made during fiscal year 1979, these supplements are combined.

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- (1) Fiske, M. (Ed.): Encyclopedia of Associations. Gale Research Co., Detroit, Mich., 13 ed., Vol. 1, 1979.
 - (2) Palmer, A.M. (Ed.): Research Centers Directory. Gale Research Co., Detroit, Mich., 6 ed., 1979.

ABBREVIATIONS

The NIH component supporting a grant is indicated by the code letters in the left-hand column. These code letters form part of the identification of the grant number.

<i>Code for supporting component</i>		<i>Abbreviation of supporting component</i>
	Institutes and Research Divisions.....	IRD
AG	National Institute on Aging.....	NIA
AI	National Institute of Allergy and Infectious Diseases.....	NIAID
AM	National Institute of Arthritis, Metabolism, and Digestive Diseases.....	NIAMDD
CA	National Cancer Institute.....	NCI
DE	National Institute of Dental Research.....	NIDR
ES	National Institute of Environmental Health Sciences.....	NIEHS
EY	National Eye Institute.....	NEI
GM	National Institute of General Medical Sciences.....	NIGMS
HD	National Institute of Child Health and Human Development.....	NICHHD
HL	National Heart, Lung, and Blood Institute.....	NHLBI
NS	National Institute of Neurological and Communicative Disorders and Stroke.....	NINCDS
RR	Division of Research Resources.....	DRR
TW	Fogarty International Center.....	FIC
LM	National Library of Medicine.....	NLM
	National Institutes of Health.....	NIH

TABLE 1.--SUMMARY OF NIH RESEARCH GRANTS AND AWARDS BY SUPPORTING COMPONENT, FISCAL YEAR 1979

SUPPORTING COMPONENT	ALL RESEARCH GRANTS		ACTIVITY				RESEARCH CAREER AWARDS	
			RESEARCH PROJECTS, PROGRAM PROJECTS AND CENTERS, AND GENERAL SUPPORT		RESEARCH PROJECTS, PROGRAM PROJECTS AND CENTERS, AND GENERAL SUPPORT			
	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS
TOTAL NATIONAL INSTITUTES OF HEALTH.....	19, 107	1, 932, 355, 535	17, 744	1, 883, 223, 830	1, 363	49, 131, 705		
INSTITUTES AND RESEARCH DIVISIONS.....	19, 039	1, 928, 636, 420	17, 686	1, 879, 825, 533	1, 353	48, 810, 887		
DIVISION OF RESEARCH RESOURCES.....	765	149, 279, 315	764	149, 242, 519	1	36, 796		
NATIONAL CANCER INSTITUTE.....	3, 347	420, 162, 865	3, 212	415, 392, 034	135	4, 770, 831		
NATIONAL EYE INSTITUTE.....	1, 086	81, 789, 940	1, 008	79, 061, 756	78	2, 728, 184		
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE.....	2, 826	324, 571, 178	2, 567	315, 271, 698	259	9, 299, 480		
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES.....	1, 478	121, 959, 939	1, 358	117, 774, 766	120	4, 185, 173		
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES.....	2, 639	222, 807, 503	2, 355	212, 230, 838	284	10, 576, 665		
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT.....	1, 376	134, 240, 037	1, 295	131, 399, 892	81	2, 840, 145		
NATIONAL INSTITUTE OF DENTAL RESEARCH.....	445	37, 910, 634	408	36, 622, 520	37	1, 288, 114		
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES.....	359	39, 399, 040	338	38, 774, 899	21	624, 141		
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.....	2, 651	220, 480, 310	2, 507	215, 486, 120	144	4, 994, 190		
NATIONAL INSTITUTE ON AGING.....	470	37, 018, 163	445	35, 846, 660	25	1, 171, 503		
NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE.....	1, 597	139, 017, 496	1, 429	132, 721, 831	168	6, 295, 665		
NATIONAL LIBRARY OF MEDICINE.....	68	3, 719, 115	58	3, 398, 297	10	320, 818		

NOTE:--For information as to how this table was prepared, see Technical Note, p. vii.

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979

Principal investigator	Project title	Grant number	Dollars
GRAND TOTAL, 17,744 GRANTS.....			1,883,223,830
UNITED STATES,* 17,553 GRANTS.....			1,873,181,431
OTHER COUNTRIES, 191 GRANTS.....			10,042,399

UNITED STATES

ALABAMA

AUBURN

AUBURN UNIVERSITY ZIP CODE 36830

AULL, JOHN L.....	ISOLATION AND CHARACTERIZATION OF DEUTERATED ENZYMES.....	1R01 GM27013-01	48,609
LATIMER, PAUL H.....	OPTICAL PROPERTIES OF PLATELETS AND ERYTHROCYTES.....	5R01 HL18256-02	21,797
ORGANIZATION TOTAL	2	70,406	

BIRMINGHAM

EYE FOUNDATION HOSPITAL ZIP CODE 35233

PFISTER, ROSWELL R.....	ASCORBIC ACID IN THE TREATMENT OF CORNEAL DISEASE.....	5R01 EY02018-03	118,602
PFISTER, ROSWELL R.....	ASCORBIC ACID THERAPY IN ALKALI BURNS OF THE EYE.....	1R01 EY03186-01	155,467
ORGANIZATION TOTAL	2	274,069	

MILES COLLEGE ZIP CODE 35208

BROWN, GRACE L.....	FACULTY-STUDENT BIOMEDICAL RESEARCH.....	5S06 RR08160-02	62,728
ORGANIZATION TOTAL	1	62,728	

SOUTHERN RESEARCH INSTITUTE ZIP CODE 35205

BENNETT, L LEE, JR.....	MECHANISM OF ACTION OF NEW ANTICANCER DRUGS.....	5R01 CA23155-02	180,036
BENNETT, L LEE, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05676-03	64,426
BROCKMAN, ROBERT W.....	BIOCHEMICAL STUDY OF COLON TUMOR ANTICANCER AGENTS.....	2R26 CA20070-04	120,837
GRISWOLD, DANIEL P, JR.....	BIOLOGY AND TREATMENT OF MURINE COLON CARCINOMA.....	5R26 CA17303-05	253,875
HILL, DONALD L.....	METABOLIC ACTIVATION OF LABELED INDICINE N-OXIDE.....	1R01 CA24595-01	59,330
HILL, DONALD L.....	METABOLISM AND ANTITUMOR ACTIVITY OF AMINOTHIAZAZOLES.....	1R01 CA26383-01	102,604
HILL, DONALD L.....	DISPOSITION AND CHEMOPREVENTIVE ACTIVITY OF RETINOLIDS.....	1R01 CA26389-01	143,960
LEWIS, DANNY H.....	DEVELOPMENT OF A SOFT DENTURE LINER FOR PROLONGED USE.....	5R01 DE04794-02	44,767
MONTGOMERY, JOHN A.....	ENZYME INHIBITORS AS NEW TYPES OF ANTICANCER AGENTS.....	5R01 CA23173-02	166,863
MONTGOMERY, JOHN A.....	NUCLEOSIDE ANALOG METABOLISM AND ANTICANCER ACTIVITY.....	1R01 CA24975-01	138,393
PIPER, JAMES R.....	DEVELOPMENTAL ANTIFOLATE THERAPY OF CANCER.....	1R01 CA25236-01	88,376
SANI, BRAHMA P.....	RETINOIC ACID-BINDING PROTEIN.....	3R01 CA18263-03S1	16,450
SANI, BRAHMA P.....	BIOCHEMICAL MARKERS IN COLON TUMORIGENESIS.....	5R26 CA22924-03	63,862
SCHABEL, FRANK M, JR.....	RADIO/CHEMOTHERAPY OF TUMORS IN EXPERIMENTAL ANIMALS.....	1R01 CA26485-01	221,393
SHEALY, Y FULMER.....	CHEMICALLY REACTIVE COMPOUNDS FOR CANCER CHEMOTHERAPY.....	5R01 CA23127-02	159,596

*Includes Puerto Rico.

NOTE: Grants are listed according to the State or country and city of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
SHEALY, Y FULMER.....	PYRIMIDINES FOR ANTICANCER AND ANTIVIRAL CHEMOTHERAPY.....	1R01 CA25701-01	165,529
SIMPSON-HERREN, LINDA K.....	RELATIONSHIP OF LIGHTLY LABELED CELLS TO DRUG EFFECT.....	1R01 CA25313-01	80,541
STRUCK, ROBERT F.....	CYCLOPHOSPHAMIDE ISOPHOSPHAMIDE: MECHANISM OF ACTION.....	1R01 CA26632-01	119,624
TEMPLE, CARROLL G, JR.....	MULTISUBSTRATE, PSEUDOCOFACITOR ENZYME INHIBITORS.....	5R01 CA23141-02	151,261
ORGANIZATION TOTAL	19 2,341,723		
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294			
ACTON, RONALD T.....	MEMBRANE SPECIFICITIES RELATED TO NEOPLASIA.....	5R01 CA15338-06	64,540
ACTON, RONALD T.....	BIOLOGICAL ROLE OF ALLOANTIGENS.....	5R01 CA18609-04	65,507
ALFORD, CHARLES A, JR.....	HERPES VIRUS INFECTIONS IN HIGH RISK CANCER GROUPS.....	5R01 CA16424-05	72,289
ALFORD, CHARLES A, JR.....	PERINATAL INFECTIONS, IMMUNITY AND MALDEVELOPMENT.....	5P01 HD10699-03	440,340
ARNOLD, ROLAND R.....	SALIVARY LACTOFERRIN AND REGULATION OF THE ORAL FLORA.....	5R01 DE04801-03	50,049
BAKER, HENRY J, JR.....	AN ANIMAL MODEL OF HUMAN GANGLIOSIDOSIS.....	2R01 NS10967-07	107,724
BAKER, HENRY J, JR.....	LABORATORY ANIMAL RESOURCE FOR BIOMEDICAL RESEARCH.....	5P40 RR00463-11	137,225
BARGER, BRUCE O.....	THE GUINEA PIG MODEL OF SPONTANEOUS DIABETES.....	1R01 AM25478-01	42,220
BARTOLUCCI, ALFRED A.....	SOUTHEASTERN GROUP STATISTICAL SERVICES.....	5R10 CA24456-02	688,991
BENNETT, J CLAUDE.....	STUDIES ON GAMMA GLOBULIN STRUCTURE.....	2R01 AI09153-14	90,656
BENNETT, J CLAUDE.....	COORDINATED STUDIES IN RHEUMATIC DISEASES.....	5P01 AM03555-20	276,368
BENNETT, J CLAUDE.....	MULTIPURPOSE ARTHRITIS CENTER.....	3P60 AM20614-02S2	12,657
BENNETT, J CLAUDE.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20614-03	375,278
BISHOP, DAVID H.....	TRANSCRIPTION AND REPLICATION OF ANIMAL RNA VIRUSES.....	5R01 AI13402-04	95,270
BISHOP, DAVID H.....	GENETIC AND MOLECULAR STUDIES OF ARENAVIRUSES.....	5R01 AI14183-02	64,230
BISHOP, DAVID H.....	GENETIC AND MOLECULAR STUDIES OF BUNYAVIRUSES.....	1R01 AI15400-01	66,073
BISHOP, SANFORD P.....	QUANTITATIVE PATHOLOGY OF CARDIAC HYPERTROPHY.....	1R01 HL23255-01	88,904
BOOTS, LARRY R.....	MODEL FOR THE STUDY OF TROPHOBLASTIC NEOPLASIA.....	1R01 CA25974-01	47,308
BOOTS, LARRY R.....	ROLE OF SELECTED COENZYMES IN ENDOMETRIAL FUNCTION.....	5R01 HD10768-02	55,145
BRASCHO, DONN J.....	CANCER EDUCATION GRANT.....	5R25 CA17965-05	139,534
BRATTAIN, MICHAEL G.....	TISSUE CULTURE OF PURIFIED COLONIC CARCINOMA CELLS.....	5R26 CA21520-02	51,487
BRILES, DAVID E.....	IMMUNODEFICIENCY AND SALMONELLA SUSCEPTIBILITY.....	1R01 AI15986-01	87,377
BRILES, EVE B.....	SELECTION AND CHARACTERIZATION OF ADHESION VARIANTS.....	1R01 AM25822-01	54,563
BROWN, GEORGE B.....	CHARACTERIZATION OF 3H-BATRACHOTOXIN-BENZOATE BINDING.....	1R01 NS15617-01	28,340
BUGG, CHARLES E.....	CRYSTAL STRUCTURES OF PURINE AND PYRIMIDINE ANALOGS.....	5R01 CA12159-08	42,673
BUTLER, WILLIAM T.....	STUDIES OF PROTEINS INVOLVED IN DENTINOGENESIS.....	1R01 DE05092-01	86,545
BUTTERWORTH, C E, JR.....	CORE CLINICAL NUTRITION RESEARCH CENTER.....	1P01 CA28103-01	231,489
CAIN, STEPHEN M.....	SURVIVAL VALUE OF PHYSIOLOGIC RESPONSES TO HYPOXIA.....	5R01 HL14693-08	72,792
CASSELL, GAIL H.....	MYCOPLASMAS AND INFERTILITY: PATHOGENIC MECHANISMS.....	5R01 HD11447-02	122,770
CASSELL, GAIL H.....	MURINE CRD: A MODEL OF CHRONIC PULMONARY INFLAMMATION.....	2R01 HL19741-04	94,411
CASSELL, GAIL H.....	CONTROL OF RESPIRATORY MYOPLASMOSIS.....	2R24 RR00959-04A2	51,814
CHEUNG, HERBERT C.....	RAPID KINETIC STUDY OF MYOSIN ADENOSINETRIPHOSPHATASE.....	2R01 AM17483-03A1	67,255
CHEUNG, HERBERT C.....	FLUORESCENCE STUDIES OF MUSCLE REGULATORY SYSTEM.....	1R01 AM25193-01	51,910
CHRISTENSEN, JERRY L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05807-01	20,958
CHRISTIAN, SAMUEL T.....	MOLECULAR STUDIES OF DOWN'S SYNDROME.....	1R01 HD11893-01	70,220
CLEMENTS, REX S, JR.....	PHOSPHATIDYLINOSITOL METABOLISM AND INSULIN SECRETION.....	5R01 AM21065-03	43,981
COMPANS, RICHARD W.....	INFLUENZA VIRUS STRUCTURE, BIOSYNTHESIS, AND ASSEMBLY.....	2R01 AI12680-05A1	80,138
COMPANS, RICHARD W.....	MOLECULAR STUDIES OF ONCORNA AND ARENAVIRUSES.....	5R01 CA18611-05	73,912
CONRAD, MARCEL E.....	IRON-INTESTINAL MUCOSAL METAL BINDING PROTEINS.....	5R01 AM21416-02	92,025
CONRAD, MARCEL E.....	LEAD ABSORPTION, EXCRETION, AND METABOLISM.....	5R01 ES01306-03	56,970
CONRAD, MARCEL E.....	PLATELET TRANSFUSIONS: USAGE AND COMPLICATIONS.....	5R01 HL20856-03	74,521
COOPER, MAX D.....	CELL DIFFERENTIATION STUDIES IN CANCER IMMUNOBIOLOGY.....	5P01 CA16673-05	387,674
CRIST, WILLIAM M.....	SOUTHWEST ONCOLOGY STUDY GROUP.....	1R10 CA25408-01	117,717
CURTISS, ROY, III.....	EXTRACHROMOSOMAL ELEMENTS IN GRAM NEGATIVE BACTERIA.....	5R01 AI11456-07	60,996
DAUGHERTY, J PATRICK.....	PHOTOAFFINITY LABELING OF ADRIAMYCIN RECEPTORS.....	1R01 CA26643-01	50,496
DI BONA, DONALD R.....	DIRECT VISUALIZATION OF ADH-INDUCED WATER FLOW.....	1R01 AM25788-01	79,720
DILLON, HUGH C, JR.....	DIPLOCOCCUS PNEUMONIAE: INFECTION AND IMMUNITY.....	2R01 HD09732-04	70,380
DURANT, JOHN R.....	CANCER CENTER CORE SUPPORT GRANT (COMPREHENSIVE).....	3P30 CA13148-07S2	167,260
DURANT, JOHN R.....	CANCER CENTER CORE SUPPORT GRANT (COMPREHENSIVE).....	5P30 CA13148-08	2,098,277
DURANT, JOHN R.....	SOUTHEASTERN CANCER STUDY GROUP.....	3R10 CA19657-03S2	30,077
DURANT, JOHN R.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA19657-04	405,635
DURANT, JOHN R.....	DEVELOPMENT OF CENTRALIZED CANCER PATIENT DATA SYSTEM.....	5R10 CA21182-03	94,159
DUSTAN, HARRIET P.....	MECHANISMS OF HYPERTENSION.....	5R01 HL23201-02	206,646

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
FISCHER, THEODORE E.	RESEARCH OF POLYURETHANES FOR MAXILLOFACIAL USE	5R01 DE04138-05	67,951
FLETCHER, SAMUEL G.	PHYSIOLOGY OF SPEECH ARTICULATION PROCESSES & DISORDERS	5P50 NS1852-05	191,970
FULLMER, HAROLD M.	INSTITUTE OF DENTAL RESEARCH	5P50 DE02670-13	1,922,942
GAMS, RICHARD A.	CELLULAR INCORPORATION OF VITAMIN B-12	5R01 CA20709-02	42,041
GHANTA, VITHAL K.	STUDY OF MICROMETASTASIZED STABLE MURINE TUMOR CLONES	1R01 CA25965-01	55,088
GLAZE, ROBERT P.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07178-02	31,070
GLICKSON, JERRY D.	NMR TECHNIQUES FOR DELINEATING PEPTIDE CONFORMATIONS	1R01 GM24852-01A1	40,493
HALSEY, JAMES H. JR.	SUPPORT FOR CEREBROVASCULAR DISEASE RESEARCH CENTER	5P50 NS08802-10	417,332
HEMSTREET, GEORGE P., III	IMMUNE RECOGNITION OF AUTOLOGOUS RENAL CELL CARCINOMA	5R23 CA24875-02	31,760
HICKEY, TERRY L.	DEVELOPMENT OF THE RETINOGENICULATE SYSTEM	5R01 EY01338-05	46,951
HICKEY, TERRY L.	DEVELOPMENT OF THE HUMAN LATERAL GENICULATE NUCLEUS	5R01 EY02159-02	29,602
HICKEY, TERRY L.	VISION RESEARCH CENTER (CORE)	1P30 EY03039-01	307,756
HIRSCHOWITZ, BASIL I.	CONTROL OF GASTRIC SECRETION	5R01 AM09260-13	76,347
HSIEH, H. STEVE	BIOCHEMICAL ROLE OF ZINC IN TEETH AND BONES	1R23 DE05037-01	25,095
HUDDLESTON, JOHN F.	DIABETES IN PREGNANCY	1R01 HD12559-01	64,211
HURST, ROBERT E.	HEPARIN: RELATION OF ANTICOAGULATION TO STRUCTURE	1R01 HL24509-01	94,129
JAMES, THOMAS N.	MECHANISMS OF CARDIOVASCULAR DISEASE	5P01 HL11310-13	1,613,484
KATHOLI, RICHARD E.	SYMPATHETIC CONTROL OF THE KIDNEY	1R01 HL24420-01	82,870
KEARNEY, JOHN F.	REGULATION OF B CELL CLONAL DIVERSITY	5R01 AI14782-02	44,065
KEMP, GEORGE E.	PURIFICATION OF ACETYLCHOLINE RECEPTOR FROM MUSCLE	5R01 NS14262-02	23,799
KLEINSTEIN, ROBERT N.	VISUAL FIELD DEFECTS WITH BLOOD PRESSURE THERAPY	5R01 EY02544-02	50,418
KOOPMAN, WILLIAM J.	REGULATION OF HUMAN IMMUNOGLOBULIN IN SYNTHESIS IN VITRO	1R01 AI14807-01A1	57,192
KRISHNA, N. R.	NMR STUDIES OF T AND B CELL DIFFERENTIATING PEPTIDES	1R01 GM25219-01	48,534
KRUMDIECK, CARLOS L.	STUDIES ON THE BIOCHEMISTRY OF PTEROYL-POLYGLUTAMATES	5R01 GM23453-02	57,768
KU, DAVID D.	FUNCTION OF SODIUM PUMP IN MYOCARDIAL ISCHEMIA	1R23 HL24485-01	37,430
LAMON, EDDIE W.	THE IMMUNE RESPONSE TO VIRALLY DETERMINED TUMOR ANTIGENS	5R01 CA17273-05	66,766
LAVEN, GEORGE T.	MATERNAL MALNUTRITION	1R23 DE05006-01	30,015
LAWTON, ALEXANDER R., III	DIFFERENTIATION OF B LYMPHOCYTES	2R01 AI11502-07	102,213
LEBOWITZ, JACOB	CIRCULAR DNA—IMPLICATIONS FOR CANCER & DRUG RESISTANCE	5R01 CA17077-05	74,810
LEBOWITZ, JACOB	THE ANALYSIS OF SPECIFIC PROTEIN-DNA ASSOCIATIONS	1R01 GM26468-01	54,515
LENKINSKI, ROBERT E.	THE SOLUTION CONFORMATION OF ANGIOTENSIN II	5R01 AM21980-02	29,455
LOOP, MICHAEL S.	PSYCHOPHYSICAL EFFECTS OF VISUAL DEPRIVATION	9R01 EY03303-02	54,454
LORDEN, JOAN F.	CENTRAL MONOAMINE SYSTEMS AND BODY WEIGHT REGULATION	5R01 NS14755-02	29,008
LUKE, ROBERT G.	STUDIES OF RENAL CHLORIDE TRANSPORT	7R01 AM26698-01	68,210
MARTINEZ, MARIO G.	CLINICAL CANCER EDUCATION PROGRAM (DENTAL)	5R23 CA17934-05	53,224
MAYNE, RICHARD	COLLAGEN POLYMORPHISM AND ARTERIAL STRUCTURE	5R01 HL21665-02	19,238
MC GHEE, JERRY R.	EFFECTIVE IMMUNITY TO DENTAL CARIES: CELLULAR BASIS	2R01 DE04217-05	103,750
MESTECKY, JIRI F.	SECRETORY IGA SYSTEM: MOLECULAR-CELLULAR INTERACTIONS	5R01 HL10854-08	89,960
MOLE, JOHN E.	STRUCTURAL ROLE OF FACTOR B IN IMMUNE REGULATION	1R01 AI15417-01	62,195
MOLE, JOHN E.	STRUCTURE OF MURINE HISTOCOMPATIBILITY ALLOANTIGENS	5R01 CA20690-03	77,680
NAVAR, LUIS G.	REGULATION OF RENAL HEMODYNAMICS	2R01 HL18426-05	90,060
NAVIA, JUAN M.	VITAMIN A IN BONES AND TEETH CALCIFICATION	5R01 DE04862-02	37,856
NEILL, JIMMY D.	THE PHYSIOLOGIC CONTROL OF PROLACTIN SECRETION	5R01 HD13914-02	76,945
NEILL, JIMMY D.	GONADOTROPIN SECRETION DURING LACTATION IN THE MONKEY	7R01 HD13915-01	88,192
NORTON, THOMAS T.	NEURAL MECHANISMS OF EXTRASTRIATE AND STRIATE VISION	5R01 EY02909-02	57,322
OMURA, GEORGE A.	SOUTHEASTERN CANCER STUDY GROUP	5R10 CA03013-23	313,822
OPARIL, SUZANNE	MECHANISMS OF ANGIOTENSIN GENERATION AND METABOLISM	2R01 HL22544-02A2	85,953
OVERBECK, HENRY W.	HEMODYNAMICS AND VASOACTIVITY IN RENAL HYPERTENSION	3R01 HL23312-01S1	13,500
OVERBECK, HENRY W.	HEMODYNAMICS AND VASOACTIVITY IN RENAL HYPERTENSION	5R01 HL23312-02	39,419
OVERBECK, HENRY W.	IONS, WATER, AND HYPERTENSION	5R01 HL23600-02	51,658
OYSTER, CLYDE W.	NEURAL INTERACTION IN THE VERTEBRATE RETINA	5R01 EY02207-02	28,734
PACE, CAROLINE S.	ELECTROPHYSIOLOGICAL STUDIES OF CULTURED ISLET CELLS	5R01 AM21973-02	55,870
PITTMAN, JAMES A., JR.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00032-19	635,450
PITTMAN, JAMES A., JR.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05349-18	201,413
PRCHAL, JOSEF T.	CATARACT THERAPY RBC ABNORMALITIES IN DIABETICS	5R01 EY02432-02	72,287
PRETLOW, THOMAS G., II	BREAST CANCER	5R01 CA23922-02	90,850
RACKLEY, CHARLES E.	STUDY OF ISCHEMIC HEART DISEASE	5P50 HL17667-05	1,491,970
ROBINSON, LEONARD	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05300-18	87,168
RODEN, LENNART	COMPLEMENT CHEMISTRY AND BIOLOGY	5R01 CA24446-02	71,505
ROY, POLLY	MOLECULAR STUDIES OF FISH RHABDOVIRUSES	5R01 AI13686-02	54,212

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
SACHS, GEORGE.....	ENZYMIC BASIS OF ACID SECRETION.....	5R01 AM15878-07	100,999
SACHS, GEORGE.....	GASTRIC TUBULES STUDIES.....	5R01 AM21588-02	82,520
SACHS, GEORGE.....	STUDIES OF COLLECTING DUCT MEMBRANES.....	1R01 AM25520-01	58,250
SARRIF, AWNI M.....	ASSESSMENT OF ENVIRONMENTAL RISK FACTORS IN CANCER.....	1R23 ES02074-01	35,418
SCHAFER, JAMES A.....	NONELECTROLYTE TRANSPORT IN RENAL TUBULES.....	1R01 AM25519-01	150,925
SCHNEYER, CHARLOTTE A.....	STUDY OF SALIVARY GLAND STRUCTURE AND FUNCTION.....	5R01 DE02110-15	56,830
SCHUTZBACH, JOHN S.....	THE BIOSYNTHESIS OF CELL ENVELOPE GLYCOPROTEINS.....	5R01 CA16777-06	49,790
SCHUTZBACH, JOHN S.....	PROCESSING REACTIONS IN GLYCOPROTEIN BIOSYNTHESIS.....	1R01 GM25949-01	36,355
SEGREST, JERE P.....	APOLIPOPROTEINS: STUDIES OF AMPHIPATHIC HELICES.....	1R01 HL19551-01A2	54,602
SHEETZ, JAMES H, JR.....	CONTROL MECHANISMS IN SALIVARY GLAND DEVELOPMENT.....	1R23 DE05142-01	23,948
SHINGLETON, HUGH M.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA12484-09	95,941
SPANGLER, STANLEY G.....	DIABETES: SUGAR FLUXES IN INTERNALLY PERFUSED MUSCLE.....	5R01 AM24098-02	51,605
SPARKS, DAVID L.....	EYE MOVEMENT CONTROL: ROLE OF BRAIN STEM NEURONS.....	2R01 EY01189-07	79,335
SPARKS, DAVID L.....	EFFECTS OF DEPRIVATION ON THE OCULOMOTOR SYSTEM.....	5R01 EY02293-02	71,765
SUDDATH, FRED L.....	THE MOLECULAR STRUCTURE OF HUMAN SERUM TRANSFERRIN.....	5R01 HL21170-02	41,726
TOMANA, MILAN.....	BIOCHEMISTRY OF MAMMARY TUMOR ANTIGENS.....	2R01 CA19918-04	57,551
URRY, DAN W.....	CHANNEL MECHANISMS FOR PERMEATION OF BIOMEMBRANES.....	1R01 GM26898-01	103,060
VOLANAKIS, JOHN E.....	C-REACTIVE PROTEIN-PHOSPHOLIPID INTERACTIONS.....	1R01 AI15607-01	65,536
WEST, SEYMOUR S.....	HEPARIN—BIOPHYSICAL, CHEMICAL, AND BIOLOGICAL ASPECTS.....	5R01 HL22402-02	125,314
WHIKEHART, DAVID R.....	METABOLIC CONTROL OF CORNEAL DETURGESCENCE.....	1R01 EY02949-01	59,750
WILLIAMS, ROBERT H.....	PATHOPHYSIOLOGY OF DIABETIC NEPHROLOGY.....	1R01 AM26722-01	56,355
WILSON, GRAEME S.....	LIGHT SCATTERING BY THE CORNEAL EPITHELIUM.....	1R01 EY02996-01	12,610
WIRTSCHAFER, DAVID D.....	CLINICAL PROTOCOL INFORMATION SYSTEM.....	1R01 CA24646-01	122,375
YIELDING, K LEMONE.....	TRYPANOSOMES: PHOTOAFFINITY LABELING OF ETHIDIUM SITES.....	1R01 AI16064-01	52,344
YIELDING, K LEMONE.....	DNA REPAIR AND COLON CANCER.....	5R26 CA16376-05	63,118
YIELDING, LERENA W.....	PHOTOAFFINITY LABELING OF DRUG-DNA INTERACTIONS.....	5R01 AI14808-02	43,400
ORGANIZATION TOTAL	139 20,076,895		

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BAUGH, CHARLES M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05774-05	69,030
CHANG, FREDERIC C.....	SYNTHESIS OF POTENTIAL BILE ACID METABOLITES.....	5R26 CA21656-03	63,148
CHANG, FREDERIC C.....	CHEMICAL STUDY OF PLANTS OF PHARMACOLOGICAL INTEREST.....	3R01 CA21657-02S1	5,351
COGGIN, JOSEPH H, JR.....	CHARACTERIZATION OF FETAL ANTIGENS IN TUMORS.....	5R01 CA22674-03	99,703
COGGIN, JOSEPH H, JR.....	ETIOLOGY OF A LYMPHOMA EPIZOOTIC IN HAMSTERS.....	5R01 CA23491-02	84,479
DOWNEY, JAMES M.....	PHYSICAL FACTORS AND CORONARY FLOW.....	5R01 HL20648-02	48,976
FUNKHOUSER, JANE D.....	LUNG DEVELOPMENT AND DIFFERENTIATION IN ORGAN CULTURE.....	2R01 HD10314-04	110,821
FUNKHOUSER, JANE D.....	PHOSPHOLIPID EXCHANGE PROTEINS IN LUNG.....	1R01 HL23492-01	67,880
GORDON, ALLEN R.....	REGULATION OF TENSION IN SMOOTH MUSCLE.....	5R01 AM18415-05	7,581
GREENBERG, STANLEY.....	MECHANISMS OF CONTROL OF PULMONARY SMOOTH MUSCLE.....	5R01 HL22177-03	32,747
GREENBERG, STANLEY.....	VASCULAR MECHANISMS IN RENAL HYPERTENSION.....	3R01 HL22216-02S1	5,000
GREENBERG, STANLEY.....	VASCULAR MECHANISMS IN RENAL HYPERTENSION.....	5R01 HL22216-03	40,007
HOFF, CHARLES J.....	THE DAUGHTERS AND GRANDCHILDREN OF TEENAGE MOTHERS.....	1R01 HD11637-01A1	55,843
HUANG, ROSA H.....	ESR STUDY OF AGING: MONOAMINE OXIDASE AND MEMBRANES.....	3R01 NS14434-01S1	18,069
HUANG, ROSA H.....	ESR STUDY OF AGING: MONOAMINE OXIDASE AND MEMBRANES.....	5R01 NS14434-02	38,155
LANE, ROGER S.....	PROTEIN TURNOVER AND AGING.....	5R01 AG01002-02	41,269
LAUSCH, ROBERT N.....	STUDY OF SERUM FACTORS MODIFYING TUMOR IMMUNITY.....	5R01 CA23777-03	94,695
LONGENECKER, HERBERT E, JR.....	ACTIONS OF NEUROTOXINS FROM C. SCULPTURATUS VENOM.....	5R01 ES01321-03	50,180
MC CORD, JOE M.....	SUPEROXIDE AND SUPEROXIDE DISMUTASE IN HUMAN DISEASE.....	5R01 AM20527-02	64,764
MORTILLARO, NICHOLAS A.....	BLOOD FLOW AND TRANSCAPILLARY FLUID BALANCE.....	1R01 HL22392-01A1	54,655
MUSTAFA, S JAMAL.....	MECHANISMS OF CORONARY FLOW REGULATION BY ADENOSINE.....	2R01 HL19202-04	65,214
NAIR, MADHAVAN G.....	CANCER CHEMOTHERAPY: NEW FOLATE ANALOGS.....	1R01 CA27101-01	23,252
OAKES, JOHN E.....	DNA HOMOLOGIES AMONG HERPESVIRUSES.....	5R01 AI15143-02	42,380
OAKES, JOHN E.....	ANTIBODY DEPENDENT IMMUNITY TO HERPESVIRUS INFECTION.....	1R01 AI15491-01	46,749
PARKER, JAMES C.....	FLUID PRESSURE AND EXCLUDED VOLUME IN THE LUNG.....	1R01 HL24571-01	36,055
TAYLOR, AUBREY E.....	TRANSPORT ACROSS ALVEOLAR CAPILLARY MEMBRANE.....	5R01 HL22549-03	50,280
TAYLOR, AUBREY E.....	INTESTINAL SECRETION: CAPILLARY AND TISSUE FORCES.....	5R01 HL22569-03	78,113
WEPPIER, WILLIAM A.....	CHARACTERIZATION OF ANTIGEN ON A SPONTANEOUS LYMPHOMA.....	5R23 CA24312-02	30,500

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
WINKLER, HERBERT H.....	PERMEABILITY OF THE EPIDEMIC TYPHUS RICKETTSIA.....	2R01 AI15035-02	117,350
ORGANIZATION TOTAL	29 1,542,246		
SELMA			
SELMA UNIVERSITY	ZIP CODE 36701		
RAJANNA, BETTAIYA.....	BIOMEDICAL SCIENCES RESEARCH SUPPORT PROGRAM.....	1S06 RR08169-01	147,505
ORGANIZATION TOTAL	1 147,505		
TALLADEGA			
TALLADEGA COLLEGE	ZIP CODE 35160		
BACON, ARTHUR L.....	BIOMEDICAL SCIENCES.....	5S06 RR08105-07	183,322
ORGANIZATION TOTAL	1 183,322		
TUSKEGEE INSTITUTE			
TUSKEGEE INSTITUTE	ZIP CODE 36088		
HENDERSON, JAMES H.....	BIOMEDICAL SCIENCES—MULTIDISCIPLINARY.....	3S06 RR08091-07S1	18,819
HENDERSON, JAMES H.....	BIOMEDICAL SCIENCES—MULTIDISCIPLINARY.....	5S06 RR08091-08	467,298
ORGANIZATION TOTAL	2 486,117		
UNIVERSITY			
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN UNIVERSITY	ZIP CODE 35486		
ALEXANDER, CHESTER, JR.....	FREE RADICAL REACTIONS IN DNA PURINE ANALOGS.....	5R01 CA20245-02	39,594
LINDAHL, RONALD G.....	GENE-ENZYME RELATIONSHIP OF LIVER ALDEHYDE DEHYDROGENASE.....	1R01 CA21103-01A2	38,188
MIYAGAWA, ICHIRO.....	ENDOR STUDY OF X-RAY IRRADIATED ORGANIC CRYSTALS.....	1R01 GM23412-01A1	60,358
ORGANIZATION TOTAL	3 138,140		
STATE TOTAL	199 25,323,151		
ALASKA			
COLLEGE			
UNIVERSITY OF ALASKA SYSTEM—UNIVERSITY OF ALASKA AT COLLEGE	ZIP CODE 99701		
ELSNER, ROBERT W.....	COMPARATIVE PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	1R01 HL23950-01	76,592
WEST, GEORGE C.....	RESEARCH IN ZOOPHYSIOLOGY IN ALASKA.....	3P01 GM10402-1SS1	98,124
ORGANIZATION TOTAL	2 174,716		
STATE TOTAL	2 174,716		
ARIZONA			
FLAGSTAFF			
NORTHERN ARIZONA UNIVERSITY	ZIP CODE 86001		
OWEN, THOMAS L.....	AGING EFFECTS ON SMALL VESSEL REACTIVITY.....	5R23 AG01112-02	32,911
ORGANIZATION TOTAL	1 32,911		
PHOENIX			
ST. JOSEPH'S HOSPITAL AND MEDICAL CENTER	ZIP CODE 85013		
POLLEN, DANIEL A.....	SPATIAL SELECTIVITY IN NON-STRIATE VISUAL CORTICES.....	7R01 EY03290-01	49,502

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ARIZONA—Continued			
WESTENBERG, IRWIN S.....	THE ALBINE GENE'S EFFECT ON RETINOGENICULATE AXONS.....	5R01 EY03013-02	41,911
ORGANIZATION TOTAL	2 91,413		
TEMPE			
ARIZONA STATE UNIVERSITY	ZIP CODE 85281		
BIEBER, ALLAN L.....	RATTLESNAKE TOXINS: STRUCTURE AND BIOCHEMICAL EFFECTS.....	1R01 GM24566-01	38,731
BURKE, WILLIAM F, JR.....	NUCLEASES IN BACILLUS SUBTILIS TRANSFORMATION.....	5R01 GM25343-02	36,754
DOANE, WINIFRED W.....	GENETIC REGULATORY MECHANISMS IN DROSOPHILA.....	2R01 GM25255-02	133,217
DORMAN, MICHAEL F.....	SPEECH PERCEPTION BY ARTICULATION DISORDERED CHILDREN.....	5R01 NS14688-02	31,206
GOLDSTEIN, ELLIOTT S.....	CONTROL OF MRNA USAGE DURING DROSOPHILA DEVELOPMENT.....	2R01 HD09157-03	67,064
GREENWOOD, MICHAEL J.....	MIGRATION, URBAN GROWTH AND INTRAURBAN LOCATION.....	1R01 HD13385-01	62,273
LOHR, DENNIS E.....	PHASING AND REPEATS IN ACTIVELY TRANSCRIBED CHROMATIN.....	1R01 GM27623-01	50,867
MARKOW, THERESE A.....	LARVAL PHOTOTACTIC BEHAVIOR OF DROSOPHILA SPECIES.....	1R01 GM25424-01	28,391
MARKOW, THERESE A.....	MODIFICATION OF MATING PREFERENCES.....	1R01 NS15263-01	17,550
MC GAUGHY, ROBERT W.....	INFLUENCE OF STEROIDS ON MAMMALIAN OOCYTE MATURATION.....	5R01 HD06532-05	49,131
PARKINSON, STANLEY R.....	AGING: AN INFORMATION PROCESSING ANALYSIS.....	9R01 AG02130-03	51,372
PETTIT, GEORGE R.....	NATURALLY OCCURRING ANTINEOPLASTIC AGENTS.....	5R01 CA16049-06	85,210
WOOLF, CHARLES M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07112-12	33,149
ORGANIZATION TOTAL	13 684,915		
SOUTHWEST BIOMEDICAL RESEARCH INSTITUTE	ZIP CODE 85281		
HECHT, FREDERICK.....	CYTOGENETICS OF CLONAL NEOPLASIAS.....	5R01 CA25055-02	108,208
HECHT, FREDERICK.....	HUMAN CHROMOSOME STRUCTURE, FUNCTION, AND BEHAVIOR.....	5R01 HD12601-02	90,501
ORGANIZATION TOTAL	2 198,709		
TSAILI			
NAVAJO COMMUNITY COLLEGE	ZIP CODE 86556		
MC NELEY, JAMES K.....	BIOMEDICAL SCIENCES.....	5S06 RR08163-02	134,700
ORGANIZATION TOTAL	1 134,700		
TUCSON			
UNIVERSITY OF ARIZONA	ZIP CODE 85721		
ARORA, SATISH K.....	STRUCTURAL INVESTIGATIONS OF MODE OF ACTION OF DRUGS.....	5R01 GM25150-02	37,566
BARRETT, HARRISON H.....	IMPROVED TUMOR IMAGING IN NUCLEAR MEDICINE.....	5P01 CA23417-02	118,936
BARTELS, PETER H.....	BIOLOGIC TEST OF AUTOMATED CELL ELECTROPHORESIS.....	1R01 GM26724-01	120,731
BENSON, BRYANT.....	STRUCTURE AND ACTION OF PINEAL ANTIGONADOTROPIN.....	5R01 HD08759-05	58,449
BLANCHARD, JAMES.....	EFFECT OF VITAMIN C ON PHARMACOKINETICS IN THE ELDERLY.....	1R01 AG01210-01	61,968
BLANCK, THOMAS J.....	ANESTHETIC DEPRESSION OF THE MYOCARDIUM.....	5R23 GM25180-02	36,689
BOURQUE, DON P.....	MOLECULAR BIOLOGY OF CHLOROPLAST RIBOSOMES.....	1R01 GM26937-01	69,836
BOYER, JOHN T.....	SOUTHWEST ARTHRITIS CENTER.....	5P60 AM20597-03	209,445
BRENDEL, KLAUS.....	PLACENTAL BASEMENT MEMBRANES IN HEALTH AND DISEASE.....	5R01 HD10781-03	53,204
BRENDEL, KLAUS.....	DIABETIC HUMAN BRAIN MICROVASCULAR BASEMENT MEMBRANE.....	5R01 HL20500-03	64,717
BRESSLER, RUBIN.....	ROLE OF CARNITINE AND TAURINE IN CARDIAC PHYSIOLOGY.....	2R01 HL13636-09	67,202
BROWN, BURNELL R, JR.....	ANESTHETIC-DRUG INTERACTIONS WITH THE LIVER.....	3R01 AM16715-07S1	9,653
BROWN, BURNELL R, JR.....	STUDIES OF INHALATION ANESTHETIC HEPATOTOXICITY.....	2R01 AM16715-08	27,150
BURKS, THOMAS F.....	PHARMACOLOGICAL PROBLEMS OF AGING.....	1R21 AG01289-01	65,317
BURKS, THOMAS F.....	BEHAVIORAL AND NEUROCHEMICAL ACTIONS OF ENDORPHINS.....	1R01 NS15420-01	58,384
BURROWS, BENJAMIN.....	PULMONARY SCOR: AIRWAYS OBSTRUCTIVE DISEASES.....	5P50 HL14136-08	966,296
CHIU, WAH.....	ELECTRON MICROSCOPY ANALYSIS OF DNA-BINDING PROTEIN.....	1R01 GM27061-01	73,166
CHVAPIL, MILOS.....	LYSYL OXIDASE IN HEALTH AND DISEASE.....	5R01 AM18706-04	120,821
CHVAPIL, MILOS.....	PROTECTION AGAINST HEPATOTOXICITY BY ZINC.....	5R01 ES01570-02	51,670
CHVAPIL, MILOS.....	BIOMATERIAL APPLICATIONS OF COLLAGEN SPONGE.....	5R01 GM24380-02	73,210
CHVAPIL, MILOS.....	CHARACTERIZATION OF KELOIDS AND HYPERTROPHIC SCARS.....	5R01 GM25159-02	69,754
COLE, JACK R.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS.....	5R01 CA22336-02	71,848
COLE, JACK R.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09094-02	98,430
CORRIGAN, JAMES J, JR.....	FACTOR II ANTIGEN AND COAGULANT ACTIVITY.....	5R01 HL21431-03	30,200

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ARIZONA—Continued			
CROSS, HAROLD E.	VITREOUS REACTIONS TO INJURY	5R01 EY01633-04	85,606
CUSANOVICH, MICHAEL A.	REGENERATION OF THE VISUAL PIGMENT RHODOPSIN	5R01 EY01113-05	24,422
CUSANOVICH, MICHAEL A.	MECHANISM OF ACTION OF VERTEBRATE CYTOCHROME C	5R01 GM21277-05	35,767
DANTZLER, WILLIAM H.	REGULATION OF INDIVIDUAL NEPHRON FILTRATION RATES	2R01 AM16294-07	59,162
DOWNER, NANCY W.	DOMAINS OF STRUCTURE AND FUNCTION IN RHODOPSIN	1R01 EY03105-01	77,632
ENEMARK, JOHN H.	STRUCTURAL MODELS FOR MOLYBD-ENZYMES	5R01 ES00966-05	53,478
GERNER, EUGENE W.	HEAT AND RADIATION IN CANCER THERAPY	5P01 CA17343-05	654,314
GERNER, EUGENE W.	RADIATION INDUCED DEFECTS IN CELL KINETICS	5R01 CA18273-05	70,984
GERVIN, CAROL A.	MYOCARDIAL ISCHEMIA AND CARDIAC LYMPH: AN INTERACTION	1R23 HL23846-01	41,301
GLASS, RICHARD S.	A MECHANISM FOR OXIDATIVE PHOSPHORYLATION	5R01 HL15104-08	57,103
GOLL, DARREL E.	CONTRACTILE PROTEINS	2R01 AM19864-04	76,856
GORE, ROBERT W.	PHYSICAL DETERMINANTS OF MICROVASCULAR FUNCTION	5R01 HL13437-10	58,031
HADLEY, MAC E.	ENDOCRINE CONTROL OF MELANOMA CELL DIFFERENTIATION	5R01 CA20547-03	54,862
HALL, H. K. JR.	SYNTHETIC ANALOGS OF POLYSACCHARIDES	2R01 GM18595-06	37,144
HALL, JENNIFER D.	DNA REPAIR IN HUMAN FIBROBLASTS	1R01 AG01689-01	61,257
HALL, JENNIFER D.	HOST CELL FUNCTIONS INVOLVED IN SV40 TRANSFORMATION	5R01 CA20429-03	56,764
HALONEN, MARILYN J.	PULMONARY AND CIRCULATORY ALTERATIONS INDUCED BY IGE	5R01 HL22582-02	26,429
HARTSHORNE, DAVID J.	BIOCHEMISTRY OF CONTRACTILE PROTEINS	5R01 HL23615-02	122,271
HAUSSLER, MARK R.	FUNCTION OF VITAMIN D METABOLITES AND BONE DISEASE	5R01 AM15781-08	53,771
HERMAN, TERENCE S.	HYPERTHERMIA AND CHEMOTHERAPEUTIC DRUG INTERACTIONS	1R01 CA26220-01	24,511
HEWLETT, MARTINEZ J.	VIRUS-CELL INTERACTIONS AND POLIOVIRUS RNA STRUCTURE	5R01 AI13670-03	51,691
HRUBY, VICTOR J.	PEPTIDE HORMONE STRUCTURE AND FUNCTION	5R01 AM17420-06	50,713
HRUBY, VICTOR J.	GLUCAGON STRUCTURE-FUNCTION STUDIES	5R01 AM21085-03	45,816
HUXTABLE, RYAN J.	BIOCHEMISTRY AND REGULATION OF TAURINE IN THE HEART	2R01 HL19394-04	32,617
HUXTABLE, RYAN J.	DEVELOPMENTAL PROCESSES IN PULMONARY HYPERTENSION	5R01 HL20087-03	55,528
HUXTABLE, RYAN J.	PHARMACOLOGY AND TOXICOLOGY OF PULMONARY ENDOTHELIUM	1R01 HL25258-01	43,575
JOHNSON, DAVID G.	THE REGULATION OF INSULIN SECRETION	5R01 AM25318-02	40,892
JOHNSON, PAUL C.	REGULATION OF BLOOD FLOW IN THE MICROCIRCULATION	5R01 HL15390-13	100,125
JOHNSON, PAUL C.	REGULATION AND EXCHANGE IN THE MICROCIRCULATION	2P01 HL17421-06	372,281
JOHNSON, PETER C.	PERIPHERAL NERVE BASEMENT MEMBRANES IN HUMAN DIABETES	1R01 NS15204-01	82,636
JONES, STEPHEN E.	SOUTHWEST ONCOLOGY GROUP	5R01 CA13612-06	148,061
KASSANDER, A. RICHARD, JR.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07002-14	95,344
KETTEL, LOUIS J.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05675-11	191,441
KIM, HYUN D.	MEMBRANE-LIMITED METABOLISM IN MAMMALIAN RED CELLS	5R01 AM17723-05	54,282
LAIRD, HUGH E. II.	TAURINE AND EPILEPSY	5R01 NS14405-02	27,951
LEMEN, RICHARD J.	PROSTAGLANDIN EFFECTS ON PULMONARY EDEMA AND FUNCTION	1R01 HL23773-01	52,403
LITTLE, JOHN W.	BIOCHEMICAL ANALYSIS OF THE E. COLI LEXA GENE PRODUCT	5R01 GM24178-03	57,817
MAGUN, BRUCE E.	GROWTH REGULATORY MECHANISMS IN VIRAL TRANSFORMATION	2R01 CA20913-03A1	83,798
MARTIN, ARNOLD R.	NEW ANTICONVULSANTS: SYNTHETIC CANNABIDIOL ANALOGS	1R01 NS15441-01	53,907
MC REYNOLDS, LARRY A.	DEVELOPMENT OF VECTOR FOR EUKARYOTIC GENE TRANSFER	1R01 GM25692-01A1	68,638
MEEZAN, ELIAS	BASEMENT MEMBRANES OF THE EYE IN DIABETIC RETINOPATHY	5R01 EY01868-03	79,145
MEINKE, WILLIAM J.	DETECTION OF HUMAN WART VIRAL DNA IN MALIGNANT TISSUE	5R01 CA23675-03	78,849
MENDELSON, NEIL H.	CONTROL OF GROWTH AND DIVISION	5R01 GM18735-09	57,211
MOORE, WESLEY S.	HEALING COMPLICATIONS IN VASCULAR GRAFTING	5R01 HL22110-03	63,885
MORKIN, EUGENE	CELLULAR MECHANISMS IN CARDIAC HYPERTROPHY	5P01 HL20984-03	389,452
MOUNT, DAVID W.	MECHANISM OF INDUCTION OF VIRAL AND CELLULAR FUNCTIONS	5R01 GM24496-02	70,069
POPEL, ALEKSANDER S.	OXYGEN TRANSPORT IN SKELETAL MUSCLE MICROCIRCULATION	1R01 HL23362-01	70,315
PRITCHETT, RANDALL F.	TRANSCRIPTION OF THE CYTOMEGALOVIRUS GENOME	5R01 AI15141-02	39,816
REMER, WILLIAM A.	ANTITUMOR AGENTS: SYNTHESIS OF MITOMYCIN ANALOGS	5R01 CA21430-04	52,749
REST, RICHARD F.	THE FATE OF INTRACELLULAR NEISSERIA GONORRHOEA	5R01 AI14934-02	41,051
REST, RICHARD F.	EFFECTS OF PHAGOLYSOSOMES ON NEISSERIA GONORRHOEA	1R01 AI15881-01	52,117
RUPLEY, JOHN A.	PROTEIN SOLVATION	5R01 GM24760-02	52,060
RUSSELL, DIANE H.	POLYAMINE METABOLISM IN CANCER & CANCER CHEMOTHERAPY	2R01 CA14783-07	130,921
SALEMM, FRANCIS R.	CYTOCHROME STRUCTURE AND INTERACTION	5R01 GM21534-06	74,761
SALEMM, FRANCIS R.	STUDIES OF PROTEIN CONFORMATION AND INTERACTION	1R01 GM25664-01	73,911
SALMON, SYDNEY E.	MEDICAL ONCOLOGY PROGRAM PROJECT	5P01 CA17094-05	830,465
SALMON, SYDNEY E.	BIOASSAY AND CHEMOTHERAPY OF HUMAN TUMOR STEM CELLS	5R01 CA21839-03	120,339
SALMON, SYDNEY E.	CANCER CENTER CORE SUPPORT GRANT	5P30 CA23074-02	450,786
SHACK, ROLAND V.	ULTRAFAST SCANNER MICROSCOPE IN LABORATORY AUTOMATION	5R01 CA24466-02	244,624
SHELTON, RALPH L.	PREDICTING ARTICULATION FROM CINEFLUOROGRAPHIC MEASURES	5R01 DE03350-09	60,206

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
ARIZONA—Continued				
SHIMIZU, NOBUYOSHI.....		GENETIC CONTROL OF MAMMALIAN CELL SURFACE FUNCTIONS.....	5R01 GM24375-03	54,877
SIPES, I GLENN.....		ACTIVATION AND BINDING OF ORGANOHALOGEN CARCINOGENS.....	5R01 CA21820-03	82,663
STUART, DOUGLAS G.....		ANALYSIS OF MOTOR UNIT—MUSCLE RECEPTOR INTERACTIONS.....	5R01 NS07888-12	58,639
SWINDELL, WILLIAM.....		ANALOG TISSUE DENSITOMETER FOR CANCER RADIOTHERAPY.....	5R01 CA19477-03	150,540
SWINDELL, WILLIAM.....		BREAST TUMOR DIAGNOSIS BY COMPUTED ULTRASOUND.....	1R01 CA24257-01A1	146,048
TOLLIN, GORDON.....		FLAVIN-PROTEIN INTERACTIONS IN FLAVOENZYME CATALYSIS.....	5R01 AM15057-09	56,088
WALSON, PHILIP D.....		CARRAGEENAN AND NECROTIZING ENTEROCOLITIS.....	5R01 HD11454-02	42,870
WELLS, MICHAEL A.....		UTILIZATION OF ESSENTIAL FATTY ACIDS BY SUCKLING RATS.....	5R01 HD10954-03	70,041
WHITE, HOWARD D.....		CALCIUM REGULATION OF ACTOMYOSIN ATP HYDROLYSIS.....	1R01 AM25113-01	55,051
WITTE, MARLYS H.....		CIRCULATORY CONTROL OF SPLENIC FUNCTION.....	5R01 HL20086-03	100,317
ORGANIZATION TOTAL	94	9,905,689		
STATE TOTAL	113	11,048,337		
ARKANSAS				
FAYETTEVILLE				
UNIVERSITY OF ARKANSAS		ZIP CODE 72701		
GEREN, COLLIS R.....		VENOM COMPONENTS: ISOLATION, CHARACTERIZATION AND USE.....	5R01 GM24173-03	38,861
MILLET, FRANCIS S.....		NMR STUDIES OF MEMBRANE BOUND PROTEINS.....	2R01 GM20488-07	60,929
ORGANIZATION TOTAL	2	99,790		
LITTLE ROCK				
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES CAMPUS		ZIP CODE 72201		
BARRON, ALMEN L.....		CHLAMYDIAL GENITAL INFECTION: AN ANIMAL MODEL SYSTEM.....	5R01 AI13069-05	52,338
BRUCE, THOMAS.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05350-18	66,936
BURNS, E ROBERT.....		INDUCED CIRCADIAN PHASE DIFFERENCES IN TUMOR AND HOST.....	5R01 CA20623-03	24,896
CANNON, DONALD J.....		COLLAGEN: MOLECULAR CHANGES WITH AGING.....	5R01 AG01120-03	56,965
CARTER, WILLIAM J.....		MECHANISM OF THYROTOXIC MYOPATHY.....	5R01 AM20718-02	21,055
CAVE, MAC D.....		MODES OF DNA AMPLIFICATION EXPRESSED BY OOCYTES.....	5R01 GM21446-06	39,722
CHANG, LOUIS W.....		MODIFICATION OF METHYLMERCURY TOXICITY BY SELENIUM.....	1R01 ES02097-01	61,734
CHRIST, DARYL D.....		ACUTE AND CHRONIC EFFECTS OF D-AMPHETAMINE ON GANGLIA.....	1R01 NS15528-01	37,894
ELDERS, MINNIE J.....		INFLUENCE OF NUTRITIONAL FACTORS ON SOMATOMEDIN ACTIVITY.....	1R01 HD11862-01A1	75,775
GARCIA-RILL, EDGAR E.....		NEUROLOGICAL SUBSTRATES IN THE INITIATION OF MOVEMENT.....	1R01 NS15359-01	23,314
GILMORE, SHIRLEY A.....		RADIATION-INDUCED CHANGES IN THE NEONATAL NERVOUS SYSTEM.....	5R01 NS04761-16	53,195
HILLER, F CHARLES.....		INHALED AEROSOLS: CHARACTERISTICS AND RETENTION.....	2R01 HL20024-04	66,331
JONES, JOE M.....		GENETIC CONTROL OF NEOPLASMS IN RATS.....	5R01 CA23687-02	67,305
KOHLER, PETER O.....		HORMONE PRODUCTION IN CULTURED ENDOCRINE CELLS.....	5R01 AM21458-03	102,982
MANSOURI, ALI.....		STRUCTURE-FUNCTION RELATIONSHIP OF HEMOGLOBIN A.....	5R01 AM20181-03	19,743
MENNA, JAY H.....		EFFECT OF INSECTICIDE CARRIER ON VIRAL INFECTION.....	5R23 ES01715-02	36,043
MORRIS, MANFORD D.....		A NEW HERITABLE FREE CHOLESTEROL STORAGE DISEASE.....	5R01 AM21376-02	104,923
MOSS, A J, JR.....		EFFECTS OF EAST NEUTRONS ON CULTURED MAMMALIAN CELLS.....	5R01 CA13270-06	40,070
RHINELANDER, FREDERIC W.....		MICROCIRCULATION AND HISTOLOGY OF HEALING BONE.....	2R01 AM19157-04A1	73,518
SHERMAN, JEROME K.....		CRYOBANKING OF MOUSE SPERMATOZOA.....	5R01 HD12146-02	47,311
SKINNER, ROBERT D.....		PROPRIOSPINAL CONNECTIONS.....	2R01 NS10304-04A2	13,302
WESTBROOK, KENT C.....		CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA21358-03	125,280
YEH, YUN-CHI.....		BIOCHEMICAL AND GENETIC STUDIES OF DNA SYNTHESIS.....	5R01 GM18012-07	57,262
ORGANIZATION TOTAL	23	1,267,894		
SILOAM SPRINGS				
JOHN BROWN UNIVERSITY		ZIP CODE 72761		
GRIGGS, HENRY G.....		ULTRAVIOLET AND IONIZING RADIATION DAMAGE.....	5R01 CA18809-03	15,600
ORGANIZATION TOTAL	1	15,600		
STATE TOTAL	26	1,383,284		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA			
ARCATA			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—HUMBOLDT STATE UNIVERSITY ZIP CODE 95521			
HANDWERKER, W PENN	ECONOMIC NICHE, FAMILY PATTERN AND FERTILITY	5R01 HD10591-03	12,569
ORGANIZATION TOTAL	1 12,569		
BERKELEY			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY—DEPARTMENT OF HEALTH ZIP CODE 94704			
AUSTIN, DONALD F.	NEW METHODS OF CANCER REGISTRY DATA ANALYSES	5R01 CA21448-03	115,850
CHIN, JAMES	BOTULINUS TOXIN AS ONE CAUSE OF SUDDEN INFANT DEATH	1R01 HD12530-01	242,220
CREMER, NATALIE E.	MOLECULAR AND IMMUNOLOGIC STUDY OF CYTOMEGALOVIRUS	1R01 AI15972-01	98,582
LENNETTE, EDWIN H.	IMMUNOLOGY AND EPIDEMIOLOGY OF CERTAIN VIRAL DISEASES	5R01 AI01475-22	256,431
STROUD, FLORENCE M.	ALAMEDA COUNTY HIGH BLOOD PRESSURE CONTROL PROGRAM	5R01 HL22212-02	194,078
ORGANIZATION TOTAL	5 907,161		
UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720			
ADAMS, ANTHONY J.	VISION AND BLOOD FLOW IN RETINAL VASCULAR DISEASE	5R01 EY02271-02	83,346
ALPEN, EDWARD L.	HEAVY ION RADIATION AND MULTICELLULAR SPEROIDS	1R01 CA24789-01	72,558
AMES, BRUCE N.	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT	1P30 ES01896-01	434,487
AMES, BRUCE N.	REGULATION OF GENE FUNCTION AND PROTEIN SYNTHESIS	5R01 GM19993-12	118,829
AMES, GIOVANNA F.	MEMBRANES AND ACTIVE TRANSPORT OF AMINO ACIDS	5R01 AM12121-12	107,872
BALLOU, CLINTON E.	COMPLEX POLYSACCHARIDES IN MYCOBACTERIUM SPECIES	5R22 AI12522-25	130,838
BARKER, HORACE A.	INTERMEDIARY METABOLISM OF BACTERIA	5R01 AI00563-32	87,838
BARTLETT, PAUL A.	SYNTHESIS OF MACROCYCLIC NATURAL PRODUCTS	5R01 CA16616-06	74,067
BARTLETT, PAUL A.	A NOVEL CLASS OF NUCLEOSIDE ANTIMETABOLITES	5R01 CA22747-02	50,907
BARTLETT, PAUL A.	PHOSPHATE-DERIVED PHOTOAFFINITY LABELS	5R01 GM21612-05	45,674
BARTLETT, PAUL A.	UPGRADING NMR CAPABILITY AT BERKELEY	1P41 GM27573-01	143,488
BECKENDORF, STEVEN K.	DEVELOPMENT OF DROSOPHILA SALIVARY GLAND PROTEINS	1R01 HD12866-01	52,511
BENTFIELD-BARKER, MARY E.	MEGAKARYOCYTE DIFFERENTIATION	1R01 HL24577-01	60,345
BENTLEY, DAVID R.	FUNCTIONAL DEVELOPMENT OF IDENTIFIED NEURAL NETWORKS	5R01 NS09074-10	33,126
BERGMAN, ROBERT G.	C-C AND C-N BOND FORMATION USING METAL-BASED REAGENTS	5R01 GM25459-02	68,776
BIGGS, MAX W.	CANCER THERAPY WITH ENTEROVIRUS PLUS CYCLOPHOSPHAMIDE	1R01 CA25973-01	86,033
BLACKBURN, ELIZABETH H.	SPECIFIC DNA-PROTEIN INTERACTION IN TETRAHYMENA	5R01 GM26259-02	61,914
BRIGGS, GEORGE M.	VITAMIN AND MINERAL REQUIREMENTS AND INTERACTIONS	5R24 RR01029-03	37,201
BROOKS, GEORGE A.	TRACER STUDIES ON LACTATE METABOLISM DURING EXERCISE	2R01 AM19577-03	54,035
BUDINGER, THOMAS F.	MYOCARDIUM INFARCT SIZING BY 82RB EMISSION TOMOGRAPHY	5R01 HL21697-02	140,274
BURKI, HENRY J.	IN VITRO STUDY OF MAMMALIAN CELLS DAMAGED BY TRITIUM	2R01 CA14310-07	85,949
BURKI, HENRY J.	ALKYLATING-CARCINOGEN MUTAGENESIS IN MAMMALIAN CELLS	5R01 ES01916-02	58,482
BURLINGAME, A L.	BIO-ORGANIC BIOMEDICAL MASS SPECTROMETRY RESOURCE	5P41 RR00719-05	283,836
BURNSIDE, MARY B.	MICROTUBULE AND MICROFILAMENT STRUCTURE AND FUNCTION	5R01 GM23539-04	45,202
CALENDAR, RICHARD	MOLECULAR STUDIES ON PHAGE P2 AND ITS SATELLITE, P4	5R01 AI08722-11	78,443
CANDE, WILLIAM Z.	FUNCTIONAL MODEL FOR MITOSIS IN CELL LINES	2R01 GM23238-04	82,323
CARPENTER, FREDERICK H.	STRUCTURE AND ACTIVITY OF INSULIN	2R01 AM00608-26	77,083
CARPENTER, FREDERICK H.	MECHANISM OF LEUCINE AMINOPEPTIDASE	5R01 EY00813-09	65,494
CASIDA, JOHN E.	MODE OF ACTION AND METABOLISM OF ORGANIC TOXICANTS	5P01 ES00049-15	466,075
CASTRO, JOSEPH R.	TREATMENT OF CANCER WITH HEAVY CHARGED PARTICLES	2P01 CA19138-04	1,514,203
CHAMBERLIN, MICHAEL J.	SELECTIVITY OF BACTERIAL TRANSCRIPTION	3R01 GM12010-15S1	6,550
CHAMBERLIN, MICHAEL J.	SELECTIVITY OF BACTERIAL TRANSCRIPTION	5R01 GM12010-16	142,788
CLARK, ALVIN J.	PHYSIOLOGY OF BACTERIAL CONJUGATION AND RECOMBINATION	2R01 AI05371-17	170,145
COHN, THEODORE E.	PSYCHOPHYSICAL ANALYSIS OF VISUAL SENSORY DEFICIT	1R01 EY02830-01	34,722
COLE, R DAVID.	HISTONE BIOCHEMISTRY AND THE INFLUENCE OF HORMONES	5R01 GM20338-12	130,551
CURTIS, STANLEY B.	THE RESPONSE OF A RAT RHABDOMYOSARCOMA TO HEAVY IONS	5R01 CA17411-05	166,880
D'ANNA, JOSEPH A.	MOLECULAR STRUCTURAL EFFECTS OF HISTONE MODIFICATIONS	1R01 GM24564-01A1	83,068
DANIELL, ELLEN	CELL TRANSFORMATION BY DEFECTIVE VIRUS PARTICLES	3R01 CA19058-03S1	8,967
DAUBEN, WILLIAM G.	ULTRAVIOLET IRRADIATION OF NATURAL PRODUCTS	5R01 AM00709-26	60,734
DAUBEN, WILLIAM G.	MODIFIED STEROID AND SESQUITERPENE ANTITUMOR AGENTS	3R01 CA04284-19S1	15,605
DE VALOIS, RUSSELL L.	ELECTROPHYSIOLOGY OF COLOR VISION	2R01 EY00014-12	98,556
DEKKER, CHARLES A.	SERUM URINE AND CSF RNASES IN HEALTH AND DISEASE	2R01 CA19606-04	71,029

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DIXON, JONATHAN S.	PURIFICATION OF ERYTHROPOIETIN	5R01 HL21686-03	94,782
DUESBERG, PETER H.	MOLECULAR AND GENETIC ANALYSES OF RNA TUMOR VIRUSES	5R01 CA11426-11	276,802
EAKIN, RICHARD M.	STRUCTURE AND FUNCTION OF PHOTORECEPTORS	5R01 EY02229-18	54,470
EBBE, SHIRLEY N.	KINETICS OF MEGAKARYOCYTE AND PLATELET TURNOVER	3R01 AM21355-02S1	23,858
ECHOLS, G HARRISON, JR.	CANCER RESEARCH PROGRAM: VIRUSES; CONTROL MECHANISMS	2P30 CA14097-07	159,864
ECHOLS, G HARRISON, JR.	GENETIC & CHEMICAL STUDIES OF PHAGE LAMBDA DEVELOPMENT	2R01 GM17078-11	156,628
EICHORN, DOROTHY H.	INTERGENERATIONAL STUDIES OF DEVELOPMENT AND AGING	2P01 AG00365-09	228,853
FLOM, MERTON C.	SENSORY AND MOTOR MECHANISMS IN FUNCTIONAL AMBLYOPIA	5R01 EY02125-03	59,523
FOGEL, SEYMOUR	RECOMBINATION-DNA SYNTHESIS AND DEVELOPMENT IN YEAST	5R01 GM17317-10	69,367
FORTE, JOHN G.	MECHANISM OF H PLUS & C1- TRANSPORT BY GASTRIC MUCOSA	2R01 AM10141-15	126,778
FRAENKEL-CONRAT, BEATRICE	ALKYLATION OF POLYNUCLEOTIDES IN VITRO AND IN VIVO	2R01 CA12316-09	118,602
FREELING, MICHAEL	DEVELOPMENTAL GENETICS WITH AN INDUCIBLE GENE SYSTEM	5R01 GM21734-05	64,902
FREEMAN, RALPH D.	VISUAL DEVELOPMENT AND DEPRIVATION	2R01 EY01175-07	60,285
FREEMAN, RALPH D.	SPATIAL ADAPTATION OF NEURONS IN STRIATE CORTEX	1R01 EY03260-01	37,988
FRISTROM, JAMES W.	GENETIC-MOLECULAR BASIS OF DROSOPHILA LONGEVITY	1R01 AG02063-01	42,343
FRISTROM, JAMES W.	GENIC/MOLECULAR BASIS OF IMAGINAL DISC MORPHOGENESIS	5R01 GM19937-07	87,480
GARCIA, JOSEPH F.	RADIOASSAY OF ERYTHROPOIETIN	3R01 HL22469-01S1	1,967
GARCIA, JOSEPH F.	RADIOASSAY OF ERYTHROPOIETIN	5R01 HL22469-02	55,812
GERHART, JOHN C.	STUDIES OF CELLULAR REGULATORY MECHANISMS	5R01 GM19363-16	108,881
GLAESER, ROBERT M.	BIOLOGICAL STRUCTURE ANALYSIS BY ELECTRON MICROSCOPY	2R01 GM23325-04	264,279
GLASER, DONALD A.	CARCINOGEN ACTIVATION AND SCREENING IN VARIANT CELLS	1R01 CA25677-01	74,506
GLASER, DONALD A.	MICROBIAL AND SOMATIC CELL GENETICS AND PHYSIOLOGY	5R01 GM22021-05	142,616
GLASER, DONALD A.	FACILITY FOR AUTOMATED EXPERIMENTS IN CELL BIOLOGY	3P41 RR00961-03S2	350,000
GOLDSMITH, WERNER	HEAD-NECK SYSTEM MOTION AND STRESS DUE TO IMPACT	5R01 AM18384-05	43,934
GRUNDER, HERMANN A.	CT SCANNING FOR HEAVY ION THERAPY TREATMENT PLANNING	3P01 CA25205-01S1	382,764
HAFTER, ERVIN R.	PSYCHOPHYSIOLOGICAL STUDIES OF BINAURAL INTERACTION	5R01 NS07787-12	44,024
HARRIS, MORGAN	CYTOPLASMIC INHERITANCE IN NORMAL AND TUMOR CELLS	5R01 CA12130-09	86,175
HEARST, JOHN E.	STRUCTURE-FUNCTION RELATIONSHIPS OF NUCLEIC ACIDS	2R01 GM11180-16	153,398
HEARST, JOHN E.	NUCLEIC ACID INTERACTIONS WITH SYNTHETIC PSORALENS	5R01 GM25151-02	68,810
HEATHCOCK, CLAYTON H.	STEREOSELECTIVE SYNTHESIS OF MACROLIDE ANTIBIOTICS	5R01 AI15027-02	76,837
HEATHCOCK, CLAYTON H.	SYNTHESIS OF ISOPRENOID ANTITUMOR COMPOUNDS	3R01 CA12617-07S1	5,543
HEATHCOCK, CLAYTON H.	SYNTHESIS OF ISOPRENOID ANTITUMOR COMPOUNDS	2R01 CA12617-08	68,632
HEATHCOCK, CLAYTON H.	SYNTHESIS OF BRUCEANTIN	5R01 CA21163-03	29,496
HOSODA, JUNKO	ROLE OF LIGASE AND OTHER ENZYMES IN DNA REPLICATION	5R01 GM16841-08	77,654
HOSODA, JUNKO	STRUCTURE OF DNA-UNWINDING PROTEIN (PHAGE T4)	3R01 GM23563-02S1	3,645
HOSODA, JUNKO	STRUCTURE OF DNA-UNWINDING PROTEIN	5R01 GM23563-03	54,724
HUBBELL, WAYNE L.	MOLECULAR BASIS OF MEMBRANE EXCITATION	5R01 EY00729-08	101,407
KELLY, LEONARD E.	MOLECULAR GENETICS OF NEUROLOGICAL MUTANTS	1R01 NS15124-01	45,307
KIM, SUNG-HOU.	CRYSTALLINE COMPLEXES OF RNA WITH SMALL MOLECULES	7R01 CA27454-01	65,832
KIM, SUNG-HOU.	STRUCTURAL STUDIES OF TASTE-ACTIVE MOLECULES	1R01 NS15174-01	89,336
KING, JANET C.	ZINC REQUIREMENTS OF PREGNANT WOMEN	5R01 HD11272-03	51,497
KLINMAN, JUDITH P.	ENZYME CATALYZED HYDROGEN ABSTRACTION REACTIONS	3R01 GM25765-01S1	13,686
KLINMAN, JUDITH P.	ENZYME CATALYZED HYDROGEN ABSTRACTION REACTIONS	5R01 GM25765-02	76,264
KOSHLAND, DANIEL E, JR.	REGULATORY PROCESSES IN BIOLOGICAL SYSTEMS	5R01 AM09765-14	199,742
KOSHLAND, MARIAN E.	MECHANISM OF ANTIBODY SPECIFICITY AND BIOSYNTHESIS	5R01 AI07079-14	141,689
KRAUSS, RONALD M.	DIETARY EFFECTS ON SERUM HIGH DENSITY LIPOPROTEINS	1R01 HL24740-01	216,858
LAZARUS, RICHARD S.	STRESS AND COPING IN AGING	5R01 AG00799-02	113,048
LEIGHTON, TERRANCE J.	REGULATION OF BACTERIAL CELL DEVELOPMENT	5R01 GM22053-05	63,433
LEWIS, EDWIN R.	MORPHOLOGY AND PHYSIOLOGY OF THE INNER EAR	5R01 NS12359-05	51,631
LEWIS, EDWIN R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07006-14	201,413
LINDGREN, FRANK T.	LIPOPROTEIN METHODOLOGY AND BIOMEDICAL APPLICATIONS	5P01 HL18574-04	667,812
LINN, STUART M.	FIDELITY OF NUCLEOTIDE POLYMERASES DURING AGING	5R01 AG00819-02	42,570
LINN, STUART M.	IN VITRO RESTRICTION AND MODIFICATION OF PHAGE DNA	5R01 GM19020-11	77,165
LOHER, WERNER J.	CIRCADIAN AND HORMONAL CONTROL OF SEXUAL BEHAVIOR	5R01 HD03619-11	48,461
MACEY, ROBERT I.	CA AND MG IN MAINTENANCE OF MEMBRANE TRANSPORT	3R01 GM18819-06S1	20,760
MACHEN, TERRY E.	TRANSITIONS AND TRANSPORT IN GASTRIC MUCOSA	5R01 AM19520-03	47,822
MAESTRE, MARCOS F.	PHYSICAL STRUCTURE OF VIRUSES, CHROMOSOMES & CELL NUCLEI	5R01 AI08427-11	94,463
MAESTRE, MARCOS F.	T4 PHAGE GENE PRODUCT 32 PROTEIN-DNA COMPLEXES STUDY	1R01 GM25936-01	49,231
MALKIN, RICHARD	IRON-SULFUR PROTEINS AS BOUND ELECTRON CARRIERS	5R01 GM20571-06	35,980
MARGEN, SHELDON	STUDIES IN HUMAN NUTRITION	2P01 AM10202-13	604,850

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MARTIN, G STEVEN	GENETICS OF RNA TUMOR VIRUSES	2R01 CA17542-04	63,690
MARTIN, G STEVEN	TRANSFORMATION OF DIFFERENTIATING CELLS	1R01 CA25464-01	67,114
MATHES, RICHARD A	RAMAN INVESTIGATIONS OF THE MOLECULAR BASIS OF VISION	5R01 EY0251-03	38,833
MATWYOFF, NICHOLAS A	A NATIONAL, STABLE ISOTOPES RESOURCE AT LOS ALAMOS	5P41 RR00962-04	171,661
MAZIA, DANIEL	TRANSFORMATION, DIVISION, AND MOTION OF CELLS	5P01 GM13882-14	288,027
MEHLHORN, ROLF J	ASYMMETRY OF THE INNER MITOCHONDRIAL MEMBRANE	1R01 GM24273-01A1	66,168
MENDELSON, MORTIMER L	RADIOBIOLOGICAL TECHNIQUES IN HUMAN CANCER THERAPY	3R01 CA14533-07S1	130,473
MILLER, SHELDON S	HOMEOSTATIC ABILITY OF THE RETINAL PIGMENT EPITHELIUM	3R01 EY02205-01S1	16,595
MILLER, SHELDON S	HOMEOSTATIC ABILITY OF THE RETINAL PIGMENT EPITHELIUM	5R01 EY02205-02	65,924
MISHELL, ROBERT I	IMMUNOREGULATORY FUNCTIONS OF ACCESSORY CELLS	1R01 AI15482-01	55,779
MISHELL, ROBERT I	IMMUNOREGULATORY EFFECTS OF BACTERIAL SUBSTANCES	5R01 CA25056-02	67,280
NANDI, SATYABRATA	BIOLOGY OF MAMMARY NEOPLASIA	5P01 CA05388-20	540,107
NEILANDS, JOHN B	IRON METABOLISM OF MICROORGANISMS	5R01 AI04156-18	39,865
NEILANDS, JOHN B	CHELATES FOR COOLEY'S ANEMIA AND IRON STORAGE DISEASE	2R01 AM17146-06	65,598
NEYMAN, JERZY	PROBABILITY/STATISTICAL STUDIES OF HEALTH PROBLEMS	2R01 ES01299-16	115,811
NIKAIDO, HIROSHI	BIOCHEMISTRY OF BACTERIAL CELL MEMBRANES	5R01 AI09644-10	95,623
OACE, SUSAN M	DIETARY FIBER AND BIOAVAILABILITY OF MICRONUTRIENTS	5R01 AM19970-03	55,987
OSTWALD, ROSEMARIE	EFFECT OF DIETARY CHOLESTEROL IN MAMMALS	3R01 AM08480-15S1	27,946
PENHOET, EDWARD E	CONTROL OF RNA SYNTHESIS IN EUKARYOTIC CELLS	2R01 CA20357-04	59,800
PENHOET, EDWARD E	STRUCTURE AND MODIFICATION OF MAMMALIAN TRANSFER RNA	5R01 CA21245-03	49,612
PITELKA, DOROTHY R	REGULATION OF MAMMARY OCCLUDING JUNCTIONS	1R01 GM26230-01	66,855
POLSE, KENNETH A	CONTACT LENS EFFECTS ON REFRACTIVE ERROR	5R01 EY01755-03	165,348
RABINOWITZ, JESSE C	PURINE AND PTERIDINE METABOLISM IN MICROORGANISMS	5R01 AM02109-22	141,440
RAJU, MUDUNDI R	HEAVY PARTICLES IN RADIOTHERAPY: A COMPARATIVE STUDY	5R01 CA17290-04	157,160
RAJU, MUDUNDI R	FLOW CYTOPHOTOMETRY IN RADIOBIOLOGY AND RADIOTHERAPY	5R01 CA22585-02	65,537
RAPOPORT, HENRY	TOXIC ALGAE IN MARINE AND FRESH-WATER ENVIRONMENTS	5R01 ES01547-03	171,846
RAYBOURN, MICHAEL S	IN VITRO ELECTROPHYSIOLOGY OF CNS TOXICITY	5R01 ES01907-02	62,974
RAYMOND, KENNETH N	COORDINATION ISOMERS IN BIOLOGICAL IRON TRANSPORT	5R01 AI11744-06	86,349
REEVES, WILLIAM C	ECOLOGY AND CONTROL OF ARBOVIRUSES	2R01 AI03028-21	326,963
RUBIN, HARRY	PRIMARY EVENTS IN REGULATING CELL MULTIPLICATION	3R01 CA15744-05S1	76,193
RUBIN, HARRY	PRIMARY EVENTS IN REGULATING CELL MULTIPLICATION	2R01 CA15744-06A1	111,319
SCHACHMAN, HOWARD K	STRUCTURES AND INTERACTIONS OF BIOLOGICAL MACROMOLECULES	2R01 GM12159-16	148,249
SCHEKMAN, RANDY W	BIOLOGICAL STUDIES OF EUKARYOTIC CELL SURFACE GROWTH	1R01 GM26755-01	73,815
SCHIMMERLING, WALTER	PHYSICAL CHARACTERISTICS OF HEAVY ION BEAMS	5R01 CA23247-02	186,081
SCHOR, CLIFTON M	ABNORMAL EYE MOVEMENTS IN STRABISMUS AND AMBLYOPIA	3R01 EY02573-02S1	5,240
SHORE, VIRGIE G	HETEROGENEITY AND PROPERTIES OF PLASMA LIPOPROTEINS	1R01 HL23747-01	154,500
SMITH, HELENE S	STUDIES OF MALIGNANT PROGRESSION USING HUMAN CELLS	1R01 CA25630-01	76,019
STAMPFER, MARTHA R	CHARACTERIZATION OF HUMAN MAMMARY CELLS	1R01 CA24844-01A1	79,583
STENT, GUNTHER S	A NEW SOURCE OF HYALURONIDASE AND ANTI-COAGULANTS	5R01 HL22227-02	52,830
STENT, GUNTHER S	BEHAVIOR AND DEVELOPMENT OF A SIMPLE NERVOUS SYSTEM	2R01 NS12818-26	64,389
STOKSTAD, E L	METABOLISM OF FOLIC ACID AND VITAMIN B12	5R01 AM08171-16	84,834
STROHMAN, RICHARD C	STUDY OF NUCLEI FROM MUSCLE CELLS DEVELOPING IN VITRO	1R01 SM21964-01A1	48,790
TARTER, MICHAEL E	OPTIMIZATION OF HARMONIC DATA FORMS	1R01 GM25386-01	38,962
THOMSON, GLENYS J	MODELS IN POPULATION GENETICS	1R01 HD12731-01	36,065
THORNER, JEREMY W	CELL-CELL INTERACTIONS OF A SIMPLE EUKARYOTE	5R01 GM21841-05	69,143
TIMIRAS, PAOLA S	EFFECT OF CHRONIC CNS-ENDOCRINE MODIFICATION ON AGING	5R01 AG00043-02	54,809
TIMIRAS, PAOLA S	MEMBRANOGENESIS IN CRETINISM AND HYPERTHYROIDISM	5R01 HD07340-05	70,114
TINOCO, IGNACIO, JR	STRUCTURE AND FUNCTION OF NUCLEIC ACIDS	5R01 GM10840-21	143,604
TJIAN, ROBERT	THE SV40 TUMOR ANTIGEN	1R01 CA25417-01	89,626
TOBIAS, CORNELIUS A	PRETHERAPEUTIC USE OF ACCELERATED HEAVY IONS	5P01 CA15184-06	953,675
VAN DEN BERG, BARBARA J	EPIDEMIOLOGICAL STUDIES, PRECURSORS OF HYPERTENSION	5R01 HL19859-04	94,460
VAN DILLA, MARVIN A	CHROMOSOMAL FLOW CYTOMETRY: DNA AND CENTROMERES	5R01 GM25076-02	85,800
VAN SLUYTERS, RICHARD C	NEUROPHYSIOLOGY OF VISUAL DEPRIVATION	5R01 EY02193-02	41,077
VANDERLAAN, MARTIN	CYTOCHEMICAL PROBES OF UROTHELIAL TUMOR CELLS	5R26 CA23790-02	111,057
VOLLHARDT, K PETER	ACTIVATED MUTAGENIC AND CARCINOGENIC HYDROCARBONS	5R01 CA20713-03	46,246
VOLLHARDT, K PETER	ROUTES TO PHYSIOLOGICALLY ACTIVE COMPOUNDS	2R01 GM22479-04	75,543
WERBLIN, FRANK S	MEMBRANE MECHANISMS FOR CELL FUNCTION IN RETINA	5R01 EY00561-10	84,246
WESTHEIMER, GERALD	RETINAL AND CENTRAL VISUAL FUNCTIONS	5R01 EY00220-18	55,237
WESTHEIMER, GERALD	OCULOMOTOR CONTROL	5R01 EY00592-11	98,803
WIEDEMANN, ECKEHART	INVESTIGATION OF HUMAN B-LIPOTROPIN	5R01 CA23382-02	78,480

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
CALIFORNIA—Continued				
WILLIAMS, MARY A.....		ESSENTIAL FATTY ACID INTAKE AND FATTY ACID SYNTHESIS.....	2R01 AM12024-12	83,883
WILLIAMS, MICHAEL C.....		HEMOLYSIS INDUCED BY SHEAR FLOW.....	1R01 HL23274-01	61,899
WILSON, ALLAN C.....		REGULATION AS A BASIS FOR ORGANISMAL DIFFERENCES.....	5R01 GM21509-05	56,413
WINKELSTEIN, WARREN, JR.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05441-18	68,600
WOFSY, LEON.....		RECEPTOR FUNCTION IN LYMPHOCYTE DIFFERENTIATION.....	5R01 CA24436-15	123,993
YOUNG, IAN T.....		SOLID STATE AUTOMATED MICROSCOPE.....	7R01 GM27044-01	147,805
YUND, MARY A.....		HORMONAL REGULATION OF GENE ACTIVITY IN DROSOPHILA.....	5R01 GM23349-03	48,031
ZUCKER, IRVING.....		BEHAVIOR, HORMONES, AND BIOLOGICAL CLOCKS.....	5R01 HD02982-13	78,152
ZUCKER, ROBERT S.....		REGULATION OF SYNAPTIC TRANSMISSION.....	1R01 NS15114-01	42,425
ZUSMAN, DAVID R.....		BIOCHEMICAL STUDIES OF DEVELOPMENT IN BACTERIA.....	2R01 GM20509-07	64,000
ORGANIZATION TOTAL	172	20,057,638		
WRIGHT INSTITUTE ZIP CODE 94704				
CARP, FRANCES M.....		EVALUATE FORMAT IMPACT ON RESPONSES OF ELDERLY PEOPLE.....	5R01 AG00711-02	56,019
ORGANIZATION TOTAL	1	56,019		
CHICO				
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT CHICO ZIP CODE 95929				
BUCK, DOUGLAS R.....		MAGNESIUM EFFECTS ON LACTATION AND BRAIN GROWTH.....	1R01 HD13403-01	25,667
ORGANIZATION TOTAL	1	25,667		
CLAREMONT				
CLAREMONT UNIVERSITY CENTER SYSTEM—POMONA COLLEGE ZIP CODE 91711				
HANSCH, CORWIN H.....		CORRELATION OF BIOLOGICAL ACTIVITY AND STRUCTURE.....	5R01 CA11110-20	122,853
PECK, CAROL K.....		SENSORY REARRANGEMENT AND NEURAL PLASTICITY.....	1R01 NS14116-01A1	73,569
ORGANIZATION TOTAL	2	196,422		
CLAREMONT UNIVERSITY CENTER SYSTEM—SCRIPPS COLLEGE ZIP CODE 91711				
HARTLEY, ALAN A.....		ADULT AGE DIFFERENCES IN COGNITIVE PROCESSES.....	5R23 AG01073-02	25,934
ORGANIZATION TOTAL	1	25,934		
CULVER CITY				
MEMORIAL CANCER RESEARCH FOUNDATION OF SOUTHERN CALIFORNIA ZIP CODE 90230				
PLOTKIN, DAVID.....		PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20146-03	35,651
ORGANIZATION TOTAL	1	35,651		
DAVIS				
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616				
ABILDGAARD, CHARLES F.....		SERIAL COMPARATIVE STUDY OF VON WILLEBRAND'S DISEASE.....	5R01 HL19267-03	34,269
BALCH, ALAN L.....		IRON PORPHYRIN ACTIVATION OF OXYGEN/SMALL MOLECULES.....	1R01 GM26226-01	44,837
BARKLEY, MARYLYNN S.....		PITUITARY AND HYPOTHALAMIC PROTEINS AND PEPTIDES.....	5R01 HD00394-19	128,374
BARRETT, ERICKA L.....		AEROBIC/ANAEROBIC SHIFTS IN SALMONELLA TYPHIMURIUM.....	1R01 AI15144-01A1	52,573
BAUMANN, PAUL.....		PROTEIN EVOLUTION AND GENETICS OF MARINE BACTERIA.....	1R01 AI15924-01	43,207
BEAMAN, BLAINE L.....		MECHANISMS CONTROLLING NOCARDIAL PATHOGENESIS.....	5R01 AI13167-05	82,289
BEAMAN, BLAINE L.....		PULMONARY CLEARANCE OF IMMUNOLOGICALLY COMPROMISED MICE.....	5R01 AI15114-02	105,535
BENISEK, WILLIAM F.....		STEROID BINDING SITES OF STEROID BINDING PROTEINS.....	5R01 AM14729-09	61,970
BENJAMINI, ELIEZER.....		SELECTIVE STIMULATION OF CELL MEDIATED IMMUNITY.....	5R01 CA25053-02	73,373
BERGSTROM, DONALD E.....		SYNTHESIS OF C-5 SUBSTITUTED PYRIMIDINE NUCLEOSIDES.....	5R01 CA21493-03	46,884
BLAISDELL, F WILLIAM.....		INTRAVASCULAR COAGULATION IN THE BURN PATIENT.....	5R01 GM26561-02	107,089
BOYD, JAMES B.....		DNA SYNTHESIS IN MUTAGEN-SENSITIVE DROSOPHILA STRAINS.....	1R01 GM25562-01	63,171
BRADBURY, EDWIN M.....		CHROMATIN, HISTONE MODIFICATIONS AND HMG PROTEINS.....	1R01 GM26901-01	190,690
BRADY, F PAUL.....		NEUTRON-INDUCED REACTIONS IN TISSUE RESIDENT ELEMENTS.....	2R01 CA16261-04	29,434
BRUENING, GEORGE E.....		MECHANISMS OF IMMUNITY TO VIRUS INFECTION.....	5R01 AI13708-03	47,966
BUYUKMIRCI, NED.....		EFFECTS OF SCRAPIE ON HAMSTER RETINA AND OPTIC NERVE.....	7R01 EY03299-01	31,779
BYARD, JAMES L.....		COMPARATIVE FATE OF PESTICIDES IN CULTURED HEPATOCYTES.....	5R01 ES01597-02	33,820

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
CALA, PETER M.....	VOLUME REGULATION: THE ROLE OF THE MEMBRANE POTENTIAL.....	5R01 HL21179-02	45,439
CANOLTY, NANCY L.....	UTILIZATION OF PROTEIN AND ENERGY.....	5R22 AM20437-02	69,942
CARDIFF, ROBERT D.....	MTV GENE AMPLIFICATION AND EXPRESSION.....	5R01 CA21454-03	82,520
CARDIFF, ROBERT D.....	THE RADIOBIOLOGY OF MOUSE BREAST PRENEOPLASIA.....	1R01 CA25915-01	83,792
CARLSEN, RICHARD C.....	REFLEX DEVELOPMENT AND MOTOR UNIT DIFFERENTIATION.....	1R01 NS15002-01	51,190
CARLSEN, RICHARD C.....	PERIPHERAL REGULATION OF SPINAL MOTONEURONS.....	1R01 NS15065-01	47,129
CASE, DAVID A.....	ELECTRONIC STRUCTURES OF IRON-CONTAINING PROTEINS.....	1R01 GM26712-01	22,951
CHEN, LEE J.....	BILE SALT SULFATION.....	1R01 AM25970-01	59,225
CLIFFORD, ANDREW J.....	DIET AND PURINE METABOLISM IN GOUT AND MALNUTRITION.....	2R01 AM16726-07	64,382
CONN, ERIC E.....	METABOLISM OF AROMATIC COMPOUNDS.....	5R01 GM05301-22	77,066
DAHMS, MICHAEL E.....	BIOCHEMICAL ASPECTS OF GENE REGULATION.....	5R01 HD04899-07	65,909
DEMILING, ROBERT H.....	PATHOPHYSIOLOGY OF LUNGS AFTER THERMAL INJURY.....	7R01 GM27619-01	26,152
DEMILING, ROBERT H.....	LUNG FLUID PROTEIN EXCHANGE AFTER HEMORRHAGIC SHOCK.....	7R01 HL25403-01	32,566
DOI, ROY H.....	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION.....	5R01 GM19673-08	58,626
DREYFUS, PIERRE M.....	DEVELOPMENTAL NEUROBIOLOGY IN PRIMATES.....	5R01 HD08658-06	305,591
DUNGWORTH, DONALD L.....	PULMONARY EFFECTS OF ENVIRONMENTAL OXIDANT POLLUTANTS.....	SP01 ES00628-09	451,446
EHRI, LINNEA C.....	THE ROLE OF ORTHOGRAPHY IN PRINTED WORD LEARNING.....	1R01 HD12903-01	34,931
ENDERS, ALLEN C.....	MECHANISMS OF IMPLANTATION OF THE BLASTOCYST.....	5R01 HD10342-04	88,191
ETZLER, MARILYNN E.....	STRUCTURE, DEVELOPMENT, AND MODIFICATIONS OF LECTINS.....	5R01 GM21882-05	66,520
FEENEY, ROBERT E.....	CHEMICAL IMPROVEMENTS OF PROTEINS FOR FOOD USES.....	9R01 AM26031-06	59,419
FEENEY, ROBERT E.....	COMPARATIVE BIOCHEMISTRY OF PROTEINS.....	5R01 GM23817-15	56,562
FEENEY, ROBERT E.....	TRANSFERRIN IRON BINDING AND TRANSPORT PROPERTIES.....	2R01 HL18619-04	74,625
GABOR, ANDREW J.....	NEURONAL INTERACTION OF EPILEPTOGENIC FOCUS.....	2R01 NS10332-06A1	45,141
GEOKAS, MICHAEL C.....	EARLY DIAGNOSIS OF PANCREATIC CANCER.....	2R26 CA19188-03	45,174
GERSHWIN, M. ERIC.....	THE PATHOGENESIS OF AUTOIMMUNITY IN NEW ZEALAND MICE.....	2R01 CA20816-04	76,635
GERSHWIN, M. ERIC.....	LEUKEMOGENESIS IN GNOTOBIOTIC NUDE MICE.....	5R01 CA24362-02	71,016
GOLDSTEIN, ELLIOT.....	EFFECT OF ATMOSPHERIC POLLUTANTS ON PULMONARY DEFENSES.....	5R01 ES01327-03	44,045
GREEN, JERRY F.....	INTRAVASCULAR REDISTRIBUTION OF BLOOD VOLUME.....	5R01 HL20371-03	60,832
GREEN, MELVIN M.....	GENETIC AND EVOLUTIONARY STUDIES WITH DROSOPHILA.....	SP01 GM22221-05	371,222
GREENBERG, BERNARD R.....	FIBROBLASTIC COLONIES IN MYELOPROLIFERATIVE DISORDERS.....	1R01 CA26234-01	58,694
GREENBERG, DEBORAH B.....	COLLAGEN METABOLISM IN RAT LUNG EXPLANTS.....	5R23 ES01713-02	35,190
GULYASSY, PAUL F.....	ABNORMAL PROTEIN BINDING IN UREMIA.....	5R01 AM19833-03	86,144
HALSTED, CHARLES H.....	INTESTINAL AND HEPATIC FOLATE METABOLISM.....	5R01 AM18330-05	74,749
HAMILTON, WILLIAM J, III.....	PRIMATE SOCIOECOLOGY: A NUTRITIONAL APPROACH.....	5R24 RR01078-03	59,138
HANSEN, ROBERT J.....	INSULIN AND PROTEIN TURNOVER IN ANIMAL TISSUES.....	5R01 AM15059-09	89,606
HARRIS, DANIEL C.....	BIOCHEMICAL APPROACHES TO MANAGEMENT OF IRON OVERLOAD.....	5R01 HL20141-03	40,197
HEDRICK, JERRY L.....	A MOLECULAR APPROACH TO FERTILIZATION.....	5R01 HD04906-10	90,065
HENRY, KENNETH R.....	AUDITORY DEFICITS IN THE AGING MOUSE.....	5R01 AC01018-02	31,455
HERSHEY, JOHN W.....	MECHANISM OF INITIATION OF PROTEIN BIOSYNTHESIS.....	5R01 GM22135-05	106,861
HOEPFICH, PAUL D.....	EXPERIMENTAL PRIMATE INFECTIVE FUNGAL ENDOCARDITIS.....	1R01 AI16141-01	88,140
HOLCROFT, JAMES W.....	THE ROLE OF PROSTAGLANDIN IN CAUSING SHOCK LUNG.....	1R23 GM26562-01	45,168
HOLLINGER, MANNFRED A.....	SERUM ANGIOTENSIN CONVERTING ENZYME IN ACUTE LUNG DAMAGE.....	1R01 ES02093-01	71,186
HOROWITZ, JOHN M.....	PLASMA MEMBRANE ALTERATIONS IN DYSTROPHIC CELLS.....	1R01 NS15326-01	39,449
HSIEH, DENNIS P.....	COMPARATIVE TOXICOLOGY OF CARCINOGENIC MYCOTOXINS.....	1R01 CA27426-01	92,164
HSIEH, DENNIS P.....	TOXIC FUNGAL POLYKETIDES (ASPERGILLUS, BACTERIA).....	5R01 ES00612-09	65,911
HURLEY, LUCILLE S.....	NUTRITIONAL FACTORS IN MAMMALIAN DEVELOPMENT.....	5R01 HD01743-15	86,372
HURLEY, LUCILLE S.....	GENETIC AND NUTRITIONAL INTERACTIONS IN DEVELOPMENT.....	5R01 HD02355-14	90,490
HURLEY, LUCILLE S.....	ZINC BINDING IN HUMAN MILK & ROLE IN NEONATAL NUTRITION.....	1R01 HD12547-01	65,444
INGRAHAM, JOHN L.....	PHYSIOLOGY OF BACTERIA AT LOW TEMPERATURE.....	5R01 AI05526-17	82,988
JACKSON, ANDREW C.....	LUNG AIRWAY PROPERTIES BY ACOUSTIC IMPULSE REFLECTION.....	7R01 HL25631-01	78,069
KADO, CLARENCE I.....	TUMOR-INDUCING SUBSTANCE OF AGROBACTERIUM TUMEFACIENS.....	2R01 CA11526-10A1	94,617
KATZ, DAVID F.....	MECHANISMS IN SPERM TRANSPORT AND FERTILIZATION.....	1R01 HD12971-01	71,851
KELTNER, JOHN L.....	PHOTOGRAMMETRIC QUANTIFICATION OF THE OPTIC CUP.....	3R01 EY01841-03S1	35,234
KIGER, JOHN A, JR.....	GENETIC STUDIES OF CYCLIC NUCLEOTIDE METABOLISM.....	5R01 GM21137-05	51,938
KING, BARRY F.....	FUNCTIONAL CYTOLOGY OF THE PLACENTA AND FETAL MEMBRANES.....	5R01 HD11658-03	68,302
KUSTU, SYDNEY G.....	GENETIC STUDIES OF GLUTAMINE SYNTHETASE IN BACTERIA.....	5R01 GM21307-06	73,130
LA MAR, GERD N.....	STRUCTURAL AND DYNAMIC STUDY OF MODEL HEME COMPLEXES.....	5R01 HL16087-06	62,066
LARGMAN, COREY.....	PLASMA ACTIVATORS OF HUMAN PANCREATIC PROELASTASE 2.....	1R01 HL25408-01	37,350
LEWIS, JERRY P.....	NORTHERN CALIFORNIA ONCOLOGY GROUP.....	1R10 CA25838-01	60,818
MACKENZIE, MALCOLM R.....	STUDY OF HUMAN MULTIPLE MYELOMA CELL ANTIGENS.....	5R01 CA17192-05	74,100

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MACMILLAN, ALAN D.....	FAMILIAL DYSTROPHIC & DYSPLASTIC EYE DISEASES.....	5R23 EY02222-02	13,100
MACY, JOAN M.....	INFLUENCE OF DIETARY FIBER ON RAT INTESTINAL BACTERIA.....	5R01 AM20872-03	52,546
MARR, ALLEN G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07007-14	138,099
MASON, DEAN T.....	REGULATORY ROLE OF MYOSIN IN CARDIAC HYPERTROPHY.....	5R01 HL21820-02	95,310
MASON, WILLIAM A.....	PSYCHOSOCIAL DEVELOPMENT.....	2R01 HD06367-08	112,792
MC NAMEE, MARK G.....	DYNAMIC INTERACTIONS OF THE ACETYLCHOLINE RECEPTOR.....	2R01 NS13050-04	67,134
MC QUARRIE, DONALD A.....	FORCE BALANCE IN POLYELECTROLYTE SYSTEMS.....	1R01 GM26864-01	40,238
MEARES, CLAUDE F.....	BIFUNCTIONAL CHELATING AGENTS IN TUMOR LOCALIZATION.....	5R01 CA16861-05	49,771
MEARES, CLAUDE F.....	PHOTOCHEMICAL & SPECTROSCOPIC PROBES OF RNA POLYMERASE.....	1R01 GM25909-01	36,991
MEIZEL, STANLEY.....	BIOCHEMICAL STUDIES OF IN VITRO SPERM CAPACITATION.....	5R01 HD06698-06	53,554
MEIZEL, STANLEY.....	STUDIES OF AN INACTIVE TESTIS AND SPERM TRYPSIN.....	5R01 HD07893-05	71,348
MULLONEY, BRIAN.....	PHYSIOLOGICAL MECHANISMS PRODUCING ORDERED MOVEMENT.....	5R01 NS12295-05	52,828
OVERSTREET, JAMES W.....	SPERM TRANSPORT IN THE FEMALE RABBIT.....	5R01 HD11186-02	43,328
PAPPAGIANIS, DEMOSTHENES.....	IMMUNOLOGICAL CONTROL OF COCCIDIOIDOMYCOSIS.....	1R01 AI15061-01A1	57,971
PLANT, RICHARD E.....	INVESTIGATION OF A MODEL FOR BURSTING NEURONS.....	5R01 NS13777-02	11,605
PREISS, JACK.....	REGULATION OF POLYSACCHARIDE SYNTHESIS.....	5R01 AI05520-17	132,396
PRITCHARD, WILLIAM R.....	SUPPORT FOR REGIONAL PRIMATE RESEARCH CENTER.....	5P40 RR00169-18	2,094,354
PRITCHARD, WILLIAM R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05457-17	89,808
RENKIN, EUGENE M.....	REGULATORY MECHANISMS IN BLOOD CIRCULATION.....	5R01 HL17998-05	67,665
RENKIN, EUGENE M.....	CAPILLARY TRANSPORT OF LARGE MOLECULES.....	5R01 HL18010-05	96,697
RIGGINS, RICHARD S.....	MECHANICAL PROPERTIES OF BONE FROM SCOLIOtic CHICKENS.....	1R01 AM25358-01	30,143
ROBBINS, DICK L.....	PATHOGENETIC ROLE OF RF COMPLEMENT IN ARTHRITIS.....	5R01 AM21425-02	41,308
ROGERS, QUINTON R.....	THE ROLE OF NUTRITION IN FOOD INTAKE REGULATION.....	2R01 NS13252-10	86,833
RUCKER, ROBERT B.....	EXPERIMENTAL ATHEROSCLEROSIS AND ELASTIN METABOLISM.....	2R01 HL15965-07	56,128
RUCKER, ROBERT B.....	CHARACTERIZATION OF LUNG ELASTINS.....	2R01 HL18918-04	64,664
RUEBNER, BORIS H.....	PERINATAL BILE PIGMENTS IN INFANTS AND MONKEYS.....	5R01 HD07331-06	105,647
SCHMID, CARL W, JR.....	REPETITIVE DNA SEQUENCES IN THE HUMAN GENOME.....	5R01 GM21346-06	42,706
SCHNEEMAN, BARBARA O.....	NUTRITIONAL EFFECTS OF PLANT FIBER ON DIGESTION.....	5R01 AM20446-03	39,061
SCHORE, NEIL E.....	SYNTHESIS OF BIOLOGICALLY ACTIVE CYCLOPENTENONES.....	1R01 GM26294-01	28,157
SCIBIENSKI, ROBERT J.....	NEW APPROACHES TO IMMUNOTHERAPY.....	5R01 CA20526-02	28,820
SEGEL, IRWIN H.....	ENZYMOLGY OF SULFATE ACTIVATION AND TRANSFER.....	1R01 GM26728-01	72,247
SILLMAN, ARNOLD J.....	THE CHEMICAL ENVIRONMENT AND PHOTORECEPTOR FUNCTION.....	5R01 EY01839-03	21,096
SMITH, KEVIN M.....	METABOLISM AND REACTIONS OF BILE PIGMENTS.....	1R01 AM25714-01	49,151
SMITH, KEVIN M.....	SYNTHESES OF LABELED HEMES FOR PROTEIN NMR STUDIES.....	5R01 HL22252-02	59,443
SMITH, ROBERT E.....	BREAST TEMPERATURE AS AN OVULATION PREDICTOR.....	5R01 HD11176-02	69,882
STARR, MORTIMER P.....	THE PHYTOPATHOGENIC BACTERIA.....	5R01 AI08426-23	78,876
STERN, JUDITH S.....	PHYSICAL ACTIVITY, PANCREATIC FUNCTION AND OBESITY.....	5R01 AM18899-05	68,769
STUMPF, PAUL K.....	MECHANISMS OF DESATURATION OF FATTY ACIDS.....	5R01 GM19213-08	52,677
TAPPEL, ALOYS L.....	NUTRITIONAL FUNCTION OF SELENIUM.....	2R01 AM06424-17	73,265
TRAUT, ROBERT R.....	RIBOSOME STRUCTURE AND FUNCTION.....	2R01 GM17924-09	134,407
TROY, FREDERIC A.....	CHEMISTRY AND BIOSYNTHESIS OF CELL-SURFACE POLYMERS.....	5R01 AI09352-10	63,064
TROY, FREDERIC A.....	MEMBRANE-BOUND ENZYME INTERACTIONS AND GROWTH CONTROL.....	2R01 CA17327-04	87,118
TUPPER, C JOHN.....	MEDICAL SCHOOL ANIMAL RESOURCE IMPROVEMENT.....	5P40 RR01068-03	7,601
TUPPER, C JOHN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05684-11	138,754
VILLAREJO, MERNA R.....	ISOLATION AND CHARACTERIZATION OF THE LAC PERMEASE.....	2R01 GM23189-04	52,731
WALSH, DONAL A.....	REGULATION OF CELL FUNCTION BY PHOSPHORYLATION.....	5R01 AM13613-11	129,546
WALSH, DONAL A.....	A PROTEIN INHIBITOR OF PROTEIN KINASES.....	5R01 AM21019-02	69,834
WARING, GEORGE O, III.....	ANIMAL MODELS OF CORNEAL DYSTROPHIES AND DEGENERATIONS.....	5R01 EY02224-02	14,789
WELLINGS, SEFTON R.....	PRENEOPLASTIC POTENTIAL OF HUMAN BREAST LESIONS.....	5R01 CA21366-03	72,582
WELLINGS, SEFTON R.....	QUANTITATIVE STUDIES OF HUMAN BREAST PATHOLOGY.....	5R01 CA21523-03	93,808
WENNBERG, RICHARD P.....	ASSESSMENT OF BILIRUBIN TRANSPORT AND TOXICITY.....	5R01 HD10491-02	63,871
WILSON, BARRY W.....	TOXICANTS AND AVIAN CELL GROWTH AND METABOLISM.....	5R01 ES00202-11	49,141
WILSON, LOWELL D.....	THE ADRENAL MITOCHONDRIAL HYDROXYLATING SYSTEM.....	5R01 AM16173-05	73,794
WOLFE, BRUCE.....	BRANCHED CHAIN AMINO ACID INFUSION IN TRAUMA.....	1R23 GM26943-01	39,300
WOOLLEY, DOROTHY E.....	LEAD NEUROTOXICITY DURING DEVELOPMENT.....	5R01 ES01503-02	65,328
ORGANIZATION TOTAL	132	11,524,461	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DOMINGUEZ HILLS			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT DOMINGUEZ HILLS		ZIP CODE 90747	
CHI, LOIS W.....	MINORITY BIOMEDICAL RESEARCH PARTICIPATION	5S06 RR08156-03	166,480
ORGANIZATION TOTAL	1 166,480		
DOWNEY			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—RANCHO LOS AMIGOS HOSPITAL		ZIP CODE 90242	
PERRY, JACQUELIN.....	THE DYNAMICS OF EMG-FORCE-MOVEMENT RELATIONSHIPS.....	1R01 GM26395-01	96,748
SELVESTER, RONALD H.....	INFARCT SIZE: ECG, ANGIO, AND PATHOLOGY CORRELATIONS.....	5R01 HL17532-05	84,621
WAGNER, F WILLIAM, JR.....	MICRO/MACROVASCULATURE IN HEALING OF FOOT LESIONS.....	5R01 HL22113-03	31,087
ORGANIZATION TOTAL	3 212,456		
DUARTE			
CITY OF HOPE NATIONAL MEDICAL CENTER		ZIP CODE 91010	
COMINGS, DAVID E.....	PHYSIOLOGY AND BIOCHEMISTRY OF HUMAN CHROMOSOMES.....	5R01 GM15886-13	110,602
COMINGS, DAVID E.....	DNA BINDING PROTEINS AND CHROMOSOME STRUCTURE.....	5R01 GM23199-04	74,521
COMINGS, DAVID E.....	GENETICS OF HUNTINGTON'S DISEASE AND SCHIZOPHRENIA.....	1R01 NS14861-01	53,032
DUBUC, PAUL U.....	THE EARLY DEVELOPMENT OF OBESE-HYPERGLYCEMIC MICE.....	5R01 AM19627-03	49,678
FLANAGAN, STEVEN D.....	AFFINITY PARTITIONING OF SUBSYNAPTIC MEMBRANES.....	5R01 NS14281-02	28,436
IKEDA, KAZUO.....	PHYSIOLOGY OF SYNAPSES IN NORMALS AND MUTANTS.....	5R01 NS07442-12	27,211
ITAKURA, KEIICHI.....	ISOLATION OF NUCLEIC ACIDS USING SYNTHETIC DNA AS PROBE.....	5R01 GM25658-02	97,478
ITAKURA, KEIICHI.....	PEPTIDE HORMONE PRODUCTION IN E COLI.....	1R01 GM26408-01	86,323
KAPLAN, WILLIAM D.....	PHYSIOLOGICAL AND AGING STUDIES OF MUTANTS.....	2R01 NS08014-12	60,086
KLEVECZ, ROBERT R.....	TEMPORAL ORDER AND AGING IN CULTURED SOMATIC CELLS.....	5R01 AG00434-09	74,299
KLEVECZ, ROBERT R.....	TIMING OF MAMMALIAN CELL CYCLE EVENTS.....	1R01 GM26015-01	71,696
LEVINE, RACHMIEL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05471-17	127,900
MC CAMAN, RICHARD E.....	METABOLISM AND FUNCTION OF NEUROTRANSMITTERS IN NEURONS.....	2R01 NS09339-09	78,585
MC CAMAN, RICHARD E.....	PLASTICITY IN REDUNDANT & CONVERGENT NEURAL CIRCUITS.....	1R01 NS15583-01	39,168
MITTMAN, CHARLES.....	NONUNIFORM VENTILATION AND DIFFUSING CAPACITY.....	5R01 HL22976-02	44,643
OHNO, SUSUMU.....	SEX AND AGING STUDIES OF MUTANT MICE.....	5R01 AG00042-05	50,023
OHNO, SUSUMU.....	H-2 OR HLA RESTRICTIONS IN CELL MEDIATED IMMUNITY.....	1R01 AI15620-01	83,666
PEARSON, DAVID B.....	NEUROBIOLOGY OF PEPTIDE HORMONES IN ORGAN CULTURE.....	5R01 NS13644-02	59,839
RAPPAPORT, HENRY.....	PATHOLOGY CENTER FOR LYMPHOMA CLINICAL STUDIES.....	5R10 CA18044-05	250,649
RIGGS, ARTHUR D.....	REGULATORY PROTEINS IN E COLI AND EUKARYOTIC CELLS.....	5R01 GM25825-10	173,452
ROBERTS, EUGENE.....	NITROGEN METABOLISM OF NERVOUS TISSUE.....	5R01 NS01615-22	125,544
ROBERTS, EUGENE.....	NEUROTRANSMISSION AND NEUROLOGICAL DISEASE.....	5P01 NS12116-05	320,918
RUOSLAHTI, ERKKI I.....	ALPHA-FETOPROTEIN: STRUCTURE AND FUNCTION.....	3R01 CA19894-03S1	3,806
RUOSLAHTI, ERKKI I.....	NUCLEAR PROTEINS IN HEPATOMA AND NORMAL LIVER.....	5R01 CA22657-02	11,880
SALVATERRA, PAUL M.....	SYNAPTIC MEMBRANE STUDIES.....	5R01 NS13813-02	43,239
SHIVELY, JOHN E.....	ROLE OF HLA-B27 AND SHIGELLA ANTIGENS IN DISEASE.....	5R01 AM21597-02	84,558
TAYLOR, JOSEPH C.....	BIOCHEMICAL PATHOGENESIS OF EMPHYSEMA.....	1R01 HL22860-01A1	61,096
TODD, CHARLES W.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA16434-05	409,706
TODD, CHARLES W.....	ASSAY AND STRUCTURE OF CARCINOEMBRYONIC ANTIGENS.....	3R26 CA19163-03S1	16,045
TODD, CHARLES W.....	ASSAY AND STRUCTURE OF CARCINOEMBRYONIC ANTIGENS.....	2R26 CA19163-04	176,537
VAUGHN, JAMES E.....	SPINAL CORD DEVELOPMENT.....	5R01 NS09578-10	56,976
WALLACE, R BRUCE.....	MAJOR HISTOCOMPATIBILITY COMPLEX GENE SEQUENCES.....	1R01 GM26391-01	68,540
WALLACE, R BRUCE.....	ANALYSIS OF POINT MUTATIONS IN HUMAN GLOBIN GENES.....	1R01 HL24235-01	85,381
WIMER, RICHARD E.....	AMMON'S HORN: CONNECTIVITY AND BEHAVIOR.....	5R01 NS10284-07	80,892
WISHNER, KATHLEEN L.....	DIETARY FACTORS AFFECTING CHYLOMICRON METABOLISM.....	1R01 HL24378-01	69,710
YONEMOTO, ROBERT H.....	COLORRECTAL CANCER TRANSFER FACTOR FEASIBILITY STUDY.....	5R26 CA22374-02	58,075
YONEMOTO, ROBERT H.....	CELL-MEDIATED IMMUNITY AND ASSAY FOR BREAST CANCER.....	5R01 CA23047-02	51,438
YOSHIDA, AKIRA Y.....	STUDY OF METAL-BINDING PEPTIDES.....	5R01 ES01928-02	53,028
YOSHIDA, AKIRA Y.....	MOLECULAR PATHOLOGY OF GENETIC DISORDERS IN MAN.....	5R01 HL15125-08	190,055
YOSHIDA, AKIRA Y.....	GENETICS OF GLYCOSYLTRANSFERASES IN HUMAN BLOOD.....	5R01 HL20301-03	77,241
ORGANIZATION TOTAL	40 3,685,947		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
ENCINITAS			
A PSYCHOLOGICAL ARTS LYCEUM	ZIP CODE 92024		
LOTECKA, LLYNN	DEVELOPING SELF-HELP COMMUNICATIONS.....	1R01 HD12669-01	23,190
ORGANIZATION TOTAL	1	23,190	
FRESNO			
AMERICAN MOSQUITO CONTROL ASSOCIATION	ZIP CODE 93727		
SOLLERS-RIEDEL, HELEN	SYNTHESIS OF LITERATURE ON MOSQUITOES.....	5R01 AI15643-07	18,100
ORGANIZATION TOTAL	1	18,100	
FULLERTON			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT FULLERTON	ZIP CODE 92634		
LINDER, MARIA C.....	ISOERRITINS AND IRON METABOLISM IN CARDIAC CELLS.....	1R01 HL24337-01	38,964
ORGANIZATION TOTAL	1	38,964	
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE	ZIP CODE 92717		
ARFIN, STUART M.....	ASPARAGINE SYNTHETASE REGULATION IN MAMMALIAN CELLS.....	1R01 GM26014-01	61,008
ARQUILLA, EDWARD R.....	IMMUNOLOGY STRUCTURE SITE AND ACTION OF INSULIN.....	5R01 AM13441-11	125,778
BALDWIN, KENNETH M.....	ADAPTATION TO FUNCTIONAL OVERLOAD IN MUSCLE FIBER TYPES.....	5R01 AM21406-02	60,134
BALDWIN, KENNETH M.....	REGULATION OF CARDIAC ADAPTATION TO EXERCISE.....	5R01 HL22361-02	59,950
BARTLETT, ROBERT H.....	EXTRACORPOREAL MEMBRANE OXYGENATION-NEONATE RES FAILURE.....	5R01 HD11153-02	149,100
BELL, KARL A.....	FUNDAMENTAL BEHAVIOR OF MEDICINAL AEROSOLS IN THE LUNGS.....	2R01 HL19704-04	179,492
BERNS, MICHAEL W.....	CELL DIVISION STUDIED BY LASER.....	5R01 GM23445-03	35,403
BERNS, MICHAEL W.....	IN VITRO STUDIES ON HEART CELL FUNCTION.....	5R01 HL15740-07	81,545
BLANKS, ROBERT H.....	EYE MOVEMENT CONTROL.....	3R01 EY03018-C1S1	1,748
BLANKS, ROBERT H.....	EYE MOVEMENT CONTROL.....	5R01 EY03018-02	39,027
BODE, HANS R.....	REGULATION OF MULTIPOTE CELL DIFFERENTIATION.....	5R01 HD08086-06	43,174
BORER, PHILIP N.....	BASIC NUCLEIC ACID STRUCTURES: FORM AND INTERACTION.....	5R01 GM24494-03	38,184
BRANT, DAVID A.....	CONFORMATIONAL ANALYSIS OF POLYSACCHARIDES.....	5R01 AI15096-02	20,554
BRYANT, PETER J.....	METABOLISM AND HORMONES IN ARTHROPODS.....	5R01 AI10527-10	88,818
CAHALAN, MICHAEL D.....	MOLECULAR MECHANISMS IN EXCITABLE MEMBRANES.....	5R01 NS14609-02	34,427
CAMPBELL, RICHARD D.....	EFFECT OF EXPERIMENTAL NERVE DEPLETION ON DEVELOPMENT.....	5R01 NS12446-05	51,133
CASERIO, MARJORIE C.....	ALKYLATION OF DISULFIDES-SULFENYL SALTS.....	3R01 CA19944-03S1	19,370
CLARK, JEFFREY L.....	REGULATION OF ORNITHINE DECARBOXYLASE IN 3T3 CELLS.....	2R01 GM21854-04	84,794
COTMAN, CARL W.....	BEHAVIORAL AND NEURAL PLASTICITY IN THE AGED RAT.....	5P01 AG00538-03	357,152
COTMAN, CARL W.....	SYNAPTIC MEMBRANE STRUCTURE AND FUNCTION.....	5R01 NS08597-11	91,874
CROCKER, T TIMOTHY.....	AIR POLLUTANTS ON LUNG AIRWAY CELLS IN NOVEL CULTURE.....	1R01 ES01835-01A1	121,753
CUNNINGHAM, DENNIS D.....	ROLE OF CELL SURFACE IN INITIATION OF CELL DIVISION.....	2R01 CA12306-09	92,353
DAVIS, ROWLAND H.....	ARGININE METABOLISM AND CELL COMPARTMENTATION.....	5R01 AM20983-03	81,642
DETTMAN, GERALDINE L.....	TUMOR IMAGING USING 99mTC AND 111 IN-LABELED LEUKOCYTES.....	1R01 CA24850-01	45,146
DI SAIA, PHILIP J.....	GYNECOLOGICAL ONCOLOGY GROUP.....	5R10 CA23765-02	42,051
FROST, PHILIP.....	IMMUNOBIOLOGY METASTASIS.....	1R01 CA28060-01	84,764
GRANGER, GALE A.....	LYMPHOCYTE RELEASED CELL-TOXIN.....	5R01 AI09460-10	94,117
GUTMAN, GEORGE A.....	SEROLOGICAL AND STRUCTURAL STUDIES ON KAPPA CHAINS.....	5R01 AI14774-02	87,395
HALL, JAMES E.....	VOLTAGE-DEPENDENT CONDUCTANCE IN MEMBRANES.....	5R01 HL23183-02	58,192
HALL, PETER F.....	AN ADRENAL TUMOR: CYTOCHROME P-450 AND STEROIDOGENESIS.....	2R01 CA14538-07	90,121
HAMKALO, BARBARA A.....	STRUCTURE AND FUNCTION OF EUKARYOTIC CHROMOSOMES.....	2R01 GM23241-04	77,490
HANRATTY, WILLIAM P.....	THE CONTROLLED INITIATION OF NEOPLASMS IN DROSOPHILA.....	1R01 CA24488-01	47,697
HATFIELD, G WESLEY.....	CONTROL OF GENE EXPRESSION AND THE ROLES OF TRNA.....	3R01 GM24330-02S1	4,952
HATFIELD, G WESLEY.....	CONTROL OF GENE EXPRESSION AND THE ROLES OF TRNA.....	5R01 GM24330-03	77,439
HOLLANDER, DANIEL.....	FAT SOLUBLE VITAMINS ABSORPTION EMPHASIZING VITAMIN K.....	7R01 AM25637-01	36,787
HUXTABLE, ROBERT F.....	IMPROVED TRANSCUTANEOUS O2 AND CO2 MONITORING.....	1R01 HL23123-01A1	117,435
JOSEPHSON, ROBERT K.....	MECHANISMS OF NEUROMUSCULAR SPECIFICITY.....	5R01 NS14564-02	54,155
KITZES, LEONARD M.....	AUDITORY INFORMATION FLOW IN CORTEX AND THALAMUS.....	5R01 NS14479-02	43,019

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
KOPOWITZ, HAROLD.....	PHYSIOLOGY OF A PLEXIFORM NERVOUS SYSTEM.....	5R01 NS13713-02	35,574
KRASSNER, STUART M.....	STUDY OF TWO DEVELOPMENTAL SYSTEMS IN HEMOFLAGELLATES.....	1R01 AI14828-01A1	59,620
LENHOFF, HOWARD M.....	ULTRAMICRO ANALYSIS BY IMMOBILIZED ENZYMIC CYCLING.....	1R01 GM25224-01	44,578
LEOPOLD, IRVING H.....	CHARACTERIZATION OF TEAR PROTEASE INHIBITORS.....	1R01 EY02843-01	44,377
MANNING, JERRY E.....	GENE SEQUENCE ORGANIZATION IN DROSOPHILA MELANOGASTER.....	2R01 GM22207-04	85,493
MC LAUGHLIN, CALVIN S.....	COMPARATIVE STRUCTURE AND FUNCTION OF RIBOSOMES.....	5R01 CA10628-12	114,228
MOLDAVE, KIVIE.....	MECHANISM OF PROTEIN BIOSYNTHESIS.....	5R01 AM15156-10	124,331
MOORE, HAROLD W.....	SYNTHETIC AND NATURAL L-LACTAMS—NEW SYNTHETIC APPROACH.....	1R01 AI15651-01	59,595
MOSIER, H DAVID, JR.....	MECHANISMS CONTROLLING GROWTH RATE.....	2R01 HD07074-06	115,545
MOSIER, H DAVID, JR.....	CONTROL OF SOMATIC GROWTH IN THE FETUS AND NEONATE.....	5R01 HD12034-02	103,777
NICOLSON, GARTH L.....	RETINOID INHIBITION OF TUMOR CELL GROWTH.....	5R01 CA22823-02	72,351
NICOLSON, GARTH L.....	MALIGNANT CELL VARIANTS OF LYMPHOSARCOMA.....	5R01 CA22950-02	79,699
NOVEY, HAROLD S.....	THE ROLE OF FUNGAL HYPERSENSITIVITY IN CYSTIC FIBROSIS.....	1R01 AM25442-01	20,470
MUNN, WILLIAM D.....	CONTROL OF LIPID METABOLISM IN ESCHERICHIA COLI.....	2R01 GM22466-04	59,994
OVERMAN, LARRY E.....	SYNTHESIS OF ACTIVE NEUROLOGICAL AGENTS.....	5R01 NS12389-05	72,897
PFEFFER, ROBERT I.....	DIAGNOSIS OF SENILE DEMENTIA IN A DEFINED POPULATION.....	1R01 NS15487-01	113,078
POO, MU-MING.....	ELECTROPHORESIS OF RECEPTORS ALONG NERVE MEMBRANE.....	1R01 NS14483-01A1	63,810
RIBAK, CHARLES E.....	MORPHOLOGY OF RECORDED NEURONS IN CEREBRAL CORTEX.....	1R01 NS15669-01	46,680
ROBERTSON, RICHARD T.....	STRUCTURE AND FUNCTION OF ASCENDING RETICULAR SYSTEMS.....	5R01 NS14267-03	45,773
RODRIGUEZ, ELOY.....	CHEMICAL STUDIES OF ALLERGENIC CALIFORNIAN PLANTS.....	5R01 AI14646-02	27,196
SCHNEIDERMAN, HOWARD A.....	GENETICALLY-CONTROLLED MALIGNANT NEOPLASMS.....	5R01 CA12643-09	56,780
SCHNEIDERMAN, HOWARD A.....	GENETIC ANALYSIS OF BASIC DEVELOPMENTAL MECHANISMS.....	5R01 HD06082-09	108,248
SCHNEIDERMAN, HOWARD A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 R07008-14	133,366
SHANK, RONALD C.....	QUANTITATIVE ALKYLATION OF NUCLEIC ACIDS BY CARCINOGENS.....	5R01 CA21955-02	42,768
SHARMA, BRAHMA S.....	IN VITRO IMMUNIZATION TO HUMAN TUMOR CELLS.....	1R01 CA27772-01	64,288
SIMPKINS, HENRY.....	THE ROLE OF CHROMATIN STRUCTURE IN ERYTHROLEUKEMIA.....	5R01 CA25079-02	42,042
SKLANSKY, JACK.....	COMPUTER-AIDED IMAGE RECOGNITION.....	5R01 GM17632-08	192,291
STANBRIDGE, ERIC J.....	GENETIC ANALYSIS OF HUMAN MALIGNANCY.....	2R01 CA19401-04	95,030
STARR, ARNOLD.....	AUDITORY EVOKED BRAIN POTENTIALS IN NEUROLOGICAL DISEASE.....	5R01 NS11876-06	137,902
SWETT, JOHN E.....	SENSORY FUNCTIONS OF THE DORSAL COLUMNS.....	5R01 NS13751-02	44,366
SYMPHERD, PAUL S.....	GENETIC CONTROL OF RIBOSOME ASSEMBLY.....	5R01 GM18293-09	65,699
SYMPHERD, PAUL S.....	DEVELOPMENTAL CHANGES IN THE PROTEIN-SYNTHETIC APPARATUS.....	5R01 GM23999-03	69,058
SYMPHERD, PAUL S.....	POST-TRANSCRIPTIONAL REGULATION OF GENE EXPRESSION.....	1R01 GM26690-01	84,144
TIEMEIER, DAVID C.....	CLONING AND ANALYSIS OF MURINE ENDOGENOUS VIROGENES.....	1R01 CA24748-01	39,530
VAN DEN NOORT, STANLEY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 R05351-18	122,965
VICKERY, LARRY E.....	MECHANISM AND REGULATION OF CYTOCHROME P450-SCC.....	5R01 AM21792-02	48,584
WAGNER, EDWARD K.....	VIRAL RNA SYNTHESIS CONTROL IN HERPES VIRUS INFECTION.....	5R01 CA11861-10	70,005
WAKABAYASHI, AKIO.....	EFFECTS OF PROLONGED HYPOPERFUSION ON THE MYOCARDIUM.....	5R01 HL18460-02	47,160
WARNER, ROBERT C.....	STUDIES OF POLYNUCLEOTIDES AND NUCLEIC ACIDS.....	5R01 CA12627-10	117,703
WASMUTH, JOHN J.....	GENE MAPPING OF REGULATORY LOCI IN ANIMAL CELLS.....	5R01 GM25339-02	46,861
WATSON, JAMES D.....	THE INDUCTION OF ANTIBODY SYNTHESIS.....	5R01 AI13383-05	58,152
WEINBERGER, NORMAN M.....	NEURONAL CLASSICAL CONDITIONING.....	1R01 NS16108-01	94,729
WEINSTEIN, GERALD D.....	PATHOPHYSIOLOGY & CHEMOTHERAPY IN PSORIASIS AND CANCER.....	7R01 AM27110-01	91,045
WHALEN, RICHARD E.....	HORMONAL CONTROL OF BEHAVIOR.....	5R01 HD00893-16	13,866
WHITE, STEPHEN H.....	STRUCTURAL STUDIES OF BILAYER SOLUTIONS.....	1R01 GM26346-01	27,808
WHITE, STEPHEN H.....	STUDIES OF PLANAR BILAYER MEMBRANE ORGANIZATION.....	1R01 GM26649-01	58,612
WOOLFOLK, CLIFFORD A.....	BIOCHEMISTRY OF PURINE OXIDIZING ENZYMES.....	3R01 GM22815-03S1	8,167
WULF, DANIEL L.....	CONTROL OF TRANSCRIPTION IN THE LAMBDA Y REGION.....	5R01 GM25438-02	66,713
ORGANIZATION TOTAL	86	6,316,121	

LA JOLLA

CENTER FOR NEUROLOGIC STUDY

ZIP CODE 92037

KOHNE, DAVID E.....	HIGHLY SENSITIVE RAPID NUCLEIC ACID HYBRIDIZATION.....	1R01 NS16311-01	96,613
ORGANIZATION TOTAL	1	96,613	

LA JOLLA CANCER RESEARCH FOUNDATION

ZIP CODE 92037

ENGVAL, EVA S.....	ASSAY AND PROPERTIES OF COLLAGEN IN BIOLOGICAL FLUIDS.....	7R01 AM26693-01	58,232
ENGVAL, EVA S.....	THE PLACENTA SPECIFIC PROTEIN, SP1, IN CANCER.....	7R01 CA27464-01	66,900

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FISHMAN, WILLIAM H.....	FUNDAMENTAL ENZYMOLOGIC STUDIES APPLIED TO ONCOLOGY.....	3R01 CA21967-02S1	75,868
FISHMAN, WILLIAM H.....	FUNDAMENTAL ENZYMOLOGIC STUDIES APPLIED TO ONCOLOGY.....	2R01 CA21967-03A1	124,627
FISHMAN, WILLIAM H.....	EXPLORATORY STUDIES IN CANCER RESEARCH.....	5P20 CA22384-02	188,402
FISHMAN, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05803-01	30,113
FREEMAN, AARON E.....	ORGANOID IN VITRO MODEL OF LIVER CARCINOGENESIS.....	1R01 CA25392-01	345,011
LINNEY, ELWOOD A.....	EMBRYONAL CARCINOMA GROWTH AND DIFFERENTIATION.....	5R01 CA24206-02	83,050
MANES, COLE.....	STUDIES IN MAMMALIAN EMBRYOGENESIS.....	2R01 HD11654-03	206,840
RUOSLAHTI, ERKKI I.....	NUCLEAR PROTEINS IN HEPATOMA AND NORMAL LIVER.....	7R01 CA27446-01	38,869
RUOSLAHTI, ERKKI I.....	FIBROBLAST SURFACE ANTIGEN.....	7R01 CA27455-01	96,446
RUOSLAHTI, ERKKI I.....	ALPHA-FETOPROTEIN: STRUCTURE AND FUNCTION.....	1R01 CA27460-01	123,522
ORGANIZATION TOTAL	12	1,437,880	
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
BACHELER, LEE T.....	ORGANIZATION OF INTEGRATED TUMOR VIRUS GENOMES.....	5R01 CA22829-02	85,099
BELLUGI, URSULA.....	PSYCHOLINGUISTICS OF AMERICAN SIGN LANGUAGE MORPHOLOGY.....	1R01 HD13249-01	112,881
BELLUGI, URSULA.....	THE ACQUISITION OF MORPHOLOGICAL PROCESSES.....	1R01 NS15175-01	117,496
BLOOM, FLOYD E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05595-15	201,413
BOURGEOIS-COHN, SUZANNE.....	STUDIES OF REGULATION IN E. COLI EXTENDED TO LYMPHOMAS.....	2R01 GM20868-06	191,272
BOURGEOIS-COHN, SUZANNE.....	MECHANISMS OF PROTEIN-NUCLEIC ACID INTERACTIONS.....	5R01 GM25617-02	81,314
BROWN, MARVIN R.....	THERMOREGULATORY ACTIONS OF BRAIN PEPTIDES.....	5R01 NS14263-02	83,612
COHN, MELVIN.....	ANTIBODY SYNTHESIS.....	5R01 AI05875-15	231,874
COHN, MELVIN.....	IMMUNOSELECTION AND CANCER: A PROBLEM IN EVOLUTION.....	2R01 CA19754-04	301,037
DENNERT, GUNTHER.....	IMMUNE RESPONSE TO TUMOR CELL SURFACE ANTIGENS.....	5R01 CA15581-05	70,619
DENNERT, GUNTHER.....	ANTIGEN RECEPTOR OF CONTINUOUS T KILLER CELL LINE.....	2R01 CA19334-04	73,920
DULBECCO, RENATO.....	NORMAL AND NEOPLASTIC DEVELOPMENT OF THE MAMMARY GLAND.....	5R01 CA21993-02	242,890
ECKHART, WALTER.....	VIRAL GENE FUNCTIONS AND REGULATION OF CELL GROWTH.....	5R01 CA13884-08	150,767
ECKHART, WALTER.....	CORE GRANT-REGULATION, THE CELL MEMBRANE AND CANCER.....	5P30 CA14195-06	568,417
ECKHART, WALTER.....	TRANSCRIPTION IN POLYOMA-TRANSFORMED CELLS.....	5R01 CA21896-03	42,428
EVANS, RONALD M.....	HORMONE REGULATION OF GENE EXPRESSION IN MAMMALIAN CELL.....	1R01 GM26444-01	87,777
FAN, HUNG Y.....	EXPRESSION AND LOCALIZATION OF C-TYPE VIRUS GENES.....	5R01 CA15747-06	131,966
GUILLEMIN, ROGER C.....	BRAIN PEPTIDES ON PITUITARY FUNCTIONS & IN DIABETES.....	5P01 AM18811-05	369,847
GUILLEMIN, ROGER C.....	NEUROENDOCRINOLOGY OF REPRODUCTION AND GROWTH.....	5P50 HD09690-05	788,229
HAMILTON, RICHARD T.....	COMPARISON OF TRANSPORT IN NORMAL AND TRANSFORMED CELLS.....	3R01 CA19523-03S1	26,642
HEINEMANN, STEPHEN F.....	SYNAPSE FORMATION IN CLONED CELL LINES.....	5R01 NS11549-06	173,547
HOLLEY, ROBERT W.....	FACTORS REQUIRED FOR MAMMALIAN CELL DIVISION.....	3R01 CA11176-10S1	88,377
HUNTER, ANTHONY R.....	MACROMOLECULAR SYNTHESIS AND CELL GROWTH CONTROL.....	5R01 CA17096-05	103,951
HYMAN, ROBERT A.....	GENETIC BASIS OF ANTIGENIC VARIATION.....	5R01 CA13287-08	169,259
HYMAN, ROBERT A.....	CELL SURFACE MOLECULES: HEMATOPOIETIC DIFFERENTIATION.....	1R01 CA25893-01	107,870
KIDOKORO, YOSHIKI.....	MUSCLE DIFFERENTIATION AND SYNAPTIC INTERACTION IN VITRO.....	5R01 NS11918-05	89,020
LEFFERT, HYAM L.....	EARLY EFFECTS OF A HEPATOCARCINOGEN IN VITRO.....	7R01 CA26851-01	256,607
LINDSTROM, JON M.....	STUDIES USING PURIFIED ACETYLCHOLINE RECEPTOR.....	2R01 NS11323-07	172,305
NEVILLE, HELEN J.....	THE DEVELOPMENT OF CEREBRAL SPECIALIZATION.....	5R01 NS14365-02	55,542
NILSEN-HAMILTON, MARIT.....	FIBROBLAST GROWTH FACTOR AND PHOSPHORYLATION.....	5R01 CA24395-02	93,288
ORGE, LESLIE E.....	EVOLUTION OF GENETIC SPECIFICITY.....	2R01 GM13435-13A1	99,584
PATRICK, JAMES W.....	TROPIC INTERACTION OF NERVE AND MUSCLE.....	5R01 NS13546-04	96,537
PFAHL, MAGNUS.....	GENETIC ANALYSIS OF LAC REPRESSOR AND OPERATOR.....	5R01 GM23671-03	85,451
RASCHE, WILLIAM C.....	CHARACTERIZATION OF THE ABELOW LEUKEMIA VIRUS.....	5R01 CA21531-03	81,338
ROSE, JOHN K.....	RIBOSOME RECOGNITION OF ANIMAL VIRUS MRNA.....	1R01 AI15481-01	82,757
SCHUBERT, DAVID R.....	PHYSIOLOGY OF NERVE, GLIAL, AND MUSCLE CELL LINES.....	5R01 NS09658-09	140,970
SEFTON, BARTHOLOMEW M.....	VIRAL MEMBRANES: STRUCTURE AND BIOSYNTHESIS.....	2R01 CA17289-04A1	76,884
SHIER, W THOMAS.....	ROLE OF SIALIC ACID IN ONCOGENIC TRANSFORMATION.....	5R01 CA20636-03	74,920
STALLCUP, WILLIAM B.....	SURFACE ANTIGENS OF NEURAL CELLS.....	5R01 CA21791-03	78,583
STEINBACH, JOSEPH H.....	ACETYLCHOLINE RECEPTOR FUNCTION.....	5R01 NS13719-02	32,398
TROWBRIDGE, IAN S.....	LYMPHOCYTE ANTIGENS: STRUCTURE, FUNCTION AND SYNTHESIS.....	5R01 CA17733-05	107,037
TROWBRIDGE, IAN S.....	IDENTIFICATION OF HUMAN LYMPHOCYTE SURFACE ANTIGENS.....	5R01 CA20272-03	114,044
VALE, WYLIE W.....	SOMATOSTATIN: PHYSIOLOGY AND APPLICATION TO DIABETES.....	5R01 AM20917-02	188,048
VERMA, INDER M.....	REVERSE TRANSCRIPTASE FROM RNA TUMOR VIRUSES.....	3R01 CA16561-05S1	33,188
VERMA, INDER M.....	GENETIC ORGANIZATION OF RNA TUMOR VIRUSES.....	5R01 CA21408-03	98,813
VOGT, MARGUERITE M.....	VIRAL GENE FUNCTIONS INVOLVED IN TRANSFORMATION.....	5R01 CA13608-07	79,512
WESTALL, FREDERICK C.....	INDUCED BIOMEDICAL PROPERTIES OF THE ENCEPHALITOGEN.....	5R01 NS12391-05	120,580

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
YOGEESWARAN, GANESA.....	GLYCOLIPIDS, SURFACE GLYCOPROTEINS AND TUMOR METASTASIS.....	3R01 CA19312-03S1	21,959
ORGANIZATION TOTAL	48 6,881,869		
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
ALTMAN, AMNON.....	STUDIES OF TUMOR-SPECIFIC IMMUNE RESPONSES.....	5R23 CA24911-02	35,063
BEARDSLEY, TERRY R.....	THYMUS CELL MATURATION AND LEUKEMOGENESIS IN MICE.....	5R23 CA25774-02	35,125
BEUTLER, ERNEST.....	DIAGNOSIS AND THERAPY OF GAUCHER'S DISEASE.....	1R01 AM25696-01	145,621
BEUTLER, ERNEST.....	THE FORMATION AND SURVIVAL OF RED BLOOD CELLS.....	7R01 HL25552-01	174,052
BIRDWELL, CHARLES R.....	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS.....	1R01 HL24532-01	59,814
BUCHMEIER, MICHAEL J.....	ARENAVIRUSES: THEIR BIOCHEMISTRY AND BIOLOGY.....	1R01 AI16102-01	60,521
CALLAHAN, GERALD N.....	CELL SURFACE ANTIGENS OF MURINE TUMORS.....	1R01 CA25171-01	90,096
CALLAHAN, GERALD N.....	CELL SURFACE ANTIGENS IN MURINE LEUKEMIA.....	1R01 CA26456-01	36,500
CARSON, DENNIS A.....	RHEUMATOID FACTOR: GENETICS, PATHOGENESIS & MODULATION.....	1R01 AM25443-01	79,999
CARSON, DENNIS A.....	ADENOSINE DEAMINASE DEFICIENCY: GENETICS AND IMMUNOLOGY.....	2R01 GM23200-04	88,809
CHENOWETH, DENNIS E.....	CSA-2 INDUCED NEUTROPHIL RESPONSE IN VITRO AND IN VIVO.....	1R01 AI16344-01	40,220
CHISARI, FRANCIS V.....	IMMUNOBIOLOGY AND PATHOGENESIS OF HEPATITIS B.....	5R01 AI13393-04	61,447
COOPER, NEIL R.....	CANCER CELL SURVIVAL AND MECHANISMS OF CYTOTOXICITY.....	5R01 CA14692-07	112,018
CROSBY, WILLIAM H.....	STUDY OF IRON METABOLISM.....	5R01 AM16452-06	76,371
CURTIS, LINDA K.....	SERUM LIPOPROTEINS AS REGULATORS OF IMMUNE FUNCTION.....	5R23 AI14921-02	42,150
DANDLIKER, WALTER B.....	BIOPHYSICAL STUDY OF HORMONE-RECEPTOR INTERACTIONS.....	5R01 GM23980-02	88,525
DIXON, FRANK J.....	IMMUNOPATHOLOGIC STUDIES.....	5P01 AI07007-14	1,804,280
DIXON, FRANK J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR05514-17	201,413
EDGINGTON, THOMAS S.....	IMMUNOGENESIS OF AUTOIMMUNE HEMOLYTIC ANEMIA.....	5R01 AM18163-05	117,743
EDGINGTON, THOMAS S.....	HUMAN TUMOR-ASSOCIATED MOLECULAR EXPRESSIONS.....	5R01 CA14346-07	209,579
EDGINGTON, THOMAS S.....	BLOOD SYSTEMS IN COAGULATION AND VESSEL DISEASE.....	2P01 HL16411-06	936,798
EDWARDS, DAVID L.....	MOLECULAR GENETICS OF MEMBRANE ASSEMBLY IN NEUROSPORA.....	5R01 GM24991-03	57,725
EDWARDS, DAVID L.....	A GENETIC APPROACH TO MITOCHONDRIAL FUNCTION.....	1R01 GM25990-01	46,981
FELDMAN, JOSEPH D.....	CELL STRUCTURE AND FUNCTION IN AGED RATS.....	1R01 AG00924-01A1	75,981
FELDMAN, JOSEPH D.....	MEMBRANE MOLECULES OF B CELLS AND NEOPLASIA.....	1R01 AI16205-01	70,250
FERRONE, SOLDANO.....	HUMAN B CELL (DR) ANTIGENS: BIOLOGICAL/CHEMICAL PROFILE.....	2R01 AI13154-04A1	97,789
FERRONE, SOLDANO.....	IMMUNOCHEMICAL CHARACTERIZATION OF ANTIGENS IN MELANOMA.....	5R01 CA16069-05	80,498
FERRONE, SOLDANO.....	MONOCLONAL ANTIBODIES TO HUMAN CELL SURFACE ANTIGENS.....	5R01 CA24329-02	65,269
FIDLER, JOHN M.....	DIFFERENTIATION OF MEMORY B CELL PRECURSORS.....	5R01 AI15226-02	75,132
GOODMAN, MICHAEL G.....	MECHANISM OF LYMPHOCYTE ACTIVATION BY THIOL COMPOUNDS.....	3R01 AI15284-01S1	6,057
GOODMAN, MICHAEL G.....	MECHANISM OF LYMPHOCYTE ACTIVATION BY THIOL COMPOUNDS.....	5R01 AI15284-02	67,142
GOTTESFELD, JOEL M.....	ISOLATION OF 5S GENE CHROMATIN.....	1R01 GM26453-01	71,777
GREEN, RALPH.....	IRON CHELATOR DELIVERY IN RED BLOOD CELL GHOSTS.....	1R01 HL22479-01A1	42,902
GREEN, RALPH.....	A MODEL FOR COBALAMIN DEFICIENCY.....	5R01 NS13714-02	95,554
GRIFFIN, JOHN H.....	PROTEINS OF COAGULATION AND HAGEMAN FACTOR PATHWAYS.....	5R01 HL21544-03	60,349
GRIFFIN, JOHN H.....	A NEW ANTICOAGULANT-PROFIBRINOLYTIC PLASMA PROTEIN.....	1R01 HL24891-01	46,770
HASPEL, MARTIN V.....	DEMYELINATION AND SLOW VIRUS DISEASE.....	5R01 NS14068-02	66,050
HATEFI, YOUSSEF.....	ENERGY CONSERVATION AND TRANSFER IN MITOCHONDRIA.....	5R01 AM08126-16	150,430
HATEFI, YOUSSEF.....	ENERGY-LINKED MITOCHONDRIAL TRANSHYDROGENATION.....	5R01 GM24887-02	40,338
HENDERSON, GARY B.....	MECHANISM AND COMPONENTS OF METHOTREXATE TRANSPORT.....	5R23 CA23970-02	35,125
HOCH, JAMES A.....	GENETIC CONTROL OF DEVELOPMENT.....	5R01 GM19416-08	67,780
HOCH, JAMES A.....	MOLECULAR CLONING OF SPORULATION GENES.....	1R01 GM25891-01	77,503
HOCH, SALLIE O.....	DNA-BINDING PROTEINS IN HUMAN SERUM.....	5R01 CA17563-05	70,457
HUENNEKENS, FRANK M.....	FOLATE COENZYMES: MECHANISM OF ACTION AND TRANSPORT.....	2R01 CA06522-18	191,122
HUENNEKENS, FRANK M.....	CANCER CENTER SUPPORT GRANT (SPECIALIZED).....	5P30 CA16600-04	360,673
ITO, JUNETSU.....	REPLICATION OF LINEAR DNA MOLECULES.....	5R01 GM24824-02	57,293
ITO, JUNETSU.....	STUDIES OF SPORULATION IN BACILLUS SUBTILIS.....	5R01 GM25081-02	84,260
JACOBSEN, DONALD W.....	B12 DEFICIENCY: COENZYME SYNTHESIS & INTERCONVERSION.....	1R01 AM25406-01	61,896
JOHNSON, ERIC F.....	DETERMINANTS OF CARCINOGEN ACTIVATION/DETOXIFICATION.....	5R01 CA24146-02	59,902
KATES, JOSEPH R.....	MOLECULAR BIOLOGY OF VACCINIA VIRUS REPLICATION.....	1R01 AI15941-01	195,995
KATZ, DAVID H.....	GENETIC CONTROL OF IMMUNOCOMPETENT CELL DIFFERENTIATION.....	5R01 AI13781-03	169,766
KATZ, DAVID H.....	CELL COOPERATION IN IMMUNE RESPONSES.....	3R01 AI13874-03S1	35,791
KATZ, DAVID H.....	CONTROL OF NORMAL AND ABNORMAL CELL DEVELOPMENT.....	1P01 CA25803-01	485,803
KLINMAN, NORMAN R.....	EXPRESSION OF THE B-CELL REPERTOIRE DURING AGING.....	1R01 AG01514-01	83,194
KLINMAN, NORMAN R.....	CLONAL ANALYSIS OF THE IMMUNE MECHANISM.....	5R01 AI15797-02	202,365
LERNER, RICHARD A.....	IMMUNOLOGIC PROBING OF SARCOMA DIVERSITY.....	1R01 CA25325-01	154,523

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
LENER, RICHARD A.....	THE CELLULAR SLIME MOLD AS A MODEL FOR HUMAN DEVELOPMENT.....	2R01 GM22500-04	108,326
LEWIS, URBAN J.....	CONVERSION PRODUCTS OF GROWTH HORMONE AND PROLACTIN.....	2R01 AM09537-14	123,640
LEWIS, URBAN J.....	PRIMARY STRUCTURES OF GROWTH HORMONES AND PROLACTINS.....	5R01 AM16065-08	46,180
LEWIS, URBAN J.....	MEMBRANE & METABOLIC STUDIES OF DIABETOGENIC FACTORS.....	5R01 AM21290-03	101,653
LOSKUTOFF, DAVID J.....	ENDOTHELIAL CELL MEDIATED FIBRINOLYSIS.....	5R01 HL22289-02	97,024
MC MILLAN, ROBERT.....	PATHOGENESIS OF THE IMMUNE THROMBOCYTOPENIAS.....	5R01 AM16125-08	92,841
MOLINARO, GIUSEPPE A.....	MONITORING IG-SECRETING CELLS.....	5R01 CA24484-02	39,902
MORGAN, WILLIAM T.....	TRANSPORT PROTEIN-LIVER CELL INTERACTIONS.....	1R01 AM25109-01	40,948
MORGAN, WILLIAM T.....	SERUM PROTEIN FUNCTION IN ORGANIC ANION TRANSPORT.....	5R01 HD09252-05	45,179
MORRISON, DAVID C.....	BIOCHEMICAL PARAMETERS OF LPS-INITIATED HOST RESPONSE.....	5R01 AI13187-04	73,597
MULLER-EBERHARD, HANS J.....	ACTIVATION AND CONTROL OF PROPERDIN SYSTEM PROTEINS.....	5R01 AI13010-03	85,035
MULLER-EBERHARD, HANS J.....	BLOOD SYSTEMS IN COAGULATION AND VESSEL DISEASE.....	5P01 HL16411-05	336,808
MULLER-EBERHARD, URSULA.....	HEMOGLOBIN METABOLISM—CLINICAL AND BASIC APPROACH.....	5R01 AM16737-17	49,834
MULLER-EBERHARD, URSULA.....	DISTRIBUTION OF IRON AND HEME BY PROTEINS.....	2R01 AM18329-05	129,191
MULLER-EBERHARD, URSULA.....	PERINATAL DETOXIFICATION MECHANISMS.....	5R01 HD04445-10	136,215
OLDSTONE, MICHAEL B.....	PATHOGENESIS OF DISEASE FROM PERSISTENT VIRAL INFECTION.....	5R01 AQ09484-11	109,685
OLDSTONE, MICHAEL B.....	MULTIPLE & AMYOTROPHIC LATERAL SCLEROSIS PATHOGENESIS.....	5P50 NS12428-05	371,288
PARKS, DANIEL E.....	ROLE OF SUPPRESSOR CELLS IN IMMUNOLOGIC TOLERANCE.....	1R01 AG01629-01	70,407
PELLEGRINO, MICHELE A.....	URINE AS SOURCE OF HUMAN CELL SURFACE MARKERS.....	5R01 CA16071-06	57,028
PLOW, EDWARD F.....	THE ALTERNATIVE PATHWAY FOR FIBRINOLYSIS.....	5R01 HL17964-05	70,877
RATNER, DAVID I.....	CELL DIFFERENTIATION & CELL SORTING IN DICTYOSTELIUM.....	1R01 GM26309-01	66,918
REISFELD, RALPH A.....	MOLECULAR APPROACHES TO CELL SURFACE ANTIGENS.....	5R01 AI10180-09	172,703
REISFELD, RALPH A.....	NEOPLASIA AND HISTOCOMPATIBILITY ANTIGENS IN SERUM.....	5R01 CA19108-04	75,671
SIEGEL, JACQUELINE G.....	GENETIC DISSECTION OF THE DROSOPHILA HISTONE GENES.....	1R01 GM26261-01	83,418
SILVER, JACK.....	STRUCTURE STUDIES OF IA ALLOANTIGENS.....	5R01 CA23030-03	66,906
SINHA, YAGYA N.....	ROLE OF PROLACTIN IN MOUSE MAMMARY TUMORIGENESIS.....	2R01 CA18664-04	72,560
SPIEGELBERG, HANS L.....	STUDIES OF LYMPHOCYTE RECEPTORS AND OF IGD.....	5R01 AI10734-08	160,586
SPIEGELBERG, HANS L.....	THE PRIMARY STRUCTURE OF HUMAN IGD.....	1R01 AI15350-01	51,370
STRUM, WILLIAMSON B.....	BIOCHEMICAL BASIS FOR INTESTINAL ANTIFOLATE TOXICITY.....	5R01 CA17809-05	62,978
SUNDSSO, JOHN S.....	COMPLEMENT MEMBRANE ATTACK PROTEINS.....	1R01 CA24925-01	23,604
TAVASSOLI, MEHDI.....	STRUCTURE AND FUNCTION RELATION IN HEMOPOIESIS.....	1R01 AM25510-01	70,528
THEOFILOPOULOS, ARGYRIOS N.....	CIRCULATING AND CELL BOUND IMMUNE COMPLEXES.....	5R01 CA23332-02	74,728
THOMAS, CHARLES A, JR.....	MOLECULAR CYTOGENETICS.....	5R01 GM25531-02	162,924
ULEVITCH, RICHARD J.....	THE MOLECULAR PATHOLOGY OF LPS-INDUCED INJURY.....	5R01 AI15136-02	70,667
VANDER LAAN, WILLARD P.....	GH AND PROLACTIN IN GROWTH AND TUMORIGENESIS.....	5R01 CA14025-07	137,574
VANDER LAAN, WILLARD P.....	DIABETES, SOMATOTROPIN, FACTOR VIII & ATHEROSCLEROSIS.....	2R01 HL20517-04	164,975
VAUGHAN, JOHN H.....	MECHANISMS OF BRONCHIAL ASTHMA AND OTHER ALLERGIES.....	3P50 AI10386-08S1	6,103
VAUGHAN, JOHN H.....	PATHOGENESIS IN BRONCHIAL ASTHMA AND OTHER ALLERGIES.....	2P50 AI10386-09	147,481
VAUGHAN, JOHN H.....	RHEUMATOID FACTOR AND REACTIONS IN RHEUMATOID ARTHRITIS.....	5R01 AM221175-02	180,870
VAUGHAN, JOHN H.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00833-05	642,930
WALKER, SHARYN M.....	MODULATION OF THE IMMUNE RESPONSE BY ADJUVANTS.....	1R01 AI16149-01	56,353
WEIGLE, WILLIAM O.....	EFFECT OF AGING ON IMMUNE AND TOLERANT STATES.....	5R01 AG00783-02	67,245
WEIGLE, WILLIAM O.....	REGULATION OF LYMPHOCYTE ACTIVATION.....	1R01 AI15761-01	58,580
WELSH, RAYMOND M, JR.....	DEFECTIVE VIRUS, IMMUNITY, AND CHRONIC DISEASE.....	5R01 AI12438-05	54,601
WHITELEY, JOHN M.....	CHEMISTRY OF FOLATE AND PTERIDINE COENZYMES.....	2R01 CA11778-10	60,974
WHITELEY, JOHN M.....	PTERIDINE DEPENDENT HYDROXYLASES FROM LIVER AND BRAIN.....	2R01 GM22125-04	43,663
WHITELEY, JOHN M.....	AMINO ACID ANALYZER—EQUIPMENT REQUEST.....	1P41 GM27452-01	68,226
WILSON, CURTIS B.....	METABOLISM OF RENAL BASEMENT MEMBRANES AND TUBULAR CELLS.....	2R01 AM18626-04	67,117
WILSON, CURTIS B.....	IMMUNOPATHOLOGY OF RENAL DISEASE IN MAN.....	5R01 AM20043-03	227,123
WISEMAN, ANDREW.....	MITOCHONDRIAL GENETICS OF MAMMALIAN CELLS.....	1R01 GM26258-01	84,485
YU, JOHN C.....	HUMAN RED CELL MEMBRANE: STRUCTURE AND FUNCTION.....	5R01 HL21845-02	76,057
ZICCARDI, ROBERT J.....	MECHANISM AND DETECTION OF COMPLEMENT ACTIVATION.....	5R01 AI14502-02	53,653
ZIMMERMAN, THEODORE S.....	BLOOD COAGULATION: PLATELET-PLASMA PROTEIN INTERACTION.....	5R01 HL15491-07	113,894
ZINKERNAGEL, ROLF M.....	SPECIFICITY OF VIRUS-IMMUNE T CELLS IN VITRO AND IN VIVO.....	5R01 AI13779-03	138,039
ORGANIZATION TOTAL	110 13,957,748		
SCRIPPS MEMORIAL HOSPITAL ZIP CODE 92037			
ELDER, JOHN H.....	SEQUENCE STUDIES OF THE GP70'S OF RECOMBINANT RETROVIRUS.....	1R01 CA25533-01	89,830
SHERMAN, LINDA A.....	IDIOTYPE SHARING BY T AND B LYMPHOCYTES.....	1R01 AI15710-01	75,168
ORGANIZATION TOTAL	2 164,998		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
ABELSON, JOHN N.	STRUCTURE AND FUNCTION OF RIBONUCLEIC ACIDS.	5R01 CA10984-11	137,329
ADLER, RUBEN	VISUAL NEURONS: DEVELOPMENT AND REGENERATION IN VITRO.	1R01 EY02854-01	80,683
AKESON, WAYNE H.	JOINT CONTRACTURE: BIOMECHANICAL-CHEMICAL CORRELATES.	2R01 AM14918-08	78,858
AKESON, WAYNE H.	INTERNAL FIXATION DEVICES FOR FRACTURE HEALING.	5R01 AM15478-09	106,740
AKESON, WAYNE H.	PATHOPHYSIOLOGY OF THE COMPARTMENT SYNDROME.	5R01 AM18824-04	116,054
AKESON, WAYNE H.	EXERCISE EFFECTS ON TENDON REPAIR.	5R01 GM24900-03	72,234
ALHADEFF, JACK A.	HUMAN LIVER ALPHA-L-FUCOSIDASE AND FUCOSIDOSIS.	2R01 AM20409-03	65,954
ALHADEFF, JACK A.	HUMAN LIVER SIALYLTRANSFERASES AND ALPHA-L-FUCOSIDASE.	5R01 AM21245-02	22,761
ALLISON, WILLIAM S.	STRUCTURAL STUDIES ON THE ENERGY TRANSDUCING ATPASE.	2R01 GM16974-10	94,954
BADA, JEFFREY L.	ASPARTIC ACID RACEMIZATION: RELATIONSHIP TO AGING.	5R01 AG00638-03	43,238
BAKER, BRUCE S.	GENETICS OF MEIOSIS AND DEVELOPMENT IN DROSOPHILA.	5R01 GM23345-04	96,793
BAKER, BRUCE S.	GENETIC CONTROL OF RECOMBINATION IN DROSOPHILA.	1R01 GM26200-01	30,317
BAKER, MICHAEL E.	INHIBITION OF STEROID BINDING BY PROTEASE INHIBITORS.	5R01 GM24190-02	65,569
BECKER, MICHAEL A.	REGULATION OF PURINE NUCLEOTIDE SYNTHESIS IN MAN.	2R01 AM18197-05	95,917
BENUMOF, JONATHAN L.	DISTRIBUTION OF BLOOD FLOW IN ABNORMAL LUNGS.	5R23 GM24674-02	38,707
BERG, DARWIN K.	NEURONAL DEVELOPMENT AND SYNAPSE FORMATION IN VITRO.	2R01 NS12601-04	70,511
BERK, ROBERT N.	BILIARY RADIOGRAPHIC CONTRAST MATERIALS.	3R01 AM21620-02S1	10,661
BERNSTEIN, EUGENE F.	ARTERIOVENOUS CONNECTION IN EXTREMITY REVASCULARIZATION.	5R01 HL22741-02	94,890
BICKFORD, REGINALD G.	AUTOMATIC PATTERN RECOGNITION ON ELECTROENCEPHALOGRAM.	5R01 NS08962-11	121,513
BLANTZ, ROLAND C.	PATHOPHYSIOLOGY OF GLOMERULONEPHRITIS.	1R01 AM21582-01A1	40,030
BLANTZ, ROLAND C.	AUTOREGULATION OF GLOMERULAR FILTRATION RATE.	2R01 HL14914-07	94,225
BLOOR, COLIN M.	PATHOGENESIS OF CARDIAC HYPERTROPHY.	5R01 HL20190-03	105,557
BLUESTEIN, HARRY G.	IMMUNE RESPONSIVENESS AND HISTOCOMPATIBILITY TYPE.	5R01 AI10931-08	81,266
BOOKSTEIN, JOSEPH J.	CORONARY PHARMACOANGIOGRAPHY.	5R01 HL19675-03	51,217
BORDERS, STEPHEN E.	VASCULAR MECHANICS AND STRUCTURE IN HYPERTENSION.	5R23 HL22745-02	38,046
BOYNTON, ROBERT M.	PSYCHOPHYSIOLOGICAL AND OPTICAL STUDIES OF VISION.	5R01 EY01541-06	60,883
BRAUDE, ABRAHAM I.	LETHAL BACTEREMIA.	5R01 AI10108-09	119,252
BRAUDE, ABRAHAM I.	GONOCOCCAL INFECTION.	5R01 AI11643-06	79,225
BRIMM, JOHN E.	COMPUTER ASSISTANCE IN CRITICAL CARE DECISION MAKING.	1R23 GM25955-01	39,300
BRODY, STUART.	BIOCHEMISTRY OF CIRCADIAN RHYTHMS IN NEUROSPORA.	2R01 GM21842-04A1	68,224
BROWN, JOAN H.	CHOLINERGIC MODULATION OF ATRIAL CAMP ACCUMULATION.	1R23 HL24441-01	35,355
BROWN, WILLIE C.	BIOMEDICAL SCIENCES RESEARCH PROGRAM.	5S06 RR08135-05	274,814
BULLOCK, THEODORE H.	STUDIES IN COMPARATIVE NEUROPHYSIOLOGY.	5R01 NS00021-32	141,224
BULLOCK, THEODORE H.	PLANNING GRANT FOR WORLD CONGRESS ON BRAIN RESEARCH.	1R13 NS15373-01	14,000
BUONASSISI, VINCENZO	CELLULAR SYNTHESIS AND RELEASE OF MUCOPOLYSACCHARIDES.	2R01 HL17995-05	70,276
BUTLER, WARREN L.	PHOTORECEPTOR PIGMENTS IN PHOTORESPONSIVE ORGANISMS.	5R01 GM20648-06	57,105
CARPENTER, ADELAIDE T.	EM OF RECOMBINATION MUTANTS IN DROSOPHILA.	5R01 GM23338-04	82,364
CHU, BARBARA C.	METHOTREXATE CARRIER COMPLEXES IN CANCER CHEMOTHERAPY.	1R01 CA26152-01	62,118
CICERONE, CAROL M.	LIGHT-INDUCED AND INHERITED RETINAL DEGENERATION.	5R01 EY013015-02	42,121
CLEVELAND, PATRICK H.	IMMUNODIAGNOSIS OF OCULAR HERPES VIRUS INFECTIONS.	1R01 EY03093-01	65,132
CRIOQUI, MICHAEL H.	THE ETIOLOGY/PREVALENCE OF PERIPHERAL ARTERIAL DISEASE.	5R01 HL22255-02	94,412
DE LUCA, MARLENE A.	IMMOBILIZED BIOLUMINESCENT ASSAYS—CLINICAL CHEMISTRY.	1R01 GM24621-01	53,690
DEFTOS, LEONARD J.	THE CALCITROPIC HORMONES.	5R01 AM15888-07	126,051
DEFTOS, LEONARD J.	PITUITARY CALCITONIN.	1R01 AM25604-01	97,123
DENNIS, EDWARD A.	ACTION OF LIPOLYTIC ENZYMES.	5R01 GM20501-05	58,377
DILLMANN, WOLFGANG H.	THYROID HORMONE ACTION IN THE HEART.	1R01 HL25022-01	33,991
DIONNE, VINCENT E.	CHEMICAL RECEPTOR MECHANISMS.	7R01 NS15344-01	18,671
DIONNE, VINCENT E.	CHEMICAL RECEPTOR MECHANISMS.	5R01 NS15344-02	48,868
DOOLITTLE, RUSSELL F.	THROMBOSIS RESEARCH PROGRAM PROJECT.	3P01 HL18576-03S1	80,771
DOOLITTLE, RUSSELL F.	THROMBOSIS RESEARCH PROGRAM PROJECT.	5P01 HL18576-04	732,211
DUECK, RONALD.	GAS EXCHANGE IMPAIRMENT MECHANISMS DURING ANESTHESIA.	1R01 GM26949-01	88,138
DUNN, MARVIN R.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05665-12	201,413
DUTTON, RICHARD W.	CELLULAR MECHANISMS IN THE IMMUNE RESPONSE.	2R01 AI08795-11	182,081
ELLISMAN, MARK H.	DYNAMICS OF MEMBRANE ORGANIZATION AT NODES OF RANVIER.	5R01 NS14718-02	43,913
ENNS, THEODORE	CARBON DIOXIDE DIFFUSION IN LUNG & IN MUSCLE TISSUES.	5R01 HL19008-03	46,518
FAHEY, ROBERT C.	ROLE OF DISULFIDES IN NORMAL AND TUMOR CELL GROWTH.	1R01 CA25009-01	51,314
FAHEY, ROBERT C.	PHYSIOLOGIC ROLE OF SH/SS REACTIONS IN CELL DORMANCY.	2R01 GM22122-04	62,646
FANESTIL, DARRELL D.	HORMONAL REGULATION OF EPITHELIAL TRANSPORT.	5R01 AM14915-10	135,098

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FAULKNER, DAVID J.....	ANTIBIOTICS FROM MARINE ORGANISMS.....	5R01 AI11969-06	62,397
FEHER, GEORGE.....	SPECTROSCOPIC INVESTIGATIONS OF BIOLOGICAL SYSTEMS.....	5R01 GM13191-15	111,054
FIRTEL, RICHARD A.....	GENE STRUCTURE AND TRANSCRIPTIONAL REGULATION.....	5R01 GM24279-03	103,472
FORTES, P. A.....	CARDIAC GLYCOSIDES AND THE MECHANISM OF THE NA-K PUMP.....	5R01 HL20262-03	46,953
FRIEDKIN, MORRIS E.....	NEW ANTAGONISTS OF AMETHOPTERIN-RESISTANT LEUKEMIA.....	3R01 CA11449-10S2	56,445
FRONEK, ARNOST.....	NONINVASIVE DIAGNOSIS OF PERIPHERAL ARTERIAL DISEASE.....	2R01 HL18977-04	77,306
FRONEK, KITTY.....	THE SYMPATHETIC NERVOUS SYSTEM AND THE ARTERIAL WALL.....	5R01 HL16768-05	104,044
FRONEK, KITTY.....	PATHOGENESIS OF PERIPHERAL ARTERIAL DISEASE.....	5R01 HL20564-03	80,917
FUNG, YUAN-CHENG B.....	CONTINUUM MECHANICS IN BIOPHYSICS.....	5R01 HL12494-11	56,454
GARST, MICHAEL E.....	SYNTHESIS OF MITOMYCIN C VIA PYRROLIZIDINE ALKALOIDS.....	5R01 CA22238-03	40,486
GEIDUSCHEK, E PETER.....	STUDIES ON NUCLEIC ACIDS AND NUCLEOPROTEINS.....	5R01 GM18386-10	167,206
GILL, GORDON N.....	HORMONAL REGULATION OF CONTROL MECHANISMS.....	5R01 AM13149-12	110,246
GLUCK, LOUIS L.....	SURFACTANT: BIOCHEMICAL DEVELOPMENT AND STABILIZATION.....	5R01 HD10622-03	191,167
GOLDBAUM, MICHAEL H.....	ANGIOGENESIS, HEALING, AND AGING IN RETINA AND CHOROID.....	5R01 EY02434-02	60,411
GOODMAN, MURRAY.....	SYNTHESIS AND CONFORMATIONS OF PEPTIDE HORMONES.....	5R01 AM15410-10	84,378
GOODMAN, MURRAY.....	CONFORMATION OF POLYMERS AND PEPTIDES.....	5R01 GM18694-07	57,640
GOULIAN, MEHRAN.....	DNA SYNTHESIS STUDIES.....	5R01 CA11705-10	129,162
GOULIAN, MEHRAN.....	THE MECHANISM OF ACTION OF METHOTREXATE.....	1R01 CA25440-01	81,705
GREEN, MELVIN H.....	THE PROCESS AND CONTROL OF TRANSCRIPTION OF SV40.....	5R01 CA24281-02	61,251
GRUNDY, SCOTT M.....	RESEARCHES ON CAUSES AND TREATMENT OF GALLSTONES.....	5R01 AM16667-06	72,290
HARGENS, ALAN R.....	TOURNIQUET-ISCHEMIA EFFECTS ON SKELETAL MUSCLE AND NERVE.....	1R01 AM25501-01	42,163
HARPER, ELVIN.....	INVASIVE TUMOR CELL COLLAGENASE.....	3R01 CA18377-03S1	6,387
HARRISON, WALTER K.....	MYOCARDIAL FUNCTION RISK FACTORS, AND FUTURE CHD.....	5R01 HL20374-04	79,617
HAYASHI, MASAKI.....	SYNTHESIS OF INFECTIOUS BACTERIOPHAGE PARTICLES.....	5R01 GM12934-15	85,283
HAYASHI, MASAKI.....	STRUCTURE AND FUNCTION OF THE TUBULIN GENES.....	5R01 GM25086-02	38,536
HELINSKI, DONALD R.....	STRUCTURE AND GENETIC CONTROL OF COLICINES.....	5R01 AI07194-14	118,714
HEMMINGSEN, EDVARD A.....	STUDIES OF CAVITATION IN BIOLOGICAL SYSTEMS.....	5R01 HL16855-04	56,780
HIGGINS, CHARLES B.....	ISCHEMIC CHANGES IN X-RAY IMAGING.....	1R01 HL23506-01	87,644
HIGGINS, CHARLES B.....	CARDIOTOXICITY MYOCARDIAL PROTECTION AND CHEMOTHERAPY.....	1R01 HL24922-01	66,961
HOFFMAN, ROBERT M.....	METHIONINE DEPENDENCE—A METABOLIC MARKER IN CANCER.....	1R01 CA27564-01	58,272
HOFMANN, ALAN F.....	BILE ACID METABOLISM IN HEALTH AND DISEASE.....	5R01 AM21506-02	197,867
HOLLAND, JOHN J.....	SYNTHESIS IN NORMAL, VIRUS-INFECTED AND TUMOR CELLS.....	5R01 AI14627-12	158,438
HOLLINGSWORTH, DOROTHY R.....	HIGH-FIBER DIET IN DIABETIC PREGNANCIES.....	1R01 HD13469-01	93,376
HORNSBY, PETER J.....	AGING OF ENDOCRINE CELLS IN CULTURE.....	5R01 AG00936-02	40,195
HOSTETLER, KARL Y.....	STUDIES ON THE PATHOGENESIS OF DRUG-INDUCED LIPIDOSIS.....	5R01 GM24979-02	54,526
HOTTA, YASUO.....	BIOCHEMICAL STUDIES OF MEIOSIS IN MOUSE SPERMATOCYTES.....	1R01 HD11975-01	98,694
HOUGIE, CECIL.....	MOLECULAR BASIS OF V. WILLEBRAND'S DISEASE & HEMOPHILIA.....	5R01 HL15230-06	67,288
HOWELL, STEPHEN B.....	THYMIDINE RESCUE OF HIGH DOSE METHOTREXATE.....	5R01 CA23334-02	88,489
HOWELL, STEPHEN B.....	CONTROL OF METHOTREXATE SELECTIVITY BY NUCLEOSIDES.....	1R01 CA25336-01	32,119
HSUEH, AARON J.....	EFFECT OF AGING ON HORMONAL CONTROL OF MAMMARY TUMORS.....	5R01 CA21867-03	97,199
HUDIG, DOROTHY.....	PROTEINASES OF HUMAN NATURAL KILLER CELLS.....	1R23 CA26223-01	32,750
INTAGLIETTA, MARCOS.....	BIOENGINEERING ANALYSIS OF MICROVASCULAR FUNCTION.....	5R01 HL12493-11	100,563
ITANO, HARVEY A.....	STUDIES IN MOLECULAR HEMATOLOGY.....	5R01 AM14982-09	131,467
KAGNOFF, MARTIN F.....	INTESTINAL IMMUNE RESPONSES.....	5R01 AM17276-06	73,846
KAMEN, MARTIN D.....	MOLECULAR BASIS FOR FUNCTION OF IRON PROTEINS.....	2R01 GM18528-19	83,738
KAPLAN, NATHAN O.....	COENZYMES AND NUCLEIC ACIDS METABOLISM.....	5R01 CA11683-10	141,774
KAPLAN, NATHAN O.....	PROGRAM PROJECT ON ATHYMIC MICE AND HUMAN TUMORS.....	5P01 CA23052-02	452,217
KAPLAN, NATHAN O.....	SPECIAL RESOURCE FACILITY FOR NMR AND MASS SPECTROMETRY.....	5P41 RR00708-05	145,884
KAVENOFF, RUTH M.....	CHROMOSOME STRUCTURE IN REOVIRUS.....	1R01 AI16049-01	56,215
KEARNS, DAVID R.....	STRUCTURAL STUDIES OF RNA.....	5R01 GM22969-04	84,170
KENNEDY, SAMUEL I.....	ALPHAVIRUS PERSISTENCE IN VERTEBRATE CELLS.....	5R01 AI15087-02	62,627
KOZIOL, JAMES A.....	TOPICS IN BIostatISTICS.....	1R01 CA26666-01	54,581
KRAUT, JOSEPH.....	CRYSTALLOGRAPHIC STUDIES OF DIHYDROFOLATE REDUCTASES.....	5R01 CA17374-05	98,027
KRAUT, JOSEPH.....	CRYSTALLOGRAPHIC STUDY OF BIOLOGICAL MOLECULES.....	5R01 GM10928-17	142,127
KRAUT, JOSEPH.....	COMPUTER RESOURCE FOR BIOMOLECULAR RESEARCH.....	5P41 RR00757-07	372,817
KRISTAN, WILLIAM B, JR.....	NEURONS CONTROLLING RHYTHMIC BEHAVIOR.....	1R01 NS14410-01A1	17,428
KROMER, LAWRENCE F.....	NEURONAL IMPLANTS AND SEPTUM-HIPPOCAMPUS PLASTICITY.....	1R01 NS15270-01	56,744
KUNG, FAITH H.....	ACUTE LEUKEMIA COOPERATIVE GROUP B.....	3R10 CA11789-09S1	74,692
KYTE, JACK E.....	MOLECULAR STRUCTURE OF THE OUABAIN SENSITIVE ATPASE.....	5R01 HL17879-05	80,182
LAMPERT, PETER W.....	FINE STRUCTURAL PATHOLOGY OF MYELIN.....	2R01 NS09053-10	99,534

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
LASSER, ELLIOTT C.	COMPLEMENT, COAGULATION, IN CONTRAST MEDIA REACTIONS	2R01 GM22794-04	148,806
LASSER, ELLIOTT C.	PREVENTION OF X-RAY CONTRAST MEDIA REACTIONS	5R01 GM24993-02	232,660
LEONG, JOHN	MICROBIAL TRANSITION METAL ION TRANSPORT	5R01 AI14084-02	49,780
LEONG, JOHN	CHROMIUM(III) COMPLEXES AND GLUCOSE TOLERANCE	1R01 AM25715-01	68,870
LINDSLEY, DAN L. JR.	MORPHOGENETICS OF SPERMATOGENESIS IN D. MELANOGASTER	1R01 GM26810-01	57,227
LONG, DAVID M.	RADIOPAQUE FLUOROCARBON IN DIAGNOSTIC RADIOLOGY	1R01 GM25723-01	87,610
LOOMIS, WILLIAM F.	BIOCHEMICAL BASIS OF DEVELOPMENT IN DICTYOSTELIUM	1R01 GM23822-01A1	55,247
LOY, REBEKAH	REGENERATION OF SYMPATHETIC NEURONS IN HIPPOCAMPUS	5R01 NS14372-02	52,935
LUMPKIN, OSCAR J.	NUCLEAR MAGNETIC DOUBLE RESONANCE IN HEMOCYANIN	1R01 GM26319-01	38,382
MACLEOD, DONALD I.	RETINAL MECHANISMS IN VISION	2R01 EY01711-04	61,072
MALCOM, LAWRENCE L.	ARTICULAR CARTILAGE SURFACE MECHANICS	5R01 AM20045-03	53,334
MASOUREDIS, SERAFEIM P.	RH COMPLEX AND THE RED CELL MEMBRANE	5R01 HL12994-10	81,530
MASTENBROOK, S. MARTIN, JR.	GAS EXCHANGE IN DISEASE BY MASS SPECTROMETRY	1R23 HL23776-01	43,129
MATTSOON, FRED H.	DIET AND HIGH DENSITY LIPOPROTEIN: METABOLIC STUDIES	1R01 HL24690-01	124,874
MAYER, STEVEN E.	DRUG MODULATION EXTRUSION OF CYCLIC AMP FROM RED CELLS	1R01 GM25819-01	59,055
MAYER, STEVEN E.	BIOCHEMICAL MECHANISMS IN CARDIAC ADRENERGIC RESPONSES	1R01 HL22961-01	122,631
MAZZONE, ROBERT W.	CAPILLARY MORPHOLOGY IN PULMONARY EDEMA	5R23 HL12943-02	36,545
MC MORRIS, TREVOR C.	SEX HORMONES OF ACHLYA	2R01 GM21350-04A1	69,674
MENDELSON, JOHN	CONTROL OF IMMUNE AND MALIGNANT LYMPHOCYTE GROWTH	5R01 CA11971-09	108,356
MENDELSON, JOHN	SUPPORT FOR CLINICAL CANCER EDUCATION	2R25 CA19087-04	143,976
MENDELSON, JOHN	SPECIALIZED CANCER CENTER (CORE) SUPPORT	5P30 CA23100-02	347,122
MILLER, ARNOLD L.	I-CELL DISEASE AND MENTAL RETARDATION	3R01 NS12138-04S1	53,921
MILLER, ARNOLD L.	I-CELL DISEASE AND MENTAL RETARDATION	5R01 NS12138-05	64,369
MILLS, STANLEY E.	PURIFICATION OF TRYPTOPHAN BIOSYNTHETIC ENZYMES	1R01 AI15455-01	61,187
MIYAI, KATSUMI	PATHOLOGY OF BILIARY SECRETION AND CHOLESTASIS	2R01 AM16110-07	81,176
MONTAL, S. MAURICIO	RHODOPSIN IN BILAYER MEMBRANES AND VISUAL EXCITATION	5R01 EY02084-02	87,896
MOSER, KENNETH M.	PULMONARY SCOR: ADULT RESPIRATORY FAILURE	1P50 HL23584-01	363,984
MOXLEY, JOHN H. III	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00827-05	572,120
NGUYEN-HUU, XUONG	A COMPUTER CONTROLLED MULTIREFLECTION DIFFRACTOMETER	2R01 GM20102-07	163,183
NGUYEN-HUU, XUONG	AUTOMATIC ANALYSIS OF 2-DIMENSIONAL ELECTROPHEROGRAMS	2R01 GM22940-04	126,525
NYHAN, WILLIAM L.	BIOMEDICAL MASS SPECTROMETER DATA SYSTEM	1P41 GM27583-01	167,487
NYHAN, WILLIAM L.	AMINO ACID INTERRELATIONS IN HUMAN METABOLIC DISEASE	5R01 HD04608-11	112,722
O'BRIEN, JOHN S.	MOLECULAR BASIS OF CEREBRAL DEGENERATION	2R01 NS08682-11	111,093
O'CONNOR, DANIEL T.	HUMAN DOPAMINE-BETA-HYDROXYLASE	5R01 HL18095-05	42,890
ORLOFF, MARSHALL J.	ISOLATION OF THE INTESTINAL PEARL HORMONE	3R01 AM19875-02	108,861
ORLOFF, MARSHALL J.	STUDIES OF PANCREAS TRANSPLANTATION IN DIABETES	5R01 AM20745-03	172,163
OSLER, ABRAHAM G.	FUNCTIONS OF THE ALTERNATE COMPLEMENT PATHWAY	5R01 AI15798-02	86,059
PETERS, RICHARD M.	AUTOMATED INFORMATION SYSTEM FOR THE CRITICALLY ILL	5R01 GM17284-11	229,593
PETERS, RICHARD M.	INTERSTITIAL TISSUE AND ONCOTIC PRESSURE IN TRAUMA	5R01 GM24901-03	86,666
PETERS, RICHARD M.	POST-TRAUMA LUNG MECHANICS AND FLUID EXCHANGE	5R01 HL13172-11	89,877
PILCH, YOSEF H.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA12240-08	45,681
PINON, RAMON, JR.	FOLDED CHROMOSOMES FROM MITOTIC AND MEIOTIC CELLS	1R01 GM27642-01	73,547
POWELL, HENRY C.	PATHOGENESIS OF TOXIC AND METABOLIC NEUROPATHIES	5R01 NS14162-02	41,300
PRICE, PAUL A.	A NOVEL MARKER FOR BONE TURNOVER	1R01 AM25921-01	66,815
PRICE, PAUL A.	CHEMICAL STUDIES ON PANCREATIC DEOXYRIBONUCLEASE	5R01 GM16603-11	73,678
PRINTZ, MORTON P.	ROLE OF ANGIOTENSINOGEN IN HYPERTENSION AND STROKE	5R01 HL15808-07	98,102
RANNEY, HELEN M.	STUDIES OF THE PROPERTIES OF HEMOGLOBIN	2R01 AM17348-07	126,331
REARDEN, ANN C.	RH ANTIGEN COMPLEX & ERYTHROPOIETIN SUPPRESSION	1R23 HL24292-01	38,612
REDELMAN, DOUGLAS D.	T-CELL RECEPTOR AND EFFECTOR MOLECULES	9R01 CA24450-04A2	93,077
RESNIK, ROBERT	MECHANISMS IN THE REGULATION OF UTERINE BLOOD FLOW	1R01 HD11504-01A1	75,224
ROSENFELD, MICHAEL G.	CAMP AND HORMONAL REGULATION OF PROTEIN SYNTHESIS	5R01 AM18477-05	95,721
ROSS, JOHN, JR.	STUDY OF ISCHEMIC HEART DISEASE	5P50 HL17682-05	1,287,828
POTENBERG, MANUEL	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07011-14	201,413
RUDOLPH, ROSS	CONTRACTION MECHANISMS IN PROBLEM WOUND HEALING	5R01 GM24648-02	57,019
RYAN, ALLEN F.	MIDDLE EAR RESPONSES IN SEROUS OTITIS MEDIA	5R01 NS14389-02	57,036
RYAN, ALLEN F.	ENVIRONMENTAL INFLUENCES UPON AUDITORY DEVELOPMENT	1R01 NS14945-01A1	49,834
SAIER, MILTON H. JR.	MECHANISM OF CARBOHYDRATE TRANSPORT IN BACTERIA	5R01 AI14176-03	66,243
SAIER, MILTON H. JR.	FUNCTION AND GROWTH OF A KIDNEY EPITHELIAL CELL LINE	1R01 AM21994-01A1	76,119
SALTMAN, PAUL D.	STUDIES OF BIOLOGICAL TRANSPORT MECHANISMS	5R01 AM12386-12	135,086
SANDERS, TOMMY M.	CARDIOVASCULAR ADAPTATION TO STRESS	3R01 HL18560-03S1	4,803

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SATO, GORDON H.....	HORMONAL REQUIREMENT OF CELLS IN VITRO AND IN VIVO.....	5R01 CA19731-03	58,503
SATO, GORDON H.....	HORMONE DEPENDENT TUMORS AND LOSS OF GROWTH REGULATION.....	5R01 GM17019-10	105,712
SCHAEFFER, JAMES M.....	BIOCHEMICAL CHARACTERIZATION OF ISOLATED RETINAL CELLS.....	1R01 EY03154-01	69,605
SCHAEFFLER, IMMO E.....	GENETICS AND BIOCHEMISTRY OF SOMATIC CELLS.....	5R01 GM18835-09	91,361
SCHMIDT, JOSEPH D.....	CHEMOTHERAPY OF ADVANCED PROSTATIC CANCER.....	5R26 CA21438-03	15,735
SCHMIDT, JOSEPH D.....	CHEMOTHERAPY IN PROSTATIC CANCER (NCP).....	2R26 CA21438-04	98,481
SCHMIDT, JOSEPH D.....	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.....	1R26 CA25891-01	30,708
SCHNEIDER, JERRY A.....	METABOLIC DEFECT IN CYSTINOSIS.....	2R01 AM18434-04	155,217
SEEGMILLER, JARVIS E.....	ARTHRITIS: INHERITED METABOLIC AND NUTRITIONAL CAUSES.....	2R01 AM13622-11	152,750
SEEGMILLER, JARVIS E.....	HUMAN BIOCHEMICAL GENETICS PROGRAM.....	5P50 GM17702-09	899,521
SEEGMILLER, JARVIS E.....	PREVENTIVE CONTROL OF THE LESCH-NYHAN SYNDROME.....	5R01 HD10847-02	131,049
SELL, STEWART.....	SYPHILIS IMMUNITY.....	5R01 AI14262-03	81,243
SELL, STEWART.....	THE ROLE OF RABBIT LYMPHOID CELLS IN TUMOR IMMUNITY.....	2R01 CA16136-04A1	70,790
SELL, STEWART.....	LYMPHOCYTES: GENE EXPRESSION AND ACTIVATION EVENTS.....	5R01 CA16367-06	78,080
SELL, STEWART.....	ONCO-DEVELOPMENTAL GENE CONTROL: ALPHA-FETOPROTEIN.....	5R01 CA22227-03	95,964
SILVERSTON, ALLEN I.....	NEURAL GEOMETRY AND INTEGRATION IN GANGLIA.....	5R01 NS09322-08	23,899
SHAPIRO, HARVEY M.....	EVALUATION OF CEREBRAL ISCHEMIA THERAPY.....	5R01 NS13679-03	103,036
SHARMA, VIJAY S.....	MECHANISM OF REACTIONS OF HEMOGLOBIN WITH LIGANDS.....	2R01 AM18781-04	60,465
SIMON, MELVIN I.....	MOLECULAR MECHANISMS OF MOTILITY AND CHEMOTAXIS.....	5R01 AI14988-02	57,379
SINGER, S JONATHAN.....	THE STRUCTURE OF ANTIBODY MOLECULES AND CELL MEMBRANES.....	5R01 AI06659-15	101,363
SINGER, S JONATHAN.....	TRANS-MEMBRANE CONTROL IN TRANSFORMED AND NORMAL CELLS.....	5R01 CA22031-03	76,732
SINGER, S JONATHAN.....	MOLECULAR APPROACHES TO CELL ULTRASTRUCTURE.....	5R01 GM15971-12	177,298
SMITH, DOUGLAS W.....	DNA REPLICATION AND DNA REPAIR IN MYCOPLASMALES.....	1R01 GM26025-01	59,202
SNYDER, ELAINE F.....	AGING AND EVENT-RELATED BRAIN POTENTIALS IN MAN.....	5R01 AG00712-03	30,339
SOVAK, MILOS.....	DEVELOPMENT OF NEW RADIOGRAPHIC CONTRAST MEDIA.....	2R01 GM22911-04	268,603
SPECTOR, DEBORAH H.....	MOLECULAR BIOLOGY OF HUMAN CYTOMEGALOVIRUS.....	5R01 AI15635-02	57,992
SPITZER, NICHOLAS C.....	THE CHEMOSENSITIVITY OF EMBRYONIC AMPHIBIAN NEURONS.....	5R01 NS13733-03	43,073
STEINBERG, DANIEL.....	A/S SCOR LIPROTEIN AND STEROL METABOLISM.....	5P50 HL14197-08	735,095
STEINBERG, DANIEL.....	THE DISORDERED LIPID METABOLISM OF DIABETES MELLITUS.....	5R01 HL22053-03	40,799
STOUGHTON, RICHARD B.....	PERCUTANEOUS ABSORPTION AND EFFECTS OF ANTIMETABOLITES.....	5R01 AM25281-02	92,740
TAYLOR, PALMER W.....	KINETIC STUDIES ON DRUG-PROTEIN COMPLEX FORMATION.....	5R01 GM18360-08	77,773
TAYLOR, PALMER W.....	PHARMACOLOGY OF MEMBRANE ASSOCIATED RECEPTORS.....	5R01 GM24337-03	46,759
TAYLOR, SUSAN S.....	PROTEIN KINASE: PRIMARY STRUCTURE AND C-AMP INTERACTION.....	5R01 GM19301-08	52,396
TAYLOR, SUSAN S.....	EVOLUTION OF LACTATE DEHYDROGENASES.....	2R01 GM22452-04	58,446
TRAYLOR, TEDDY G.....	MECHANISMS OF REACTIONS OF OXYGEN WITH HEME PROTEINS.....	2R01 HL13581-12	84,882
UTLEY, JOELLA F.....	RADIOPROTECTION OF NORMAL AND TUMOR TISSUE BY WR-2721.....	5R01 CA24092-02	44,929
VACQUIER, VICTOR D.....	BIOCHEMISTRY OF SPERM-EGG BINDING AND FERTILIZATION.....	5R01 HD12986-02	116,892
VARON, SILVIO S.....	HUMORAL AND CELLULAR INFLUENCES ON NEURAL CELLS.....	3R01 NS07606-10S1	2,537
VARON, SILVIO S.....	HUMORAL AND CELLULAR INFLUENCES ON NEURAL CELLS.....	5R01 NS07606-11	119,655
VICTORIA, EDWARD J, JR.....	MEMBRANE BIOCHEMISTRY OF RH ANTIGENS.....	5R01 HL23108-02	71,451
VOLCANI, BENJAMIN E.....	BIOCHEMICAL STUDIES ON SILICEOUS SKELETAL FORMATION.....	5R01 GM08229-19	131,700
WARD, DAVID M.....	IMMUNE COMPLEX HANDLING BY THE GLOMERULAR MESANGIUM.....	1R01 AM26000-01	53,314
WARD, JOHN F.....	MECHANISMS IN SHOULDERED SURVIVAL CURVES.....	1R01 CA26279-01	197,339
WEST, JOHN B.....	PHYSIOLOGICAL BASIS OF PULMONARY DISEASE.....	5P01 HL17731-05	524,476
WEST, JOHN B.....	HUMAN RESPIRATORY FUNCTION AT EXTREME ALTITUDES.....	1R01 HL24335-01	80,130
WILKES, MAHLON M.....	ROLE OF CNS CATECHOLAMINES IN REPRODUCTIVE SENESCENCE.....	1R01 AG02284-01	76,336
WILSON, DORIS B.....	CEREBROVASCULAR RESPONSE TO EMBRYONIC OVERGROWTH.....	2R01 HD09562-04	76,215
WILSON, DORIS B.....	GROWTH AND DIFFERENTIATION OF THE PITUITARY GLAND.....	1R01 HD12308-01	84,487
WITZTUM, JOSEPH L.....	EFFECT OF BILE SEQUESTRATION ON VLDL METABOLISM.....	7R01 HL25585-01	31,658
YEN, SAMUEL S.....	CONTROL OF THE HYPOTHALAMIC-HYPOPHYSAL-OVARIAN SYSTEM.....	1P01 HD12303-01	591,259
YU, ALICE L.....	CELL-MEDIATED CYTOTOXICITY IN CHILDREN WITH NEOPLASMS.....	1R01 CA26141-01	87,806
ZIMM, BRUNO H.....	NUCLEIC ACIDS AND CHROMOSOMAL DNA.....	5R01 GM11916-16	87,179
ZWEIFLER, NATHAN J.....	BLOOD/SYNOVIAL FLUID IMMUNOREACTANTS—RHEUMATIC DISEASE.....	5R01 AM14916-10	129,622
ZWEIFACH, BENJAMIN W.....	STRUCTURE AND FUNCTION OF MICROCIRCULATION.....	5R01 HL10881-14	157,496
ZWEIFACH, BENJAMIN W.....	MICROCIRCULATION IN PATIENTS WITH DIABETES MELLITUS.....	2R01 HL22118-03	172,185
ZYSKIND, JUDITH W.....	DNA INITIATION AND TERMINATION IN BACTERIA.....	2R01 GM21978-04	66,029
ORGANIZATION TOTAL	234	25,779,359	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
CALIFORNIA—Continued				
LOMA LINDA				
LOMA LINDA UNIVERSITY		ZIP CODE 92354		
FRASER, GARY E.	FACTORS IN BLOOD PRESSURE LEVELS OF CHILDREN	5R01 HL20005-04	200,025	
GODFREY, THOMAS E.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17948-05	91,758	
HADLEY, G. GORDON	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05352-18	68,770	
KISSINGER, DAVID G.	DIET AND AGE AT MENARCHE	5R01 HD10572-03	91,148	
LONGO, LAWRENCE D.	FETAL OXYGENATION AND PLACENTAL GAS EXCHANGE	5R01 HD03807-11	160,374	
NEILSEN, IVAN R.	DEVELOPMENT OF BIOMEDICAL COMPUTATION FACILITY	3P41 RR00276-13S2	178,160	
PHILLIPS, ROLAND L.	EPIDEMIOLOGY OF CANCER IN A LOW-RISK GROUP	3R01 CA14703-05S1	321,647	
POWER, GORDON G.	BLOOD FLOW AND GAS EXCHANGE IN THE PLACENTA AND LUNGS	5R01 HL15655-06	131,737	
SLATTERY, CHARLES W.	INTERACTIONS AND STRUCTURE IN HUMAN CASEIN SYSTEMS	1R01 HD13109-01	44,750	
TINBERG, HAROLD M.	ANALYSIS OF EXPERIMENTALLY-INDUCED MALLORY BODIES	7R01 AM26700-01	19,807	
ORGANIZATION TOTAL	10 1,308,176			
LONG BEACH				
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LONG BEACH		ZIP CODE 90840		
COHLBERG, JEFFREY A.	PROTEIN-PROTEIN INTERACTIONS IN E. COLI RIBOSOMES	5R01 GM23541-02	45,791	
DRUZGALSKI, CHRISTOPHER K.	AUDIOSONIC CHARACTERIZATION OF THE HUMAN THORAX	1R23 HL25801-01	46,442	
ORGANIZATION TOTAL	2 92,233			
LOS ANGELES				
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LOS ANGELES		ZIP CODE 90032		
BROWN, COSTELLO L.	NEGATIVE ION STUDIES OF BIOORGANIC MOLECULES	5R01 GM20793-05	32,448	
FERGUSON, LLOYD N.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07152-05	43,295	
FERGUSON, LLOYD N.	MINORITY STUDENT TRAINING FOR BIOMEDICAL RESEARCH	5S06 RR08101-08	914,345	
ORGANIZATION TOTAL	3 990,088			
CEDARS-SINAI MEDICAL CENTER		ZIP CODE 90048		
BERMAN, DANIEL S.	CLINICAL APPLICATIONS OF NUCLEAR CARDIOLOGY	1R01 HL24417-01	64,018	
BRAUNSTEIN, GLENN D.	PLACENTAL PROTEINS IN NON-PLACENTAL TISSUES	1R01 HD13042-01	56,134	
CORDAY, ELIOT	OPTIMIZATION DIASTOLIC AUGMENTATION AND SYSTOLIC SINK	5R01 HL14644-06	90,982	
EZRIN, CALVIN	PITUITARY ADENOMAS: STRUCTURE-FUNCTION RELATIONS	5R01 CA21905-02	58,085	
GATTI, RICHARD A.	MLR LOCUS TYPING OF CANCER PATIENTS	3R01 CA18892-03S1	28,093	
KATZ, JOSEPH	PATHWAYS OF GLUCOSE METABOLISM AND HYDROGEN TRANSPORT	2R01 AM12604-11	94,206	
KATZ, JOSEPH	GLYCOGEN METABOLISM BY ISOLATED HEPATOCYTES	5R01 AM19576-03	59,832	
KIPPEN, IAN	URICOSURIC DRUGS: MECHANISMS OF ACTION	1R01 AM25588-01	112,296	
LERNER, ROGER L.	ROLE OF SECRETIN IN HUMAN INSULIN SECRETION	5R01 AM21720-03	77,732	
MAXWELL, MORTON H.	EXPERIMENTAL RENAL ARTERIAL HYPERTENSION	2R01 HL22069-03	110,311	
MURTHY, VRUDHULA K.	COMPREHENSIVE MODELS FOR CANCER SURVIVAL AND MORTALITY	5R01 CA21380-03	105,911	
ROGNSTAD, ROBERT A.	METABOLIC PATHWAYS IN THE INTACT LIVER CELL	5R01 AM20417-02	30,260	
ROGNSTAD, ROBERT A.	PYRUVATE CYCLES IN THE METABOLISM OF GLUCOGENIC CELLS	5R01 AM21437-02	51,630	
RUBENSTEIN, PAUL	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05468-17	85,058	
SCHOENFELD, LESLIE J.	GALLSTONE FORMATION AND DISSOLUTION	2R01 AM15631-07A2	151,814	
SWAN, HAROLD J.	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH	5P50 HL17651-05	944,781	
ORGANIZATION TOTAL	16 2,121,143			
CHARLES R. DREW POSTGRADUATE MEDICAL SCHOOL		ZIP CODE 90059		
ALFRED, LAWRENCE J.	ARYL HYDROCARBON HYDROXYLASE LEVELS: HEAD-NECK CANCER	5R01 CA19659-03	90,728	
ALFRED, LAWRENCE J.	BIOMEDICAL RESEARCH AND TRAINING—MULTI-INSTITUTIONAL	2S06 RR08140-06	420,884	
MYERS, HECTOR F.	LIFE CHANGE STRESS AND SOMATIZATION IN HYPERTENSION	1R23 HL23522-01	44,827	
PERCY, ALAN	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05780-04	66,310	
SATCHER, DAVID	COMPREHENSIVE HOSPITAL/COMMUNITY SICKLE CELL CENTER	5P60 HL23282-02	800,713	
ORGANIZATION TOTAL	5 1,423,462			
CHILDREN'S HOSPITAL OF LOS ANGELES		ZIP CODE 90027		
BENEDICT, WILLIAM F.	ONCOGENIC AND MUTAGENIC POTENTIAL OF ANTITUMOR AGENTS	2R01 CA14226-07	95,619	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DONNELL, GEORGE N.....	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN.....	5M01 RR00086-17	120,288
DUKES, PETER P.....	PURIFICATION OF HUMAN ERYTHROPOIETIN FOR RESEARCH USE.....	5R01 HL10880-14	117,943
DUKES, PETER P.....	REGULATION OF MEGAKARYOCYTE FORMATION.....	1R01 HL24629-01	43,581
HAYS, DANIEL M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA23146-02	133,344
HIGGINS, GUSSIE R.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA02649-23	261,729
JONES, PETER A.....	5-AZACYTIDINE INDUCED DIFFERENTIATION.....	5R01 GM25739-02	60,531
KOCH, RICHARD.....	STUDY OF DIET DISCONTINUATION IN PKU CHILDREN.....	5R01 HD09543-05	171,331
LAUG, WALTER E.....	SECRETION OF PLASMINOGEN ACTIVATOR BY ENDOTHELIAL CELLS.....	1R01 HL23500-01	69,932
MC ALLISTER, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05469-17	44,370
MURPHREE, A LINN.....	BIOCHEMICAL & CYTOGENETIC MARKERS IN RETINOBLASTOMA.....	1R01 EY02715-01	47,918
NICOLSON, MARGERY O.....	INTEGRATED INFECTIVE TYPE-C RETROVIRAL GENOMES.....	1R01 CA26199-01	36,631
SNODGRASS, S ROBERT.....	DEVELOPMENTAL PHARMACOLOGY OF CNS SYNAPSES IN CULTURE.....	7R01 NS16313-01	14,848
SNODGRASS, S ROBERT.....	ABNORMAL MOVEMENTS AND PHARMACOLOGY OF THE FOREBRAIN.....	7R01 NS16314-01	60,989
ORGANIZATION TOTAL	14 1,279,054		
ESTELLE DOHENY EYE FOUNDATION ZIP CODE 90033			
BLANKS, JANET C.....	RETINAL DIFFERENTIATION, CELL INTERACTIONS & PLASTICITY.....	1R01 EY03042-01	113,038
MINCKLER, DONALD S.....	MORPHOLOGY OF MONKEY OPTIC NERVE.....	5R01 EY02210-02	107,401
MINCKLER, DONALD S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05810-01	33,911
NESBURN, ANTHONY B.....	HERPES SIMPLEX OF THE EYE: PATHOGENESIS AND TREATMENT.....	5R01 EY00858-07	223,891
NESBURN, ANTHONY B.....	OCULAR HERPES SIMPLEX INFECTION IN RABBITS.....	1R01 EY02957-01	144,049
NESBURN, ANTHONY B.....	KERATOPHAKIA: SAFETY AND EFFICACY IN ANIMALS.....	1R01 EY02987-01	152,784
OGDEN, THOMAS E.....	A STUDY OF STRUCTURE AND FUNCTION OF RETINAL NEURONES.....	5R01 EY01671-04	102,409
OGDEN, THOMAS E.....	PRIMATE RETINA NERVE FIBER LAYER.....	1R01 EY02637-01A1	87,667
RYAN, STEPHEN J.....	VISUAL SCIENCE RESEARCH CENTER SUPPORT.....	1P30 EY03040-01	312,404
SORGENTE, NINO.....	VITREO-RETINAL CONTROL OF VASCULAR PROLIFERATION.....	1R01 EY03229-01	127,226
ORGANIZATION TOTAL	10 1,404,780		
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY-UNIV OF SO CALIFORNIA MED CTR ZIP CODE 90033			
BERNSTEIN, SOL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05466-13	20,541
GOEBELSMANN, UWE T.....	PLASMA ESTRADIOL: TRANSPORT, MEASUREMENT & CLINICAL USE.....	2R01 HD05932-07	66,715
MORROW, C PAUL.....	GYNECOLOGICAL ONCOLOGY GROUP.....	5R10 CA13641-08	45,702
O'BRIEN, TIMOTHY J.....	HORMONE INDUCTION AND RNA POLYMERASE MODULATION.....	1R01 HD12405-01	37,264
SOBIN, SIDNEY S.....	STUDIES IN VASCULAR PHYSIOLOGY.....	3R01 HL11152-12S1	4,331
SOBIN, SIDNEY S.....	STUDIES IN VASCULAR PHYSIOLOGY.....	5R01 HL11152-13	73,056
SOBIN, SIDNEY S.....	HYPOXIA AND PULMONARY VASCULAR SMOOTH MUSCLE.....	5R01 HL23224-02	42,291
ORGANIZATION TOTAL	7 289,900		
LOYOLA MARYMOUNT UNIVERSITY ZIP CODE 90045			
WALSH, PATRICIA R.....	SOURCES OF ATTITUDES TOWARD THE AGED.....	5R01 AG00860-02	49,278
ORGANIZATION TOTAL	1 49,278		
OCCIDENTAL COLLEGE ZIP CODE 90041			
MAYS, LAURA L.....	RELATION OF TRNA TO PROTEIN ERRORS IN AGING RAT LIVER.....	5R01 AG00479-05	50,803
ORGANIZATION TOTAL	1 50,803		
SPEECH COMMUNICATIONS RESEARCH LABORATORY ZIP CODE 90007			
BROAD, DAVID J.....	INVERSE FILTERING FOR DETECTING LARYNGEAL PATHOLOGY.....	5R01 NS13309-02	78,829
WAKITA, HISASHI.....	ACOUSTICAL APPROACH TO ESTIMATION OF VOCAL TRACT SHAPES.....	1R01 NS14924-01A1	25,689
ORGANIZATION TOTAL	2 104,518		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
AMSTUTZ, HARLAN C.....	NEW HIP PROSTHESIS AND FIXATION MODES-IN VIVO STUDY.....	5R01 AM20333-03	90,272
ASH, LAWRENCE R.....	DEVELOPMENT OF LABORATORY MODELS IN FILARIASIS.....	2R22 AI10250-09	117,350
ASHMAN, ROBERT F.....	IMMUNOLOGIC ROLE OF THE ANTIGEN BINDING CELL.....	5R01 AI14922-02	93,581
ASSALI, NICHOLAS S.....	FETAL AND NEONATAL CARDIOVASCULAR FUNCTIONS.....	2R01 HL01755-26	128,943
ATKINSON, DANIEL E.....	ENZYME-EFFECTOR INTERACTIONS AND METABOLIC REGULATION.....	5R01 AM09863-14	108,968
BAKER, BRUCE L.....	PARENTS AS TEACHERS: MEDIA-ASSISTED TRAINING PROGRAMS.....	5R01 HD10962-03	95,927
BAKER, NOME.....	TRIGLYCERIDE SYNTHESIS AND TRANSPORT IN DIABETES.....	3R01 AM21072-02S1	14,846
BAKER, NOME.....	TRIGLYCERIDE SYNTHESIS AND TRANSPORT IN DIABETES.....	5R01 AM21072-03	94,420

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
BAKER, NOME.....	LIPID TRANSPORT AND METABOLISM IN CANCER-HOST SYSTEMS.....	2R01 CA15813-04A2	71,497
BALUDA, MARCEL A.....	TUMOR INDUCTION BY AVIAN MYELOBLASTOSIS VIRUS.....	3R01 CA10197-12S1	44,269
BALUDA, MARCEL A.....	TUMOR INDUCTION BY AVIAN MYELOBLASTOSIS VIRUS.....	2R01 CA10197-13	51,805
BARKLEY, DAVID S.....	IMMUNE RESPONSES IN HUNTINGTON'S DISEASE.....	5R01 NS15067-02	66,017
BARNARD, R. JAMES.....	EFFECTS OF EXERCISE ON THE HEART AND ITS BLOOD SUPPLY.....	5R01 HL20253-03	54,018
BARR, ALLAN R.....	CYTOPLASMIC INCOMPATIBILITY FOR FILARIASIS CONTROL.....	2R22 AI11847-12	85,906
BARRETT, CYNTHIA T.....	NEONATAL RESPIRATORY DISTRESS: AMINOPHYLLINE EFFECTS.....	5R01 HD12197-02	87,191
BARRETT, JACK D.....	ISO-RENINS IN HYPERTENSIVES.....	5R01 HL21877-02	33,785
BELKIN, JOHN N.....	MOSQUITOES OF MIDDLE AMERICA.....	2R01 AI04379-18	39,300
BELLVILLE, J. WELDON.....	DYNAMIC ISOLATION STUDIES OF CONTROL OF RESPIRATION.....	5R01 HL15659-06	49,354
BERK, ARNOLD J.....	BIOSYNTHESIS OF ADENOVIRUS EARLY RNAS.....	1R01 CA25235-01	67,141
BEUMER, JOHN, III.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18724-04	101,474
BEVAN, JOHN A.....	CEREBRAL ARTERIAL TONE AND REACTIVITY.....	5R01 HL15805-07	54,316
BEVAN, JOHN A.....	VASCULAR NEUROEFFECTOR MECHANISMS IN HEALTH & DISEASE.....	3P01 HL20581-01A1S1	4,323
BEVAN, JOHN A.....	VASCULAR NEUROEFFECTOR MECHANISMS IN HEALTH & DISEASE.....	5P01 HL20581-02	346,971
BILLING, RONALD J.....	LEUKEMIA ASSOCIATED ANTIGENS.....	5R01 CA24358-02	89,161
BOK, DEAN.....	ELECTRON MICROSCOPE AUTORADIOGRAPHY OF OCULAR TISSUES.....	5R01 EY00444-11	84,403
BONAVIDA, BENJAMIN.....	MIXED LEUKOCYTE TUMOR REACTION IN SYNGENEIC SYSTEMS.....	2R01 CA19753-04	60,910
BONAVIDA, BENJAMIN.....	INAPPROPRIATE ANTIGENS ON SJL/J RETICULUM CELL SARCOMA.....	5R01 CA24314-02	50,197
BOYER, PAUL D.....	BIOLOGICAL ENERGY TRANSDUCING MECHANISMS.....	5R01 GM11094-17	128,227
BRADY, ALLAN J.....	CELLULAR & MOLECULAR MECHANISM OF MYOCARDIAL FUNCTION.....	5P01 HL11351-13	1,052,312
BRESLOW, LESTER.....	COLORRECTAL CANCER AMONG CALIFORNIA MORMONS.....	1R26 CA25157-01	49,031
BRESLOW, LESTER.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05442-18	79,517
BRICKER, NEAL S.....	HOMEOSTATIC MECHANISMS IN UREMIA.....	1R01 AM26098-01	293,178
BRINKMAN, CHARLES R, III.....	RENAL HYPERTENSION IN PREGNANCY.....	5R01 HL13634-09	119,543
BROWN, JOSIAH.....	ENDOCRINE FUNCTION OF TRANSPLANTED FETAL PANCREAS.....	5R01 AM17980-05	94,637
BROWN, W. JANN.....	DEVELOPMENTAL BIOLOGY IN MENTAL RETARDATION.....	5P01 HD05615-09	627,272
BUCHWALD, NATHANIEL A.....	NEUROPHYSIOLOGY & NEUROPSYCHOLOGY IN MENTAL RETARDATION.....	2P01 HD05958-09	499,730
BUCKBERG, GERALD D.....	SURGERY AND NONOBSTRUCTIVE CORONARY INSUFFICIENCY.....	2R01 HL16292-06	295,810
BUCKBERG, GERALD D.....	SURGICALLY INDUCED MYOCARDIAL EDEMA.....	5R01 HL20080-03	137,842
BUSH, A. MICHAEL.....	INSULIN EFFECTS ON MUSCLE CELL PHOSPHOPEPTIDES.....	1R23 AM25761-01	39,300
BUTCHER, LARRY L.....	CHOLINERGIC-MONOAMINERGIC RELATIONSHIPS IN STRIATUM.....	2R01 NS10928-05	63,393
CAMPFIELD, L. ARTHUR.....	INSULIN SECRETION IN GENETIC DIABETES AND VMH OBESITY.....	5R01 AM25111-02	48,784
CARLISLE, EDITH M.....	STUDY OF PHYSIOLOGICAL ROLE OF SILICON.....	5R01 AM16611-07	92,423
CARNES, WILLIAM H.....	CARDIOVASCULAR STUDIES ON COPPER DEFICIENCY.....	5R01 HL12561-12	131,971
CARSTEN, MARY E.....	PARTURITION AND CELLULAR BASIS OF UTERINE CONTRACTILITY.....	5R01 HD00010-16	140,417
CEDERBAUM, STEPHEN D.....	AN ANIMAL MODEL FOR ENZYME REPLACEMENT WITH ARGINASE.....	1R01 AM25983-01	76,612
CEDERBAUM, STEPHEN D.....	HUMAN ARGINASE AND ARGINASE DEFICIENCY.....	5R01 HD11298-02	55,058
CHANG, YI-HAN.....	MECHANISM OF ACTION OF COLCHICINE.....	5R01 AM20367-02	96,455
CHAO, LI-PEN.....	STUDIES WITH PURIFIED CHOLINE ACETYLTRANSFERASE.....	5R01 NS11087-05	91,366
CHAPMAN, ORVILLE L.....	ORGANIC PHOTOCHEMISTRY.....	5R01 GM24427-06	88,311
CHASE, MICHAEL H.....	INTERDISCIPLINARY STUDY OF SLEEP IN AGED.....	1R01 AG01428-01	88,567
CHO, ARTHUR K.....	NITROGEN OXIDATION IN DRUG METABOLISM.....	1R01 GM26024-01A1	70,447
CHOPRA, INDER J.....	THYROID GLAND PHYSIOLOGY IN HEALTH AND DISEASE.....	5R01 AM16155-08	100,444
CIANI, SERGIO.....	SELECTIVE ION PERMEATION IN EXCITABLE CELLS.....	5R01 NS13344-03	40,453
CLARK, GLENN T.....	NOCTURNAL MASSETER MUSCLE ACTIVITY AND JAW DYSFUNCTION.....	1R23 DE05036-01A1	32,002
CLARK, WILLIAM R.....	MECHANISMS OF DIFFERENTIATION OF T LYMPHOCYTES.....	5R01 AI14747-08	84,819
CLARKE, STEVEN G.....	CONTROL OF EUKARYOTIC MEMBRANE FUNCTION BY METHYLATION.....	1R01 GM26020-01	62,172
CLINE, MARTIN J.....	A NEW METHOD OF BONE MARROW CULTURE.....	5R01 AM18058-06	40,121
CLINE, MARTIN J.....	NORMAL AND MALIGNANT HEMATOPOIETIC CELL REPLICATION.....	5R01 CA15619-06	115,379
CLINE, MARTIN J.....	A PROGRAM IN MEDICAL ONCOLOGY.....	5P01 CA15688-06	504,650
CODE, CHARLES F.....	MOTOR AND ELECTRICAL ACTIVITY OF THE ALIMENTARY CANAL.....	5R01 AM18618-05	104,654
COLLIER, ROBERT J.....	MOLECULAR MECHANISMS OF BACTERIAL PATHOGENESIS.....	5R01 AI07877-12	103,033
COOPER, EDWIN L.....	ORIGIN OF IMMUNE RECEPTORS.....	1R01 AI15976-01	42,444
COOPER, EDWIN L.....	ONTOGENY AND EVOLUTION OF IMMUNOCOMPETENT CELLS.....	5R01 HD09333-05	83,544
CORNFORD, EAIN M.....	TRANSPORT MECHANISMS IN THE SCHISTOSOME INTEGUMENT.....	1R22 AI15692-01	73,338
COTY, WILLIAM A.....	VITAMIN D ACTION IN THE AVIAN SHELL GLAND.....	5R23 AG01102-02	37,812
CRAM, DONALD J.....	HOST MOLECULES THAT COMPLEX AND CATALYZE.....	5R01 GM12640-15	68,982
CRANDALL, PAUL H.....	A CLINICAL RESEARCH PROGRAM FOR THE 'PARTIAL' EPILEPSIES.....	5P50 NS02808-19	411,429
CRESCITELLI, FREDERICK.....	PROPERTIES OF VISUAL PIGMENTS FROM SELECTED VERTEBRATES.....	5R01 EY02178-02	33,827

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DAVIDSON, MAYER B.....	MECHANISMS OF INSULIN ANTAGONISM.....	5R01 AM14702-09	83,342
DETELS, ROGER.....	CHRONIC OBSTRUCTIVE RESPIRATORY DISEASE—EPIDEMIOLOGY.....	5R01 ES01473-03	502,740
DETELS, ROGER.....	EPIDEMIOLOGIC STUDIES OF IMMUNE FACTORS IN MS.....	5R01 NS10186-08	295,319
DHOPESHWARKAR, GOVIND A.....	DEVELOPING BRAIN: EFFECTS OF NUTRITIONAL IMBALANCES.....	5R01 NS13755-02	41,959
DIAMOND, JARED M.....	WATER TRANSPORT ACROSS EPITHELIAL MEMBRANES.....	5R01 GM14772-12	87,542
DIRKS, DONALD D.....	SUPRATHRESHOLD AUDITORY BEHAVIOR.....	2R01 NS09713-06	79,710
DIRKSEN, ELLEN R.....	CILIogenesis IN THE DEVELOPING OVIDUCT.....	1R01 HD11792-01A1	56,372
DIRKSEN, ELLEN R.....	STRUCTURE AND FUNCTION OF RESPIRATORY TRACT CILIA.....	1R01 HL23428-01	75,525
DIXON, ANDREW D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05304-18	53,341
ECKERT, ROGER O.....	IONIC AND METABOLIC REGULATION OF NEURAL EXCITABILITY.....	2R01 NS08364-11	86,739
EDMOND, JOHN.....	STUDIES OF METABOLISM DURING DEVELOPMENT.....	1R01 HD11496-01	43,562
EDMOND, JOHN.....	THE METABOLIC CAPACITY OF THE DEVELOPING NEONATE.....	1R01 HD12473-01	53,607
EDWARDS, PETER A.....	CHOLESTEROL AND LIPOPROTEIN METABOLISM.....	2R01 HL19063-04	91,777
EGGENA, PETER H.....	ACTIVATION OF PLASMA RENIN.....	1R01 HL22773-01A1	34,529
EISENBERG, DAVID S.....	STRUCTURE AND ACTION OF MULTISUBUNIT ENZYMES.....	2R01 GM16925-11	143,440
EISENMAN, GEORGE.....	ION PERMEATION THROUGH CHANNELS, CARRIERS AND NERVE.....	5R01 GM24749-10	53,952
EISLERING, FREDERICK A.....	VIRUS MORPHOGENESIS: CONTROL OF PHAGE ASSEMBLY.....	5R01 AI14092-03	42,178
ELASHOFF, ROBERT M.....	EXPLORATORY STUDIES IN CANCER PATIENT DATA CONTROL.....	5R10 CA23636-02	101,191
ELLISON, GEORGE W.....	OLIGODENDROGLIAL CELL ANTIGEN(S) IN MULTIPLE SCLEROSIS.....	1R01 NS15259-01	74,683
EYMAN, RICHARD K.....	PROGRAM FOR THE DEVELOPMENT OF THE MENTALLY RETARDED.....	5P01 HD05540-08	516,251
FAHEY, JOHN L.....	INTERDISCIPLINARY RESEARCH IN IMMUNOLOGIC DISEASES.....	5P50 AI15332-02	342,097
FAHEY, JOHN L.....	IMMUNE FUNCTIONS AND CANCER.....	5P01 CA12800-08	773,855
FAHEY, JOHN L.....	BLADDER CANCER: IMMUNOLOGY, IMMUNOTHERAPY & VIROLOGY.....	5R26 CA16880-06	158,773
FAIN, GORDON L.....	PHYSIOLOGY OF PHOTORECEPTORS.....	5R01 EY01844-03	62,502
FAIN, GORDON L.....	MECHANISM OF VISUAL ADAPTATION.....	1R01 EY02728-01	102,508
FARBER, DEBORA A.....	CYCIC NUCLEOTIDES IN CONE METABOLISM AND DISEASE.....	5R01 EY02651-02	13,951
FAREED, GEORGE C.....	SIMIAN VIRUS 40, DNA REPLICATION AND TRANSFORMATION.....	5R01 CA20794-04	68,857
FESSLER, JOHN H.....	BASEMENT MEMBRANE BIOSYNTHESIS.....	1R01 AG02128-01	106,137
FESSLER, JOHN H.....	MOLECULAR DEVELOPMENT OF COLLAGEN FIBERS.....	2R01 AM13748-11	116,829
FINE, LEON G.....	PATHOPHYSIOLOGY OF THE ISOLATED HUMAN NEPHRON.....	5R01 AM25301-02	32,411
FLUHARTY, ARVAN L.....	MICROHETEROGENEITY OF ARYLSULFATASE A.....	1R01 AM25564-01	49,702
FLUHARTY, ARVAN L.....	DERMATAN SULFATE CATABOLISM.....	5R01 HD08855-05	51,574
FOGELMAN, ALAN M.....	DETECTION OF FAMILIAL HYPERCHOLESTEROLEMIA.....	5R01 HL20807-03	38,667
FOGELMAN, ALAN M.....	CHOLESTEROL METABOLISM AND ATHEROSCLEROSIS.....	5R01 HL22474-02	56,676
FONKALSRUD, ERIC W.....	NEW SURGICAL APPROACHES FOR INFLAMMATORY BOWEL DISEASE.....	1R01 AM25678-01	48,952
FOOS, ROBERT Y.....	VITREORETINAL JUNCTURE.....	5R01 EY00725-08	61,634
FOOTE, CHRISTOPHER S.....	OXIDATION OF MODEL BIOLOGICAL SYSTEMS.....	5R01 GM20080-07	69,472
FOX, CHARLES F.....	EPIDERMAL GROWTH FACTOR RECEPTOR—STRUCT/FUNCT/HOMOLOGY.....	1R01 AM25826-01	90,006
FRANK, ROBERT G, JR.....	PHYSIOLOGY OF NERVE AND SYNAPSE IN THE 20TH CENTURY.....	5R01 LM02956-03	19,560
FRIEDMAN, WILLIAM F.....	VASOACTIVE AGENTS AND THE CIRCULATION OF THE FETUS.....	1R01 HL25476-01	139,659
FULCO, ARMAND J.....	UNSATURATED FATTY ACID BIOSYNTHESIS IN BACILLI.....	5R01 AI09829-10	58,691
FULCO, ARMAND J.....	SOLUBLE CYTOCHROME P-450 HYDROXYLASES FROM BACTERIA.....	5R01 GM23913-03	40,748
GALE, ROBERT P.....	A PROGRAM IN BONE MARROW TRANSPLANTATION.....	5P01 CA23175-02	533,652
GARCIA, JOHN.....	BEHAVIORAL AND NEURAL EFFECTS OF TOXICOSIS AND PAIN.....	2R01 NS11618-06	51,670
GILLARD, BAIBA K.....	CYSTIC FIBROSIS: BASIS FOR ALTERED ENZYME ACTIVITIES.....	1R01 AM25107-01	22,502
GITNICK, GARY L.....	PREVENTION OF POST TRANSFUSION CHRONIC LIVER DISEASE.....	5R01 AM17984-06	29,467
GITNICK, GARY L.....	TRANSMISSION OF INFLAMMATORY BOWEL DISEASE.....	5R01 AM19498-02	222,204
GITNICK, GARY L.....	CULTIVATION OF VIRUSES IN INFLAMMATORY BOWEL DISEASE.....	5R01 AM21978-02	76,873
GLITZ, DOHN G.....	HUMAN PANCREATIC RIBONUCLEASE AND CANCER.....	5R01 CA25088-02	52,709
GOLDBERG, LOUIS J.....	STUDIES IN ORAL PHARYNGEAL REFLEXES.....	3R01 DE04166-10S1	51,592
GOLDBERG, LOUIS J.....	STUDIES IN ORAL PHARYNGEAL REFLEXES.....	5R01 DE04166-11	69,371
GOLDE, DAVID W.....	STUDIES OF ALVEOLAR MACROPHAGE FUNCTION IN MAN.....	5R01 HL20675-03	51,173
GOLUB, SIDNEY H.....	LYMPHOCYTE SENSITIZATION TO TUMOR ANTIGENS IN VITRO.....	5R01 CA17013-05	78,102
GORSKI, ROGER A.....	OVARIAN-HYPOTHALAMIC-HYPOPHYSEAL AXIS.....	5R01 HD01182-17	127,597
GRALLA, JAY.....	REGULATION OF TRANSCRIPTION BY DNA-PROTEIN COMPLEXES.....	2R01 CA19941-04	43,742
GRAVES, MICHAEL C.....	MEASLES VIRUS POLYPEPTIDE SYNTHESIS AND PROCESSING.....	1R01 AI16029-01	82,909
GRINNELL, ALAN D.....	FORMATION, FUNCTION AND PLASTICITY OF SYNAPSES.....	5R01 NS06232-15	72,371
GROSSMAN, MORTON I.....	GASTRIC PHYSIOLOGY STUDIES.....	5R01 AM08354-15	31,335
GROSSMAN, MORTON I.....	PEPTIC ULCER CENTER.....	2P50 AM17328-06	1,260,386
GROSSMAN, MORTON I.....	PANCREATIC PHYSIOLOGY STUDIES.....	5R01 AM20971-02	32,788

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
GROSSMAN, MORTON I.....	EXPERIMENTAL ULCERS PRODUCED BY BEHAVIORAL FACTORS.....	1R13 AM26713-01	13,149
GRUNSTEIN, MICHAEL.....	MOLECULAR BASIS FOR HISTONE GENE EXPRESSION.....	5R01 GM23674-03	95,232
GUSSEN, RUTH.....	HUMAN TEMPORAL BONE PATHOLOGY.....	5R01 NS06606-14	131,124
GUTH, PAUL H.....	PERMEABILITY IN GASTRIC AND MESENTERIC MICROVESSELS.....	1R01 AM25891-01	85,565
HAGIWARA, SUSUMU.....	MICRONEUROPHYSIOLOGY.....	5R01 NS09012-11	116,289
HALL, MICHAEL O.....	THE ETIOLOGY OF RETINAL DEGENERATION.....	5R01 EY00046-10	114,242
HARPER, RONALD M.....	NEURAL CONTROL OF CARDIORESPIRATORY FUNCTION.....	5R01 HL22418-02	58,526
HAYS, ESTHER F.....	DEVELOPMENT OF LYMPHOMA IN THE THYMUS.....	2R01 CA12386-07	46,887
HELLER, JORAM.....	RETINOL DELIVERY TO PIGMENT EPITHELIUM & NEURAL RETINA.....	5R01 EY00704-09	58,504
HERCULES, KATHLEEN.....	MAPPING OF SV40 TRANSCRIPTION UNITS.....	3R01 CA23057-02S1	18,425
HERSCHMAN, HARVEY R.....	INITIATION OF CELLULAR PROLIFERATION.....	5R01 GM24797-02	62,801
HILDEMANN, WILLIAM H.....	IMMUNORECOGNITION AND ALLOIMMUNITY IN SPONGES.....	1R01 AI15705-01	80,730
HILDEMANN, WILLIAM H.....	COMPARATIVE TRANSPLANTATION IMMUNOGENETICS.....	5R01 CA23025-04	114,789
HONRUBIA, VICENTE.....	EXPERIMENTAL STUDIES ON COCHLEAR MECHANISMS.....	5R01 NS08193-11	89,063
HOWRITZ, JOSEPH.....	BIOPHYSICAL AND BIOCHEMICAL STUDIES OF LENS PROTEINS.....	2R01 EY01622-04	56,126
HOWARD, BRUCE D.....	BIOCHEMICAL STUDIES OF NEUROTRANSMITTER RELEASE.....	2R01 NS12873-04	82,223
HOWARD, DEXTER H.....	HOW PHAGOCYTES DEAL WITH FUNGI.....	5R01 AI15120-02	60,586
JAMES, THOMAS W.....	VISUALIZATION AND FUNCTION OF MITOCHONDRIAL FORMS.....	1R01 AG01862-01	49,808
JARMAKANI, JAY M.....	IONIC EXCHANGE IN THE NEONATAL MAMMALIAN HEART.....	1R01 HL24148-01	105,959
JUDD, HOWARD L.....	ESTROGEN AND ANDROGEN STUDIES IN ENDOMETRIAL CANCER.....	2R01 CA23093-03	96,462
JUNG, MICHAEL E.....	SYNTHESIS OF 11-DESONY ANTHROCYCLINE ANTITUMOR AGENTS.....	1R01 CA21968-01A2	46,994
JUNG, MICHAEL E.....	TOTAL SYNTHESIS OF EPIPODOPHYLOTOXIN ANTITUMOR DRUGS.....	5R01 CA22827-02	48,474
KAPLOWITZ, NEIL.....	SMALL INTESTINE AS A PORTAL OF ENTRY FOR XENOBIOTICS.....	7R01 GM27090-01	47,674
KARK, R A.....	FRIEDREICH'S ATAXIA AND LIPOAMIDE DEHYDROGENASE.....	1R01 NS15245-01	112,784
KASAMATSU, HARUMI.....	POLYPEPTIDES AND THE PROTEIN-DNA COMPLEX IN SV40 VIRION.....	5R01 CA21768-03	41,507
KAY, MARGUERITE M.....	REMOVAL OF SENESCENT AND STORED HUMAN RED CELLS.....	5R01 HL22671-02	47,424
KIHARA, HAYATO.....	METACHROMATIC LEUKODYSTROPHY IN CULTURED CELL SYSTEMS.....	5R01 NS11665-06	117,597
KIRSCHENBAUM, MICHAEL A.....	SODIUM HOMEOSTASIS AND RENAL PROTAGLANDINS.....	5R01 HL21272-03	35,166
KOEFFLER, H PHILLIP.....	STUDY OF MYELOID LEUKEMIA USING HUMAN LEUKEMIA LINES.....	1R01 CA26038-01	58,730
KOLIN, ALEXANDER.....	DEVELOPMENT OF ELECTROMAGNETIC RHEOANGIOGRAPHY.....	5R01 HL17591-04	79,547
KORENMAN, STANLEY G.....	CONFERENCE ON ENDOCRINE ASPECTS OF AGING.....	1R13 AG01774-01	36,944
KORENMAN, STANLEY G.....	HORMONAL INTERACTIONS IN THE UTERUS.....	5R01 HD09285-06	57,632
KRASNE, FRANKLIN B.....	ESCAPE BEHAVIOR: INTEGRATION AND PLASTICITY.....	5R01 NS08108-12	106,746
KRASNE, SALLY J.....	PROBES OF HEART AND NERVE MEMBRANES—FLUORESCENT DYES.....	5R01 HL20254-03	43,273
KRUGER, LAWRENCE.....	COMPARATIVE STUDIES OF SOMATIC AFFERENT PROJECTION.....	2R01 NS05685-15	88,087
KUHL, DAVID E.....	EMISSION COMPUTED TOMOGRAPHY OF LOCAL CEREBRAL FUNCTIONS.....	2R01 GM24839-03	200,111
KUHL, DAVID E.....	NEUROSCIENCE RESEARCH USING EMISSION TOMOGRAPHY.....	1P01 NS15654-01	531,275
KURATA, JOHN H.....	DYSPEPSIA, PEPTIC ULCER AND ITS COMPLICATIONS.....	1R01 AM25330-01	69,877
KUROKAWA, KIYOSHI.....	CELL METABOLISM OF DEFINED SEGMENTS OF SINGLE NEPHRON.....	2R01 AM21351-03	54,951
LA RUE, ASENATH A.....	PROBLEM SOLVING IN MIDDLE-AGED AND ELDERLY ADULTS.....	5R23 AG00745-03	38,473
LADFOGED, PETER N.....	COMPUTERIZED RECOVERY OF ARTICULATIONS.....	5R01 NS09780-08	83,541
LAGASSE, LEO D.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA13630-08	62,133
LAKE, JAMES A.....	SPATIAL ARRANGEMENT OF PROTEINS IN RIBOSOMAL SUBUNITS.....	2R01 GM24034-03	83,667
LAKE, JAMES A.....	SHARED ELECTRON MICROSCOPE FACILITY AT UCLA.....	1P41 GM27566-01	112,488
LASCELLES, JUNE.....	REGULATION OF HEMOPROTEIN SYNTHESIS & NITRATE REDUCTASE.....	5R01 AM11148-13	64,763
LATIES, GEORGE G.....	MEMBRANE PERMEABILITY AS A REGULATORY ELEMENT.....	5R01 GM19807-08	72,512
LATTA, HARRISON.....	THE JUXTAGLOMERULAR APPARATUS IN HYPERTENSION.....	1R01 HL22247-01A1	44,599
LEHRER, ROBERT I.....	REGULATION OF PHAGOCYTIC RESPONSES IN NEUTROPHILS.....	1R01 AI16005-01	82,752
LEHRER, ROBERT I.....	CCU-MRU, A MULTIDISCIPLINARY MYCOLOGY RESEARCH UNIT.....	1P01 AI16252-01	380,294
LENGYEL, JUDITH A.....	ANALYZE STEPS CONTROLLING GENE EXPRESSION IN DROSOPHILA.....	2R01 HD09948-04	83,286
LETINSKY, MICHAEL S.....	STRUCTURE AND FUNCTION OF DEVELOPING SYNAPSES.....	5R01 NS13470-03	22,382
LETINSKY, MICHAEL S.....	TROPIC AND INDUCTIVE INFLUENCES IN DEVELOPMENT.....	5R01 NS14417-02	39,741
LEVIN, SEYMOUR R.....	ISOLATED PERFUSED INTESTINE: STUDY OF GUT-ISLET AXIS.....	5R01 AM21031-02	46,201
LEWIS, HARLAN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07009-14	180,627
LIEBERMAN, JACK.....	ANTITRYPSIN AND OTHER CAUSES OF CHRONIC LUNG DISEASE.....	3R01 HL21156-02S1	5,682
LIEBESKIND, JOHN C.....	BEHAVIORAL AND ELECTROPHYSIOLOGICAL STUDIES OF PAIN.....	5R01 NS07628-12	103,143
LIEBLING, MICHAEL R.....	UNUSUAL SEROLOGIC INDICATORS OF SLE NEPHRITIS.....	1R01 AM21906-01A1	75,588
LOLLEY, RICHARD N.....	MATURATION OF METABOLISM IN NORMAL & DYSTROPHIC RETINA.....	5R01 EY00395-11	53,198
LOWE, NICHOLAS J.....	UV LIGHT & EPIDERMAL POLYAMINE & DNA SYNTHESIS.....	1R01 CA25970-01	77,057
MAGOUN, HORACE W.....	DEVELOPMENT OF NEUROSCIENCE IN THE UNITED STATES.....	5R01 LMO3069-02	29,954

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MARKHAM, CHARLES H.	CENTRAL VESTIBULAR MECHANISMS	5R01 NS06658-10	75,236
MARKOLF, KEITH L.	LIGAMENOUS STABILITY OF THE KNEE	2R01 AM19043-04	78,726
MARKWELL, MARY A.	MOLECULAR IDENTIFICATION OF PARAMYXOVIRUS RECEPTORS	1R01 AI15629-01	32,750
MARSH, GAYLE G.	MULTIPLE SCLEROSIS EDUCATIONAL PSYCHOSOCIAL PROGRAM	5R01 NS14430-02	53,769
MARTINEZ, RAFAEL J.	SERUM AND LYMPH BACTERICIDINS: BIOCHEMICAL MECHANISMS	5R01 AI12835-05	45,735
MATSUYAMA, STEVEN S.	GLIAL CELL CHROMOSOMES AND SENILE DEMENTIA	5R23 AG00776-03	35,910
MC GINNIS, JAMES F.	A ROUTINE DIAGNOSTIC TEST FOR MINIMAL HEART DAMAGE	2R01 HL18567-04	58,875
MC GINTY, DENNIS J.	SLEEP STATE RESPIRATORY CONTROL IN ANIMALS	5R01 HD11903-02	59,690
MELLINKOFF, SHERMAN M.	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	2M01 RR00865-06	706,076
MELLINKOFF, SHERMAN M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05354-18	201,413
MERRIAM, JOHN R.	ANEUPLOID EFFECTS ON AGING IN DROSOPHILA MELANOGASTER	1R01 AG01871-01	62,786
MEYER, JAMES H.	STUDY OF ALIMENTARY DERANGEMENTS AFTER ULCER SURGERY	2R01 AM19182-04	39,008
MEYERS, ROBERTA L.	MECHANISM OF CORNEAL INFLAMMATION IN HERPES KERATITIS	3R01 EY00394-11S1	90,844
MEYERS, ROBERTA L.	PATHOGENESIS OF EXPERIMENTAL ALLERGIC UVEITIS	5R01 EY01309-06	81,061
MEYERS, ROBERTA L.	HLA AND IMMUNE FACTORS IN OCULAR HERPES	5R01 EY02646-02	30,173
MILLER, JAMES N.	IMMUNE MECHANISMS IN EXPERIMENTAL AND HUMAN SYPHILIS	5R01 AI12601-05	118,707
MOMMAERTS, WILFRIED F.	MOLECULAR MECHANISMS IN MYONAL DIFFERENTIATION	5R01 AM19996-03	118,640
MORTON, DONALD L.	MULTIDISCIPLINARY CANCER DIAGNOSIS AND THERAPY	5P01 CA12582-09	815,296
MORTON, DONALD L.	SURGICAL ONCOLOGY RESEARCH PLANNING WORKSHOP	1R13 CA27543-01	34,990
MULLEN, YOKO S.	IMMUNE ASPECTS IN FETAL PANCREAS ALLOGRAFTS	5R01 AM20827-03	45,050
NAYAK, DEBI P.	INTERFERENCE BY DEFECTIVE INFLUENZA VIRUSES	3R01 AI12749-04S1	14,013
NEWMAN, MICHAEL G.	HOST BACTERIAL INTERACTIONS IN PERIODONTAL DISEASE	5R01 DE04441-03	94,720
NIERLICH, DONALD P.	REGULATION OF RNA SYNTHESIS	5R01 GM15381-12	57,772
NODA, HIROHARU	NEURONAL BASIS OF VISUAL PERCEPTION IN EYE MOVEMENTS	5R01 EY01051-06	112,403
NORMAN, AMOS	EFFECT OF X-RAY CONTRAST MEDIA ON CHROMOSOMES	5R01 GM24679-02	76,582
NOVIN, DONALD	STUDIES OF HUNGER, THIRST AND WATER METABOLISM	5R01 NS07687-12	57,181
O'CONNOR, JOHN D.	BINDING PROTEINS OF BETA-ECDYSONE & JUVENILE HORMONE	5R01 NS08990-08	52,813
O'LAQUE, PAUL H.	ELECTROPHYSIOLOGY OF DEVELOPING NEURONS IN CULTURE	2R01 NS12901-04	62,111
ORNITZ, EDWARD M.	MATURATION OF VESTIBULAR NYSTAGMUS	3R01 EY02612-01S1	16,710
PARDRIDGE, WILLIAM M.	SKELETAL MUSCLE AMINO ACID METABOLISM	5R01 AM21762-02	44,894
PAULSON, JAMES C.	SIALYLOLIGOSACCHARIDE RECEPTORS OF MYXOVIRUSES	1R01 AI16165-01	62,779
PEASE, DANIEL C.	STRUCTURAL ASPECTS OF THE LUNG SURFACTANT SYSTEM	5R01 HL01770-27	12,759
PHELPS, DALE L.	TOCOPHEROL PROTECTION IN OXYGEN INDUCED RETINOPATHY	3R01 EY01939-01S2	22,632
PIERCE, JOHN G.	PURIFICATION AND CHEMISTRY OF PROTEIN HORMONES	5R01 AM18005-26	121,289
POPIAK, GEORGE J.	MOLECULAR ASPECTS OF MENTAL RETARDATION	2P01 HD06576-06	540,115
POPIAK, GEORGE J.	ENZYMES AND INHIBITORS OF CHOLESTEROL BIOSYNTHESIS	2R01 HL12745-11	82,927
PORTER, DAVID D.	IMMUNOLOGIC AND VIRAL STUDIES OF SLOW VIRUS INFECTIONS	5R01 AI09476-11	77,306
PUHVEL, S. MADLI	PATHOGENESIS OF INFLAMMATORY ACNE	5R01 AM17425-06	102,853
RAU, ERIC E.	IONIC CONTROL OF CONTRACTILITY IN ANOXIC MYOCARDIUM	5R23 HL21783-02	38,054
RAY, DAN S.	REGULATION OF M13 VIRAL DNA REPLICATION	5R01 AI10752-08	85,314
REISLER, EMIL	DYNAMIC EVENTS IN MYOSIN DURING CONTRACTION OF MUSCLE	5R01 AM22031-02	61,570
RINDERKNECHT, HEINRICH	PANCREATIC SECRETORY PROTEINS IN CANCER OF THE PANCREAS	2R26 CA20222-04	25,452
RIVIERE, GEORGE R.	TOOTH TRANSPLANTATION GENETICS AND IMMUNOLOGY	5R01 DE04489-04	53,136
ROBERTS, SIDNEY	AMINO ACID IMBALANCES AND BRAIN METABOLISM	5R01 NS13295-03	96,812
ROMIG, WILLIAM R.	GENETIC STUDIES ON VIBRIO CHOLERAE	2R22 AI08024-10A1	44,458
SALSER, WINSTON A.	NUCLEOTIDE SEQUENCING METHODS FOR ONCOGENIC VIRUSES	5R01 GM18586-08	65,491
SALSER, WINSTON A.	DETERMINING SEQUENCES FOR HEMOGLOBIN MESSENGER RNA	5R01 HL21831-06	83,823
SANSOME-BAZZANO, GAIL L.	ANDROGEN METABOLISM AND SEBUM COMPOSITION DURING PUBERTY	5R01 HD11633-02	105,138
SAWYER, CHARLES H.	RHINENCEPHALON, NEUROENDOCRINE FUNCTION AND BEHAVIOR	2R01 NS01162-23	102,735
SAXON, ANDREW	NORMAL REGULATION OF IMMUNOGLOBULIN E IN HUMANS	5R01 AI15251-02	48,200
SCHIEBEL, ARNOLD B.	THE HISTOLOGICAL SUBSTRATE OF CEREBRAL DOMINANCE	5R01 NS13871-02	55,492
SCHLAG-REY, MADELEINE L.	SINGLE UNIT STUDIES OF VISUO-OCULOMOTOR MECHANISMS	5R01 EY02305-02	73,134
SCHLAG, JOHN D.	CONDITIONING OF PYRAMIDAL ACTIVITY BY SENSORY INFLOW	2R01 NS04955-16	105,662
SCHOTZ, MICHAEL C.	LIPOPROTEIN LIPASE: CHEMISTRY AND FUNCTION	5R01 HL16577-05	115,695
SCHUMAKER, VERNE N.	MACROMOLECULES OF CIRCULATORY AND GENETIC IMPORTANCE	5R01 GM13914-15	92,918
SCHWARTZ, ILSA R.	DYNAMIC ASPECTS OF AUDITORY SYNAPTIC TERMINALS	5R01 NS14503-03	42,077
SCOTT, JOHN F.	THE ENZYMOLOGY OF DNA REPLICATION IN YEAST	1R01 GM27000-01	79,527
SEEGER, ROBERT C.	HUMAN NEUROBLASTOMA CELL SURFACE ANTIGENS	5R01 CA22794-02	88,281
SERCARZ, ELI E.	REGULATION OF T-BMO INTERACTIONS BY KEY DETERMINANTS	5R01 AI11183-07	90,796
SERCARZ, ELI E.	CHEMICAL BASIS FOR RECEPTOR RECOGNITION OF LYSOZYMES	5R01 CA24442-11	72,135

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SHAPIRO, DAVID.....	HYPERTENSION: ANALYSIS OF DRUG & BEHAVIORAL THERAPIES.....	2R01 HL19568-04	88,852
SIDELL, NEIL.....	EFFECTS OF RETINOIC ACID ON THE IMMUNE SYSTEM.....	3R23 CA25801-01S1	200
SIDELL, NEIL.....	EFFECTS OF RETINOIC ACID ON THE IMMUNE SYSTEM.....	5R23 CA25801-02	32,750
SIEGEL, JEROME M.....	RETICULAR FORMATION NEURONS: RELATION TO MOTOR ACTIVITY.....	5R01 NS14610-02	35,211
SIEGEL, SHARON R.....	RENIN ANGIOTENSIN MINERALOCORTICOID SYSTEM DEVELOPMENT.....	7R01 HD13910-01	114,287
SIGMAN, DAVID S.....	METAL ION CATALYSIS IN ENZYMIC REACTIONS.....	3R01 GM21199-11S1	18,366
SIMPSON, LARRY.....	THE FUNCTION OF THE KINETOPLAST IN THE HEMOFLAGELLATES.....	5R01 AI09102-11	72,689
SIMPSON, LARRY.....	DNA IN TRANSFORMATION OF TRYPANOSOMA BRUCEI.....	3R01 AI13027-03S1	16,094
SIMPSON, LARRY.....	DNA IN TRANSFORMATION OF TRYPANOSOMA BRUCEI.....	2R01 AI13027-04	45,706
SINGH, BRAMAH N.....	MECHANISMS AND CONTROL OF SUDDEN CARDIAC DEATH.....	5R01 HL23970-02	58,504
SMITH, EMIL L.....	STRUCTURE AND PROPERTIES OF PROTEINS AND ENZYMES.....	5R01 GM11061-17	244,174
SMITH, GEORGE S.....	DIETARY RESTRICTION, CANCER AND IMMUNE FUNCTIONS.....	1R01 CA26164-01	47,651
SMITH, JUDITH L.....	SIGNIFICANCE OF MUSCLE FIBER TYPES.....	5R01 NS10423-06	92,150
SMITH, ROBERTS A.....	GROUP TRANSFER PROCESSES IN NORMAL AND MALIGNANT CELLS.....	5R01 CA13196-08	88,806
SOLL, ANDREW H.....	PHYSIOLOGY OF THE ISOLATED MAMMALIAN PARIETAL CELL.....	5R01 AM19984-03	49,365
SOLOMON, DAVID H.....	GRAVES' DISEASE STUDIES.....	5R01 AM17251-05	80,748
SOLOMON, TRAVIS.....	FRONTIERS IN PANCREATIC PHYSIOLOGY.....	1R13 AM26779-01	29,635
SONNENSCHNEIN, RALPH R.....	NEURAL CONTROL OF CEREBRAL CIRCULATION.....	2R01 HL17903-04	80,845
STECKEL, RICHARD J.....	CANCER CENTER CORE SUPPORT GRANT.....	5P30 CA16042-05	997,001
STELL, WILLIAM K.....	PATHWAYS FOR COLOR VISION IN RETINAS.....	5R01 EY01190-07	85,843
SERMAN, MAURICE B.....	EEG NORMALIZATION BY FEEDBACK TRAINING IN EPILEPTICS.....	5R01 NS10726-05	42,701
STEVENS, JACK G.....	LATENCY IN HERPES VIRUS INFECTION OF CELLS AND TISSUES.....	5R01 AI06246-15	118,564
STEVENS, JACK G.....	ANALYSIS OF THE SHOPE PAPILLOMA-CARCINOMA SYSTEM.....	2R01 CA18151-04	100,249
STEVENS, ROBERT V.....	TOTAL SYNTHESIS OF CHIRALLY PURE STEROIDS.....	5R01 AM20398-03	55,651
STEVENS, ROBERT V.....	SYNTHESIS OF ANTICANCER TERPENOIDS AND ANTIBIOTICS.....	1R01 CA25675-01	60,713
STEVENS, RONALD H.....	IN VITRO ANALYSIS OF ANTIBODY REGULATION IN MAN.....	1R01 AI15859-01	64,238
STIEHM, E RICHARD.....	CELLULAR IMMUNITY IN SICK AND MALNOURISHED INFANTS.....	5R01 HD09800-05	104,027
STORM, F KRISTIAN.....	LOCAL HYPERTHERMIC CANCER THERAPY.....	1R01 CA24883-01A1	99,631
STRAATSMAN, BRADLEY R.....	VISION RESEARCH CENTER.....	2P30 EY00331-13	268,396
SWENDESEID, MARIAN E.....	AMINO ACID AND AMINE METABOLISM IN EXPERIMENTAL UREMIA.....	2R01 AM15197-07	45,595
SZEGO, CLARA M.....	HORMONAL CONTROL OF CELL GROWTH AND DIFFERENTIATION.....	5R01 HD04354-26	117,138
TARIAN, GEORGE.....	MENTAL RETARDATION RESEARCH CENTER.....	5P30 HD04612-11	627,975
TERASAKI, PAUL I.....	STUDY OF SIGNIFICANCE OF HLA ANTIGENS IN DISEASE.....	5R01 AM02375-21	65,982
THOMAS, JAMES P.....	MECHANISMS OF SPATIAL PATTERN VISION.....	2R01 EY00360-13	53,937
TIERNEY, DONALD F.....	LUNG INJURY, SUBSTRATE UTILIZATION, OXYGEN TOXICITY.....	3R01 HL17719-03S1	9,186
TIERNEY, DONALD F.....	LUNG INJURY, SUBSTRATE UTILIZATION, OXYGEN TOXICITY.....	5R01 HL17719-04	85,584
TOBIN, ELAINE M.....	REGULATION OF SPECIFIC MRNAS BY LIGHT DURING DEVELOPMENT.....	2R01 GM23167-04	76,158
TOOEY, JOHN I.....	SULFHYDRYL AND ALKYLTHIO COMPOUNDS IN CELL DIVISION.....	5R01 GM23915-03	51,009
TYAN, MARVIN L.....	AGE-RELATED CHANGES IN PRECURSORS OF T- AND B-CELLS.....	5R01 AG00990-03	50,132
TYAN, MARVIN L.....	GENETIC CONTROL OF SUSCEPTIBILITY TO CLEFT PALATE.....	1R01 DE05165-01	75,084
UNGERLEIDER, J THOMAS.....	9-DELTA THC AND COMPANINE R IN CANCER CHEMOTHERAPY.....	3R01 CA21451-01S2	38,086
URIST, MARSHALL R.....	INDUCTIVE SUBSTRATES FOR TOOTH AND BONE FORMATION.....	2R01 DE02103-15	167,181
VALENTINE, WILLIAM N.....	ENZYMATIC AND BIOCHEMICAL STUDIES ON BLOOD CELLS.....	5R01 HL12944-10	139,871
VAN LANCER, JULIE L.....	ROLE OF REPAIR ENZYMES IN PATHOGENESIS OF LIVER CANCER.....	5R01 CA14840-06	51,455
VERGARA, JULIO L.....	OPTICAL AND ELECTRICAL STUDIES IN CUT MUSCLE FIBERS.....	1R01 AM25201-01	58,401
VIJAYARAGHAVAN, SUDARSANA.....	EFFECT OF AGING ON PROTECTIVE RESPONSE TO LEAD EXPOSURE.....	1R23 ES02047-01	38,619
WALFORD, ROY L.....	THE ROLE OF IMMUNE PHENOMENA IN THE AGING PROCESS.....	5R01 AG00424-18	107,813
WALFORD, ROY L.....	IMMUNOLOGIC AGING-GERIATRIC & DOWN'S SYNDROME SUBJECTS.....	5P01 AG00790-02	326,667
WALFORD, ROY L.....	HLA AND AGING: INTERNATIONAL HISTOCOMPATIBILITY WORKSHOP.....	1R13 AG01609-01	23,900
WALFORD, ROY L.....	TRANSPLANTATION IMMUNOGENETICS AND CANCER.....	5R01 AI10088-09	122,305
WALL, RANDOLPH.....	THE PRODUCTION OF IMMUNOGLOBULIN MRNA IN MYELOMA CELLS.....	5R01 AI13410-03	58,047
WALLING, MARLIN W.....	MECHANISMS OF INTESTINAL PHOSPHATE ABSORPTION.....	1R01 AM20919-01A2	39,275
WALSH, JOHN H.....	HORMONAL ETIOLOGY OF GASTRIC HYPERSECRETION.....	5R01 AM17294-06	99,088
WARD, JOHN F.....	CELLULAR REPAIR OF POTENTIALLY MUTAGENIC DAMAGE.....	2R01 CA13437-06A1	80,871
WARD, PAUL H.....	EXPERIMENTAL STUDIES ON VESTIBULAR MECHANISMS.....	5R01 NS08335-11	96,201
WARD, PAUL H.....	COMMUNICATIVE DISORDERS CLINICAL RESEARCH CENTER.....	5P50 NS09823-09	661,492
WASTERLAIN, CLAUDE G.....	BRAIN DEVELOPMENT IN EXPERIMENTAL EPILEPSY.....	2R01 NS13515-03A1	71,037
WEINSTOCK, ALFRED.....	ELABORATION OF GLYCOPROTEINS IN MINERALIZING TISSUES.....	5R01 DE03386-09	73,550
WEISS, RICHARD L.....	AMINO ACID REGULATORY INTERACTIONS IN YEAST.....	5R01 GM23943-02	41,223
WEST, LOUIS J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05756-06	173,415

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
WHEELER, LARRY A.....	ORAL FLORA AND CARCINOGENESIS OF DENTAL THERAPEUTICS.....	5R01 CA22249-03	57,299
WHITE, STUART C.....	IMMUNOPATHOLOGY—EXPERIMENTAL AUTOALLERGIC SIALADENITIS.....	5R01 DE03859-06	61,970
WICKNER, WILLIAM T.....	THE ASSEMBLY OF PROTEINS INTO BIOLOGICAL MEMBRANES.....	2R01 GM23377-04	109,548
WISNIESKI, BERNADINE J.....	PHYSICAL STRUCTURE OF ANIMAL CELL MEMBRANES.....	2R01 GM22240-04A1	53,157
WOLFGAM, FREDERICK J.....	FUNDAMENTAL STUDIES RELATING TO MULTIPLE SCLEROSIS.....	3P50 NS08711-09S1	130,586
WRIGHT, ERNEST M.....	MOLECULAR MECHANISM OF INTESTINAL CALCIUM TRANSPORT.....	5R01 AM19567-03	74,137
WRIGHT, ERNEST M.....	THE SECRETION OF CEREBROSPINAL FLUID.....	2R01 NS09666-06	76,004
YOUNG, LOWELL S.....	STUDY OF HOST-MICROBIAL FACTORS IN BACILLEMIA.....	5R01 AI11271-07	46,019
YOUNG, LOWELL S.....	IMMUNOBIOLOGY OF K ANTIGENS OF ENTEROBACTERIACEAE.....	5R01 AI13518-03	67,984
YOUNG, RICHARD W.....	HISTOPHYSICAL AND HISTOCHEMICAL STUDIES ON THE EYE.....	5R01 EY00095-18	111,019
YOUNG, RICHARD W.....	DAILY RHYTHMS IN VISUAL CELL METABOLISM.....	5R01 EY02277-02	40,024
ZABIN, IRVING.....	STUDIES OF AN INDUCIBLE BACTERIAL ENZYME.....	5R01 AI04181-18	116,304
ZAMENHOF, STEPHEN.....	PRENATAL MALNUTRITION AND AGING.....	5R01 AG00162-03	59,579
ORGANIZATION TOTAL	321 35,545,926		/
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
ALADJEM, FREDERICK.....	SERUM LIPOPROTEINS IN PATIENTS WITH BREAST CANCER.....	5R01 CA19634-03	73,150
ALEXANDER, NATALIE.....	SYMPATHETIC ACTIVITY IN RAT WITH NEUROGENIC HYPERTENSION.....	2R01 HL19251-04	91,017
APPLEMAN, M MICHAEL.....	CYCLIC NUCLEOTIDE PHOSPHODIESTERASE.....	5R01 AM16367-06	40,164
APPLEMAN, M MICHAEL.....	AGING AND INSULIN EFFECTS ON CYCLIC AMP METABOLISM.....	5R01 AM20978-02	42,039
BALCHUM, OSCAR J.....	FLUORESCENCE ENDOSCOPY AND PHOTORADIATION THERAPY.....	1R01 CA25582-01	73,116
BARNOT, ROBERT, JR.....	ANGIOGRAPHIC ESTIMATION—ATHEROSCLEROTIC WALL THICKNESS.....	5R23 HL21279-03	42,981
BAU, ROBERT.....	STRUCTURAL STUDIES ON PLATINUM-NUCLEOTIDE COMPLEXES.....	5R01 CA17367-05	62,084
BEKHOR, ISAAC.....	CHROMATIN-GLUCOCORTICOID INFLUENCES IN CLEFT PALATE.....	5R01 DE04031-05	85,489
BENNETT, THOMAS O.....	HISTOCOMPATIBILITY IN ANIMAL PENETRATING KERATOPLASTY.....	7R01 EY03411-01	43,484
BIRREN, JAMES E.....	A COMPREHENSIVE RESEARCH PROGRAM IN AGING.....	3P01 AG00133-02S1	18,286
BIRREN, JAMES E.....	A COMPREHENSIVE RESEARCH PROGRAM IN AGING.....	5P01 AG00133-03	477,634
BLANKENHORN, DAVID H.....	ATHEROSCLEROSIS PROGRESSION/REGRESSION IN MAN.....	1P01 HL23619-01	681,578
BLANKENHORN, DAVID H.....	COMPUTER ASSESSMENT OF CORONARY ANGIOGRAMS.....	1R01 HL23807-01	172,354
BREWER, GREGORY J.....	GENETICS AND BIOCHEMISTRY OF MEMBRANE ASSEMBLY.....	1R01 AI12501-01A4	66,025
BRODIE, ARNOLD F.....	MECHANISMS OF OXIDATIVE ENERGY GENERATION IN BACTERIA.....	5R01 AI05637-17	155,778
BYERLY, WILLIAM L.....	GENETIC CONTROL OF MEMBRANE CURRENTS.....	1R01 NS15341-01	44,652
CADY, LEE D.....	CARDIOVASCULAR FITNESS AND OTHER RISK FACTORS.....	3R01 HL18235-03S2	3,641
CARMEL, RALPH.....	VITAMIN B12 TRANSPORT AND ITS DISORDERS.....	1R01 AM23027-01	48,844
CLOUGH, WENDY G.....	EBV DNA SYNTHESIS IN TRANSFORMED LYMPHOCYTES.....	2R01 CA23070-03	89,461
COHEN, ARTHUR M.....	INHIBITION OF CARCINOGENESIS BY SELENIUM.....	5R01 CA24518-02	67,607
COOPER, SHELDON M.....	ISOLATION AND CHARACTERIZATION OF FC RECEPTORS.....	5R01 CA21279-02	62,397
CRAWFORD, DONALD W.....	PHYSICS AND WALL OXYGEN TENSION IN ARTERIAL BRANCHES.....	1R01 HL23963-01	65,587
CRAWFORD, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05303-18	58,489
DANENBERG, PETER V.....	STUDIES ON HUMAN TUMOR THYMIDYLATE SYNTHETASES.....	1R01 CA27327-01	27,530
DE QUATRO, VINCENT L.....	HYPERTENSION: BRAIN NORADRENERGIC & DOPAMINERGIC TONE.....	1R01 HL24113-01	75,038
DENNY, PAUL C.....	MECHANISMS OF SALIVARY GLAND DEVELOPMENT.....	1R01 DE04960-01	49,112
DEONIER, RICHARD C.....	IS-MEDIATED INTEGRATION OF THE F PLASMID OF E COLI.....	5R01 GM24589-02	51,585
DIDDIE, KENNETH R.....	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY.....	5R10 EY02471-02	80,941
DIDDIE, KENNETH R.....	PATHOGENESIS OF EXPTL MASSIVE PERIRETINAL PROLIFERATION.....	1R23 EY02849-01A1	11,300
DUNN, ARNOLD S.....	HORMONAL REGULATION OF HEPATIC GLUCOSE PRODUCTION.....	5R01 AM07215-15	54,252
FIFE, THOMAS H.....	ENZYMATIC AND NONENZYMATIC HYDROLYSIS OF ACETALS.....	5R01 GM10613-17	58,408
FIFE, THOMAS H.....	ENZYMATIC AND NONENZYMATIC REACTIONS OF ACYL PHOSPHATES.....	5R01 GM16564-11	53,944
FINCH, CALEB E.....	AGING AND BRAIN MONOAMINES IN MICE.....	2R01 AG00117-04	74,053
FINCH, CALEB E.....	AGING AND BIOSYNTHESIS IN NONDIVIDING CELLS.....	5R01 AG00446-06	74,890
FOURNIER, RAYMOND E.....	GENETIC ANALYSIS OF CELL-TYPE-SPECIFIC FUNCTIONS.....	1R01 GM26449-01	59,790
FRELINGER, JEFFREY A.....	GENETICS AND FUNCTION OF MURINE IA ANTIGENS.....	5R01 CA22662-02	142,074
FRIEDLER, ROBERT M.....	NATRIURESIS OF EXTRACELLULAR FLUID AND CYCLIC AMP.....	2R01 AM19181-04	40,979
GOODMAN, MYRON F.....	CARDIOTOXICITY IN CANCER TREATMENT: A MOLECULAR STUDY.....	5R01 CA17358-05	49,128
GOODMAN, MYRON F.....	ERROR CORRECTION IN DNA SYNTHESIS.....	5R01 GM21422-04	56,005
GORDON, IRVING.....	STUDIES OF MEASLES VIRUS OR OTHER VIRUS INFECTIONS.....	2R01 AI03874-19	75,457
GRODINS, FRED S.....	CARDIOPULMONARY CONTROL COUPLING IN EXERCISE.....	5R01 HL16390-06	6,686
HAMMOND, G DENMAN.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA13539-07	817,969
HAMMOND, G DENMAN.....	COMPREHENSIVE CANCER CENTER—CORE SUPPORT GRANT.....	5P30 CA14089-06	1,652,069
HARDING, BOYD W.....	STEROID HYDROXYLASES IN NORMAL AND ABNORMAL ADRENALS.....	5R01 CA07057-16	142,063

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
HARWIG, JOHN F.....	FIBRINOGEN LABELING WITH RADIOMETALS.....	5R01 HL21273-03	37,497
HAYWOOD, L JULIAN.....	COMPREHENSIVE SICKLE CELL CENTER.....	5P60 HL15162-08	627,351
HEIDELBERGER, CHARLES D.....	IN VITRO CHEMICAL CARCINOGENESIS.....	2R01 CA21036-04	116,915
HEIDELBERGER, CHARLES D.....	CHEMICAL TRANSFORMATION OF PROSTATE EPITHELIAL CELLS.....	5R26 CA21746-03	125,010
HEIDELBERGER, CHARLES D.....	ANTITUMOR DRUG DEVELOPMENT PROGRAM.....	1R01 CA25715-01	186,271
HENDERSON, BRIAN E.....	CANCER CENTER EPIDEMIOLOGY & BIOSTATISTICS SUPPORT.....	3P01 CA17054-03S2	356,320
HENDERSON, BRIAN E.....	CANCER CENTER EPIDEMIOLOGY & BIOSTATISTICS SUPPORT.....	2P01 CA17054-04A1	1,033,533
HENRY, JAMES P.....	PSYCHOSOCIAL HYPERTENSION, CATECHOLAMINES AND DRUGS.....	5R01 HL17706-05	77,386
HOCHSTEIN, PAUL E.....	ULTRASTRUCTURE-BIOCHEMICAL STUDIES OF AGING RED CELLS.....	2R01 AG00471-04	65,890
HORTON, RICHARD.....	METABOLISM OF TESTOSTERONE (ANDROGENS) IN MAN.....	2R01 AM13710-10A1	47,292
HORTON, RICHARD.....	ALDOSTERONE, RENIN AND PROSTAGLANDINS IN MAN.....	5R01 HL13476-08	51,460
HORTON, RICHARD.....	ALDOSTERONE BINDING, CLEARANCE, AND SECRETION IN MAN.....	5R01 HL21112-03	33,961
JELLIFFE, ROGER W.....	LABORATORY OF APPLIED PHARMACOKINETICS.....	5R01 GM23826-03	114,690
KALRA, VIJAY K.....	STRUCTURE AND FUNCTION OF MEMBRANE ASSOCIATED PROTEINS.....	1R01 GM26013-01	60,487
KAPRIELIAN, ZOHRA B A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR07012-13	129,568
KELLY, DOUGLAS E.....	FINE STRUCTURE OF UVEAL BARRIERS TO INTRAOCULAR FLUID.....	1R01 EY03122-01	60,359
KLINGMAN, C DAVID.....	EXPLANATIONS OF CHANGING STATE POLICIES FOR THE AGED.....	1R01 AG01408-01	106,728
LAI, MICHAEL M.....	STRUCTURE AND REPLICATION OF RNA TUMOR VIRUSES.....	5R01 CA16113-05	72,204
LEVY, DANIEL M.....	STRUCTURE AND FUNCTION OF MEMBRANE TRANSPORT PROTEINS.....	1R01 AM25836-01	89,109
LEWIS, STEVEN M.....	ACCURACY OF THE VENTILATORY RESPONSE TO EXERCISE.....	5R23 HL21990-02	38,350
LIEB, MARGARET.....	VIRUS & HOST INTERACTIONS IN MISMATCH REPAIR.....	5R01 GM25034-02	83,932
LIPSETT, JAMES A.....	RADIATION THERAPY ONCOLOGY GROUP.....	3R10 CA18259-03S1	6,706
LIPSETT, JAMES A.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA18259-04A1	40,012
LIPSON, LOREN G.....	PREGNANCY: MECHANISM OF ITS EFFECT ON INSULIN RELEASE.....	1R01 HD12517-01	61,580
LUKES, ROBERT J.....	LYMPHOMA-LEUKEMIA PROGRAM/LAC-USC CANCER CENTER.....	2P01 CA19449-04	592,644
LUKES, ROBERT J.....	CLINICAL CANCER EDUCATION GRANT.....	5R25 CA24426-02	184,600
MACK, THOMAS M.....	CASE CONTROL STUDY OF CARCINOMA OF THE PANCREAS.....	5R26 CA19171-04	110,028
MACK, THOMAS M.....	CASE CONTROL STUDY OF CARCINOMA OF THE ESOPHAGUS.....	5R01 CA19496-04	81,281
MACK, THOMAS M.....	CASE-CONTROL STUDY OF MALIGNANT MELANOMA.....	1R01 CA23927-01A1	123,615
MANNING, PHIL R.....	INDIVIDUALIZED LIBRARY SERVICES FOR OFFICE PRACTICE.....	5R01 LM02857-03	128,441
MARKLAND, FRANCIS S, JR.....	CHARACTERIZATION OF MAMMARY GLUCOCORTICOID RECEPTOR.....	1R01 CA22910-01A1	56,221
MARKLAND, FRANCIS S, JR.....	CROTALASE: CHEMISTRY, PHYSIOLOGY, CLINICAL POTENTIAL.....	5R01 HL22875-02	124,436
MARSH, DONALD J.....	COUNTERCURRENT PROPERTIES OF THE RENAL INNER MEDULLA.....	5R01 AM15968-08	103,197
MARTIN, SUSAN P.....	EPIDEMIOLOGY OF INTRACRANIAL NEOPLASMA.....	5R01 CA20571-03	66,542
MASSRY, SHAUL G.....	BLOOD BRAIN BARRIER AND CALCIUM.....	2R01 AM18959-04	69,282
MASSRY, SHAUL G.....	4TH INTERNATIONAL WORKSHOP ON PHOSPHATE.....	1R13 AM25160-01	10,000
MASSRY, SHAUL G.....	PROSTAGLANDIN, CATECHOLAMINES, HORMONES AND WATER.....	1R01 AM26107-01	77,665
MATHIES, ALLEN W, JR.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00043-19	858,545
MATHIES, ALLEN W, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR05356-18	201,413
MC CLURE, WILLIAM O.....	NEUROLEPTICS, AGING, AND CHOLINERGIC FUNCTION.....	1R01 AG01896-01	83,558
MEISELMAN, HERBERT J.....	HEMORRHEOLOGY STUDIES RELATED TO IN VIVO BLOOD FLOW.....	2R01 HL15722-07	50,834
MILLS, BARBARA G.....	STUDIES OF THE ETIOLOGY OF PAGET'S DISEASE OF BONE.....	5R01 AM19980-02	54,408
MINKIN, CEDRIC.....	MECHANISMS OF BONE RESORPTION IN CHRONIC PERIODONTITIS.....	5R01 DE04961-02	118,183
MITCHELL, MALCOLM S.....	EFFECTS OF THERAPY ON TUMOR-SPECIFIC IMMUNITY.....	5R01 CA25765-02	57,033
MONTROE, BARBARA G.....	ULTRASTRUCTURAL STUDIES OF DEVELOPING INFUNDIBULUM.....	5R01 NS14633-02	46,589
MONTGOMERIE, JOHN Z.....	CANDIDA ENDOPHTHALMITIS WITH IV HYPERALIMENTATION.....	5R01 EY01865-03	62,723
MOORE, GEORGE P.....	ANALYSIS OF PERIPHERAL NEUROMUSCULAR INTERACTIONS.....	5R01 NS11298-04	52,670
MOSSER, GREGORY.....	RECEPTOR FUNCTION AND RELATED STUDIES IN ORAL BIOLOGY.....	5R01 DE03739-07	82,929
MOSLEY, JAMES W.....	EVALUATION OF GLUCOCORTICOID FOR FULMINANT HEPATITIS.....	5R01 AM17953-05	40,257
MOSLEY, JAMES W.....	HEPATITIS RISK OF WASHED BUFFY-POOR RED CELLS.....	1R01 HL23420-01	94,017
NICOLAIDES, NICHOLAS.....	EXTERNAL EYE DISEASE AND MEIBOMIAN GLAND LIPIDS.....	1R01 EY02702-01	81,639
NICOLOFF, JOHN T.....	HUMAN THYROID HORMONE METABOLISM.....	5R01 AM11727-12	67,440
NIMNI, MARCEL E.....	CONTROL OF COLLAGEN METABOLISM AND CROSS-LINKING.....	2R01 AM10358-13	144,661
NIMNI, MARCEL E.....	COLLAGEN IN OSTEOARTHRITIC CARTILAGE.....	5R01 AM16404-06	97,574
O'SHEA, MICHAEL R.....	FUNCTIONAL ROLE OF THE AMINERGIC NERVOUS SYSTEM.....	1R01 NS14984-01	54,752
OLAH, GEORGE A.....	HYDROCARBONS AND DERIVATIVES AS BIOALKYLATING AGENTS.....	5R01 GM24832-03	132,328
OLAH, GEORGE A.....	SUPERCONDUCTING NMR SPECTROMETER.....	1P41 GM27547-01	165,000
PAL, BIJAY K.....	MECHANISM OF VIRUS INDUCED NEURODEGENERATION.....	1R01 NS14891-01A1	57,464
PARKER, JOHN W.....	NEW METHOD FOR SEPARATING LEUCOCYTE SUBPOPULATIONS.....	5R01 CA23677-02	121,297
PELLEGRINI, MARIA C.....	EXPRESSION AND ORGANIZATION OF RIBOSOMAL PROTEIN GENES.....	5R01 GM24572-02	49,336

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PLATT, CHRISTOPHER J.....	LOCALIZATION OF DIFFERING VESTIBULAR SENSORY INPUTS.....	5R01 NS13946-03	8,572
PUFFER, HAROLD W.....	FLOW-INDUCED FLUX CHANGES ACROSS TUMOR MICROVESSELS.....	5R01 CA22224-03	54,397
PUFFER, HAROLD W.....	NIEHS MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	5P30 ES01965-02	121,325
RANDALL, PATRICK K.....	BEHAVIORAL ASPECTS OF REPRODUCTIVE AGING IN ANIMALS.....	5R01 AG00855-02	35,354
REED, CHRISTOPHER A.....	SYNTHETIC ANALOGUES OF THE CYTOCHROMES.....	5R01 GM23851-02	36,793
RHO, JOON H.....	3-D FLUOROMETRIC ANALYSIS OF HYDROCARBON METABOLITES.....	5R01 CA19974-03	44,990
RHO, JOON H.....	SUBCELLULAR CHANGES OF BLOOD VESSELS IN HYPERTENSION.....	5R01 HL21099-03	58,508
ROSS, RONALD K.....	IMMUNOBLASTIC LYMPHADENOPATHY AND HISTIOCYTIC LYMPHOMA.....	5R01 CA24082-02	90,671
ROSS, RONALD K.....	EPIDEMIOLOGY OF CANCER OF THE RENAL PELVIS AND URETER.....	1R01 CA25669-01	33,863
RUSSELL, FINDLAY E.....	VENOMS OF ANIMALS OF UNITED STATES AND YUGOSLAVIA.....	1R01 GM24141-01	68,470
RUSSELL, FINDLAY E.....	PEPTIDES AND CERTAIN ENZYMES OF VENOM.....	5R01 NS11476-05	60,862
RYAN, STEPHEN J.....	AN EXPERIMENTAL APPROACH TO MACULOPATHY.....	2R01 EY01545-04	118,725
RYAN, STEPHEN J.....	PARS PLANA VITRECTOMY IN PENETRATING OCULAR TRAUMA.....	5R01 EY02061-02	69,919
RYAN, STEPHEN J.....	BRUCH'S MEMBRANE/RETINAL PIGMENT EPITHELIAL STUDIES.....	5R01 EY02287-02	93,747
SCHECTER, JOEL E.....	RATHKE'S POUCH-DERIVED TUMORS: A UNIQUE MODEL SYSTEM.....	5R01 CA21426-03	82,696
SCHIFFMAN, SANDRA.....	MECHANISM OF CONTACT ACTIVATION OF INTRINSIC CLOTTING.....	5R01 HL17402-05	76,094
SCHNEIR, MICHAEL L.....	THE MOLECULAR NATURE OF GINGIVAL AND MUCOSAL COLLAGEN.....	5R01 DE03318-08	85,712
SCHONFELD, STEVEN E.....	OCCURRENCE AND ANTIGENICITY OF ENAMEL PROTEINS.....	5R01 DE05088-02	55,695
SHIH, JEAN C.....	MULTIPLE FORMS (ISOZYMES) OF PHENYLALANINE TRANSAMINASE.....	5R01 CA21494-03	44,990
SHIZUYA, HIROAKI.....	ENZYMATIC STUDIES ON SYNTHESIS OF DNA.....	5R01 GM24584-02	50,140
SLAVKIN, HAROLD C.....	BIOLOGY OF CONNECTIVE TISSUE, BONES, AND TEETH.....	5P01 DE02848-09	346,492
SLAVKIN, HAROLD C.....	INTERCELLULAR COMMUNICATION DURING TOOTH FORMATION.....	5R01 DE03569-08	107,708
SMITH, RONALD E.....	EXPERIMENTAL OCULAR HISTOPLASMIC CHOROIDITIS.....	5R01 EY01883-03	77,271
SMITH, RONALD E.....	SYNTHESIS OF DESCMET'S MEMBRANE BY CORNEAL ENDOTHELIUM.....	5R01 EY01993-03	128,270
SMITH, RONALD E.....	EFFECTS OF INTRAOCULAR LENSES ON CORNEAL ENDOTHELIUM.....	3R01 EY02043-01S2	108,282
SORGENTE, NINO.....	ROLE OF VASCULARIZATION DURING CRANIOFACIAL DEVELOPMENT.....	5R01 DE04074-05	88,646
STELLWAGEN, ROBERT H.....	MECHANISM OF ENZYME INDUCTION BY CYCLIC NUCLEOTIDES.....	2R01 CA12563-09	76,646
STEPHENS, PHILIP J.....	INFRARED NATURAL AND MAGNETIC CIRCULAR DICHROISM.....	5R01 GM16263-11	70,764
STEPHENS, PHILIP J.....	CIRCULAR DICHROISM AND MAGNETIC CIRCULAR DICHROISM.....	1P41 GM27541-01	64,501
STOHLMAN, STEPHEN A.....	AGE DEPENDENT ADHERENT CELL FUNCTION: VIRUS RESISTANCE.....	1R01 NS15079-01	61,065
SWARBRICK, JAMES.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05792-03	26,339
THOMPSON, LARRY W.....	MULTIPLE FACTORS IN COPING WITH GRIEF IN THE ELDERLY.....	1R01 AG01959-01	117,299
TOKES, ZOLTAN A.....	LIPOSOMES AS ARTIFICIAL VESICLES FOR DRUG DELIVERY.....	5R01 CA21271-03	45,917
TOKES, ZOLTAN A.....	SIGNIFICANCE OF GP48 IN DIAGNOSIS OF BREAST CANCER.....	1R01 CA24645-01	65,696
TONG, MYRON J.....	HEPATITIS, HAA AND ANTI-HAA IN MOTHERS AND INFANTS.....	2R01 AI10894-07A1	35,007
VOGT, PETER K.....	INTERACTIONS BETWEEN AVIAN TUMOR VIRUSES AND THEIR HOSTS.....	3R01 CA13213-08S1	86,545
VOGT, PETER K.....	GENETICS OF RNA TUMOR VIRUSES.....	2R01 CA19725-04	185,125
WALSH, DAVID A.....	AGE DIFFERENCES IN SEMANTIC MEMORY.....	3R01 AG00572-02S1	5,673
WALSH, DAVID A.....	AGE DIFFERENCES IN SEMANTIC MEMORY.....	2R01 AG00572-03	42,250
WALTHER, ROBIN J.....	AGE RELATED TRENDS IN FAMILY INCOME INEQUALITY.....	1R01 HD13241-01	68,719
WARSHEL, ARIEH.....	THEORETICAL STUDIES OF THE VISION PROCESS.....	2R01 EY01766-04	43,244
WARSHEL, ARIEH.....	THEORETICAL STUDIES OF ENZYMAIC REACTIONS.....	5R01 GM24492-02	46,111
WEIL, MAX H.....	MEDICAL DECISION SYSTEM: EMERGENCY AND CRITICAL CARE.....	9R01 GM25448-04A1	129,760
WEIL, MAX H.....	MECHANISMS OF HYPO-ONCOTIC PULMONARY EDEMA.....	5R01 HL23015-02	22,062
WEINER, LESLIE P.....	DEMYELINATING DISEASES CAUSED BY VIRUSES.....	5R01 NS12967-04	57,138
WEINER, LESLIE P.....	THE EFFECT OF VIRUSES ON SPINAL CORD-MUSCLE INTERACTIONS.....	5R01 NS13685-02	70,057
WINKLER, DONALD R.....	MIGRATION OF FOREIGN STUDENTS TO THE UNITED STATES.....	1R01 HD12996-01	67,252
YATES, FRANCIS E.....	CENTER FOR SYSTEMS ANALYSIS IN PATHOPHYSIOLOGY.....	5P50 GM23732-03	682,033
ORGANIZATION TOTAL	152	18,561,738	
WRIGHT INSTITUTE ZIP CODE 90035			
AZARNOFF, PAT.....	ISSUES IN PEDIATRIC MENTAL HEALTH: A BIBLIOGRAPHY.....	1R01 LM03214-01	23,940
ORGANIZATION TOTAL	1	23,940	
THOMPINEZ			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 94553			
DIVENYI, PIERRE L.....	NORMAL AND NEUROPATHOLOGICAL AUDITORY PERCEPTION.....	1R01 NS15023-01	78,463
TINBERG, HAROLD M.....	ANALYSIS OF EXPERIMENTALLY-INDUCED MALLORY'S BODIES.....	1R01 AM24011-01	14,083

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
CALIFORNIA—Continued				
ORGANIZATION TOTAL	2	92,546		
MENLO PARK				
LINUS PAULING INSTITUTE OF SCIENCE AND MEDICINE		ZIP CODE 94025		
ABERTH, WILLIAM H.....	ADVANCED FIELD ION SOURCE TECHNOLOGY.....	1R01 GM24814-01A1	131,438	
ORGANIZATION TOTAL	1	131,438		
SRI INTERNATIONAL		ZIP CODE 94025		
ACTON, EDWARD M.....	ANTITUMOR ANTHRACYCLINES, SNYTHETIC N & S ISOSTERES.....	5R01 CA24168-02	67,219	
ACTON, EDWARD M.....	MORE EFFECTIVE ANTHRACYCLINES/SYSTEMATIC DEVELOPMENT.....	1R01 CA25711-01	380,365	
ACTON, EDWARD M.....	THIOGUANINE-TYPE C-NUCLEOSIDES AS ANTICANCER AGENTS.....	1R01 CA25948-01	165,012	
BARON, WILLIAM S.....	PHOTORECEPTOR INFORMATION PROCESSING IN PRIMATES.....	5R01 EY01579-05	136,744	
BARON, WILLIAM S.....	RETINAL INFORMATION PROCESSING.....	1R01 EY02856-01	87,042	
BRODIE, IVOR.....	INVESTIGATION OF CHARGE TRANSFER ELECTORADIOGRAPHY.....	5R01 CA16543-03	179,536	
COLWELL, WILLIAM T.....	SYNTHESIS AND EVALUATION OF NEOPTERIN ALDOLASE INHIBITOR.....	1R01 AI16140-01	91,888	
CRANE, HEWITT D.....	BINOCULAR VISUAL PROCESSES AND INSTRUMENTATION.....	2R01 EY01031-06	218,590	
DAVIS, EDWARD E.....	ELECTROPHYSIOLOGICAL STUDY OF MOSQUITO CHEMORECEPTORS.....	5R01 AI10954-06	39,420	
DAVIS, EDWARD E.....	NEUROPHYSIOLOGY OF TICK PERIPHERAL RECEPTORS.....	5R01 AI13690-03	48,694	
DAWSON, MARCIA I.....	PRODRUGS, POLYMERIC CHELATORS AND IONOPHORES FOR IRON.....	1R01 AM25647-01	56,491	
EDMONDS, PETER D.....	BIOEFFECTS OF LOW INTENSITY ULTRASONIC IRRADIATION.....	3P01 GM22684-03S1	21,529	
EVANS, MICHAEL J.....	INJURY AND TUMOR FORMATION IN THE RAT LUNG.....	5R01 CA19354-03	78,903	
EVANS, MICHAEL J.....	PULMONARY TISSUE INJURY AND REPAIR.....	5R01 HL16330-07	62,168	
FIELDSTEEL, A HOWARD.....	CULTIVATION OF M. LEPRAE IN TISSUE CULTURE.....	3R22 AI08417-09S1	16,082	
FIELDSTEEL, A HOWARD.....	CULTIVATION OF M. LEPRAE IN TISSUE CULTURE.....	5R22 AI08417-10	183,207	
FIELDSTEEL, A HOWARD.....	TISSUE CULTURE/GENETIC STUDIES OF TREPONEMA PALLIDUM.....	5R01 AI15113-02	138,182	
FODGE, DOUGLAS W.....	GLUCOCORTICOIDS IN NORMAL AND TRANSFORMED CELLS.....	3R01 CA19627-03S1	13,958	
FREEMAN, GUSTAVE.....	STUDY OF CHRONIC OBSTRUCTIVE LUNG DISEASE.....	5P01 ES00842-08	656,427	
HAMMEN, RICHARD F.....	INHIBITION OF SEQUENCE-SPECIFIC DNA-PROTEIN REACTIONS.....	5R01 CA20603-03	78,316	
JENSEN, RICHARD A.....	VAGAL CONTROL OF HEART RATE: A BIOPHYSICAL MODEL.....	3R01 HL19076-03S1	18,019	
KAPLAN, JOEL N.....	MATERNAL BEHAVIOR AND INFANT DEVELOPMENT.....	5R01 HD04905-08	112,989	
KAPLAN, SAMUEL D.....	RETROSPECTIVE COHORT MORTALITY STUDY OF PRIESTS.....	5R01 CA23657-02	20,729	
KELLY, DONALD H.....	PROCESSING OF ELEMENTARY VISUAL STIMULI.....	5R01 EY01128-06	192,539	
KLEID, DENNIS G.....	MECHANISM OF CARCINOGEN-INDUCED FRAMESHIFT MUTATIONS.....	5R01 CA21593-03	55,362	
LAWSON, JOHN A.....	SYNTHESIS OF NEW ANTICONVULSANTS.....	1R01 NS15450-01	32,167	
LEE, WILLIAM W.....	BLOOD COMPATIBLE BENZAMIDINE CONTAINING POLYMERS.....	5R01 HL21769-02	75,914	
LOEW, GILDA H.....	THEORY OF PHYSICAL PROPERTIES AND REACTIVITY IN P-450.....	7R01 GM27943-01	75,463	
MILL, THEODORE.....	THE ROLE OF FREE RADICALS AND ANTIOXIDANTS IN AGING.....	5R01 AG00486-05	52,332	
MILLER, JON P.....	CYCLOC AMP ANALOGS AS ANTIPSORIASIS AGENTS.....	5R01 AM21773-02	117,325	
MILLER, JON P.....	MAPPING CYCLIC AMP BINDING SITES ON PROTEIN KINASES.....	5R01 GM25697-02	99,682	
MITOMA, CHOZO.....	BIOCHEMICAL STUDIES OF A SWEETENER, SRI OXIME V.....	1R01 DE05466-01	89,577	
MORTELMANS, KRISTIE E.....	DNA REPAIR STUDIES IN XERODERMA PIGMENTOSUM CELLS.....	1R01 CA26124-01	52,205	
MORTELMANS, KRISTIE E.....	MICROBIAL MUTAGENESIS AND PLASMIDS.....	1R23 ES02004-01	40,743	
PETERS, JOHN H.....	STUDIES OF ANTILEPROSY DRUGS IN ANIMALS AND MAN.....	5R22 AI08214-12	94,741	
PIANTANDA, THOMAS P.....	TEMPORAL PROCESSING IN HUMAN COLOR VISION.....	3R01 EY02357-02S1	45,638	
PINCUS, JACK H.....	MECHANISM OF NANAASE-ENHANCED TUMOR IMMUNOGENICITY.....	1R01 CA26162-01	98,545	
REBERT, CHARLES S.....	ASYMMETRY OF HUMAN EEG, PERCEPTION, AND LEARNING.....	5R01 NS12591-04	91,320	
SKINNER, WILFRED A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR05522-17	149,721	
TANABE, MASATO.....	STEREOSPECIFIC SYNTHESIS OF STEROL SIDE CHAINS.....	1R01 GM27058-01	83,450	
WOOD, BERNARD J.....	STEREOSPECIFIC SYNTHESIS WITH A MOLECULAR TEMPLATE.....	5R01 GM25140-02	58,754	
ORGANIZATION TOTAL	41	4,376,988		
NORTHRIDGE				
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT NORTHRIDGE		ZIP CODE 91330		
LEFEVRE, GEORGE, JR.....	COMPARATIVE STUDIES ON INDUCED MUTATION IN DROSOPHILA.....	5R01 GM13631-14	89,923	
OPPENHEIMER, STEVEN B.....	MECHANISMS OF INTERCELLULAR ADHESION.....	5R01 CA12920-08	55,763	
TOPPEN, DAVID L.....	KINETICS OF CHLORPROMAZINE-DOPAMINE RECEPTOR REACTIONS.....	1R01 NS14775-01A1	17,069	
ORGANIZATION TOTAL	3	162,755		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
OAKLAND			
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFORNIA ZIP CODE 94609			
ABRAHAM, SAMUEL.....	ALTERED GENOME EXPRESSION IN PRENEOPLASIA AND NEOPLASIA.....	5R01 CA11736-10	190,693
ABRAHAM, SAMUEL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05467-11	46,749
CERIANI, ROBERTO L.....	USE OF CELL MEMBRANES TO ASSESS PHENOTYPIC EXPRESSION.....	2R01 CA19455-04	99,083
CERIANI, ROBERTO L.....	BREAST NEOPLASIA DIAGNOSIS WITH SPECIFIC ANTIBODIES.....	5R01 CA20286-02	100,902
HAYFLICK, LEONARD.....	PROGRAMMED SENEESCENCE IN CULTURED HUMAN CELLS.....	1R01 AG00850-01	247,784
MORETTI, RICHARD L.....	LOCAL REGULATION OF CORONARY FLOW BY PROSTAGLANDINS.....	3R01 HL19218-03S1	3,940
MORETTI, RICHARD L.....	PROSTAGLANDINS, PLATELET AGGREGATION AND VASOACTIVITY.....	5R01 HL22946-02	89,982
SMITH, STUART.....	STRUCTURE AND SPECIFICITY OF LIPOGENIC ENZYMES.....	5R01 AM16073-05	106,510
SMITH, STUART.....	REGULATION OF TRIGLYCERIDE COMPOSITION OF MILK.....	1R01 HD12588-01	67,913
THOMPSON, KAREN E.....	CELL SURFACE MODULATION IN MAMMARY NEOPLASIA.....	5R01 CA18946-03	103,796
ORGANIZATION TOTAL	10 1,057,352		
INSTITUTE FOR RESEARCH IN SOCIAL BEHAVIOR ZIP CODE 94612			
MELLINGER, GLEN D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05719-08	52,525
ORGANIZATION TOTAL	1 52,525		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 94612			
CUTTING, CECIL C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05521-17	37,849
FRIEDMAN, GARY D.....	SURVEILLANCE FOR DRUGS THAT MAY BE CARCINOGENIC.....	5R01 CA19939-03	118,787
FRIEDMAN, GARY D.....	ATHEROSCLEROTIC DISEASE AND RISK FACTORS IN TWINS.....	5R01 HL21971-02	111,263
GLASS, ANDREW G.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20148-03	62,044
ORGANIZATION TOTAL	4 329,943		
MILLS COLLEGE ZIP CODE 94613			
BRONSON, GORDON W.....	PATTERN ENCODING IN EARLY INFANCY.....	1R01 HD12565-01	76,736
ORGANIZATION TOTAL	1 76,736		
PALO ALTO			
AMERICAN INSTITUTES FOR RESEARCH ZIP CODE 94301			
CARD, JOSEFINA J.....	HIGH-LEVEL MIGRATION FROM THE PHILIPPINES TO THE U. S.....	5R01 HD11938-02	19,024
ORGANIZATION TOTAL	1 19,024		
NORTHERN CALIFORNIA CANCER PROGRAM, INC. ZIP CODE 94304			
CARTER, STEPHEN K.....	CANCER CENTER SUPPORT (CORE) GRANT.....	2P30 CA19408-04	706,169
CARTER, STEPHEN K.....	NORTHERN CALIFORNIA ONCOLOGY GROUP.....	2R10 CA21744-03	934,476
ORGANIZATION TOTAL	2 1,640,645		
PALO ALTO MEDICAL RESEARCH FOUNDATION ZIP CODE 94301			
COURTNEY, KENNETH R.....	FREQUENCY-DEPENDENT DRUG ACTIONS IN CARDIAC MUSCLE.....	7R01 HL24156-01	34,777
INGELS, NEIL B, JR.....	VENTRICULAR DYNAMICS FROM SURGICALLY INSERTED MARKERS.....	5R01 HL17993-05	252,148
JOHNSON, BEN F.....	REGULATORY MECHANISMS IN MUTAGENESIS AND CELL DIVISION.....	1R01 GM26205-01	94,487
KRAHENBUHL, JAMES L.....	MONOCYTES AND MACROPHAGES IN RESISTANCE TO CANCER.....	5R01 CA22452-02	141,235
KRUPP, MARCUS A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05513-17	43,662
REMINGTON, JACK S.....	TOXOPLASMOIS: NATURE OF INFECTION & IMMUNE RESPONSE.....	5R01 AI04717-18	288,355
SHARMA, SOMESH D.....	TUMOR CELL KILLING BY A SOLUBLE MACROPHAGE PRODUCT.....	1R23 CA27565-01	33,520
ORGANIZATION TOTAL	7 888,184		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 94304			
CARMELLI, DORIT.....	POPULATION GENETIC MODELS AND METHODS IN GERONTOLOGY.....	1R23 AG02127-01	31,073
OKARMA, THOMAS B.....	AGING AND AUTOIMMUNITY: PHARMACOLOGIC MECHANISMS.....	1R01 AG01690-01	39,545
REAVEN, EVE P.....	EFFECT OF AGE ON BETA CELL STRUCTURE AND FUNCTION.....	1R01 AG01237-01	50,227
ORGANIZATION TOTAL	3 120,845		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
ALLMAN, JOHN M.	FUNCTIONAL ORGANIZATION OF VISUAL CORTEX.....	5R01 NS12131-06	47,787
ATTARDI, GIUSEPPE	GENE EXPRESSION AND CONTENT IN CELL DIFFERENTIATION.....	2R01 GM11726-16	322,104
BALDESCHWIELER, JOHN D.	STUDY OF BIOLOGICAL SYSTEMS BY NEW PHYSICAL METHODS.....	5R01 GM21111-07	116,196
BOETTGER, HEINZ G.	MASS SPECTROMETRY RESOURCE FOR BIOMEDICAL APPLICATIONS.....	5P41 RR00922-03	74,454
BONNER, JAMES F.	MOLECULAR BASIS OF GENETIC CONTROL.....	5R01 GM13762-14	242,053
BROCKES, JEREMY P.	CULTURED SCHWANN CELLS STUDY.....	5R01 NS14403-02	66,411
BROKAW, CHARLES J.	MECHANISMS OF MOVEMENT OF SIMPLE SPERM FLAGELLA.....	5R01 GM18711-08	86,509
BROKAW, CHARLES J.	COMPUTER SIMULATION OF SLIDING FILAMENT SYSTEMS.....	5R01 GM21931-04	45,583
CAMPBELL, JUDITH L.	ENZYMATIC MECHANISMS OF DNA REPLICATION.....	5R01 GM25508-02	44,529
CHAN, SUNNEY I.	STUDIES OF LIPID-LIPID AND LIPID-PROTEIN INTERACTIONS.....	5R01 GM2432-05	156,002
DAVIDSON, ERIC H.	SEQUENCE STRUCTURE OF EUKARYOTIC GENOME.....	2P01 GM20927-05	320,615
DAVIDSON, ERIC H.	OOGENESIS AND GENE CONTROL IN ANIMAL REPRODUCTION.....	3R01 HD05753-09S1	22,185
DAVIDSON, ERIC H.	OOGENESIS AND GENE CONTROL IN ANIMAL REPRODUCTION.....	2R01 HD05753-10	296,435
DAVIDSON, ERIC H.	YEAR ROUND S. PURPURATUS RESEARCH RESOURCE.....	5P40 RR00986-05	71,376
DAVIDSON, NORMAN R.	SEQUENCE ORGANIZATION OF INTEGRATED TUMOR VIRUS GENOMES.....	1R01 CA25991-01	116,920
DAVIDSON, NORMAN R.	PHYSICAL CHEMISTRY OF NUCLEIC ACIDS.....	5R01 GM10991-20	190,698
DERVAN, PETER B.	PROTEIN-NUCLEIC ACID CROSS-LINKING REAGENTS.....	2R01 GM22909-04	53,981
DICKERSON, RICHARD E.	MACROMOLECULAR INTERACTIONS AND GENETIC CONTROL.....	5R01 GM12121-15	125,060
DICKERSON, RICHARD E.	DNA SYNTHESIS AND INTERACTION WITH PROTEINS AND DRUGS.....	5R01 GM24393-03	88,852
DICKERSON, RICHARD E.	COMPUTER GRAPHICS TERMINAL FOR MOLECULAR BIOLOGY.....	1P41 GM27501-01	138,138
DREYER, WILLIAM J.	MICROSEQUENCE STUDIES OF CELL SURFACE ANTIGENS.....	5R01 AI14059-03	97,941
EVANS, DAVID A.	PROSTAGLANDIN SYNTHESIS.....	5R01 GM21746-05	58,897
EVANS, DAVID A.	SYNTHESIS OF CATION MEMBRANE CARRIER LIGANDS.....	5R01 GM23991-03	52,636
EVANS, DAVID A.	ANTICANCER AND NEUROTOXIC ALKALOID SYNTHESIS.....	9R01 GM26111-04	102,130
FENDER, DEREK H.	CHILDREN'S DEVELOPMENT OF READING STRATEGIES.....	5R01 EY02479-02	93,671
FENDER, DEREK H.	THE INFLUENCE OF PERIPHERAL VISION ON VISUAL PERFORMANCE.....	1R01 EY02890-01	87,596
GAGNE, ROBERT R.	MODEL INORGANIC SYSTEMS FOR COPPER PROTEINS.....	5R01 AM18319-05	56,719
GIFFIN, CHARLES E.	AN INTEGRATING ELECTRO-OPTICAL MS ION DETECTOR.....	2R01 GM20850-05	187,421
GODDARD, WILLIAM A, III.	MECHANISM & STRUCTURE IN OXYGEN BINDING & REDOX PROTEINS.....	5R01 GM23971-03	92,166
GRAY, HARRY B.	METALLO-OXIDASES: SPECTROSCOPIC AND MAGNETIC STUDIES.....	1R01 AM19038-01A2	63,944
HOOD, LEROY E.	GENETICS OF ANTIBODY DIVERSITY, EXPRESSION AND EVOLUTION.....	2R01 AI10781-09	154,337
HOROWITZ, NORMAN H.	IRON TRANSPORT IN FUNGI.....	1R01 AI15739-01	68,550
HOROWITZ, NORMAN H.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07003-14	201,413
HUDSPETH, ALBERT J.	TRANSDUCTION MECHANISM OF HAIR CELLS.....	2R01 NS13154-04	105,847
IRELAND, ROBERT E.	THE SYNTHESIS OF APHIDICOLIN AND TIRANDAMYCIN.....	5R01 CA18191-05	73,162
IRELAND, ROBERT E.	POLYETHER IONOPHORES: SYNTHESIS OF X537A AND ANALOGS.....	5R01 HL21367-03	97,352
KONISHI, MASAKAZU	SEXUAL DIFFERENTIATION OF BRAIN AND BEHAVIOR.....	2R01 HD10501-03	51,929
KONISHI, MASAKAZU	NEUROPHYSIOLOGY OF SOUND LOCALIZATION.....	5R01 NS14617-02	62,571
KONOPKA, RONALD J.	PACEMAKER, MUTATIONS, ENVIRONMENTAL CYCLES, AND AGING.....	1R01 AG01844-01	96,644
LESTER, H. ALLEN.	NICOTINIC SYNAPSES, BIOPHYSICAL STUDIES.....	5R01 NS11756-05	73,484
LEWIS, EDWARD B.	GENETIC CONTROL OF DEVELOPMENTAL PATHWAYS.....	5R01 HD06331-08	100,240
MANIATIS, THOMAS P.	THE STRUCTURE AND ORGANIZATION OF HUMAN GLOBIN GENES.....	1R01 HL24380-01	118,811
MARSH, RICHARD E.	CRYSTAL STRUCTURE STUDIES OF COMPOUNDS RELATED TO DNA.....	2R01 GM16966-10	74,909
MC CANN, GILBERT D.	LIGHT TRANSDUCTION AND COLOR VISION.....	5R01 EY01822-03	97,498
MEYER, RONALD L.	GROWTH OF RETINOECTAL CONNECTIONS.....	1R01 NS15381-01	52,424
MITCHELL, HERSCHEL K.	MOLECULAR BASIS FOR STRESS PROTECTION.....	1R01 AG01931-01	31,155
MITCHELL, HERSCHEL K.	BIOCHEMICAL GENETICS OF DEVELOPMENT IN DROSOPHILA.....	1R01 GM25966-01	61,494
PETTIGREW, JOHN D.	COMPARATIVE PHYSIOLOGY OF BINOCULAR VISION.....	3R01 EY01909-02S1	8,424
PETTIGREW, JOHN D.	COMPARATIVE PHYSIOLOGY OF BINOCULAR VISION.....	5R01 EY01909-03	57,449
PETTIGREW, JOHN D.	VISUAL CORTICAL NEURONS.....	8R01 EY03291-05	85,352
RAFTERY, MICHAEL A.	BIOCHEMISTRY AND BIOPHYSICS OF AN ACETYLCHOLINE RECEPTOR.....	5R01 NS10294-08	99,725
RAFTERY, MICHAEL A.	CHEMISTRY AND KINETICS OF AXONAL CONDUCTION.....	2R01 NS12018-14	96,164
REMBBAUM, ALAN.	IMMUNOMICROSOPHERES FOR CELL MEMBRANE RECEPTORS STUDY.....	5R01 CA20668-03	78,409
REVEL, JEAN-PAUL.	MOLECULAR BASIS OF SPECIFICITY IN CELLULAR MEMBRANES.....	2P01 GM06965-20	672,256
RICHARDS, JOHN H.	MOLECULAR STUDIES OF THE IMMUNE RESPONSE.....	3R01 CA23028-02S1	33,176
RICHARDS, JOHN H.	MECHANISM OF ENZYME ACTION.....	5R01 GM10218-17	52,829

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
RICHARDS, JOHN H.....	ENZYME SYSTEMS USING NUCLEAR MAGNETIC RESONANCE.....	2R01 GM16424-11	92,889
ROBERTS, JOHN D.....	NITROGEN-15 AND CARBON-13 NMR SPECTROSCOPY.....	5R01 GM11072-17	126,001
SCHAEFER, WILLIAM P.....	X-RAY STUDY OF OXYGEN-CARRYING TRANSITION METAL COMPLEX.....	2R01 HL12395-11	44,914
SCHROEDER, WALTER A.....	STRUCTURE-FUNCTION RELATIONSHIPS IN THE HEME PROTEINS.....	5R01 HL02558-23	132,029
STRAUSS, JAMES H.....	A GENETIC ANALYSIS OF SINDBIS VIRUS.....	5R01 AI10793-08	71,867
STRUMWASSER, FELIX.....	MECHANISMS OF INNATE AND ENTRAINED PATTERNS IN NEURONS.....	5R01 NS07071-13	84,364
STRUMWASSER, FELIX.....	PEPTIDERGIC AND CIRCADIAN NEURONS IN TISSUE CULTURE.....	5R01 NS13896-03	84,223
STRUMWASSER, FELIX.....	STUDIES OF A MODEL NEUROENDOCRINE SYSTEM.....	1R01 NS15183-01	113,209
VAN ESSEN, DAVID C.....	LAMINAR ORGANIZATION OF EXTRASTRIATE VISUAL CORTEX.....	5R01 EY02091-03	78,874
ORGANIZATION TOTAL	65 7,052,987		
HUNTINGTON MEMORIAL HOSPITAL ZIP CODE 91105			
AGNEW, WILLIAM F.....	C.S.F. SECRETION: STRUCTURE AND FUNCTION.....	5R01 NS12906-03	78,314
BING, RICHARD J.....	INHIBITION OF CHOLESTEROL INFLUX IN INTACT ANIMALS.....	1R01 HL24670-01	74,290
ORGANIZATION TOTAL	2 152,604		
PASADENA FOUNDATION FOR MEDICAL RESEARCH ZIP CODE 91101			
KAIGHN, M EDWARD.....	MONOLAYER CULTURES OF HUMAN PROSTATIC CARCINOMA.....	5R26 CA19826-04	100,607
KAIGHN, M EDWARD.....	CULTURE AND CARCINOGENESIS OF HUMAN BLADDER UROTHELIUM.....	1R01 CA25089-01	72,669
ORGANIZATION TOTAL	2 173,276		
REDLANDS			
UNIVERSITY OF REDLANDS ZIP CODE 92373			
IFFT, JAMES B.....	PHYSICAL CHEMISTRY OF PROTEINS IN SALT SOLUTIONS.....	5R01 GM18871-12	27,032
ORGANIZATION TOTAL	1 27,032		
RIVERSIDE			
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521			
BARTNICKI-GARCIA, SALOMON.....	BIOCHEMISTRY OF MORPHOGENESIS IN MUCOR.....	5R01 AI05540-14	73,161
BIRGE, ROBERT R.....	SPECTROSCOPY AND PHOTOPHYSICS OF VISUAL CHROMOPHORES.....	5R01 EY02202-02	46,655
BUTLER, EDGAR W.....	SOCIAL WELL-BEING AND HEALTH OF THE AGED ACROSS TIME.....	5R01 AG00320-03	83,514
BYUS, CRAIG V.....	ORNITHINE DECARBOXYLASE INDUCTION IN NEOPLASTIC CELLS.....	5R01 CA23743-02	56,222
CASTRO, CHARLES E.....	BIODEHALOGENATION.....	5R01 ES01588-02	60,500
FEDERICI, BRIAN A.....	EVALUATION OF COELOMOMYCES FUNGI FOR MOSQUITO CONTROL.....	5R01 AI12772-03	17,449
FUKUTO, T ROY.....	DELAYED TOXICITY OF TRIALKYL PHOSPHOROTHIOATES.....	1R01 ES02225-01	45,348
HAMMOCK, BRUCE D.....	BIODEGRADABLE PESTICIDES BASED ON HORMONE METABOLISM.....	5R01 ES01260-03	41,399
HENRY, HELEN L.....	KIDNEY CELL CULTURE: REGULATION OF CALCIUM METABOLISM.....	5R01 AM21398-02	47,533
HENRY, HELEN L.....	INSULIN AND RENAL METABOLISM OF 25-HYDROXYVITAMIN D3.....	1R01 AM25780-01	13,037
HOLTEN, DAROLD D.....	NUTRITIONAL & HORMONAL CONTROL OF G-6-P04 DEHYDROGENASE.....	5R01 AM13324-11	68,928
JURNAK, FRANCES A.....	CRYSTALLOGRAPHIC STUDIES OF PROTEIN ELONGATION FACTORS.....	1R01 GM26895-01	81,565
MC PHERSON, ALEXANDER.....	DIFFRACTION ANALYSIS OF FRUCTOSE-1,6-DIPHOSPHATASE.....	7R01 AM27017-01	2,095
MC PHERSON, ALEXANDER.....	X-RAY DIFFRACTION ANALYSIS OF DNA BINDING PROTEINS.....	7R01 GM27645-01	66,209
MC PHERSON, ALEXANDER.....	X-RAY CRYSTALLOGRAPHIC ANALYSES OF PROTEIN STRUCTURES.....	7R01 GM27838-01	59,502
MIDLAND, M MARK.....	ASYMMETRIC REDUCTIONS VIA TRIALKYLBORANES.....	5R01 GM24517-02	40,383
MILLER, THOMAS A.....	MODE OF ACTION OF INSECTICIDES.....	5R01 ES00814-09	34,420
MUDD, JOHN B.....	BIOCHEMICAL EFFECTS OF AIR POLLUTANT OXIDANTS.....	2R01 ES00917-04A1	71,637
NOLTMANN, ERNST A.....	PHOSPHOHEXOSE ISOMERASES STUDIES.....	5R01 AM07203-17	93,928
NOLTMANN, ERNST A.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09070-03	102,026
NORMAN, ANTHONY W.....	VITAMIN D AND CALCIUM METABOLISM STUDIES.....	5R01 AM09012-15	116,836
NORMAN, ANTHONY W.....	VITAMIN D METABOLISM IN HUMANS STUDIES.....	5R01 AM14750-08	91,514
OKAMURA, WILLIAM H.....	PREPARATION OF VITAMIN D ANALOGS AND METABOLITES.....	5R01 AM16595-06	69,401
OKAMURA, WILLIAM H.....	RETINOIDS AND VINYL ALLENE CHEMISTRY STUDIES.....	5R01 EY02452-02	16,627
OLSEN, RICHARD W.....	MOLECULAR MECHANISMS OF NEUROTRANSMITTER ACTION.....	2R01 NS12422-04A1	37,824
PETRINOVICH, LEWIS F.....	STUDIES OF HABITATION.....	5R01 HD04343-08	46,527
PLATZER, EDWARD G.....	MERMITHID NEMATODES AND INSECT CONTROL: PHYSIOLOGY.....	1R01 AI15717-01	38,825
QUINTON, PAUL M.....	CYSTIC FIBROSIS & UREMIA: SWEAT GLAND PATHOPHYSIOLOGY.....	5R01 AM26547-02	38,688
REID, BRIAN R.....	RECOGNITION OF TRANSFER RNA BY PROTEINS.....	9R01 GM27005-09	91,186

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
RIESEN, AUSTIN H.....	SOMATOSENSORY DEPRIVATION: BRAIN-BEHAVIORAL EFFECTS.....	5R01 HD10408-16	24,509
SHANNON, LELAND M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07010-14	84,124
SHERMAN, IRWIN W.....	HOST-PARASITE INTERRELATIONSHIPS IN THE MALARIAS.....	2R01 AI05226-15A1	54,888
STRAUS, DANIEL S.....	ANALYSIS OF INSULIN AND MSA ACTION IN CELL HYBRIDS.....	5R01 AM21993-02	45,791
SUDMEIER, JAMES L.....	MULTINUCLEAR FTNMR STUDIES OF ZINC METALLOENZYMES.....	1R01 GM25877-01	70,629
TALBOT, PRUDENCE.....	MECHANISMS OF MAMMALIAN OVULATION.....	5R01 HD11386-02	33,557
TALBOT, PRUDENCE.....	A NEW APPROACH TO THE STUDY OF CAPACITATION.....	1R01 HD11684-01A1	44,754
TALCOTT, RONALD E.....	CARBOXYLESTERASES OF TOXICOLOGIC SIGNIFICANCE.....	1R01 ES02244-01	42,427
TAUBERT, KATHRYN A.....	FACTORS MODIFYING CARDIAC DIGOXIN EFFECTS AND CONTENT.....	5R23 HL22575-02	37,733
TAYLOR, CHARLES E.....	THE EVOLUTION AND CONTROL OF INSECTICIDE RESISTANCE.....	1R01 AI15543-01	21,927
TRAUGH, JOLINDA A.....	EFFECTS OF RIBOSOME PHOSPHORYLATION ON TRANSLATION.....	5R01 GM21424-05	67,789
TRAUGH, JOLINDA A.....	CYCLOC NUCLEOTIDE-INDEPENDENT PHOSPHORYLATION.....	1R01 GM26738-01	58,566
ORGANIZATION TOTAL	41	2,239,633	
SACRAMENTO			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY		ZIP CODE 95814	
MC EWEN, WILLIAM J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05549-17	39,653
ORGANIZATION TOTAL	1	39,653	
SAN DIEGO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN DIEGO STATE UNIVERSITY		ZIP CODE 92182	
ABBOTT, MITCHEL T.....	PYRIMIDINE & PROLYL ALPHA-KETOGLUTARATE DIOXYGENASES.....	5R01 GM25055-02	37,951
LEBHERZ, HERBERT G.....	REGULATION OF INTRACELLULAR ENZYME CONCENTRATIONS.....	2R01 GM23045-04	83,587
WEISS, RICHARD L.....	CELL FUSION IN CHLAMYDOMONAS REINHARDI.....	5R01 GM25636-02	68,207
ORGANIZATION TOTAL	3	189,745	
CHILDREN'S HOSPITAL AND HEALTH CENTER		ZIP CODE 92123	
GALAMBOS, ROBERT.....	EEG RESPONSES DURING COGNITIVE PROCESSING IN CHILDREN.....	5R01 HD11154-02	60,164
SUTHERLAND, DAVID H.....	GAIT STUDY OF NORMAL CHILDREN IN THEIR GROWING YEARS.....	2R01 HD08520-04	62,066
ORGANIZATION TOTAL	2	122,230	
LABORATORY FOR COMPARATIVE BIOCHEMISTRY		ZIP CODE 92109	
BARTLETT, GRANT R.....	RED CELL METABOLISM.....	5R01 HL06950-18	68,848
BARTLETT, GRANT R.....	RED CELL STORAGE AND TRANSFUSION.....	5R01 HL16931-05	59,171
ORGANIZATION TOTAL	2	128,019	
MERCY HOSPITAL AND MEDICAL CENTER		ZIP CODE 92103	
GELLER, JACK.....	BIOCHEMICAL STUDY OF PROSTATE CANCER DIFFERENTIATION.....	5R26 CA18003-04	54,306
ORGANIZATION TOTAL	1	54,306	
ZOOLOGICAL SOCIETY OF SAN DIEGO		ZIP CODE 92112	
BENIRSCHKE, KURT.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09002-03	100,000
RYDER, OLIVER A.....	COMPARATIVE MOLECULAR CYTOGENETICS.....	2R01 GM23073-04	92,384
ORGANIZATION TOTAL	2	192,384	
SAN FRANCISCO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN FRANCISCO STATE UNIVERSITY		ZIP CODE 94132	
LINDQUIST, ROBERT N.....	BORONIC ACID ANALOGS OF PEPTIDES.....	1R01 GM26825-01	27,556
MEREDITH, PATRICIA J.....	NEONATAL THYMIC FACTOR AND IMMUNOREGULATION WITH AGE.....	5R23 AG01303-02	41,166
PLACHY, WILLIAM Z.....	MOLECULAR OXYGEN IN BIOLOGICAL FLUIDS.....	2R01 HL19065-03	42,984
STUBBS, JOHN D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07120-05	27,413
ORGANIZATION TOTAL	4	139,119	
CHILDREN'S HOSPITAL OF SAN FRANCISCO		ZIP CODE 94118	
SPENCER, E MARTIN.....	THE REGULATION OF SOMATOMEDIN SYNTHESIS BY INSULIN.....	5R01 AM25648-02	100,674
ORGANIZATION TOTAL	1	100,674	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94120			
ADELSON, JOEL W.....	CHYMOTENIN: STIMULATION OF ENZYME-SELECTIVE SECRETION.....	5R01 AM19973-03	102,576
COGAN, ALEXANDER I.....	A TEMPORAL ASPECT OF BINOCULAR VISION.....	2R01 EY01558-04	76,647
COLLINS, CARTER C.....	TACTILE MOBILITY AID EVALUATION.....	2R01 EY00686-08	144,544
COLLINS, CARTER C.....	STUDY OF VISUAL SCIENCES.....	3P30 EY01186-06S1	29,602
COLLINS, CARTER C.....	STUDY OF VISUAL SCIENCES.....	5P30 EY01186-07	236,425
GLASER, CHARLES B.....	STRUCTURE AND FUNCTION STUDIES OF ALPHA-1-ANTITRYPSIN.....	1R01 HL23357-01	86,614
GLASER, CHARLES B.....	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS.....	1R01 HL24861-01	95,272
KARIC, LUCIA S.....	EXTRACORPOREAL CIRCULATION AND PROTEIN DENATURATION.....	5R23 HL21271-03	45,043
KELLER, EDWARD L.....	THE OCULOMOTOR SYSTEM OF ALERT PRIMATES.....	7R01 EY03280-01	63,933
LEVY, JOSEPH V.....	DIABETIC HYPERTENSIVE RATS-PHARMACOLOGIC REACTIVITY.....	5R01 AM21146-02	79,934
LEVY, JOSEPH V.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05566-16	81,029
MITCHELL, RICHARD R.....	IMPROVEMENT IN REGIONAL VENTILATION-PERFUSION RESOLUTION.....	5R01 HL21518-02	91,038
NAKAYAMA, KEN.....	THREE-DIMENSIONAL ASPECTS OF VISION AND OCULOMOTILITY.....	5R01 EY01582-05	67,020
OSBORN, JOHN J.....	BIOMEDICAL KNOWLEDGE ENGINEERING IN CLINICAL MEDICINE.....	5R01 GM24669-02	75,415
PERSIDSKY, MAXIM D.....	GRANULOCYTES BANKING TECHNIQUES.....	5R01 CA12754-08	88,343
PERSIDSKY, MAXIM D.....	PRESERVATION OF HUMAN PLATELETS FOR TRANSFUSION.....	5R01 HL20788-03	45,810
RODVIEEN, ROBERT.....	SURFACE-INDUCED THROMBOSIS-ALBUMIN VARIANT MODIFICATION.....	2R01 HL20313-03	51,400
RODVIEEN, ROBERT.....	BLOOD-MATERIAL INTERACTIONS.....	1R01 HL24018-01	215,945
SAUNDERS, FRANK A.....	CLASSROOM EVALUATION OF A TACTILE VOCODER FOR THE DEAF.....	2R01 NS09714-04A2	87,031
SCOTT, ALAN B.....	CHEMICAL ALTERATION OF EXTRAOCULAR MUSCLE FUNCTION.....	5R01 EY02106-02	49,587
SCOTT, ALAN B.....	EYELID MOVEMENTS AND FORCES.....	1R01 EY03153-01	44,421
TYLER, CHRISTOPHER W.....	ETIOLOGY AND DIAGNOSIS OF RETINAL AND CORTICAL DISORDERS.....	5R01 EY02124-03	61,816
VASTINE, DAVID W.....	EXPERIMENTAL STUDIES OF ADENOVIRAL OCULAR INFECTIONS.....	1R01 EY02955-01	123,461
ORGANIZATION TOTAL	23 2,042,906		
MICROCIRCULATORY SOCIETY ZIP CODE 94143			
STAUB, NORMAN C.....	SECOND WORLD CONGRESS ON MICROCIRCULATION.....	1R13 HL23017-01A1	15,000
ORGANIZATION TOTAL	1 15,000		
MOUNT ZION HOSPITAL AND MEDICAL CENTER ZIP CODE 94115			
BEADNER, SOL A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05472-17	20,066
FRIEDMAN, MEYER.....	BEHAVIORAL CHANGES IN POST INFARCTION PATIENTS.....	5R01 HL21427-03	158,922
GOLDFINE, IRA D.....	BINDING OF INSULIN TO NUCLEI.....	7R01 AM26667-01	79,088
LEEDS, SANFORD E.....	RELATION OF LYMPHATICS TO CARDIOPULMONARY FUNCTION.....	5R01 HL03180-22	84,821
ORGANIZATION TOTAL	4 342,897		
SCIENTIFIC ANALYSIS CORPORATION ZIP CODE 94123			
MILLER, DOROTHY L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05782-04	31,374
ORGANIZATION TOTAL	1 31,374		
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE-PHS HOSPITAL ZIP CODE 94118			
KRAHENBUHL, JAMES L.....	IMMUNOLOGY AND IMMUNOTHERAPY OF EXPERIMENTAL LEPROSY.....	2R22 AI07801-12A1	83,219
ORGANIZATION TOTAL	1 83,219		
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
ABLIN, ARTHUR R.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA17829-03	118,596
ALBERTS, BRUCE M.....	BIOCHEMISTRY OF GENE REGULATION IN HIGHER EUKARYOTES.....	5R01 GM23928-03	96,115
ALBERTS, BRUCE M.....	DNA-PROTEIN INTERACTIONS IN DNA-REPLICATION CONTROL.....	2R01 GM24020-04	176,468
ALVARADO, JORGE A.....	TISSUE CHANGES IN AGING AND IN GLAUCOMATOUS EYES.....	5R01 EY02068-03	123,832
ARIEFF, ALLEN I.....	BLOOD BRAIN BARRIER AND CARBOHYDRATE METABOLISM.....	5R01 AM18350-06	60,407
ARMSTRONG, ROSA M.....	EPITHELIAL-STROMAL INTERACTIONS OF BREAST CARCINOMA.....	5R01 CA20122-02	61,022
ARNAUD, CLAUDE D.....	PARATHYROID HORMONE AND CALCITONIN.....	5R01 AM21614-03	140,625
BAINTON, DOROTHY F.....	MATURATION AND FUNCTION OF WBC AND MEGAKARYOCYTES.....	2R01 AM10486-14	78,779
BAINTON, DOROTHY F.....	PATHOLOGY OF CELL DIFFERENTIATION IN LEUKEMIA.....	5R01 CA14264-07	66,793
BARRETT, SONDR A G.....	MYELOID CELL SURFACE RECEPTORS: NORMAL & LEUKEMIC.....	5R01 CA20575-03	67,773
BASBAUM, ALLAN I.....	BRAINSTEM CONTROL OF PAIN TRANSMISSION.....	5R01 NS14627-02	68,472
BAUMRIND, SHELDON.....	INTEGRATED THREE-DIMENSIONAL CRANIOFACIAL MEASUREMENT.....	5R01 DE03703-04	69,373
BAXTER, JOHN D.....	MECHANISM OF THYROID HORMONE ACTION.....	2R01 AM18878-04	84,793

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
BAXTER, JOHN D.....	GROWTH HORMONE GENE: PURIFICATION AND REGULATION.....	5R01 AM19997-03	96,688
BAXTER, JOHN D.....	HORMONE RESPONSIVENESS IN GLAUCOMA.....	2R01 EY01785-04	83,261
BAXTER, JOHN D.....	ROLE OF STEROIDS IN HYPERTENSION.....	5R01 HL16918-06	87,812
BENET, LESLIE Z.....	FUROSEMIDE DOSE-EFFECT RELATIONSHIP.....	1R01 AM20884-01	80,512
BENET, LESLIE Z.....	PHARMACOKINETICS IN DISEASE STATES.....	1R01 GM26551-01	117,266
BENET, LESLIE Z.....	PHARMACOKINETICS/PHARMACODYNAMICS.....	1P50 GM26691-01	273,061
BERRY, CHRISTINE A.....	WATER TRANSPORT IN THE PROXIMAL CONVOLUTED TUBULE.....	1R01 AM26142-01	56,462
BIGLIERI, EDWARD G.....	SECRETORY STEROID MIXTURES OF ADRENAL CORTEX.....	5R01 AM06415-18	130,286
BISHOP, J MICHAEL.....	ROUS SARCOMA VIRUS: REPLICATION & CELL TRANSFORMATION.....	2R01 CA12705-09	546,217
BISSELL, DWIGHT M, JR.....	STUDIES OF HEPATOCYTE FUNCTION IN CELL CULTURE.....	1R01 AM21642-01	68,783
BLOIS, MARSDEN S, JR.....	STUDIES ON THE PATHOBIOLOGICAL CHEMISTRY OF MELANOMA.....	5R01 CA20423-03	70,124
BLOIS, MARSDEN S, JR.....	NATURAL LANGUAGE ACCESS TO CLINICAL DATA BASES.....	1R01 CA26655-01	274,480
BLOOUR, AZAD.....	DEVELOPMENT OF A PROCESS MODEL OF THE MEDICAL RECORD.....	1R23 LM03363-01	34,331
BROOKS, GEORGE F.....	HUMAN IMMUNE RESPONSES TO N. GONORRHOEA INFECTIONS.....	2R01 AI15642-02	105,097
BROWN, KENNETH T.....	NEUROPHYSIOLOGY OF THE VERTEBRATE RETINA.....	5R01 EY00468-20	198,064
BYERS, VERA S.....	IN VITRO STUDIES ON POISON OAK IMMUNITY IN HUMANS.....	5R01 AI12947-03	85,999
CALARCO, PATRICIA G.....	CELL SURFACE ANTIGENS IN EARLY MOUSE DEVELOPMENT.....	5R01 HD10884-02	96,399
CALDWELL, HARLAN D.....	IMMUNOCHEMISTRY OF CHLAMYDIAL SURFACE ANTIGENS.....	1R01 EY03046-01	91,631
CALDWELL, JOSEPH L.....	CYTOLYTIC ACTIVITY OF MURINE LUNG CELLS.....	1R01 HL24482-01	47,587
CALLAWAY, ENOCH.....	EFFECTS OF METHYLPHENIDATE ON ADULTS AND THE ELDERLY.....	1R01 AG01741-01	78,039
CARLSSON, ERIK.....	COMPUTED TOMOGRAPHY OF THE ISCHEMIC MYOCARDIUM.....	1R01 HL22762-01A1	60,971
CHAR, DEVRON H.....	EYE TUMORS: IN VITRO IMMUNODIAGNOSIS AND MONITORING.....	5R01 EY01441-02	36,320
CHAR, DEVRON H.....	UVEITIS: SPECIFIC AND NONSPECIFIC CELLULAR REACTIVITY.....	2R01 EY01759-04	100,022
CHAR, DEVRON H.....	EYE DISEASE HISTOCOMPATIBILITY ANTIGENS.....	5R01 EY02072-03	43,279
CHARLTON, VALERIE E.....	FETAL NUTRITION VIA THE GASTROINTESTINAL TRACT.....	5R01 HD11109-03	86,482
CHIERICI, GEORGE J.....	IN VIVO EXPERIMENTS ON BONE MUSCLE INTERACTION.....	5R01 DE05119-02	41,596
CLEMENTS, JOHN A.....	PULMONARY SCOR: NEONATAL RESPIRATORY DISTRESS SYNDROMES.....	5P50 HL19185-03	698,992
CLEMENTS, JOHN A.....	DEVELOPMENT, CONTROL AND DISORDERS OF ALVEOLAR STABILITY.....	1P01 HL24075-01	1,153,875
CLYMAN, RONALD I.....	PERINATAL CONTROL OF THE DUCTUS ARTERIOSUS.....	5R23 HL21409-03	39,169
COFFINO, PHILIP.....	CARCINOGEN TESTING: A MOUSE LYMPHOMA MUTATION SYSTEM.....	5R01 CA23218-02	59,583
CONNELL, CAROLYN J.....	THE EFFECT OF HCG ON SERTOLI CELLS.....	5R01 HD10033-05	7,780
COPENHAGEN, DAVID R.....	SYNAPTIC INTERACTION IN THE VERTEBRATE RETINA.....	5R01 EY01869-03	57,864
CORREIA, MARIA A.....	COLONIC CYTOCHROME P-450: CHEMICAL CARCINOGENESIS ROLE.....	5R26 CA22369-03	73,870
CORREIA, MARIA A.....	REGULATION OF INTESTINAL METABOLISM OF XENOBIOTICS.....	1R01 GM24707-01	52,685
DAENTL, DONNA L.....	POLYAMINES AND MAMMALIAN REPRODUCTION.....	5R01 HD10531-03	35,526
DALLMAN, PETER R.....	DEVELOPMENTAL ASPECTS OF IRON DEFICIENCY.....	2R22 AM13897-10	133,638
DAUPHINEE, MICHAEL J.....	THYMOSIN DEFICIENCY IN CANCER, AGING AND AUTOIMMUNITY.....	5R01 AG00991-03	45,619
DAUPHINEE, MICHAEL J.....	SUPPRESSOR DEFECT, AUTOIMMUNITY AND NEOPLASIA.....	5R01 CA22518-03	41,895
DAVIS, BRIAN.....	REGULATION OF AIRWAY MUCOUS GLANDS AND ION TRANSPORT.....	5R23 HL21150-03	41,032
DAWSON, CHANDLER R.....	ANALYSIS OF PROBLEMS IN OCULAR INFLAMMATORY DISEASES.....	5R01 EY00427-10	168,542
DAWSON, CHANDLER R.....	PATHOGENESIS AND EARLY DIAGNOSIS OF EYE INFLAMMATIONS.....	5R01 EY01198-05	133,758
DEDO, HERBERT H.....	PHYSIOLOGIC AND ACOUSTIC FACTORS IN SPASTIC DYSPHONIA.....	5R01 NS14199-02	53,004
DENNIS, MICHAEL J.....	PHYSIOLOGY OF SYNAPSES DEVELOPING IN VIVO.....	2R01 NS10792-07	84,422
DIAMOND, IVAN F.....	REGULATION OF RECEPTOR FUNCTION.....	5R01 NS14742-02	60,455
DURBIN, RICHARD P.....	PHOSPHATE UPTAKE IN ISOLATED GASTRIC MUCOSA.....	1R01 AM25986-01	36,461
EKBLAD, E MARGARETA.....	CYCLOC NUCLEOTIDES IN GASTRIC ACID SECRETION.....	5R01 AM21448-02	37,184
ELIAS, PETER M.....	NATURE OF MAMMALIAN CUTANEOUS PERMEABILITY BARRIER.....	2R01 AM19098-04	100,479
ELIAS, PETER M.....	NORMAL AND MALIGNANT KERATINOCYTE SURFACE STRUCTURE.....	5R01 CA19522-03	35,571
ELIAS, PETER M.....	ANTINEOPLASTIC ACTION OF VITAMIN A IN SKIN CANCER.....	5R01 CA22683-02	30,585
ENGLEMAN, EPHRAIM P.....	MULTIPURPOSE ARTHRITIS CENTER.....	3P60 AM20684-02S2	950,000
ENGLEMAN, EPHRAIM P.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20684-03	359,940
EPSTEIN, CHARLES J.....	MOLECULAR EFFECTS OF CHROMOSOMAL ANEUPLOIDY.....	5R01 GM24309-03	66,236
EPSTEIN, CHARLES J.....	BIOCHEMISTRY OF EARLY MAMMALIAN DEVELOPMENT.....	5R01 HD03132-12	95,396
EPSTEIN, ERVIN H, JR.....	GLUCOCORTICOID INTERACTION WITH HUMAN SKIN.....	5R01 AM18495-05	77,674
EPSTEIN, JOHN H.....	CHEMOTHERAPEUTIC AGENTS AND ULTRAVIOLET CARCINOGENESIS.....	5R01 CA15605-06	49,208
EPSTEIN, WILLIAM L.....	ALLERGIC SKIN DISEASE COOPERATIVE GROUP.....	5P50 AI14752-02	179,615
EPSTEIN, WILLIAM L.....	STUDIES OF GRANULOMATOUS HYPERSENSITIVITY.....	5R01 AM07939-17	128,631
FAIRLEY, H B.....	ACUTE PULMONARY FAILURE: MECHANISMS MANAGEMENT.....	5R01 GM24023-04	53,136
FELKER, TUNDE E.....	SECRETION OF ABNORMAL PLASMA LIPOPROTEINS OF CHOLESTASIS.....	1R23 HL23544-01A1	37,146
FELTS, JAMES M.....	OROSOMUCOID AND NEPHROTIC LIPEMIA.....	5R01 AM21923-02	61,686

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FIELDING, CHRISTOPHER J.	REGULATION OF PLASMA CHOLESTEROL METABOLISM	1R01 HL23738-01	105,110
FIELDS, HOWARD L.	FACTORS AFFECTING DENTAL POSTOPERATIVE PAIN	1R01 DE05369-01	97,554
FISHMAN, ROBERT A.	BRAIN EDEMA CLINICAL RESEARCH CENTER	5P50 NS14543-02	394,668
FISKE, MARJORIE E.	PROGRAM PROJECT IN HUMAN DEVELOPMENT AND AGING	5P01 AG00002-08	65,500
FLACH, ALLAN J.	NERVE TERMINAL DEGENERATION AFTER EPINEPHRINE	2R01 EY02141-03	99,863
FLETTERICK, ROBERT J.	STRUCTURE AND REGULATION OF GLYCOCIN PHOSPHORYLASE	1R01 AM26081-01	133,601
FORSHAM, PETER H.	PANCREATIC ISLET FUNCTION IN DIABETES	5R01 AM12763-10	87,832
FORSHAM, PETER H.	GENERAL CLINICAL RESEARCH CENTER FOR ADULTS	5M01 RR00079-17	1,224,878
FRANKEL, BARBARA J.	PANCREATIC FUNCTION IN NONOBESSE DIABETICS	1R23 AM26033-01	43,042
FRICK, OSCAR L.	ASTHMA DEVELOPMENT	1R01 AI15233-01A1	73,194
FRIEDLAENDER, MITCHELL H.	IMMUNOPATHOLOGY OF HYPERSENSITIVITY REACTIONS IN THE EYE	5R01 EY02502-02	76,780
FRIEDMAN, MICHAEL A.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17995-04	102,970
FRIEDMAN, MICHAEL A.	NORTHERN CALIFORNIA CLINICAL ONCOLOGY GROUP	1R10 CA25827-01	197,565
FRIEND, DANIEL S.	REVERSIBLE INFERTILITY AND SPERM MEMBRANE STRUCTURE	5R01 HD10445-03	66,488
FU, KAREN K.	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA21439-03	136,090
FUKUYAMA, KIMIE	CYTOCHEMICAL STUDIES ON THE KERATINIZATION PROCESS	5R01 AM12433-12	143,425
GALLO, ROBERT V.	NEURAL REGULATION OF EPISODIC LH RELEASE	5R01 HD05577-08	91,126
GANONG, WILLIAM F.	NEURAL AND HUMORAL CONTROL OF ENDOCRINE FUNCTION	5P01 AM06704-17	459,131
GAVIN, LAURENCE A.	METABOLISM OF TETRAC AND TRIAC	1R01 AM24013-01	44,869
GOLDFIEN, ALAN	HORMONAL CONTROL OF UTERINE ADRENOTROPIC RECEPTORS	5R01 HD08006-02	95,139
GOLDSMITH, PAUL C.	IMPROVED METHOD OF EM IMMUNOCYTOCHEMISTRY	5R01 HD10907-03	66,706
GOLDSMITH, RALPH S.	VITAMIN D METABOLISM IN MAN	7R01 AM27112-01	73,397
GOLDSTEIN, LAWRENCE S.	HIGH RADIATION DAMAGE IN GERM CELLS AND CULTURED EMBRYOS	3R01 CA22644-01S1	47,901
GOLLAN, JOHN L.	HEPATIC PATHWAYS OF HEME AND BILIRUBIN METABOLISM	5R01 AM21899-02	93,765
GOODMAN, HOWARD M.	TUMOR VIRUS, PLASMID & CELL ANALYSIS	5R01 CA14026-08	243,180
GOODMAN, JOEL W.	STRUCTURE OF IMMUNOLOGIC DETERMINANTS OF PROTEINS	5R01 AI05664-16	183,461
GOSPODAROWICZ, DENIS J.	REGENERATION OF CORNEAL EPITHELIUM AND ENDOTHELIUM	5R01 EY02186-02	76,691
GOSPODAROWICZ, DENIS J.	CORNEAL ENDOTHELIA TRANSPLANT: CLINICAL IMPLICATION	1R01 EY02930-01	36,966
GOSPODAROWICZ, DENIS J.	CONTROL OF OVARIAN CELL PROLIFERATION	5R01 HD11082-03	98,119
GOSPODAROWICZ, DENIS J.	MAINTENANCE AND REPAIR OF VASCULAR ENDOTHELIUM	5R01 HL20197-03	73,596
GOSPODAROWICZ, DENIS J.	REGULATION OF CHOLESTEROL IN VASCULAR ENDOTHELIUM	1R01 HL23678-01	117,750
GOYAN, JERE E.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05453-17	81,788
GREENE, PATRICIA J.	SEQUENCE-SPECIFIC DNA-PROTEIN INTERACTIONS	5R01 GM25729-02	52,742
GREENSPAN, JOHN S.	LYMPHOCYTE FUNCTION IN RECURRENT APHTHOUS ULCERATION	5R01 DE04736-02	65,741
GRODSKY, GEROLD M.	INSULIN AND GLUCAGON SYNTHESIS AND SECRETION IN VITRO	5R01 AM01410-21	147,623
GRODSKY, GEROLD M.	CHINESE HAMSTER PROGRAM PROJECT	5P01 AM21933-02	691,544
GRUMBACH, MELVIN M.	HORMONAL EFFECTS ON GROWTH AND MATURATION	5R01 HD02335-14	157,549
GUTHRIE, CHRISTINE	BIO-SYNTHESIS OF BACTERIOPHAGE T4 TRANSFER RNAS	5R01 GM21119-06	67,759
HAASE, ASHLEY T.	SYNTHESIS OF VISNA VIRUS NUCLEIC ACIDS	2R01 NS11782-05	75,154
HALL, JOAN M.	THE NATURE AND SEQUENCE OF OCULAR IMMUNE RESPONSE	5R01 EY01182-05	65,998
HALL, ZACH W.	POSTSYNAPTIC PROTEINS AT THE NEUROMUSCULAR JUNCTION	5R01 NS13521-04	68,685
HAMILTON, WILLIAM K.	ANESTHESIA RESEARCH CENTER	2P50 GM15571-11	716,452
HAVEL, RICHARD J.	CARDIOVASCULAR-RESPIRATORY PHYSIOLOGY AND BIOCHEMISTRY	5P01 HL06285-19	4,112,499
HAVEL, RICHARD J.	SUPPORT FOR ARTERIOSCLEROSIS CENTER	5P50 HL14237-08	974,370
HAVEL, RICHARD J.	HUMAN TRIGLYCERIDE TRANSPORT AND HDL NUTRITIONAL EFFECTS	1R01 HL24696-01	115,100
HENDERSON, SIMON R.	STRUCTURE AND FUNCTION OF RAT HYPOTHALAMIC HOMOGRAFTS	1R01 AM25474-01	71,583
HEUSER, JOHN E.	THE STRUCTURAL BASIS OF NEUROSECRETION	5R01 NS11979-05	80,252
HINMAN, FRANK, JR.	FUNCTION AND DEFENSES OF URETHRAL EPITHELIUM	5R01 AM10045-13	50,637
HITZEMANN, ROBERT J.	SYNAPTIC MEMBRANES, GLYCOPROTEINS AND DEVELOPMENT	5R01 NS13398-02	45,638
HOLLENBERG, MILTON	REGULATION OF MYOCARDIAL CELL GROWTH	5R01 HL22664-02	56,959
HONDEGHEM, LUC M.	ANTIARRHYTHMIC DRUG ACTION ON VMAX OF CARDIAC CELLS	5R01 HL21672-02	61,050
HOROWITZ, MARDI J.	THE IMPACT OF STRESS ON CORONARY HEART DISEASE	5R01 HL17580-05	66,747
HOSHINO, TAKAO	CHEMOTHERAPY & PERTURBED BRAIN TUMOR CELL KINETICS	5R01 CA19992-04	54,867
HOSKINS, H DUNBAR, JR.	CONGENITAL GLAUCOMA: CLASSIFICATION, ETIOLOGY, THERAPY	5R01 EY01559-04	40,545
HOWES, EDWARD L, JR.	PATHOGENESIS OF ALTERED OCULAR VASCULAR PERMEABILITY	5R01 EY00056-10	39,475
HUMPHREYS, MICHAEL H.	CIRCULATORY HEMODYNAMICS AND SODIUM EXCRETION	5R01 HL22482-02	49,072
HUNT, C ANTHONY	LIPOSOMES AS IN VIVO DRUG/THIOPURINE NUCLEOTIDES PRODRUG	5R01 GM24612-02	30,283
HUNT, C ANTHONY	ACQUISITION OF A LASER LIGHT SCATTERING PHOTOMETER	1P41 GM27492-01	69,260
HUNT, THOMAS K.	A STUDY OF WOUND HEALING AND WOUND INFECTION	5R01 GM12829-15	143,337
HUSSAIN, M ZAMIRUL	MOLECULAR MECHANISMS OF PERIODONTAL DISEASE	5R23 DE04752-03	28,992

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
IVARIE, ROBERT D.	MUTATIONS AFFECTING GENE EXPRESSION IN TUMOR CELLS.....	5R01 CA23046-02	58,375
JAFFE, ROBERT B.	REGULATION OF THE HUMAN HYPOTHALAMIC-PITUITARY SYSTEM.....	5R01 HD08035-05	88,930
JAFFE, ROBERT B.	PRIMATE ENDOCRINE REGULATION IN THE PERINATAL PERIOD.....	3R01 HD08478-04S1	19,776
JAFFE, ROBERT B.	PRIMATE ENDOCRINE REGULATION IN THE PERINATAL PERIOD.....	5R01 HD08478-05	100,364
JAFFE, ROBERT B.	REPRODUCTIVE ENDOCRINOLOGY CENTER CORE FACILITIES.....	1P30 HD11979-01	312,719
JAMES, THOMAS L.	NMR TIP STUDIES OF MOTIONS IN PROTEINS AND MEMBRANES.....	5R01 GM25018-02	44,649
JAMES, THOMAS L.	WIDE-BORE, SUPERCONDUCTING NMR SPECTROSCOPY FACILITY.....	1P41 GM27387-01	169,454
JAMES, THOMAS L.	NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY RESOURCE.....	5P41 RR00892-04	53,996
JAWETZ, ERNEST	VIRAL KERATOCONJUNCTIVITIS AND RELATED DISORDERS.....	5R01 EY00186-25	133,593
JOHNSON, KENNETH P.	MULTIPLE SCLEROSIS AND VIRAL INFECTIONS OF THE CNS.....	5P50 NS14069-02	390,313
JONES, ALBERT L.	SUBCELLULAR STUDY OF BILE SECRETION.....	1R01 AM25878-01	65,963
JORGENSEN, EUGENE C.	THYROID HORMONE ANALOGS.....	5R01 AM17576-05	83,637
KALTREIDER, H BENFER	IMMUNE FUNCTIONS OF THE LUNG.....	5R01 AI12296-05	69,148
KAMIN, ROBERTA M.	IMMUNE INTERFERONS: PRODUCTION AND ROLE IN IMMUNITY.....	5R01 CA25035-02	69,814
KAN, YUET W.	STUDY OF ABNORMAL HEMOGLOBIN SYNTHESIS.....	5R01 AM16666-07	164,592
KATZUNG, BERTRAM G.	DEPOLARIZATION INDUCED CARDIAC AUTOMATICITY.....	5R01 HL17452-05	62,035
KAYSER, GEORGE A.	ALBUMIN SYNTHESIS IN UREMIC AND IN NEPHROTIC RATS.....	1R01 AM25350-01	71,192
KELLY, REGIS B.	PROTEINS OF THE MAMMALIAN VISUAL SYSTEM.....	5R01 EY02306-02	61,202
KELLY, REGIS B.	BIOCHEMISTRY OF SYNAPTIC TRANSMISSION.....	5R01 NS09878-09	91,247
KENYON, GEORGE L.	ACTIVE SITES OF CREATINE KINASE FROM HEART AND MUSCLE.....	5R01 AM17323-07	76,150
KIDD, PARRIS M.	HEART DEVELOPMENT IN HAMSTER INHERITED CARDIOMYOPATHY.....	5R23 HL22959-02	37,754
KIM, YOUNG S.	INTESTINAL PEPTIDE HYDROLASES AND PEPTIDE TRANSPORT.....	5R01 AM17938-06	60,917
KIM, YOUNG S.	STUDY OF GLYCOCONJUGATES IN COLONIC NEOPLASIA.....	2R26 CA14905-07	166,804
KIM, YOUNG S.	CELL SURFACE GLYCOCONJUGATES IN PANCREATIC CANCER.....	5R26 CA24321-02	60,437
KIRSCHNER, MARC W.	BIOCHEMICAL STUDIES OF MITOSIS.....	7R01 GM26875-01	88,260
KORENBROT, JUAN I.	RHODOPSIN AND LIGHT-TRANSDUCTION IN ROD PHOTORECEPTORS.....	5R01 EY01586-05	78,926
KORNBERG, THOMAS B.	IN VITRO RECONSTRUCTION OF GENE EXPRESSION.....	5R01 GM25581-02	65,118
KRAMER, STEVEN G.	VISION RESEARCH CENTER (CORE FACILITIES).....	5P30 EY02162-02	193,127
KREAVANS, JULIUS R.	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00083-17	651,401
KREAVANS, JULIUS R.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05355-18	201,413
KUHN, ROBERT W.	STRUCTURE AND FUNCTION OF STEROID-BINDING PROTEINS.....	2R01 HD10328-04	82,467
KUH, ERNEST	ENZYMOLOGY OF GLUTATHIONE-CARBOXYLIC ACID THIOESTERS.....	2R01 GM20552-04	56,330
KUNTZ, IRWIN D, JR.	HYDRATION OF MACROMOLECULES.....	5R01 GM19267-08	51,627
LA VAIL, JENNIFER H.	RETROGRADE AXONAL TRANSPORT IN THE VISUAL SYSTEM.....	5R01 NS13533-04	90,622
LA VAIL, MATTHEW M.	CELLULAR MECHANISMS OF INHERITED RETINAL DEGENERATION.....	5R01 EY01919-04	139,515
LANGRIDGE, ROBERT	SPECIAL RESEARCH RESOURCE FOR BIOMOLECULAR GRAPHICS.....	3P41 RR1081-02S2	164,237
LEEPER, HAROLD F.	INTRACELLULAR RECORDING FROM MAMMALIAN PHOTORECEPTORS.....	1R01 EY02962-01	38,620
LEVIN, VICTOR A.	ASIOLOMAR CONFERENCE ON BRAIN TUMOR THERAPY.....	1R13 CA25201-01	11,084
LEVY, JAY A.	C-TYPE VIRUSES IN AUTOIMMUNE DISEASE AND NEOPLASIA.....	5R01 CA13086-08	113,675
LI, CHOH H.	PITUITARY LACTOGENIC AND GONADOTROPIC HORMONES.....	2R01 AM06097-26	112,418
LI, CHOH H.	HCS(HPL), HGH AND RELATED PROTEINS.....	2R01 AM18677-04	88,824
LI, CHOH H.	ACTH AND RELATED PEPTIDES.....	5R01 GM02907-28	121,441
LIBET, BENJAMIN.	SYNAPTIC TRANSMISSION IN AUTONOMIC GANGLIA.....	3R01 NS00884-22S1	2,351
LIBET, BENJAMIN.	SYNAPTIC TRANSMISSION IN AUTONOMIC GANGLIA.....	5R01 NS00884-23	106,569
LIE-ING, LUAN E.	SEVERAL ASPECTS OF ABNORMAL RED BLOOD CELL METABOLISM.....	5R01 AM21571-02	62,061
LIPTON, MARTIN J.	EVALUATING THROMBOSIS WITH RADIOINCIUM PLATELETS.....	1R01 HL23414-01	69,285
MARGULIS, ALEXANDER R.	STUDY OF DIAGNOSTIC RADIOLOGY.....	5P01 GM21017-06	208,115
MARTIAL, JOSEPH A.	PURIFICATION AND REGULATION OF THE PROLACTIN GENE.....	5R01 GM25549-02	99,332
MARTIN, DAVID W, JR.	GENETIC REGULATION OF PURINE METABOLISM STUDIES.....	5R01 AM20428-02	117,258
MARTIN, GAIL R.	X-CROMOSOME ACTIVITY IN TERATOCARCINOMA STEM CELLS.....	1R01 CA25966-01	173,776
MARTON, LAURENCE J.	POLYAMINES, POLYAMINE ANTIMETABOLITES AND CELL GROWTH.....	5R01 CA15515-05	43,099
MC CARTHY, BRIAN J.	COLLAGEN GENES: STRUCTURE AND EXPRESSION.....	1R01 AM25157-01	97,169
MC CARTHY, BRIAN J.	TRANSCRIPTION OF HISTONE GENES FROM CHROMATIN.....	5R01 GM20287-07	75,159
MC CARTHY, BRIAN J.	PUFFING AND RNA SYNTHESIS IN DROSOPHILA CHROMOSOMES.....	5R01 GM25584-02	52,420
MC CLAIN, CAROL L.	DECISION-MAKING IN ALTERNATIVE CHILD-BIRTH STRATEGIES.....	1R01 HD12858-01	79,343
MC KENDALL, ROBERT R.	HIST DEFENSES IN HERPESVIRUS DISEASES OF THE CNS.....	5R23 AI14564-02	35,910
MC SHERRY, ELISABETH	GROWTH, ACIDOSIS & RENAL TUBULAR DISORDERS.....	3R01 AM21771-01S1	3,685
MC SHERRY, ELISABETH	TYPE 1 RENAL TUBULAR ACIDOSIS DISORDER IN CHILDREN.....	5R01 AM21771-02	62,905
MELMON, KENNETH L.	CLINICAL PHARMACOLOGY AND PHARMACOKINETICS.....	3P01 GM16496-10S1	60,285
MENTZER, WILLIAM C, JR.	NORTHERN CALIFORNIA SICKLE CELL CENTER.....	5P60 HL20985-02	1,045,406

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MERZENICH, MICHAEL M	FUNCTIONAL ORGANIZATION OF THE AUDITORY SYSTEM	5R01 NS10414-08	66,811
MERZENICH, MICHAEL M	DEVELOPMENT OF AN ACOUSTIC PROSTHESIS	5R01 NS11804-06	242,881
MEYER, RICH B, JR	SPECIFIC INHIBITORS OF PURINE NUCLEOTIDE SYNTHESIS	1R01 CA23559-01A2	43,227
MILLER, ARTHUR J	MUSCULAR DISORDERS IN CRANIOFACIAL MALFORMATIONS	5R01 DE04940-02	83,013
MILLER, ARTHUR J	ASPECTS OF POSTNATAL DEVELOPMENT WITHIN THE BRAIN STEM	5R01 HD09841-05	29,009
MILLER, CAROL L	ANALYSIS OF IMMUNE STATUS OF TRAUMA & SURGICAL PATIENTS	1R01 GM25896-01	58,101
MILLER, CAROL L	EFFECT OF THERMAL INJURY ON IMMUNOCOMPETENCE	1R01 GM26204-01	84,024
MILLER, MALCOLM R	INNERVATIONAL STUDIES OF AUDITORY PAPILLAE	5R01 NS11838-04	66,320
MILLER, RONALD D	PARALYSIS-ITS ANTAGONISM DURING SURGERY & ANESTHESIA	1R01 GM26403-01	52,099
MORALES, MANUEL F	FUNCTIONS IN CARDIAC AND SKELETAL MUSCLE	2P01 HL16683-05	498,620
MORRIS, R CURTIS, JR	DETERMINANTS OF 1,25-(OH) ₂ D ₃ PRODUCTION IN -D CHICKS	5R01 AM21354-02	121,183
NADEL, JAY A	PULMONARY SCOR: CHRONIC DISEASES OF AIRWAYS	5P50 HL19156-03	350,260
NADEL, JAY A	NEUROHUMORAL CONTROL OF LUNGS AND AIRWAYS	1P01 HL24136-01	1,177,616
NICHOLS, BARBARA A	ROLE OF MONONUCLEAR PHAGOCYTES IN PATHOLOGIC STATES	5R01 AI11639-06	39,026
NICOLL, ROGER A	EFFECT OF BARBITURATES ON SYNAPTIC TRANSMISSION	5R01 GM23478-03	45,443
O'CONNOR, G RICHARD	STUDY OF OCULAR TOXOPLASMOSIS	5R01 EY01204-06	145,878
O'CONNOR, G RICHARD	INFLAMMATORY DISEASES OF THE EYE: CORE SUPPORT	5P30 EY01597-05	121,486
O'DONNELL, JAMES J	ANIMAL MODELS OF RETINAL DEGENERATION IN VITRO	2R01 EY01786-04	85,092
O'DONNELL, JAMES J	STUDY GYRATE ATROPHY OF THE RETINA	1R01 EY02706-01	98,665
OCKNER, ROBERT K	LIPID METABOLISM IN INTESTINE AND LIVER	5R01 AM13328-10	131,060
OH, JANG O	RECURRENT HERPES SIMPLEX UVEITIS	5R01 EY00964-05	78,593
OH, JANG O	EYE INFECTIONS BY TYPE 2 HERPES SIMPLEX VIRUS	2R01 EY01578-04	92,122
OIE, SVEIN	DRUG DISPOSITION IN RENAL FAILURE PATIENTS	1R01 GM25807-01	65,811
OPPENHEIMER, NORMAN J	MECHANISM OF BLEOMYCIN	1R01 CA26272-01	38,531
OPPENHEIMER, NORMAN J	STRUCTURE-FUNCTION RELATIONS IN PYRIDINE COENZYMES	2R01 GM22982-04	60,612
ORTIZ DE MONTELLANO, PAUL	SELECTIVE DESTRUCTION OF CYTOCHROME P450 BY DRUGS	5R01 GM25515-02	66,165
ORTIZ DE MONTELLANO, PAUL	MECHANISM AND CONTROL OF STEROL BIOSYNTHESIS	5R01 HL15476-06	57,886
OSTLER, H BRUCE	DIAGNOSIS OF BACTERIAL ENDOPHTHALMITIS	5R01 EY01922-03	81,786
OWEN, ROBERT L	STRUCTURE AND FUNCTION OF PEYER'S PATCH EPITHELIUM	1R01 AM21969-01	99,014
OWENS, ELMER	REHABILITATIVE PROCEDURES FOR PROFOUND HEARING LOSS	2R01 NS12998-04	67,888
PACKMAN, SEYMOUR	REGULATION OF INTRACELLULAR PLP ENZYME TURNOVER	1R01 AM25884-01	77,457
PAPAHADJOPOULOS, P D	LIPID VESICLES AS DRUG CARRIERS IN VITRO AND IN VIVO	1R01 CA25526-01	143,157
PAPAHADJOPOULOS, P D	PHOSPHOLIPID-PROTEIN INTERACTIONS AND MEMBRANE FUNCTION	2R01 GM26369-02	102,877
PAPKOFF, HAROLD	PREGNANT MARE SERUM GONADOTROPIN STUDIES	5R01 HD05722-07	71,210
PARMLEY, WILLIAM W	FUNCTIONAL INFARCT SIZE BY GATED RADIOANGIOGRAPHY	5R01 HL21793-03	155,177
PAVONE, BEN W	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05305-18	42,915
PENG, CHIN-TZU	NEW METHODS OF PREPARING RADIOPHARMACEUTICALS	1R01 GM26987-01	62,783
PERMAN, JAY A	CARBOHYDRATE ABSORPTION IN NEONATES: BREATH ANALYSIS	1R01 HD12449-01	60,654
PETRAKIS, NICHOLAS L	GENETIC EPIDEMIOLOGY AND NATURAL HISTORY OF CANCER	5P01 CA13556-08	696,179
PHILLIPS, THEODORE L	THE THERAPEUTIC RATIO AND EXPERIMENTAL RADIOTHERAPY	5R01 CA17227-05	186,101
PHILLIPS, THEODORE L	EXPERIMENTAL COMBINED RADIOTHERAPY-CHEMOTHERAPY	5R01 CA20529-04	281,273
PICKART, LOREN R	BIOLOGICAL AND SYNTHETIC MODULATORS OF CELL GROWTH	5R01 CA25741-02	102,566
PIEL, CAROLYN	VITAMIN D METABOLITES BY MASS SPECTROMETRY	5R01 AM19981-02	60,281
PIPER, WALTER N	LEAD AND DRUG TOXICITY RELATED TO HEME BIOSYNTHESIS	5R01 ES01343-05	73,818
PIPER, WALTER N	TOXICANT DEREGULATION OF ENDOCRINE HEME BIOSYNTHESIS	5R01 ES01941-02	77,146
POLANSKY, JON R	TRABECULAR MESHWORK CELL CULTURE	1R01 EY02477-01A1	110,115
PRUSINER, STANLEY B	INTERNATIONAL SOCIETY FOR NEUROCHEMISTRY MINISYMPOSIUM	1R13 NS15715-01	5,698
RAGHUPATHY, EASWARAN	SYNAPTOSOMAL AMINO ACID TRANSPORT-ROLE OF LIPIDS	5R01 NS15659-01	24,604
RALSTON, HENRY J, III	SYNAPTIC ORGANIZATION IN SPINAL CORD AND THALAMUS	2R01 NS11614-06	85,699
RAMACHANDRAN, JANAKIRAMAN	PITUITARY HORMONES IN NORMAL AND NEOPLASTIC GROWTH	5R01 CA16417-05	84,115
RAMSAY, DAVID J	THIRST AND ITS CONTRIBUTION TO EDEMA	5R01 HL18862-03	78,559
RAPOPORT, BASIL	THYROID STIMULATORS IN HEALTH AND DISEASE	2R01 AM19289-04	93,032
RIEGELMAN, SIDNEY	INTERSUBJECT VARIATION IN FIRST PASS EFFECT OF DRUGS	1R01 GM26556-01	76,035
ROSEN, STEVEN D	CELL ADHESION IN SLIME MOLDS AND HIGHER CELLS	5R01 GM23547-03	17,131
ROSENAU, WERNER	LYMPHOTOXIN IN CELL-MEDIATED TUMOR IMMUNITY	3R01 CA07191-14S2	9,245
ROSENAU, WERNER	T LYMPHOCYTES AND LYMPHOTOXIN IN TUMOR IMMUNITY	2R01 CA07191-15A1	77,645
ROTHMAN, STEPHEN S	SECRETION OF PROTEINS AND IONS BY THE PANCREAS	5R01 AM16990-06	79,745
ROTHMAN, STEPHEN S	FUNCTIONAL DYNAMICS OF THE PANCREATIC ZYMOGEN GRANULE	1R01 AM25664-01	70,459
RUDNICK, ALBERT	SUPPORT FOR INTERNATIONAL CENTER FOR MEDICAL RESEARCH	5R07 AI10051-19	596,776
RUTTER, WILLIAM J	DIFFERENTIATION IN THE ENDOCRINE AND EXOCRINE PANCREAS	5R01 AM21344-03	135,048

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
RUTTER, WILLIAM J.	GENE EXPRESSION AND REPLICATION IN EUKARYOTIC ORGANISMS	5R01 GM21830-05	180,850
RYNING, FRANK W.	CMV INFECTION AND PULMONARY DEFENSE MECHANISMS	5R23 AI15194-02	37,350
SALAMY, ALBERT	FAR-FIELD POTENTIALS IN BRAINSTEM MALDEVELOPMENT	5R01 NS12424-05	28,499
SANTI, DANIEL V.	CHEMOTHERAPY WITH INHIBITORS OF PROTEIN SYNTHESIS	5R01 CA14266-07	90,209
SANTI, DANIEL V.	THYMIDYLATE SYNTHETASE AND RELATED ENZYMES	3R01 CA14394-07S1	48,046
SCHACHTER, JULIUS	MICROIMMUNOFLOUORESCENCE WITH CHLAMYDIA PSITTACI	5R01 AI14540-02	36,481
SCHACHTER, JULIUS	OCULAR ZOONOSE: THE CHLAMYDIAL INFECTION	2R01 EY01205-04	86,226
SCHACHTER, JULIUS	INCLUSION CONJUNCTIVITIS OF THE NEWBORN	5R01 EY02216-02	98,017
SCHACHTER, JULIUS	HUMAN INFERTILITY: CHLAMYDIAL ROLE ASSESSED IN VITRO	5R01 HD12271-02	66,281
SCHAMBELAN, MORRIS	RENIN, ANGIOTENSIN, STEROIDS, IONS AND BLOOD PRESSURE	5R01 HL11046-13	93,287
SCHENMAN, MELVIN M.	PROSPECTIVE BUNDLE BRANCH BLOCK STUDY	5R01 HL20238-03	72,681
SCHILLER, NELSON B.	CARDIAC VOLUME BY BIPLANE ECHOCARDIOGRAPHY	5R23 HL22787-02	36,025
SCHMID, RUDI	STUDIES OF BILE PIGMENT METABOLISM	5R01 AM11275-14	221,243
SCHMID, RUDI	INTERDISCIPLINARY LIVER RESEARCH PROGRAM	5P50 AM18520-05	577,708
SCHMUCKER, DOUGLAS L.	AGING EFFECTS ON HEPATIC STRUCTURE AND FUNCTION	5R01 AG00357-03	64,249
SEBASTIAN, ANTHONY	PATHOPHYSIOLOGY OF RENAL TUBULAR ACIDOSIS	1R01 AM21605-01	86,531
SEDAT, JOHN W.	A STUDY OF EUKARYOTIC INTERPHASE CHROMOSOMES	5R01 GM25101-02	71,028
SHAFFER, RICHARD H.	VISCOELASTIC ANALYSIS OF BRAIN AND TUMOR DNA	5R01 CA19658-04	41,425
SHAH, SHANTILAL N.	DEVELOPMENTAL REGULATION OF BRAIN STEROL SYNTHESIS	5R01 NS11670-06	54,567
SHAH, SHANTILAL N.	MYELINATION DEFECT-LIPID METABOLISM & EEG ABNORMALITY	1R01 NS14938-01	51,999
SHEINER, LEWIS B.	NEW WAYS TO INVESTIGATE AND FORECAST PHARMACOKINETICS	1R01 GM26676-01	102,105
SHETLAR, MARTIN D.	PHOTO INDUCED DNA-PROTEIN CROSS-LINKING IN CHROMATIN	5R01 GM23526-03	58,207
SHIPP, THOMAS F.	SEQUENTIAL NEUROMECHANICAL EVENTS TO INITIATE VOICE	5R01 NS14729-02	11,196
SHOHEET, STEPHEN B.	MEMBRANE LIPID AND PROTEIN METABOLISM IN BLOOD CELLS	5R01 AM16095-08	105,183
SHUMAN, MARC A.	BLOOD CLOTTING KINETICS STUDIED BY RADIOIMMUNOASSAY	5R01 HL21403-03	64,656
SIEGEL, ROBERT C.	PATHOGENESIS OF GENETIC COLLAGEN DISEASE	1R01 AM21897-01	58,272
SIIITERI, PENITTI K.	DYNAMICS OF ESTROGEN BIOSYNTHESIS	5R01 HD08692-06	155,318
SIIITERI, PENITTI K.	PROGESTERONE AND PREGNANCY MAINTENANCE	1R01 HD12949-01	73,883
SILVERMAN, SOL, JR.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17914-05	87,078
SIMPSON, PAUL C, JR.	MYOCARDIAL CELLS IN CULTURE AS A MODEL FOR ISCHEMIA	1R01 HL23155-01A1	63,223
SINGER, THOMAS P.	MEMBRANE-BOUND ENZYMES IN HEART AND OTHER TISSUES	5P01 HL16251-07	415,174
SIPERSTEIN, MARVIN D.	CHOLESTEROL METABOLISM IN NORMAL AND MALIGNANT LIVER	5R01 CA15979-06	154,423
SMOLIN, GILBERT	ALTERATIONS OF CORNEAL IMMUNOLOGIC REACTIONS	5R01 EY01121-07	65,469
SMUCKLER, EDWARD A.	CYTOCHEMICAL STUDIES IN LIVER INJURY	5R01 AM19843-04	92,066
SMUCKLER, EDWARD A.	PATHOLOGY OF CHEMICAL CARCINOGENESIS	2R01 CA21141-03	136,845
SO, MAGDALENE H.	BIOCHEMISTRY OF GENES ENCODING E COLI (ST) TOXINS	1R01 AI16240-01	46,506
STAUB, NORMAN C.	PATHOPHYSIOLOGY OF PULMONARY EDEMA	5P50 HL19155-03	362,362
STEINBERG, ROY H.	PIGMENT EPITHELIUM INTERACTIONS WITH NEURAL RETINA	5R01 EY01429-06	115,539
STITES, DANIEL P.	STUDY OF FETO-PLACENTAL-MATERNAL INTERACTION	5R01 HD03939-11	64,714
STOBO, JOHN D.	HETEROGENEITY OF THYMUS DERIVED LYMPHOCYTES	5R01 AI14104-02	66,683
STOECKENIUS, WALTHER	PHOTOENERGY TRANSDUCTION IN HALOBACTERIUM	5R01 GM23651-03	114,194
STROUD, ROBERT M.	STRUCTURE AND FUNCTION OF PROTEINS AT MOLECULAR LEVEL	2R01 GM24485-03	102,846
STRYKER, MICHAEL P.	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM	1R01 EY02874-01	101,469
SWEET, RICHARD L.	NEISSERIA GONORRHOAE IN ACUTE SALPINGITIS	1R01 AI16631-01	84,590
TALAL, NORMAN	AUTOIMMUNITY AND SEX HORMONES IN TWO NEW MOUSE STRAINS	1R01 AI15550-01	36,507
TALAL, NORMAN	SIGNIFICANCE OF ANTINUCLEIC ACID ANTIBODIES IN LUPUS	5R01 AM16140-08	76,681
TALAL, NORMAN	IDIOTYPE-ANTI-IDIOTYPE IN MURINE AND HUMAN LUPUS	1R01 AM25310-01	55,729
TANACHO, EMIL A.	LOWER URINARY TRACT FUNCTION	1R01 AM24009-01	40,332
THALER, M MICHAEL	DEVELOPMENTAL ASPECTS OF HEPATOBLILIARY METABOLISM	5R01 HD03148-12	136,097
THALER, M MICHAEL	FETAL BILIARY MALFORMATIONS: INDUCTION AND PREVENTION	5R01 HD11645-02	61,150
TREVOR, ANTHONY J.	PHARMACOLOGICAL PROPERTIES OF KETAMINE ENANTIOMORPHS	5R01 GM23918-02	42,385
TRUNKEY, DONALD D.	TRAUMA RESEARCH PROGRAM	5P50 GM18470-08	369,582
TRUNKEY, DONALD D.	INTRACELLULAR MEDIATORS DURING SEPTIC AND BURN SHOCK	5R01 GM25078-02	79,436
VALENZUELA, PABLO	STRUCTURE AND TRANSCRIPTION OF RIBOSOMAL RNA GENES	5R01 GM25157-02	44,527
VARMUS, HAROLD E.	MOLECULAR BIOLOGY OF MOUSE MAMMARY TUMOR VIRUS	5R01 CA19287-04	104,450
VEITH, ILZA	FROM DRAGONBLOOD TO INSULIN: THE HISTORY OF DIABETES	5R01 LM03009-02	17,660
VESSEY, DONALD A.	CHARACTERIZATION OF BILE ACID CONJUGATION	2R01 AM19212-04	49,932
VYAS, GIRISH N.	TETANUS TOXOID COUPLED HEPATITIS B SURFACE ANTIGEN	1R01 AI15781-01	51,575
WALLERSTEIN, ROBERT S.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05755-06	100,797
WARNOCK, DAVID G.	RENAL MECHANISMS-NA/ION REABSORPTION & H/ION SECRETION	2R01 AM19407-04	44,365

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
WARNOCK, MARTHA L.....	ABESTOS AND CANCER.....	5R01 ES02117-02	53,017
WATSON, JOHN A.....	EFFECTORS OF CHOLESTEROL SYNTHESIS.....	5R01 HL16294-05	48,997
WEINER, RICHARD I.....	ROLE OF BRAIN MONOAMINES IN LH AND PROLACTIN RELEASE.....	5R01 HD08924-05	89,641
WEINKAM, ROBERT J.....	CHEMOTHERAPEUTIC AND CARCINOGENIC METHYLATING AGENTS.....	1R01 CA26381-01	70,453
WIKMAN-COFFELT, JOAN.....	HYPERTROPHY FACTORS AND MYOCARDIAL ALTERATIONS.....	1R01 HL23518-01	52,244
WILLIAMS, JOHN A.....	REGULATION OF PANCREATIC ACINAR FUNCTION BY INSULIN.....	5R01 AM21089-02	72,141
WILLIAMS, JOHN A.....	ROLE OF CELL MEMBRANE IN HORMONE SECRETION AND ACTION.....	5R01 GM19998-06	78,138
WILSON, CHARLES B.....	PROGRAM FOR TREATMENT OF MALIGNANT BRAIN TUMORS.....	2P01 CA13525-07A1	860,196
WISSIG, STEVEN L.....	ULTRASTRUCTURAL STUDIES OF CAPILLARY PERMEABILITY.....	5R01 HL04512-20	70,413
WOLFF, MANFRED E.....	STUDIES OF RECEPTORS WITH SITE SPECIFIC STEROIDS.....	5R01 AM14824-08	74,551
WYATT, JAMES L.....	SPECTRIN'S ROLE IN BLOOD CELL SHAPE AND DEFORMABILITY.....	1R01 AM23077-01	34,184
YAMAMOTO, KEITH R.....	GENE REGULATION BY STEROID RECEPTOR PROTEINS.....	5R01 CA20535-03	109,639
YANG, JEN T.....	OPTICAL ROTATORY POWER OF BIOPOLYMERS.....	2R01 GM10880-20	82,848
YANG, JEN T.....	STEREOCHEMICAL MECHANISM OF SICKLING OF HEMOGLOBIN S.....	5R01 HL18818-05	57,735
ZAKIM, DAVID.....	REGULATION OF GLUCURONYLTRANSFERASES.....	2R01 GM20316-04A1	37,249
ZIPPIN, CALVIN.....	CONFERENCES FOR PERSONNEL OF CANCER DATA PROGRAMS.....	5R13 CA23655-02	93,123
ORGANIZATION TOTAL	329 45,759,065		
UNIVERSITY OF THE PACIFIC ZIP CODE 94115			
HIGHSMITH, STEFAN.....	SEGMENTAL MOTION OF CA2ION/MG2ION-ATPASE IN SR VESICLES.....	1R01 AM25177-01	6,250
INESI, GIUSEPPE.....	CALCIUM ION AND CONTROL OF CARDIAC FUNCTION.....	5P01 HL16607-06	274,161
ROBERTS, W EUGENE.....	OSTEOCLAST ORIGIN AND HISTOGENESIS IN PERIODONTIUM.....	1R01 DE05136-01	78,828
RYCE, GUNNAR.....	CORROSION AND CLINICAL BEHAVIOR OF DENTAL AMALGAM.....	5R01 DE04516-03	79,790
ORGANIZATION TOTAL	4 439,029		
SAN JOSE			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN JOSE STATE UNIVERSITY ZIP CODE 95192			
FOWLER, ROBERT G.....	SPECIFICITY OF METAL MUTAGENESIS IN ESCHERICHIA COLI.....	5R01 GM25321-02	31,517
ORGANIZATION TOTAL	1 31,517		
SANTA CLARA VALLEY MEDICAL CENTER ZIP CODE 95128			
MILES, LAUGHTON E.....	CHRONOBIOLOGICAL DISORDERS IN BLIND PEOPLE.....	5R01 EY02614-02	87,220
O'REILLY, ROBERT A.....	ANALYTIC DEVELOPMENT OF PHARMACOKINETIC TOOLS.....	2R01 GM22860-04	121,761
O'REILLY, ROBERT A.....	METABOLISM OF COUMARIN ANTICOAGULANT DRUGS IN MAN.....	2R01 HL08058-15A1	72,121
RABKIN, RALPH.....	THE KIDNEY INSULIN, PROINSULIN AND C-PEPTIDE.....	5R01 AM25313-02	78,875
RABKIN, RALPH.....	FACTORS MODIFYING DEVELOPMENT OF DIABETIC NEPHROPATHY.....	1R01 AM25622-01	108,905
SACKS, ALVIN H.....	MICROCIRCULATORY CHANGES FROM ALTERED BLOOD RHEOLOGY.....	1R01 HL24266-01	104,570
ORGANIZATION TOTAL	6 573,452		
SANTA BARBARA			
SANTA BARBARA BOTANIC GARDEN ZIP CODE 93105			
WALTERS, MARTA S.....	MEIOSIS: A REVISED SEQUENCE OF EVENTS IN PROPHASE.....	2R01 GM19272-06	44,494
ORGANIZATION TOTAL	1 44,494		
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA ZIP CODE 93106			
ANDERSON, DON H.....	RELATIONSHIP OF MAMMALIAN CONES TO PIGMENT EPITHELIUM.....	5R01 EY02082-03	60,615
BRUCE, THOMAS C.....	BIOCHEMICAL MECHANISMS—ENZYMES, CANCER AND MODELS.....	2R01 AM09171-16	189,822
CARBON, JOHN A.....	GENE ORGANIZATION AND EXPRESSION STUDIES.....	5R01 CA11034-11	168,809
CARLISLE, HARRY J.....	EFFECT OF OVARIAN STEROIDS ON THERMOREGULATION.....	5R01 HD10473-03	61,903
FARRELL, KEVIN W.....	CONTROL OF MICROTUBULE PROPERTIES AND FUNCTIONS.....	1R01 GM26732-01	41,450
FISHER, STEVEN K.....	THE DEVELOPING AND ADULT VISUAL SYSTEM.....	5R01 EY00888-08	65,115
GERIG, JOHN T.....	STRUCTURAL STUDIES OF PROTEINS BY FLUORINE NMR.....	1R01 GM25975-01	91,972
GERIG, JOHN T.....	STRUCTURAL STUDIES OF ENZYME-POLYMER CONJUGATES.....	1R01 GM26469-01	37,271
GOTTSANKER, ROBERT M.....	AGING AND PREPARATION FOR RAPID RESPONSE.....	5R01 AG00011-03	39,738
HOOKE, THOMAS M, JR.....	CONFORMATIONS OF BIOLOGICALLY IMPORTANT MOLECULES.....	2R01 GM18092-07	49,315
HUBBARD, ARTHUR T.....	ELECTROANALYSIS OF CENTRAL MONOAMINE NEURONS.....	2R01 NS13356-04	57,606
JACOBS, GERALD H.....	CONE-DOMINATED AND ROD-DOMINATED VISUAL SYSTEMS.....	5R01 EY00105-10	67,231

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
JACOBS, GERALD H.....	WITHIN-SPECIES VARIATIONS IN VISUAL CAPACITY.....	5R01 EY02052-03	49,203
LARIS, PHILIP C.....	EXTRINSIC FLUORESCENCE AND MEMBRANE POTENTIALS.....	2R01 CA19234-06	62,482
LARIS, PHILIP C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07099-13	93,911
LEE, NANCY L.....	GENETIC CONTROL OF PROTEIN SYNTHESIS IN E. COLI.....	5R01 GM14652-13	62,980
LITTLE, R DANIEL.....	1, 3-DIYL TRAPPING REACTIONS IN ORGANIC SYNTHESIS.....	5R01 CA21144-03	38,383
LOOMIS, JACK M.....	FACTORS LIMITING THE TACTILE PERCEPTION OF FORM.....	1R01 NS15129-01	26,926
NICOLI, DAVID F.....	NEW TECHNIQUES FOR FLUORESCENCE IMMUNOASSAY.....	5R01 AI15073-02	19,323
ORIAS, EDUARDO.....	CONDITIONAL LETHAL MUTANTS OF TETRAHYMENA.....	5R01 GM19290-08	86,085
ORIAS, EDUARDO.....	GENETIC DISSECTION OF PHAGOCYTOSIS IN TETRAHYMENA.....	5R01 GM21067-05	61,863
PARSONS, STANLEY M.....	METABOLIC REGULATION OF ATP PHOSPHORIBOSYLTRANSFERASE.....	2R01 GM23031-04	52,287
PURICH, DANIEL L.....	PHOSPHOTRANSFERASE CATALYSIS AND REGULATION.....	5R01 GM24039-03	40,821
PURICH, DANIEL L.....	MOLECULAR MECHANISMS OF MICROTUBULE INTERACTIONS.....	1R01 GM24958-01A1	60,052
ROBERTS, CHARLES T, JR.....	GENETIC REGULATION BY CYCLIC AMP IN TETRAHYMENA.....	5R01 GM25652-02	57,483
SAMUEL, CHARLES E.....	MECHANISM OF INTERFERON ACTION.....	5R01 AI12520-05	55,367
SEARS, DUANE W.....	STRUCTURES OF HISTOCOMPATIBILITY-2 MEMBRANE ANTIGENS.....	5R01 CA24433-02	54,133
WAGNER, JAMES A.....	CARDIOVASCULAR ADJUSTMENTS TO COLD EXPOSURE.....	1R01 AG01030-01A1	82,007
WILSON, LESLIE.....	DRUG INTERACTIONS WITH BRAIN MICROTUBULE PROTEINS.....	5R01 NS13560-04	95,995
ORGANIZATION TOTAL	29	1,930,148	
SANTA CRUZ			
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064			
BERGER, RALPH J.....	THERMOREGULATION DURING SLEEP & TORPOR IN MAMMALS.....	2R01 GM23694-04	75,307
DANIEL, CHARLES W.....	AGING OF MOUSE MAMMARY CELLS.....	1R01 AG01050-01A1	74,467
DRATZ, EDWARD A.....	THE STRUCTURE OF RHODOPSIN AND THE ROD DISK MEMBRANE.....	2R01 EY00175-10	86,725
DRATZ, EDWARD A.....	ANTIOXIDANTS AND RETINA-PIGMENT EPITHELIUM FUNCTION.....	5R01 EY01521-05	85,201
FELDMAN, JERRY F.....	GENETIC ANALYSIS OF BIOLOGICAL CLOCK MECHANISMS.....	5R01 GM22144-05	71,524
FINK, ANTHONY L.....	ENZYME-CATALYZED REACTIONS AT SUBZERO TEMPERATURES.....	5R01 GM20555-05	51,191
HINEGARDNER, RALPH T.....	IMMUNOLOGY OF THE SEA URCHIN.....	5R01 AI14785-02	42,119
KLIGER, DAVID S.....	INVESTIGATION OF THE BLEACHING STAGES OF RHODOPSIN.....	5R01 EY00983-07	40,444
MAYER, MELANIE J.....	DEVELOPMENT OF ANISOTROPIC VISUAL SENSITIVITY.....	3R01 EY02445-01S1	5,830
MAYER, MELANIE J.....	DEVELOPMENT OF ANISOTROPIC VISUAL SENSITIVITY.....	5R01 EY02445-02	30,900
MC MURRY, JOHN E.....	TOTAL SYNTHESIS OF APHIDICOLIN.....	5R01 AI14127-03	37,024
MC MURRY, JOHN E.....	TOTAL SYNTHESIS OF CARDIAC AGLYCONES.....	5R01 HL18118-05	92,719
NOLLER, HARRY F, JR.....	RIBOSOME STRUCTURE AND FUNCTION.....	5R01 GM17129-09	72,378
NOLLER, HARRY F, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07135-09	86,858
ROCHA, VICTOR.....	BASIC RESEARCH PROGRAM.....	5S06 RR08132-05	316,527
SCHLEICH, THOMAS W.....	MECHANISMS OF RNA-PROTEIN INTERACTIONS.....	5R01 GM23951-02	76,737
WIPKE, W TODD.....	RESOURCE-RELATED RESEARCH: BIOMOLECULAR SYNTHESIS.....	5R24 RR01509-03	89,629
ORGANIZATION TOTAL	17	1,335,580	
SANTA MONICA			
RAND CORPORATION ZIP CODE 90406			
DAVANZO, JULIE S.....	MIGRATION UNEMPLOYMENT AND JOB MOBILITY.....	5R01 HD10864-02	102,020
KING, WILLIAM S.....	MATHEMATICAL MODELS FOR STUDYING SICKLE-CELL DISEASE.....	5R01 HL16580-05	89,514
MENCHIK, MARK D.....	ANALYSIS OF POPULATION MOBILITY AND LENGTH OF STAY.....	1R01 HD12394-01	122,675
MORRISON, PETER A.....	CENTER FOR POPULATION STUDIES.....	1P50 HD12639-01	382,155
VAN RYZIN, JOHN R.....	TOXIC SUBSTANCES RESPONSE DATA STATISTICAL PROCEDURES.....	1R01 ES02222-01	57,682
WILLIAMS, ALPERT P, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05710-09	46,458
ORGANIZATION TOTAL	6	800,504	
SEPULVEDA			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 91343			
PIKO, LAJOS.....	GENE EXPRESSION IN EARLY MOUSE DEVELOPMENT.....	1R01 CA24989-01	51,483
ORGANIZATION TOTAL	1	51,483	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
STANFORD			
INDIVIDUAL AWARD—RATHER, LELLAND J. ZIP CODE 94305			
RATHER, LELLAND J.	A STUDY OF MUELLER AND FALLOPPIO ON TUMORS.	5R01 LM02852-03	10,531
ORGANIZATION TOTAL	1 10,531		
STANFORD UNIVERSITY ZIP CODE 94305			
AGRAS, W STEWART	RELAXATION TRAINING IN ESSENTIAL HYPERTENSION	1R01 HL23667-01	145,347
ANDERSEN, HANS C	COMPUTER SIMULATION OF AQUEOUS SOLUTIONS	1R01 GM26626-01	74,894
ANDERSON, MALCOLM F	HEPATIC HEMODYNAMICS IN PORTAL HYPERTENSION	1R01 HL24517-01	89,748
ANGELL, JAMES B	RESOURCE FOR SILICON BIOMEDICAL TRANSDUCERS	5P41 RR01086-03	136,707
BAGSHAW, MALCOLM A	HOSPITAL-BASED MULTIPOINT PION RADIOTHERAPY OF CANCER	3P01 CA19653-02S2	19,616
BAGSHAW, MALCOLM A	UNIVERSITY ONCOLOGY PROGRAM	5R01 EY01543-06	139,871
BALDWIN, ROBERT L	PHYSICAL STUDIES OF NUCLEIC ACIDS AND PROTEINS	5R01 GM19988-19	131,110
BAYLOR, DENIS A	NEURAL SIGNALLING IN THE RETINA	3R01 EY01543-05S1	58,051
BAYLOR, DENIS A	NEURAL SIGNALLING IN THE RETINA	5R01 EY01543-06	132,143
BERG, PAUL	BASIC MECHANISMS IN VIRAL CARCINOGENESIS	5R01 CA15513-06	108,643
BERG, PAUL	MECHANISMS AND REGULATION OF GENE EXPRESSION	5R01 GM13235-15	262,962
BERNFELD, MERTON R	EXTRACELLULAR MATERIALS AND EMBRYONIC ORGAN FORMATION	5R01 HD06763-08	164,189
BLASCHKE, TERRENCE F	COMPARATIVE DRUG METABOLISM: EFFECTS OF AGING IN MAN	1R01 AG01340-01	103,038
BLASCHKE, TERRENCE F	KINETICS OF DRUG-DRUG AND DRUG-DISEASE INTERACTIONS	5R01 GM22209-05	82,160
BLAU, HELEN M	MUSCLE DIFFERENTIATION IN HETEROKARYONS	1R01 GM26717-01	98,778
BLECK, EUGENE E	POSTURAL MECHANISMS IN IDIOPATHIC SCOLIOSIS	1R01 AM26021-01	91,105
BLUM, ROBERT L	INTEGRATING MEDICAL KNOWLEDGE AND CLINICAL DATA BANKS	1R23 LM03370-01	21,858
BRISTOW, MICHAEL R	ALTERATIONS IN IONIZED CALCIUM IN CARDIAC DISEASE	1R23 HL23832-01	45,946
BROWN, J MARTIN	EXPERIMENTAL RADIOTHERAPY: BASIS AND MODIFICATION	2R01 CA15201-06	188,714
BRUTLAG, DOUGLAS L	ORGANIZATION OF PERICENTRIC HETEROCHROMATIN	5R01 GM21498-05	105,627
CAMPBELL, ALLAN M	GENETICS OF LAMBDA PROPHAGE-BIOTIN OPERON	5R01 AI08573-12	124,981
CAVALLI-SFORZA, LUIGI L	HUMAN POPULATION GENETICS	5R01 GM20467-07	201,870
CAVALLI-SFORZA, LUIGI L	GENETICS RESEARCH PROJECT	3P01 GM20832-04S1	230,362
CHOW, KAO L	NEUROLOGY OF VISION AND LEARNING	5R01 EY00691-19	84,716
CLAYTON, DAVID A	MITOCHONDRIAL GENE EXPRESSION IN MALIGNANT CELLS	2R01 CA12312-09	127,408
COHEN, STANLEY N	GENETIC CONTROL OF NONCHROMOSOMAL DRUG RESISTANCE	5R01 AI08619-12	182,122
COHEN, STANLEY N	REPLICATION AND TRANSFER OF BACTERIAL PLASMIDS	1R01 GM26355-01	155,626
COLLMAN, JAMES P	MODELS FOR CYTOCHROME P450 HYDROXYLASES	5R01 GM17880-09	107,476
COOPER, ALLEN D	REGULATION OF HEPATIC CHOLESTEROL SYNTHESIS	5R01 AM18774-05	90,436
COOPER, ALLEN D	CHOLESTEROL BIOSYNTHESIS AND ITS CONTROL IN LIVER	5R01 HL05360-20	85,919
CROWLEY, LAWRENCE G	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05353-18	201,413
CUTLER, ROBERT W	MECHANISMS OF NEUROTRANSMITTER RELEASE	5R01 NS12079-06	77,134
DAVID, PAUL A	CONTRACEPTIVE TECHNOLOGY AND FAMILY LIMITING BEHAVIOR	5R01 HD10724-02	98,965
DAVIDSON, JULIAN M	ENDOCRINE FACTORS AND SEXUALITY IN AGING	1R01 AG01437-01	136,509
DAVIS, RONALD W	CELL REGULATION: BIOCHEMICALLY ISOLATED DNA SEGMENTS	5R01 GM21891-05	152,006
DE BUSK, ROBERT F	OBJECTIVE EVALUATION EARLY AFTER MI AND HEART SURGERY	2R01 HL18907-04	306,108
DEMENT, WILLIAM C	DAYTIME ALERTNESS IN THE AGED: NOCTURNAL DETERMINANTS	1R01 AG01435-01	41,967
DEMENT, WILLIAM C	SUDDEN INFANT DEATH SYNDROME AND SLEEP APNEA	5R01 HD08339-06	273,150
DEMENT, WILLIAM C	STUDIES OF NARCOLEPSY	5R01 NS13211-04	110,232
DIERASSI, CARL	MASS SPECTROMETRY IN ORGANIC AND BIOCHEMISTRY	5R01 AM04257-19	114,704
DIERASSI, CARL	MARINE CHEMISTRY WITH SPECIAL EMPHASIS ON STEROIDS	5R01 GM06840-21	241,206
DIERASSI, CARL	MCD OF PORPHYRINS AND ARTIFICIAL HEME PROTEINS	2R01 GM20276-06	82,917
DIERASSI, CARL	RESOURCE-RELATED RESEARCH—COMPUTERS AND CHEMISTRY	5R24 RR00612-10	227,601
DONIACH, SEBASTIAN	X-RAY SPECTROSCOPY OF CA IONS IN BIOLOGICAL SYSTEMS	5R01 GM25217-02	57,308
ENG, LAWRENCE F	CENTRAL NERVOUS SYSTEM MEMBRANES AND ACIDIC PROTEINS	5R01 NS11632-05	79,886
ENGLEMAN, EDGAR G	HLA RESTRICTED SUPPRESSOR T CELLS OF MIXED LYMPHOCYTES	1R01 CA24607-01	104,175
FARBER, EUGENE M	BIOLOGIC EFFECTS OF PHOTOCHEMOTHERAPY IN PSORIASIS	5R01 AM18760-03	122,913
FARQUHAR, JOHN W	STANFORD FIVE CITY MULTIFACTOR RISK REDUCTION STUDY	5R01 HL21906-02	2,030,686
FEE, WILLARD E, JR	AMINOGLYCOSIDE OTOTOXICITY DETERMINANTS	5R01 NS14596-02	57,579
FEIGENBAUM, EDWARD A	RESEARCH PROGRAM: BIOMEDICAL KNOWLEDGE REPRESENTATION	1P01 LM03395-01	154,633
FEIGENBAUM, EDWARD A	SUPPORT FOR COMPUTING FACILITY	3P41 RR00785-06S1	186,375
FEIGENBAUM, EDWARD A	SUPPORT FOR COMPUTING FACILITY	5P41 RR00785-07	954,111

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FELDMAN, DAVID	THE ROLE OF RECEPTORS IN GLUCOCORTICOID ACTION	5R01 AM18156-06	50,667
FELDMAN, DAVID	STEROID RECEPTORS AND FUNCTION IN BONE CELLS	5R01 AM19675-03	41,794
FERGUSON, CHARLES A	PHONOLOGICAL UNITS OF PRESCHOOL CHILDREN	1R01 HD12488-01	108,058
FLAVELL, JOHN H	MEMORY DEVELOPMENT	5R01 HD10429-03	70,580
FRIEDBERG, ERROL C	DNA REPAIR AND ITS RELATIONSHIP TO CARCINOGENESIS	3R01 CA12428-08S1	11,495
FRIEDBERG, ERROL C	DNA REPAIR AND ITS RELATIONSHIP TO CANCER	2R01 CA12428-09	79,579
FRIES, JAMES F	A NATIONAL ARTHRITIS DATA RESOURCE (ARAMIS)	5R18 AM21393-05	311,185
FUHRMAN, FREDERICK A	PHARMACOLOGY AND CHEMISTRY OF NUDIBRANCH TOXINS	5R01 HL22201-02	48,122
GANESAN, ADAYAPALAM T	GENETICS OF BACTERIA	5R01 CA16896-21	96,319
GANESAN, ADAYAPALAM T	DNA SYNTHESIS AND GENETIC RECOMBINATION IN B. SUBTILIS	5R01 GM14108-14	94,009
GETTING, PETER A	ANALYSIS OF INTERNEURONS AND MOTONEURONS	5R01 NS14517-02	46,080
GLADER, BERTIL E	PATHOPHYSIOLOGY OF HEMOLYSIS: RBC HYDRATION DISORDERS	5R01 AM20879-02	51,181
GRAY, GARY M	CARBOHYDRATE DIGESTION BY THE INTESTINE	5R01 AM11270-13	79,638
GRAY, GARY M	ROLE IN DIGESTION OF SMALL INTESTINAL OLIGOPEPTIDASES	5R01 AM15802-07	144,777
GREGORY, PETER B	UPPER GI BLEEDING-DIAGNOSIS AND TREATMENT	1R01 AM19976-01	116,846
GRUMET, FRANK C	HLA ANTIGENS: POLYMORPHISMS AND APPLICATIONS	5R01 HL21662-02	77,803
HAHN, GEORGE M	MODIFICATION OF RADIATION RESPONSE IN VITRO	5R01 CA04542-21	145,285
HAHN, GEORGE M	CHEMOTHERAPY: CYTOTOXICITY, REPAIR AND ITS INHIBITION	5R01 CA15769-06	80,144
HAHN, GEORGE M	TUMOR RADIOCHEMOTHERAPY: EFFECTS OF ULTRASOUND AND HEAT	5R01 CA19386-03	223,716
HALL, DENNIS A	ROLE OF STEROID HORMONES IN URINARY CONCENTRATION	5R01 AM21911-02	24,430
HANAWALT, PHILIP C	GROWTH AND DNA REPAIR IN AGING HUMAN KERATINOCYTES	1R01 AG02006-01	83,050
HANAWALT, PHILIP C	REPLICATION AND REPAIR OF GENETIC MATERIAL	5R01 GM09901-18	138,511
HANAWALT, PHILIP C	DNA REPAIR IN ESCHERICHIA COLI AND BACILLUS SUBTILIS	5R01 GM19010-08	88,786
HANCE, ALLAN J	O2 DEPENDENT BIOSYNTHESIS-RESPONSE TO O2 DEPLETION	5R23 HL22383-02	44,500
HARELL, GEORGE S	COMPARISON OF MICROSPHERE AND RBC BEHAVIOR IN VIVO	5R01 HL20943-03	123,504
HARRISON, DONALD C	CLINICAL ANTIARRHYTHMIC AND PHARMACODYNAMIC STUDIES	5R01 HL21221-03	88,262
HARRISON, DONALD C	CLINICAL APPLICATION OF MAGNETOMETRY IN HEART DISEASE	1R01 HL23184-01	92,128
HELLER, H CRAIG	CNS REGULATION OF BODY TEMPERATURE	2R01 NS10367-08	66,388
HELLER, H CRAIG	THERMOREGULATION DURING SLEEP AND TORPOR	1R01 NS16317-01	35,777
HERZENBERG, LEONARD A	IMMUNOGLOBULINS: GENETICS AND REGULATION	2R01 AI08917-15	110,928
HERZENBERG, LEONARD A	GENETIC STUDIES WITH MAMMALIAN CELLS	5R01 CA04681-21	180,157
HERZENBERG, LEONARD A	CLINICAL AND BIOLOGICAL USES OF AUTOMATED CELL SORTING	5R01 GM17367-10	628,752
HERZENBERG, LEONARD A	SHARED FLUORESCENCE ACTIVATED CELL SORTER	1P41 GM27457-01	159,560
HERZENBERG, LEONARD A	FETAL-MATERNAL IMMUNOLOGICAL INTERACTIONS	5R01 HD01287-17	125,576
HERZENBERG, LEONARD A	FETAL CELLS FROM MATERNAL BLOOD	1R01 HD13025-01	98,912
HILBERMAN, MARK	ACUTE RENAL FAILURE FOLLOWING CARDIAC SURGERY	5R01 HL21210-02	89,981
HINTZ, RAYMOND L	GROWTH HORMONE AND SOMATOMEDIN IN DIABETES MELLITUS	5R01 AM21058-02	93,500
HINTZ, RAYMOND L	PLASMA SOMATOMEDIN METABOLISM AND ACTIONS	1R01 AM24085-01	84,551
HODGSON, KEITH O	STRUCTURE OF TUMOR REGULATORY PROTEINS	5R01 CA16748-05	72,847
HOGNESS, DAVID S	THE ARRANGEMENT OF INFORMATION IN ANIMAL CHROMOSOMES	5R01 GM20158-07	167,480
HOLM, RICHARD H	BIOLOGICALLY RELATED IRON-SULFUR CHEMISTRY	5R01 GM22352-05	148,666
HOLMAN, HALSTED R	AUTOIMMUNE TISSUE DAMAGE AND ITS POTENTIAL REVERSAL	5R01 AM05425-17	86,518
HOLMAN, HALSTED R	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20610-03	187,317
HUESTIS, WRAY H	NEUROTRANSMITTER RECEPTORS IN HUMAN ERYTHROCYTES	3R01 HL18660-03S1	2,032
HUESTIS, WRAY H	NMR STUDIES OF HEME-GLOBIN INTERACTIONS	1R01 HL23505-01	41,123
HUESTIS, WRAY H	VESICLE-MEDIATED MEMBRANE PROTEIN TRANSFER	1R01 HL23787-01	64,936
HUMPHRIES, GILLIAN M	IMMUNE RESPONSES TO MEMBRANES: PHYSICOCHEMICAL STUDIES	5R23 AI14813-02	47,392
JAMISON, REX L	MICROPUNCTURE STUDIES OF THE MAMMALIAN RENAL MEDULLA	5R01 AM18077-09	160,887
JARDETZKY, OLEG	NMR STUDY OF THE LAC-REPRESSOR PROTEIN	2R01 GM18098-09	104,890
JARDETZKY, OLEG	HIGH FREQUENCY NMR BIOTECHNOLOGY RESOURCE	2P41 RR00711-07	234,852
JOHNSON, WILLIAM S	STEROID AND TERPENOID SYNTHESIS AND RELATED STUDIES	5R01 AM03787-20	99,591
JOHNSON, WILLIAM S	CONTROL OF BIOMIMETIC POLYENE CYCLIZATIONS	1R01 HL24604-01	127,234
JONES, PATRICIA P	GENETICS, STRUCTURE AND EXPRESSION OF IA ANTIGENS	1R01 AI15732-01	116,301
KAEISER, ARMIN D	CONTROL OF MULTICELLULAR DEVELOPMENT IN MYXOBACTERIA	5R01 GM23441-03	110,157
KALLMAN, ROBERT F	EXPERIMENTAL RADIOOTHERAPY-CELLULAR RESPONSES IN VIVO	2R01 CA03353-22	177,914
KALLMAN, ROBERT F	COMBINED MODALITIES: CELL, TUMOR AND TISSUE EFFECTS	1R01 CA25990-01	224,515
KAPLAN, ERNEST N	PERINEURAL TUBULIZATION WITH TELOPEPTIDE-POOR COLLAGEN	5R01 NS14165-02	41,563
KAPLAN, HENRY S	BIOLOGICAL ASPECTS OF CARCINOGENESIS BY RADIATION	2R01 CA03352-23	286,266
KAPLAN, HENRY S	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P01 CA05838-18	2,520,792
KAPLAN, HENRY S	RADIOBIOLOGY/ONCOLOGY RESEARCH PROGRAM	5P30 CA10372-13	1,334,322

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
KAPLAN, HENRY S.....	C57BL MOUSE RETROVIRUSES: MOLECULAR CHARACTERIZATION.....	1R01 CA25619-01	81,340
KARASEK, MARVIN A.....	METABOLIC CONTROL OF EPIDERMAL CELL GROWTH.....	2R01 AM14121-10	100,958
KARASEK, MARVIN A.....	BIOCHEMISTRY OF SKIN BLOOD VESSEL GROWTH.....	5R01 AM19595-03	125,347
KARLIN, SAMUEL.....	STOCHASTIC MODELS IN MEDICINE AND BIOLOGY.....	2R01 GM10452-16	149,705
KEDES, LAURENCE H.....	EMBRYONIC CHROMOSOMAL PROTEINS AND THEIR RNA TEMPLATES.....	2R01 GM17995-07	93,257
KEDES, LAURENCE H.....	HISTONE GENE TRANSCRIPTION IN EMBRYONIC DEVELOPMENT.....	5R01 GM24118-03	44,710
KENDIG, JOAN J.....	EXCITABLE CELL FUNCTION AT HYPERBARIC PRESSURES.....	5R01 NS13108-04	60,523
KORN, DAVID.....	DNA POLYMERASES IN NORMAL AND NEOPLASTIC HUMAN CELLS.....	5R01 CA14835-07	160,976
KORNBERG, ARTHUR.....	MECHANISM AND CONTROL OF DNA REPLICATION.....	3R01 GM07581-18S1	38,912
KORNBERG, ARTHUR.....	MECHANISM AND CONTROL OF DNA REPLICATION.....	5R01 GM07581-19	325,284
KORNBERG, ROGER D.....	RELATION OF HISTONES TO DNA IN NORMAL AND CANCER CELLS.....	5R01 CA24546-02	67,983
KORNBERG, ROGER D.....	CHROMOSOME STRUCTURE AND DYNAMICS.....	1R01 GM25772-01	80,185
KRISS, JOSEPH P.....	STUDIES ON LONG-ACTING THYROID STIMULATOR.....	5R01 AM07642-16	106,932
KRISS, JOSEPH P.....	CELL-MEDIATED CYTOTOXICITY IN GRAVES' OPHTHALMOPATHY.....	1R01 EY03065-01	98,758
LEHMAN, I ROBERT.....	DNA REPLICATION IN PRO- AND EUKARYOTES.....	2R01 GM06196-21	233,775
LEVINE, SEYMOUR.....	DEVELOPMENTAL AND BEHAVIORAL NEUROENDOCRINOLOGY.....	5P01 HD02881-13	257,846
LEVY, RONALD.....	ANTITUMOR ANTIBODIES GENERATED IN VITRO.....	5R01 CA21223-03	75,736
LUCAS, ZOLTAN J.....	FACTORS NEGATING RESPONSE TO MAMMARY ADENOCARCINOMA.....	1R01 CA24725-01	101,311
LUETSCHER, JOHN A, JR.....	SECRETION AND EFFECTS OF ADRENAL HORMONES.....	3R01 HL13917-20S1	8,270
LUETSCHER, JOHN A, JR.....	BIG RENIN: BIOCHEMICAL AND CLINICAL STUDIES.....	5R01 HL17364-05	67,155
LYNNE-DAVIES, PATRICIA.....	STUDIES OF RESPIRATORY MUSCLE FATIGUE.....	1R01 HL23295-01	58,156
MACCOBY, ELEANOR E.....	BASIC PROCESSES IN COGNITIVE AND SOCIAL DEVELOPMENT.....	5P01 HD09814-05	367,163
MANSOUR, TAG E.....	CHEMICAL AGENTS AND HEART GLYCOLYTIC ENZYMES.....	5R01 HL17976-19	90,670
MARMOR, MICHAEL F.....	INTERACTION BETWEEN RETINA AND PIGMENT EPITHELIUM.....	5R01 EY01678-05	65,154
MAURICE, DAVID M.....	CONTROL OF CORNEAL HYDRATION.....	3R01 EY00431-10S1	157,046
MAURICE, DAVID M.....	CONTROL OF CORNEAL HYDRATION.....	5R01 EY00431-11	265,413
MAURICE, DAVID M.....	TRANSPORT PROCESSES ACROSS THE CORNEAL EPITHELIUM.....	3R01 EY00915-07S1	4,953
MAURICE, DAVID M.....	CORNEAL NEUROBIOLOGY.....	5R01 EY02108-03	88,019
MAZZE, RICHARD I.....	NEPHROTOXICITY OF FLUORINATED ANESTHETICS.....	2R01 GM22746-04	65,553
MC CALLUM, W DESMOND.....	ULTRASONIC MEASUREMENT OF FETAL VOLUME AND WEIGHT.....	1R01 HD12327-01	95,468
MC CONNELL, HARDEN M.....	SPIN-LABEL HAPTENS, MEMBRANE FLUIDITY, IMMUNE RESPONSE.....	5R01 AI13587-04	140,453
MC CULLEY, JAMES P.....	MEIBOMIAN KERATOCONJUNCTIVITIS.....	5R01 EY02302-02	75,792
MC DEVITT, HUGH O.....	GENETIC CONTROL OF THE IMMUNE RESPONSE.....	5R01 AI07757-13	311,856
MC DEVITT, HUGH O.....	HUMORAL, CELLULAR & GENETIC MECHANISMS IN AUTOIMMUNITY.....	5P01 AI11313-07	395,047
MC DEVITT, HUGH O.....	DEVELOPMENTAL ANALYSIS OF THE MURINE T/T ALLELE MUTANTS.....	2R01 HD09410-05	130,950
MC MAHAN, UEL J, II.....	STRUCTURE AND FUNCTION OF REGENERATING SYNAPSES.....	2R01 NS14506-03	162,728
MEINDL, JAMES D.....	BME CENTER FOR INTEGRATED ELECTRONICS IN MEDICINE.....	5P50 GM17940-10	1,342,002
MERIGAN, THOMAS C.....	INTERFERON, IMMUNITY AND LATENT VIRUSES.....	5R01 AI05629-17	189,510
MILLER, RUPERT G, JR.....	ADAPTATION OF NEW STATISTICAL IDEAS FOR MEDICINE.....	5R01 GM21215-05	115,471
MOSHER, HARRY S.....	CHIRAL HYDRIDE TRANSFER AGENTS.....	2R01 GM19554-06	52,360
MOSHER, HARRY S.....	SYNTHETIC TETRODOTOXIN ANALOGS.....	5R01 NS14345-02	66,866
NICHOLLS, JOHN G.....	INTEGRATION AND REGENERATION IN THE NERVOUS SYSTEM.....	5R01 NS11544-07	108,950
NORTHWAY, WILLIAM H, JR.....	PULMONARY OXYGEN TOXICITY IN THE NEWBORN LUNG.....	5R01 HL14663-08	101,118
PAFFENBARGER, RALPH S, JR.....	PSYCHOSOCIAL FACTORS IN STUDENTS PREDICTIVE OF CANCER.....	5R01 CA24255-02	81,896
PAFFENBARGER, RALPH S, JR.....	EARLY PREDICTORS OF SITE-SPECIFIC CANCERS.....	1R01 CA25264-01	107,050
PAFFENBARGER, RALPH S, JR.....	LIFE STYLE AND CHRONIC DISEASE IN COLLEGE ALUMNI.....	1R01 HL24133-01	209,333
PAYNE, ROSE O.....	LEUKOCYTE ANTIGENS AND ANTIBODIES.....	5R01 AI14438-22	143,759
PECORA, ROBERT.....	DYNAMIC LIGHT SCATTERING FROM BIOLOGICAL SYSTEMS.....	5R01 GM22517-04	52,836
PERKEL, DONALD H.....	STOCHASTIC MODELS OF NEURAL SYSTEMS.....	5R01 NS09744-10	95,859
PERKINS, DAVID D.....	GENETICS OF NEUROSPORA.....	5R01 AI01462-24	165,543
PITTENDRIGH, COLIN S.....	CIRCADIAN ORGANIZATION AND THE AGING PROCESS.....	5R01 AG00490-05	58,485
PITTENDRIGH, COLIN S.....	ORIGINS AND CONSEQUENCES OF LATERAL ASYMMETRIES.....	1R01 NS15597-01	67,382
PIZIALI, ROBERT L.....	STRUCTURAL CHARACTERISTICS OF THE HUMAN LUMBAR SPINE.....	5R01 AM19737-03	102,836
POPP, RICHARD L.....	ABNORMAL CARDIAC WALL MOTION VIEWED ULTRASONICALLY.....	5R01 HL21278-02	74,642
PRINCE, DAVID A.....	CELLULAR MECHANISMS IN FOCAL EPILEPTOGENESIS.....	5R01 NS06477-14	74,006
PRINCE, DAVID A.....	EPILEPSY RESEARCH PROGRAM.....	5P50 NS12151-05	289,851
QUATE, CALVIN F.....	ACOUSTIC MICROSCOPY FOR BIOMEDICAL INVESTIGATIONS.....	1R01 GM25826-01	111,842
RANSOM, BRUCE R.....	MAMMALIAN NEURONS AND GLIA IN VITRO.....	1R01 NS15589-01	74,388
REAVEN, GERALD M.....	ENDOCRINOLOGY OF AGING.....	1P01 AG01312-01	281,387
REAVEN, GERALD M.....	AGE & AGE-RELATED VARIABLES ON GLUCOSE TOLERANCE.....	1R01 AG01315-01	12,157

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
REAVEN, GERALD M.....	LIPEMIA-CARBOHYDRATE AND GLYCERIDE METABOLISM.....	5R01 HL08506-16	112,911
REAVEN, GERALD M.....	VLDL-TG METABOLISM IN DIABETES MELLITUS.....	5R01 HL20397-04	169,114
RICH, CLAYTON.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00070-17	668,508
RINGOLD, GORDON M.....	MOLECULAR BIOLOGY OF STEROID HORMONE ACTION.....	1R01 GM25821-01	84,038
ROBIN, EUGENE D.....	LUNG CELL FUNCTION IN HEALTH AND DISEASE.....	9R01 HL23701-10	161,294
ROBINSON, WILLIAM S.....	THE VIRUS OF HUMAN HEPATITIS B.....	5R01 AI13526-04	194,751
ROSENBERG, SAUL A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA21555-03	289,531
ROSENTHAL, A RALPH.....	COMPUTER MAPPING OF THE OPTIC NERVE HEAD.....	5R01 EY01248-06	80,190
ROTHMAN, JAMES E.....	MECHANISM OF ASSEMBLY OF A VIRAL MEMBRANE.....	5R01 GM25662-02	85,560
RUBINSTEIN, LUCIEN J.....	DIFFERENTIATION AND STROMA-INDUCTION IN NEURAL TUMORS.....	5R01 CA11689-08	167,451
SCHIMKE, ROBERT T.....	MOLECULAR MECHANISMS IN RESISTANCE TO FOLATE ANALOGUES.....	5R01 CA16318-05	199,169
SCHIMKE, ROBERT T.....	ENZYME SYNTHESIS AND DEGRADATION IN METABOLIC CONTROL.....	5R01 GM14931-14	148,014
SCHRIER, STANLEY L.....	METABOLISM OF ERYTHROCYTE STROMA.....	2R01 AM13682-20	110,336
SCHURMAN, DAVID J.....	IMMUNOSUPPRESSIVE IRRADIATION AND RHEUMATOID ARTHRITIS.....	1R01 AM25128-01	78,524
SCHWARTZ, HERBERT C.....	DEVELOPMENTAL CHANGES IN INFANTS OF DIABETIC MOTHERS.....	5R01 AM25603-02	79,878
SEARS, ROBERT R.....	AGING OUTCOMES IN A 55-YEAR LONGITUDINAL STUDY.....	5R01 AG01015-02	27,498
SHARPLESS, K BARRY.....	ASYMMETRIC OXIDATION OF ORGANIC COMPOUNDS.....	5R01 GM24551-02	69,416
SHATZ, CARLA J.....	PRE AND POSTNATAL DEVELOPMENT OF VISUAL CONNECTIONS.....	1R01 EY02858-01	108,316
SHOOTER, ERIC M.....	THE BIOSYNTHESIS OF EPIDERMAL GROWTH FACTOR.....	1R01 AM25434-01	47,656
SHOOTER, ERIC M.....	NERVE GROWTH FACTOR IN NEURONAL DEVELOPMENT.....	5R01 NS04270-17	151,360
SHORT, ELIZABETH M.....	GENETIC HETEROGENEITY OF HYPERURICEMIA.....	1R01 AM25175-01	92,285
SHUMWAY, NORMAN E.....	ORTHOTOPIC HEART TRANSPLANTATION.....	5R01 HL08696-16	294,137
SIKIC, BRANIMIR I.....	BLEOMYCIN PHARMACOLOGY & TOXICITY.....	1R01 CA27478-01	116,444
SIMMONS, F BLAIR.....	DEVELOPMENT OF A COCHLEAR PROSTHESIS.....	3R01 NS10532-06S1	28,905
SIMMONS, F BLAIR.....	DEVELOPMENT OF A COCHLEAR PROSTHESIS.....	2R01 NS10532-07	262,779
SIMONI, ROBERT D.....	MEMBRANE FUNCTION AND CELLULAR ENERGETICS.....	2R01 GM18539-09	132,958
SIMONI, ROBERT D.....	REGULATION OF CHOLESTEROL METABOLISM.....	5R01 HL18219-05	46,912
SMITH, KENDRIC C.....	REPAIR OF RADIATION-INDUCED LESIONS IN DNA.....	5R01 CA02896-23	101,020
SMITH, KENDRIC C.....	MOLECULAR BASIS OF RADIATION LETHALITY.....	5R01 CA06437-18	99,029
SMITH, MARION E.....	BIOSYNTHESIS OF LIPIDS IN EXPERIMENTAL DEMYELINATION.....	5R01 NS02785-20	68,904
SPUDICH, JAMES A.....	PROTEINS IN CELL MOVEMENTS AND CHANGES OF CELL SHAPE.....	5R01 GM25240-03	151,514
STAMEY, THOMAS A.....	ENTEROBACTERIAL ADHERENCE TO THE VAGINAL MUCOSA.....	5R01 AI09366-09	94,173
STARK, GEORGE R.....	ASPECTS OF CONTROL IN MAMMALIAN GENE EXPRESSION.....	5R01 CA17287-05	232,111
STARK, GEORGE R.....	NOVEL INHIBITORS OF CPS AND ATC AS ANTITUMOR DRUGS.....	3R26 CA20870-02S1	13,449
STARK, GEORGE R.....	EFFECTS OF L-ASPARTATE-RELATED ANTITUMOR DRUGS ON CELLS.....	2R01 CA20870-03	71,309
STEELE, CHARLES R.....	MECHANICS OF THE ORGAN OF CORTI.....	5R01 NS12086-05	43,542
STINSON, EDWARD B.....	CLINICAL HEART TRANSPLANTATION.....	5P01 HL13108-10	1,385,999
STOCKDALE, FRANK E.....	STUDIES IN GROWTH REGULATION.....	5R01 HD12083-02	110,385
STOCKER, BRUCE A.....	GENETICS AND PHYSIOLOGY OF SALMONELLA TYPHIMURTIUM.....	2R01 AI07168-14	71,351
STOCKER, BRUCE A.....	PLASMIDS AND MUTATION.....	1R01 GM25903-01	52,307
STROBER, SAMUEL.....	MATURATION OF B LYMPHOCYTES.....	2R01 AI10293-08A1	142,050
STROBER, SAMUEL.....	ALTERATIONS OF T CELLS IN LYMPHOPROLIFERATIVE DISEASE.....	5R01 CA17004-05	116,348
STRYER, LUBERT.....	CONFORMATIONAL ASPECTS OF VISUAL EXCITATION.....	2R01 EY02005-03	104,664
STRYER, LUBERT.....	TIME-RESOLVED RESONANCE RAMAN STUDIES OF VISION.....	5R01 EY02387-02	82,054
STRYER, LUBERT.....	OPTICAL STUDIES OF PROTEIN STRUCTURE & FUNCTION.....	2R01 GM24032-03	126,442
SUNSHINE, PHILIP.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00081-17	120,954
SUSSMAN, HOWARD H.....	ECTOPIC PLACENTAL PROTEINS IN HUMAN CANCER.....	5R01 CA13533-08	110,006
TAUBE, HENRY.....	BIOCHEMICALLY SIGNIFICANT MOLECULES AS LIGANDS.....	2R01 GM13638-14	97,996
THOMPSON, STUART H.....	SOMA CALCIUM AND POTASSIUM CONDUCTANCES.....	5R01 NS14519-02	36,676
TRUDELL, JAMES R.....	CHROMOSOMAL PROTEIN ALTERATIONS BY ANESTHETICS.....	5R01 GM24175-02	79,770
TUNE, BRUCE M.....	RENAL TRANSPORT AND METABOLIC EFFECTS OF ANTIBIOTICS.....	5R01 AM17647-06	72,498
VAN TAMELEN, EUGENE E.....	BIOORGANIC CHEMISTRY OF STEROIDS AND TERPENOIDES.....	2R01 GM10421-15A2	53,268
VISTNES, LARS M.....	ENZYMATIC BURN DEBRIDEMENT.....	5R01 GM23379-03	28,010
WALL, ROBERT T.....	ENDOTHELIAL CELL MECHANISMS IN VASCULAR DISEASE.....	7R23 HL24117-01	46,147
WALLACE, DOUGLAS C.....	MAMMALIAN MITOCHONDRIAL GENETICS & RNA TUMOR VIRUSES.....	5R01 GM24285-03	75,843
WANDELL, BRIAN A.....	WAVELENGTH DISCRIMINATION AT MODULATION THRESHOLD.....	1R01 EY03164-01	47,640
WAXMAN, STEPHEN G.....	REGIONAL MORPHOLOGY OF MYELINATED AXONS.....	1R01 NS15320-01	68,128
WEISSMAN, IRVING L.....	ROLE OF THE THYMUS IN IMMUNOLOGICAL DEVELOPMENT.....	5R01 AI09072-11	167,748
WEISSMAN, IRVING L.....	HISTOCOMPATIBILITY AND ALLORECOGNITION IN TUNICATES.....	1R01 GM25902-01	60,922
WESSLELS, NORMAN K.....	MECHANISMS OF ORGAN DEVELOPMENT.....	5R01 HD04708-10	101,345

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
WESSELLS, NORMAN K.....	PLASMA MEMBRANE PROTEINS OF DEVELOPING NEURONS.....	7R01 NS15360-01	56,156
WESSELLS, NORMAN K.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07005-14	201,413
WHARTON, ROBERT S.....	EFFECTS OF INHALATIONAL ANESTHETICS ON REPRODUCTION.....	1R23 GM25952-01	38,834
WHITLOCK, JAMES P, JR.....	CHEMICAL CARCINOGENS AND THEIR CELLULAR RECEPTORS.....	1R01 CA24580-01	103,596
WOLLENBERG, ROBERT H.....	SYNTHESIS OF THE PODOCARPUS DILACTONES.....	1R01 CA24499-01	58,208
WOOD, PETER D.....	EXERCISE TRAINING AND PLASMA LIPOPROTEINS IN MAN.....	1R01 HL24462-01	98,003
YANOFSKY, CHARLES.....	GENETIC/BIOCHEMICAL STUDY OF TRYPTOPHAN SYNTHETASE.....	2R01 GM09738-17	140,570
YEAGER, ANNE S.....	CYTOMEGALOVIRUS: TRANSMISSION TO NEWBORNS BY BLOOD.....	3R01 HD09872-03S1	12,234
YEAGER, ANNE S.....	CYTOMEGALOVIRUS: TRANSMISSION TO NEWBORNS BY BLOOD.....	2R01 HD09872-04	110,258
YELDERMAN, MARK L.....	A CONTINUOUS CARDIAC OUTPUT MONITOR.....	1R01 HL24798-01	45,759
YOUNG, STUART W.....	MALIGNANT PERFUSION: APPLIED TO DIAGNOSIS AND THERAPY.....	5R23 CA24879-02	39,500
ZARE, RICHARD N.....	LASER FLUORESCENCE ANALYSIS.....	5R01 CA23156-03	66,611
ORGANIZATION TOTAL	244 37,940,719		
TORRANCE			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY HARBOR—UCLA MEDICAL CENTER		ZIP CODE 90509	
ANTHONY, BASCOM F.....	HUMAN IMMUNITY TO THE GROUP B STREPTOCOCCI.....	1R01 AI14827-01	58,844
ANTHONY, BASCOM F.....	EPIDEMIOLOGY OF THE GROUP B STREPTOCOCCUS.....	1R01 AI15698-01	73,775
BARAJAS, LUCIANO.....	ELECTRON MICROSCOPY OF THE JUXTAGLOMERULAR APPARATUS.....	2R01 HL18340-05	67,586
BORDER, WAYNE A.....	IGM MEDIATED EXPERIMENTAL GLOMERULONEPHRITIS.....	1R01 AM21389-01A1	48,455
BRAY, GEORGE A.....	CLINICAL AND EXPERIMENTAL STUDY OF OBESITY.....	5R01 AM15165-09	102,775
EDWARDS, JOHN E.....	STUDY OF HEMATOGENOUS CANDIDA ALBICANS ENDOPHTHALMITIS.....	3R01 EY01066-06S1	26,947
EFFROS, RICHARD M.....	PATHOGENESIS AND MEASUREMENT OF PULMONARY EDEMA.....	5R01 HL18606-05	58,618
FINKLESTEIN, JERRY Z.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA14560-06	131,776
FISHER, DELBERT A.....	THYROID FUNCTION IN THE FETUS AND NEWBORN.....	2R01 HD04270-11	173,726
FISHER, DELBERT A.....	VASOPRESSIN PHYSIOLOGY IN THE FETUS AND NEWBORN.....	2R01 HD06335-06A1	99,298
GLASSOCK, RICHARD J.....	PATHOPHYSIOLOGY OF EXPERIMENTAL GLOMERULAR INJURY.....	5R01 AM16565-07	90,670
GUZE, LUCIEN B.....	MEASUREMENT OF ENDOTOXIN BY MASS SPECTROSCOPY.....	5R01 AI12343-05	63,018
HEINER, DOUGLAS C.....	PERINATAL RECOGNITION AND MANAGEMENT OF ALLERGY.....	5R01 HD09327-05	87,666
HOBEL, CALVIN J.....	CATECHOLAMINE PHYSIOLOGY IN MOTHER, FETUS AND NEWBORN.....	1R01 HD11753-01	119,116
HOLLISTER, DAVID W.....	CHARACTERIZATION OF A NEW HUMAN COLLAGEN.....	5R01 AM19618-03	77,090
IMAGAWA, DAVID T.....	STUDY VARIOUS FORMS OF DISTEMPER ENCEPHALITIS.....	5R01 AI13369-02	64,553
JOBE, ALAN H.....	LUNG PHOSPHOLIPID APPEARANCE AND STABILITY.....	5R01 HD11932-03	45,477
JOBE, ALAN H.....	DEVELOPMENTAL LUNG PHOSPHOLIPID METABOLISM.....	1R01 HD12714-01	85,016
JURATSCH, CRAIG E.....	PULMONARY HYPERTENSION: PATHWAYS AND PHARMACOLOGY.....	5R01 HL18371-04	79,959
KLEIN, ALAN H.....	DEVELOPMENT OF TISSUE THERMOGENESIS IN NEWBORN ANIMALS.....	1R01 HD13084-01	53,112
LAKS, MICHAEL M.....	HEMODYNAMICS AND HEART STRUCTURE—VENTRICULAR OVERLOAD.....	5R01 HL14717-07	84,857
LEMMI, CARLOS A.....	ISOLATED GASTRIC CELLS INVOLVED IN HISTAMINE METABOLISM.....	1R01 AM19873-01A2	66,438
LEMMI, CARLOS A.....	HEART PRESERVATION AND TRANSPLANTATION STUDIES.....	5R01 HL18936-03	62,625
MILLER, MICHAEL E.....	MATERNAL NEONATAL AND FETAL FACTORS IN HOST DEFENSE.....	1P01 HD10975-01A1	279,000
MORIN, ROBERT J.....	PLATELET FUNCTION AND ADENINE NUCLEOTIDE METABOLISM.....	5R01 HL14344-08	59,281
NATHANIELSZ, PETER W.....	PROLACTIN FUNCTION IN FETAL SHEEP.....	5R01 HD11483-02	93,963
NATHANIELSZ, PETER W.....	FETAL FACTORS IN THE INITIATION AND MAINTENANCE OF LABOR.....	1R01 HD12274-01	164,000
NELSON, RONALD J.....	COMPOSITE PROSTHESIS FOR TRACHEA OR ESOPHAGUS.....	5R01 GM24300-02	48,616
NIES, KENNETH M.....	ANTIBODY SYNTHESIS IN SYSTEMIC LUPUS ERYTHEMATOSUS.....	5R01 AM21988-02	51,344
NOBLE, NANCY A.....	ASSOCIATED 2,3-DPG AND HB TYPE GENES IN RATS.....	1R01 HL22672-01A1	54,345
ROIMOIN, DAVID L.....	MEDICAL GENETICS CENTER.....	5P01 HD11966-02	376,988
SAMLOFF, I MICHAEL.....	PEPSINOGEN POLYMORPHISM IN MAN.....	5R01 AM13233-11	94,007
SHAPIRO, LARRY J.....	GENETIC AND BIOCHEMICAL STUDIES OF STEROID SULFATASE.....	5R01 HD12178-02	49,524
STATE, DAVID.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA12041-08	38,217
SWANSON, WILLIAM H.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00425-11	677,388
SWANSON, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05551-17	130,374
SWERDLOFF, RONALD S.....	CNS BIOGENIC AMINES: THE GONADOSTAT THEORY OF PUBERTY.....	1R01 HD12056-01A1	99,171
TANAKA, KOICHI R.....	METABOLIC AND BIOCHEMICAL STUDIES OF BLOOD CELLS.....	5R01 AM14898-17	95,160
WASSERMAN, KARLMAN.....	MECHANISMS OF PHYSIOLOGICAL RESPONSES TO EXERCISE.....	5R01 HL11907-09	114,577
WEICHSEL, MORTON E, JR.....	HORMONE INTERACTION AND BRAIN PYRIMIDINE BIOSYNTHESIS.....	5R01 HD09277-05	48,596
WEICHSEL, MORTON E, JR.....	DEVELOPMENTAL ASPECTS OF NERVE GROWTH FACTOR.....	5R01 HD11303-02	111,271
WHITE, RODNEY A.....	IN VIVO EFFECT OF COMPLIANCE ON VASCULAR PROSTHETICS.....	1R01 HL24618-01	50,651

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
YEE, ROBERT D.....	OCULAR MOTOR SUBSYSTEMS IN CONGENITAL NYSTAGMUS.....	5R01 EY01853-04	33,068
YOUNG, RONALD F.....	MECHANISMS OF DENTAL AND FACIAL SENSATION.....	1R01 DE05208-01	78,932
ZAMBONI, LUCIANO.....	EXPERIMENTAL STUDIES ON INITIATION OF DEVELOPMENT.....	5R01 HD09913-03	50,384
ORGANIZATION TOTAL	45 4,620,254		
STATE TOTAL	2,318 270,479,101		
COLORADO			
BOULDER			
UNIVERSITY OF COLORADO—UNIVERSITY OF COLORADO AT BOULDER ZIP CODE 80309			
BONNEVILLE, MARY A.....	PLASMA MEMBRANE OF NORMAL AND NEOPLASTIC UROTHELIA.....	5R26 CA22468-02	58,924
CARUTHERS, MARVIN H.....	CHROMOSOME DNA REGULATORY REGIONS.....	5R01 GM21120-05	118,083
CARUTHERS, MARVIN H.....	CHEMICAL AND ENZYMATIC STUDIES ON GENE CONTROL REGIONS.....	5R01 GM25680-02	75,953
CECH, CAROL L.....	MOLECULAR MECHANISMS OF TRANSCRIPTIONAL CONTROL.....	5R01 AI14938-02	52,612
CECH, THOMAS R.....	CHROMATIN STRUCTURE OF A TRANSCRIPTION UNIT.....	5R01 GM25273-02	55,780
CHUNG, LELAND W.....	NORMAL AND ABNORMAL GROWTH OF THE PROSTATE.....	1R01 AM25266-01	71,399
CHUNG, LELAND W.....	SEX STEROID IMPRINTING AND PROSTATIC GROWTH.....	1R26 CA27418-01	57,618
CHUNG, LELAND W.....	NEONATAL IMPRINTING AND HEPATIC DRUG METABOLISM.....	5R01 GM25027-02	41,738
DANNA, KATHLEEN J.....	SV40 EARLY PROTEINS—POSSIBLE ROLES IN ONCOGENESIS.....	1R01 CA24924-01	84,777
DE FRIES, JOHN C.....	DETERMINANTS OF BEHAVIORAL DEVELOPMENT IN CHILDREN.....	5R01 HD10333-03	166,484
DE FRIES, JOHN C.....	DIFFERENTIAL DIAGNOSIS IN READING DISABILITY.....	1P01 HD11681-01A1	255,773
DUBIN, MARK W.....	RECEPTIVE FIELD ORGANIZATION IN THE VISUAL SYSTEM.....	3R01 EY00998-06S1	9,785
ERWIN, V GENE.....	BIOMEDICAL RESEARCH DEVELOPMENT.....	5S08 RR09065-03	100,000
FALL, R RAY.....	REGULATION OF LIPID METABOLISM.....	5R01 HL16628-06	55,203
FIFKOVA, EVA.....	VISUAL DEPRIVATION AND SYNAPSES OF VISUAL CENTERS.....	2R01 EY01500-05	68,719
GILL, STANLEY J.....	THERMODYNAMIC STUDY OF PROTEIN-NUCLEIC ACID INTERACTIONS.....	1R01 GM25889-01	54,416
GILL, STANLEY J.....	THERMODYNAMICS IN RESPIRATORY PROTEIN BINDING.....	3R01 HL22325-01S1	15,750
GILL, STANLEY J.....	THERMODYNAMICS IN RESPIRATORY PROTEIN BINDING.....	5R01 HL22325-02	63,914
GOLD, LAWRENCE M.....	REGULATION OF BACTERIOPHAGE T4 GENE EXPRESSION.....	5R01 GM19963-07	152,554
GOLDSTEIN, LESTER.....	CELLULAR SENESCENCE, REPLICATION, AND DIFFERENTIATION.....	1R01 AG02045-01	48,270
GOLDSTEIN, LESTER.....	BIOCHEMICAL INTERRELATIONS OF NUCLEUS AND CYTOPLASM.....	5R01 GM15156-12	87,981
HALLICK, RICHARD B.....	GENE EXPRESSION IN CELL ORGANELLES.....	5R01 GM21351-06	60,257
HAM, RICHARD G.....	EFFECT OF MALIGNANCY ON CELL GROWTH REQUIREMENTS.....	5R01 CA15305-05	88,008
HAM, RICHARD G.....	GROWTH REQUIREMENTS OF HUMAN DIPLOID CELLS.....	1R01 GM26455-01	126,624
HIRSH, DAVID I.....	GENETIC CONTROL OF DEVELOPMENT.....	5R01 GM19851-08	89,222
HIRSH, DAVID I.....	STRUCTURE AND EXPRESSION OF EUKARYOTIC GENES.....	1R01 GM26515-01	87,163
JOHNSON, THOMAS E.....	GENETIC ANALYSIS OF THE CONTROL OF AGING.....	1R23 AG01236-01	41,415
JONES, RICHARD E.....	ROLE OF HISTAMINE IN FUNCTION OF THE MAMMALIAN OVARY.....	5R01 HD11482-02	13,412
KOCH, TAD H.....	NEW DRUGS TO ALLEVIATE ADRIAMYCIN CARDIOTOXICITY.....	1R01 CA24665-01	48,517
KOCH, TAD H.....	PHOTOCHEMICAL REACTIVITY OF 5-BROMOURACIL WITH PEPTIDES.....	1R01 GM24965-01	44,833
KUEMPEL, PETER L.....	TERMINATION OF CHROMOSOME REPLICATION.....	2R01 GM15905-12	75,131
LIPETZ, MILTON E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07013-14	162,994
LISKAY, ROBERT M.....	GENETIC ANALYSIS OF CELLULAR PROLIFERATION.....	1R01 GM25870-01	72,149
MC CLEARN, GERALD E.....	WORKSHOP ON PHARMACOGENETICS.....	1R13 GM27034-01	56,402
MC CONKEY, EDWIN H.....	RIBOSOMAL PROTEIN PHOSPHORYLATION AND CELL GROWTH.....	5R01 CA22250-03	54,001
MC CONKEY, EDWIN H.....	NUCLEOLAR FUNCTIONS (HELA CELLS).....	5R01 GM21749-05	107,993
PIERPONT, COURTLAND G.....	COORDINATION COMPLEXES OF ORTHOQUINONES, HYDROXYQUINONES.....	1R01 GM23386-01A1	44,773
PORTER, KEITH R.....	HIGH-VOLTAGE ELECTRON MICROSCOPY OF BIOLOGICAL SYSTEMS.....	5P41 RR00592-10	319,990
PRESCOTT, DAVID M.....	THE GENETIC APPARATUS OF HYPOTRICHOUS CILIATES.....	5R01 GM19199-08	106,449
RAKOWSKI-DUBOIS, M C.....	SULFUR TRANSFER REACTIONS OF MOLYBDENUM COMPLEXES.....	5R01 GM25122-02	48,998
RUTH, JAMES A.....	PRESYNAPTIC PHARMACOLOGY IN GABA NEUROTRANSMISSION.....	1R01 NS15374-01	41,024
SOLL, LARRY J.....	GENETIC AND BIOCHEMICAL ANALYSIS OF TRNA FUNCTIONS.....	5R01 GM21596-05	69,783
SOUTHWICK, CHARLES H.....	PRIMATE POPULATION STUDIES.....	7R24 RR01245-01	16,640
STAEHELIN, L ANDREW.....	STRUCTURE AND FUNCTION OF FREEZE-ETCHED CELL MEMBRANES.....	5R01 GM18639-08	100,621
STEIN, GRETCHEN H.....	GROWTH REGULATION: SENESCENT VS. NONSENESCENT CELLS.....	5R01 AG00947-02	97,521
SUEOKA, NOBORU.....	GENE EXPRESSION IN NERVOUS VS OTHER TISSUES.....	2R01 GM22951-04A1	87,013

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
SUEOKA, NOBORU	IN VITRO DIFFERENTIATION OF CLONAL CELL	1R01 NS15304-01	79,535
THOMPSON, JOHN A	MICROSOMAL OXIDATIVE DEHALOGENATION OF CHLOROETHANES	1R01 ES02069-01	41,981
WALBA, DAVID M	TOTAL SYNTHESIS OF NATURAL CARDIOTONIC IONOPHORES	5R01 HL22778-02	65,775
WILSON, IRWIN B	ALKALINE PHOSPHATASE IN LYMPHOPROLIFERATIVE DISEASES	5R01 CA21950-03	17,319
WILSON, IRWIN B	THE CONVERTING ENZYME OF LUNG	5R01 HL22242-02	31,763
WILSON, IRWIN B	ENZYME THEORY AND RELATIONSHIP TO FUNCTION	2R01 NS07156-13A1	70,841
WOOD, WILLIAM B	BIOCHEMISTRY AND GENETIC CONTROL OF VIRUS ASSEMBLY	5R01 AI14994-03	172,212
WOOD, WILLIAM B	GENETIC CONTROL OF EMBRYOGENESIS IN C. ELEGANS	5R01 HD11762-02	88,072
YARUS, MICHAEL J	STRUCTURE, SPECIFICITY AND SYNTHESIS OF TRNA	5R01 GM25627-02	116,006
ORGANIZATION TOTAL	55 4,441,170		
COLORADO SPRINGS			
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO AT COLORADO SPRINGS ZIP CODE 80907			
MATTOON, JAMES R	GENETIC MODIFICATION OF MITOCHONDRIA	7R01 GM27860-01	77,720
ORGANIZATION TOTAL	1 77,720		
DENVER			
CHILDREN'S HOSPITAL ZIP CODE 80218			
FRAIKOR, ARLENE L	ANATOMICAL, BREATHING AND ALTITUDE VARIABLES IN SIDS	1R01 HD12365-01	64,128
ORGANIZATION TOTAL	1 64,128		
COLORADO REGIONAL CANCER CENTER ZIP CODE 80262			
MAJOR, FRANCIS J	GYNECOLOGIC ONCOLOGY GROUP	5R10 CA25378-02	24,592
WALKER, STROTHER H	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES	5R10 CA21878-03	96,340
ORGANIZATION TOTAL	2 120,932		
DENVER HEALTH AND HOSPITALS DEPARTMENT—DENVER GENERAL HOSPITAL ZIP CODE 80204			
MOORE, GEORGE E	STUDIES OF HUMAN HEMATOPOIETIC AND CANCER CELLS	5R01 CA15018-06	111,671
ORGANIZATION TOTAL	1 111,671		
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER ZIP CODE 80206			
ABEL, CARLOS A	DIFFERENTIATION OF THYMOCYTES	1R01 AI15420-01	50,912
BRENNAN, PATRICK J	STRUCTURE OF THE ANTIGENS OF ATYPICAL MYCOBACTERIA	5R22 AI14687-02	46,046
CAMPBELL, PRISCILLA A	CELL BIOLOGY OF THE IMMUNE RESPONSE TO BACTERIA	2R01 AI11240-07	88,068
CHEN, WEN Y	EXERCISE-INDUCED BRONCHOSPASM IN CHILDREN	5R01 HL21126-03	61,990
CREER, THOMAS L	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 R005523-12	23,003
DAHLEM, NANCY W	HYPERREACTIVE AIRWAYS DISEASE AND MEDICATION REQUESTS	1R01 AI15392-01	65,818
DAHLEM, NANCY W	INTRACTABILITY, MEDICATION, AND COPING STYLES IN ASTHMA	5R01 HL22065-02	76,449
GANGADHARAM, PATTISAPU R	PATHOGENESIS OF MYCOBACTERIUM INTRACELLULARE DISEASE	1R01 AI15049-01A1	112,328
GOREN, MAYER B	SURFACE CHEMISTRY OF MYCOBACTERIA	5R22 AI08401-12	86,102
GREY, HOWARD M	STRUCTURE-FUNCTION RELATIONSHIPS OF IMMUNOGLOBULINS	5R01 AI09758-10	122,802
GREY, HOWARD M	SELF-NONSELF DISCRIMINATION AND TUMOR RECOGNITION	3P01 CA21825-01S1	17,975
GREY, HOWARD M	SELF-NONSELF DISCRIMINATION AND TUMOR RECOGNITION	5P01 CA21825-02	349,927
HANSON, DONALD G	ORALLY-INDUCED IMMUNOLOGIC TOLERANCE TO PROTEINS	2R01 AI13474-04	91,504
HAROLD, FRANKLIN M	TRANSPORT AND METABOLISM OF INORGANIC ELECTROLYTES	2R01 AI03568-16A1	55,920
HENSEN, PETER M	RELEASE OF INJURIOUS CONSTITUENTS FROM CELLS	5R01 GM24834-03	177,697
HENSON, PETER M	PATHOGENESIS OF INFLAMMATORY LUNG INJURY	5R01 HL21565-03	160,062
JOHNSTON, RICHARD B, JR	MECHANISMS OF RESISTANCE TO BACTERIAL INFECTION	5R01 AI14148-03	80,026
KINSKY, STEPHEN C	IMMUNOGENICITY OF LIPOSOMES	5R01 AI15796-02	106,691
KUBO, RALPH T	B2-MICROGLOBULIN ON THE SURFACE OF LYMPHOCYTES	2R01 AI12136-04A1	65,780
MC GUIRE, EDWARD J	CELL ADHESION OF NORMAL AND MALIGNANT LIVER CELLS	2R01 CA14431-07	80,708
MIKLICH, DONALD R	MECHANISM OF EMOTIONS' ASTHMA TRIGGERING EFFECT	5R01 HL21318-03	62,599
MINDEN, PERCY	ANTIGEN-ANTIBODY INTERACTIONS IN NEOPLASTIC DISEASE	5R01 CA15446-10	123,408
MORRIS, HELEN G	ENDOGENOUS PROSTAGLANDINS IN ASTHMA	5R01 HL22026-02	82,748
PACE, NORMAN R	METABOLISM OF RNA IN PROKARYOTES AND EUKARYOTES	5R01 GM20147-07	171,725
PATO, MARTIN L	EXCISION AND REPLICATION OF MU VIRUS DNA	5R01 GM24270-02	56,882
RENNE, CHARLES M	ASTHMA IN FAMILIES: BEHAVIOR ANALYSIS AND TREATMENT	5R01 HL22021-02	54,649

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
RICKENBERG, HOWARD V.....	CONTROL OF ENZYME BIOSYNTHESIS-ROLE OF CYCLIC AMP.....	5R01 AM11046-14	113,212
ROBINSON, ARTHUR.....	SEX CHROMOSOMAL ABNORMALITIES: A PROSPECTIVE STUDY.....	5R01 HD10032-04	141,473
ROBINSON, ARTHUR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05474-17	113,594
SEALE, RONALD L.....	NUCLEOSOME-DNA INTERACTIONS IN CHROMATIN REPLICATION.....	5R01 GM23808-03	57,218
SHUCARD, DAVID W.....	ELECTROPHYSIOLOGICAL MEASURES OF CEREBRAL SPECIALIZATION.....	5R01 HD11747-02	51,121
SOGIN, MITCHELL L.....	THE ROLE OF REPETITIVE DNA SEQUENCES IN GENE EXPRESSION.....	5R01 GM23464-03	61,942
SOUHRADA, JOSEPH F.....	FUNCTIONAL CHARACTERISTICS OF SMOOTH MUSCLE FROM LUNG.....	5R01 HL17322-05	50,813
ORGANIZATION TOTAL	33 3,061,192		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO MEDICAL CENTER ZIP CODE 80262			
ABRAMS, ADOLPH.....	STRUCTURE AND FUNCTION OF BACTERIAL MEMBRANE ATPASE.....	5R01 GM05810-20	71,170
ALFREY, ALLEN C.....	PHOSPHATE TOXICITY IN END-STAGE KIDNEY FAILURE.....	1R01 AM26095-01	45,616
ALLEN, ROBERT H.....	STRUCTURE AND FUNCTION OF B12-BINDING PROTEINS.....	5R01 AM21365-03	82,012
ALLEN, ROBERT H.....	COBALAMIN ANALOGUES AS ANTITUMOR ANTIMETABOLITES.....	5R01 CA22976-02	63,526
ANDERSON, ROBERT J.....	MECHANISM OF RENAL ESCAPE FROM VASOPRESSIN.....	1R01 AM26111-01	29,579
ARMSTRONG, DONALD.....	RETINAL DEGENERATION: AN APPROACH TO THERAPY.....	1R01 EY02627-01	113,815
AUSTIN, JAMES H.....	STUDIES IN GENETICALLY DETERMINED NEUROLOGICAL DISEASES.....	5R01 NS07701-13	41,498
AUSTIN, JAMES H.....	STUDIES IN AGING OF THE BRAIN.....	3R01 NS09760-08S1	3,651
BANCHERO, NATALIO.....	OXYGEN TRANSPORT MECHANISMS IN HYPOXIA AND COLD.....	2R01 HL18145-04	58,001
BATTAGLIA, FREDERICK C.....	PREMATURITY-HCG ROLE IN IMMUNOSUPPRESSION.....	5P01 HD00781-16	379,554
BETZ, GEORGE.....	REPRODUCTIVE FUNCTION OF GONADAL OXIDASES.....	5R01 HD08309-05	56,730
BETZ, WILLIAM J.....	NERVE MUSCLE SYNAPSE FORMATION.....	2R01 NS10207-08	64,289
BLOCH, DOROTHY W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05809-01	18,493
BROWN, JERRY L.....	MODIFICATION OF THE NH ₂ -TERMINAL REGION OF PROTEINS.....	5R01 CA12574-08	68,386
BROWN, WILLIAM R.....	IMMUNOGLOBULIN A AND THE HUMAN GASTROINTESTINAL TRACT.....	5R26 CA17342-05	54,699
BURKE, THOMAS J.....	ISCHEMIC ACUTE RENAL FAILURE.....	1R01 AM25151-01	45,216
CANN, JOHN R.....	PHYSICOCHEMISTRY AND IMMUNOLOGY OF MACROMOLECULES.....	5R01 HL13909-28	82,643
CARSON, PAUL L.....	ULTRASONIC COMPUTED TOMOGRAPHY OF BREAST CANCER.....	1R01 CA25323-01	104,235
CLAMAN, HENRY N.....	IMMUNOLOGICAL CHANGES IN AGING.....	5R01 AG00464-06	75,163
CLAMAN, HENRY N.....	IMMUNOCOMPETENCE OF THYMUS CELLS.....	5R01 AI12685-14	116,012
COHEN, J JOHN.....	MATURATION OF LYMPHOCYTE PRECURSORS.....	5R01 AI11661-06	80,245
CONGER, JOHN D.....	PATHOGENESIS OF ACUTE RENAL FAILURE.....	5R01 HL18097-05	62,678
CRapo, PHYLLIS A.....	DIETARY THERAPY OF DIABETES MELLITUS.....	5R01 AM25240-02	28,198
CROWLE, ALFRED J.....	EFFECTS OF AGING ON DELAYED HYPERSENSITIVITY IN MICE.....	5R01 AG00008-03	46,758
CROWLE, ALFRED J.....	IMMUNOIDENTIFICATION OF PERIODONTAL PLAQUE BACTERIA.....	1R01 DE05156-01	40,104
CUMMINGS, DONALD J.....	EXPRESSION OF MESSENGER RNA AND AGING IN PARAMECIUM.....	1R01 AG00409-01A4	41,077
CUMMINGS, DONALD J.....	MITOCHONDRIAL FUNCTION, DNA REPLICATION AND SENESCENCE.....	1R01 AG01367-01	43,273
CUMMINGS, DONALD J.....	REPLICATION, FUNCTION AND BIOGENESIS OF MITOCHONDRIA.....	2R01 GM21948-04	80,214
CUNHA, GERALD R.....	NORMAL AND ABNORMAL CERVICAL-VAGINAL DEVELOPMENT.....	1R01 HD12116-01A1	98,528
DOUVAS, ANGELINE S.....	CHARACTERIZATION OF A NUCLEAR RNA-PROTEIN COMPLEX (RNP).....	5R01 AM21839-02	50,064
EIPPER, ELIZABETH A.....	BIOCHEMISTRY AND PHYSIOLOGY OF ACTH AND ENDORPHIN.....	2R01 AM18929-04	87,252
ERIKSON, RAYMOND L.....	BIOSYNTHESIS OF VIRAL RNA.....	5R01 CA21117-14	73,015
ERIKSON, RAYMOND L.....	AVIAN SARCOMA VIRUS TRANSFORMATION-SPECIFIC ANTIGENS.....	5R01 CA21326-03	40,099
FINGER, THOMAS E.....	SEGREGATION OF CENTRAL GUSTATORY SYSTEMS.....	1R01 NS15258-01	30,417
FREED, CURT R.....	BRAIN CATECHOLAMINES IN CONTROL OF BLOOD PRESSURE.....	5R01 HL20194-02	49,012
FRIEDMAN, SUSAN J.....	THE DEVELOPMENT AND PATHOLOGY OF HUMAN CHORIOCARCINOMA.....	5R01 CA23985-02	42,980
FROST, WARREN W.....	ANIMAL RESOURCE DIAGNOSTIC LABORATORY.....	5P40 RR01090-03	100,696
GERDES, JOHN C.....	H. SIMPLEX VIRUS REACTIVATION DURING RECURRENT KERATITIS.....	1R01 AI16077-01	51,730
GERSCHEHSON, LAZARO E.....	HORMONAL REGULATION OF CULTURED ENDOMETRIAL CELLS.....	1R01 CA25365-01	59,717
GORDON, JULIUS A.....	INTERACTION OF LECTINS WITH CELL MEMBRANES.....	3R01 CA14313-06S1	6,153
GORDON, STUART G.....	BIOCHEMICAL LESION OF PSEUDOXANTHOMA ELASTICUM (PXE).....	1R01 AM25300-01	52,418
GORDON, STUART G.....	MOLECULAR AND CELLULAR STUDY OF CANCER PROCOAGULANT A.....	3R01 CA14408-06S1	3,886
GORDON, STUART G.....	MOLECULAR AND CELLULAR STUDY OF CANCER PROCOAGULANT A.....	2R01 CA14408-07	66,433
GREER, ROBERT O.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA21098-03	42,223
GROVER, ROBERT F.....	ADAPTATION TO HYPOXIA.....	5P01 HL14985-08	829,247
HAGERMAN, DWAIN D.....	STEROID ENZYMOLOGY: OVARIAN AROMATASE.....	5R01 HD11730-02	53,936
HAHN, WILLIAM E.....	GENETIC TRANSCRIPTION IN THE BRAIN.....	2R01 NS10813-07	84,171
HAMBIDGE, K MICHAEL.....	STUDIES OF HUMAN ZINC DEFICIENCY.....	5R22 AM12432-11	116,444
HATHAWAY, WILLIAM E.....	THROMBOEMBOLIC DISEASE STUDIES.....	5R01 HL20337-03	33,498
HENDEE, WILLIAM R.....	IMPROVEMENTS IN RADIATION THERAPY TREATMENT PLANNING.....	1R01 CA23059-01A1	65,115

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
HIRS, CHRISTOPHE H.	STRUCTURE AND FUNCTION OF PANCREATIC ENZYMES.	5R01 AM25230-02	119,129
HOFFER, BARRY J.	CHRONIC PERINATAL LEAD EXPOSURE AND BRAIN FUNCTION.	1R01 ES02011-01	45,658
HODAL, JOHN R.	ROLE OF LUNG MACROPHAGES IN CENTRILOBULAR EMPHYSEMA.	1R23 HL24653-01	39,675
HORWITZ, LAWRENCE D.	CATECHOLAMINES AND HEART DISEASE.	1R01 HL24400-01	70,032
HORWITZ, LAWRENCE D.	LEFT VENTRICULAR FUNCTION IN EXERCISE.	5R01 HL24763-02	103,192
HUFFER, WILLIAM E.	PATHOLOGY OF BONE IN DIALYSIS PATIENTS.	2R01 AM18890-04	40,352
IMADA, MASARU	MEMBRANE PROTEINS IN TUMORS.	5R01 CA22096-03	50,603
JONES, CAROL A.	IMMUNOLOGIC STUDIES RELATED TO MALIGNANCY.	2R01 CA18734-04	85,369
KERN, FRED, JR.	ESTROGEN EFFECTS ON BILIARY LIPIDS & BILE ACID KINETICS.	5R01 AM19605-03	114,715
KERR, SYLVIA J.	STUDY OF METHYLATIONS IN NEOPLASIA.	5R01 CA12742-08	106,971
KING, DONALD W.	SEMINARS AND WORKSHOPS IN TECHNIQUES OF CANCER RESEARCH.	5R13 CA15961-06	71,930
KIRSCH, WOLFF M.	CELL SYNCHRONY IN SOLID TUMORS: WARFARIN EFFECT.	5R01 CA19137-04	53,244
KOHLER, PETER F.	ALLERGIC DISEASE CENTER—ALLERGIC VASCULITIS.	2P50 AI12028-06	68,475
KOLHOUSE, J. FRED	THE METABOLIC ROLE OF COBALAMIN IN MAMMALIAN TISSUE.	1R01 GM26486-01	95,733
KOONTZ, JOHN W.	INSULIN AND GROWTH PEPTIDES: MECHANISM OF ACTION.	1R01 AM24047-01A1	61,495
KOZLOFF, LLOYD M.	CHEMISTRY OF PHAGE INVASION, STRUCTURE, AND ASSEMBLY.	2R01 AI06336-16	112,840
LANGAN, THOMAS A.	FUNCTION OF LYSINE RICH (H1) HISTONE PHOSPHORYLATION.	2R01 CA12877-09	67,062
LEHMAN, JOHN M.	PATHOLOGY OF NEOPLASTIC TRANSFORMATION.	5R01 CA16030-05	47,079
LINAS, STUART L.	POTASSIUM DEPLETION ON RENIN AND HEMODYNAMICS.	1R01 AM26156-01	43,087
MAINS, RICHARD E.	ELECTROPHYSIOLOGICAL CORRELATES OF ACTH SECRETION.	5R01 AM19859-03	18,940
MALLER, JAMES L.	CONTROL OF CELL DIVISION BY CYCLIC AMP.	1R01 GM26743-01	68,242
MANCHESTER, DAVID K.	HUMAN PLACENTAL METABOLISM: RESPONSIVE ENZYME SYSTEMS.	1R01 HD12936-01	69,683
MARTIN, A. ROBERT	MECHANISMS OF SYNAPTIC TRANSMISSION.	2R01 NS09660-10	76,209
MC INTIRE, FLOYD C.	BACTERIAL COAGGREGATION MECHANISMS IN DENTAL PLAQUE.	5R01 DE04926-02	60,521
MESCHIA, GIACOMO	PHYSIOLOGICAL STUDY OF THE PLACENTA.	5R01 HD01866-14	157,789
MEYERS, SANFORD M.	SEPTIC CHOROIDITIS WITH SEROUS RETINAL DETACHMENT.	1R01 EY03069-01	37,635
MILLER, STEPHEN D.	SUPPRESSOR CELL MECHANISMS AND GENETICS IN TOLERANCE.	5R23 AI14913-02	38,359
MOLINOFF, PERRY B.	REGULATION OF BETA-ADRENERGIC RECEPTORS.	5R01 NS13289-03	49,897
MONTGOMERY, ROBERT R, JR.	VWAGII—A NEW VWD DEFICIENT ANTIGEN.	5R23 HL21730-02	37,813
MORAN, DAVID T.	HISTOPATHOLOGY OF OLFACTORY DYSFUNCTION.	1R01 NS15203-01	73,715
MURPHY, ROBERT C.	STRUCTURE DETERMINATION OF MAST CELL PHOSPHOLIPIDS.	5R01 GM19897-05	42,791
NAKANE, PAUL K.	ENZYME-LABELED ANTIBODIES FOR IMMUNOHISTOCHEMISTRY.	2R01 AI09109-11	104,304
NAKANE, PAUL K.	FETAL PANCREATIC ISLET DEVELOPMENT IN DIABETIC MICE.	5R01 HD11603-02	40,131
NEVILLE, MARGARET C.	MECHANISMS IN NUTRIENT TRANSPORT INTO CELLS.	5R01 AM15807-07	58,807
NEVILLE, MARGARET C.	NUTRIENT UPTAKE IN NORMAL AND TUMOROUS MAMMARY GLAND.	3R01 CA19389-03S1	6,048
NIES, ALAN S.	PROSTAGLANDINS AND LOCAL CONTROL OF THE CIRCULATION.	5R01 HL21308-02	77,235
NOLTE, JOHN F.	PINEAL PHOTORECEPTORS.	5R01 EY02083-03	36,154
O'BRIEN, DONOUGH	CENTER GRANT FOR RESEARCH IN MENTAL RETARDATION.	5P30 HD04024-11	278,688
O'BRIEN, DONOUGH	BIOCHEMICAL GENETICS AND NUTRITION IN RETARDATION.	2P01 HD08315-05	396,456
OLEFSKY, JERROLD M.	INSULIN RECEPTORS AND THE GLUCOSE TRANSPORT SYSTEM.	5R01 AM25241-02	36,788
OLEFSKY, JERROLD M.	PLASMA INSULIN LEVELS AND ADIPOCYTE METABOLISM.	5R01 AM25242-03	49,950
OLEFSKY, JERROLD M.	MECHANISMS OF INSULIN RESISTANCE IN MAN.	1R01 AM26180-01	113,516
PATERSON, CHRISTOPHER A.	REGULATION OF LENS CATION BALANCE AND DISTRIBUTION.	5R01 EY00506-11	90,547
PATON, BRUCE C.	GENERAL CLINICAL RESEARCH CENTER.	2M01 RR00051-18	994,700
PATON, BRUCE C.	GENERAL CLINICAL RESEARCH CENTER (CHILDREN).	5M01 RR00069-17	452,122
PATON, BRUCE C.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05357-18	201,413
PATTERSON, DAVID	GENE EXPRESSION IN SOMATIC CELLS IN THE AGING PROCESS.	5R01 AG00029-05	91,889
PATTERSON, DAVID	GENETIC AND BIOCHEMICAL STUDY OF HUMAN CHROMOSOME 21.	1R01 HD13423-01	40,186
PETERSON, LINDA N.	CONCENTRATING DEFECT IN HYPOKALEMIA AND HYPERCALCEMIA.	1R01 AM26164-01	41,678
PETTUJOHN, DAVID E.	ORGANIZATION OF DNA IN CHROMOSOMES.	5R01 GM18243-08	78,739
PIETZ, THOMAS L.	THE MORPHOLOGIC BASIS OF AIRFLOW OBSTRUCTION.	5R01 HL22723-02	37,875
PIERCE, G. BARRY	PROGRAM IN DEVELOPMENTAL BIOLOGY OF CANCER.	3P01 CA15823-04S1	147,963
PIZER, LEWIS I.	CONTROL MECHANISMS IN PRO- AND EUKARYOTIC CELLS.	5R01 AI15300-02	64,897
PRASAD, KEDAR N.	HEAVY METAL-INDUCED DAMAGE TO THE NERVOUS SYSTEM.	5R01 ES01576-03	97,835
PUCK, THEODORE T.	SOMATIC CELL GENETICS IN CANCER.	5P01 CA20810-04	246,404
PUCK, THEODORE T.	THE CELL BIOLOGY OF DEVELOPMENTAL ANOMALIES.	5P01 HD02080-14	331,139
QUISSELL, DAVID O.	PHARMACOLOGY OF SUBMAXILLARY GLAND SECRETION IN VITRO.	5R01 DE04778-02	44,901
REPINE, JOHN E.	ROLE OF PHAGOCYTES IN OXYGEN INDUCED LUNG INJURY.	1R01 HL24248-01	25,684
ROBINSON, WILLIAM A.	AUTOLOGOUS MARROW RESCUE AFTER INTENSIVE CHEMOTHERAPY.	5R01 CA23552-02	91,564
ROBINSON, WILLIAM A.	CONFERENCE ON AUTOLOGOUS BONE MARROW TRANSPLANTATION.	1R13 CA26649-01	34,700

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
ROPER, STEPHEN D.....	SYNAPTIC TRANSMISSION IN AUTONOMIC GANGLION CELLS.....	5R01 NS11505-06	54,527
RUTHERFORD, ROBERT B.....	EVALUATING ARTERIAL DISEASE BY VELOCITY-WAVE ANALYSIS.....	5R01 HL22893-02	67,270
SADLER, JOHN R.....	DEFECTIVE HERPES VIRAL DNA.....	5R01 AI14592-02	33,813
SADLER, JOHN R.....	THE CLONING OF SYNTHETIC LACTOSE OPERATORS.....	5R01 GM24606-02	106,613
SCHALCH, DON S.....	ROLE OF SOMATOMEDIN IN GROWTH AND DIABETES MELLITUS.....	5R01 AM18617-05	79,200
SCHRIER, ROBERT W.....	SYSTEMIC HEMODYNAMICS AND RENAL WATER EXCRETION.....	5P01 AM19928-03	309,284
SEEDS, NICHOLAS W.....	GTP AND FACTORS REGULATING TUBULIN POLYMERIZATION.....	5R01 NS10709-05	45,212
SIMON, FRANCIS R.....	SURFACE MEMBRANE REGULATION OF BILE ACID TRANSPORT.....	5R01 AM15851-08	54,208
SINENSKY, MICHAEL S.....	BIOCHEMICAL GENETICS OF CHOLESTEROL REGULATION.....	1R01 GM24732-01A1	61,466
STARZL, THOMAS E.....	EFFECTS OF ORTHOTOPIC LIVER TRANSPLANTATION.....	5R01 AM07772-16	101,855
STARZL, THOMAS E.....	HEPATOTROPIC FACTORS IN SPLANCHNIC VENOUS BLOOD.....	5R01 AM17260-11	83,854
SWANSON, GEORGE D.....	MULTIPLE GAS MEASUREMENT OF LUNG TISSUE VOLUME.....	5R23 HL22978-02	38,234
TALMAGE, DAVID W.....	THE ROLE OF MACROPHAGES IN ALLOGRAFT IMMUNITY.....	5R01 AI03047-21	95,306
TALMAGE, DAVID W.....	THE IMMUNOGENICITY OF TUMOR-MACROPHAGE HYBRIDS.....	5R01 CA20744-03	63,565
TAN, ENG M.....	AUTOIMMUNE RESPONSES TO NUCLEAR ANTIGENS.....	5R01 AM20705-02	97,594
TAYLOR, AUSTIN L.....	PHAGE MU: A MODEL FOR INTEGRATION OF ANIMAL VIRUS DNA.....	5R01 AI14025-03	47,115
TAYLOR, DAVID A.....	AUTONOMIC INNERVATION OF INTRAOCULAR HEART GRAFTS.....	1R23 HL23325-01	39,946
VASIL, MICHAEL L.....	GENETICS OF VIRULENCE IN PSEUDOMONAS AERUGINOSA.....	1R01 AI15940-01	55,245
VILLARREAL, LUIS P.....	GENE EXPRESSION OF A SMALL DNA TUMOR VIRUS: SV40.....	1R01 CA25819-01	99,641
WALDREN, CHARLES A.....	METABOLISM, GENOME REPAIR & ENVIRONMENTAL MUTAGENS.....	5R01 ES01555-03	56,279
WEINER, NORMAN.....	SYNTHESIS, STORAGE AND RELEASE OF CATECHOLAMINES.....	2R01 NS07927-12	133,418
WEINER, NORMAN.....	BASAL GANGLIA DISORDERS AND NEUROTRANSMITTER FUNCTION.....	3P50 NS09199-09S1	30,900
WENGER, DAVID A.....	SPINGOMYELINASE ACTIVITY AND SPHINGOMYELIN LIPIDOSES.....	5R01 HD10494-03	27,262
WENGER, DAVID A.....	FACTORS AFFECTING HUMAN BETA-GALACTOSIDASE ACTIVITY.....	2R01 NS10698-05	35,819
WESTON, WILLIAM L.....	ERYTHEMA MULTIFORME: A CLINICAL-PATHOGENETIC STUDY.....	1R01 AI16637-01	34,562
WICKELGREN, WARREN O.....	ORGANIZATION OF THE NERVOUS SYSTEM.....	5R01 NS09661-09	56,022
WICKS, WESLEY D.....	REGULATION OF HEPATOMA ENZYME SYNTHESIS BY CYCLIC AMP.....	5R01 AM16753-08	58,174
WICKS, WESLEY D.....	CYCLIC AMP ANALOGS AS GROWTH REGULATORS IN TUMOR CELLS.....	1R01 CA26549-01	81,020
WOLFE, BARRY B.....	HEART AND LUNG MUSCARINIC AND B-ADRENERGIC RECEPTORS.....	1R23 HL24353-01	35,539
ORGANIZATION TOTAL	139	12,557,360	
UNIVERSITY OF DENVER ZIP CODE 80210			
EATON, GARETH R.....	INTERACTION OF SPIN LABELS WITH TRANSITION METALS.....	5R01 GM21156-06	64,715
EATON, GARETH R.....	BROADENING REAGENTS FOR NITROXYL SPIN PROBES.....	1R01 GM26566-01	30,710
HARTER, SUSAN.....	THE DEVELOPMENT OF MOTIVE HIERARCHIES IN CHILDREN.....	5R01 HD09613-04	55,278
HORN, JOHN L.....	MEASUREMENTS OF INDIVIDUAL DIFFERENCES IN ADULTHOOD.....	5R01 AG00583-03	62,035
HORN, JOHN L.....	PROCESS STUDIES OF AGE DIFFERENCE IN ABILITIES.....	1R01 HD13251-01	62,447
KINDLSPERGER, KENNETH W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07138-08	52,896
REUSCH, VICTOR M, JR.....	BIOSYNTHESIS OF SURFACE POLYMERS BY ORAL ACTINOMYCES.....	5R23 DE05135-02	33,446
WICKSTROM, ERIC.....	MOLECULAR RULERS FOR RIBOSOMES.....	5R01 GM24128-02	55,122
WICKSTROM, ERIC.....	COLORADO SHARED CIRCULAR DICHROISM FACILITY.....	1P41 GM27462-01	50,350
YORK, SHELDON S.....	CHANGES IN LAC REPRESSOR STRUCTURE DURING DNA BINDING.....	2R01 GM20561-07	78,218
ORGANIZATION TOTAL	10	545,217	
FORT COLLINS			
COLORADO STATE UNIVERSITY ZIP CODE 80523			
ALEXANDER, ARCHIBALD F.....	MODELS OF HYPOXIC PULMONARY HYPERTENSION.....	5R01 HL18191-05	70,758
ALLEN, KENNETH G.....	COPPER NUTRITION, CHOLESTEROL AND ARTERIAL METABOLISM.....	1R01 HL24565-01	45,408
ANDERSON, OREN P.....	LIGAND-STABILIZED COPPER MERCAPIDE COMPLEXES.....	1R01 GM25302-01	38,389
AZARI, PARVIZ.....	INTERMOLECULAR CROSS-LINKS IN LENS.....	5R01 EY02416-02	64,286
BAMBURG, JAMES R.....	REGULATION AND FUNCTION OF PROTEINS IN GROWING NERVES.....	2R01 NS10429-07A1	62,974
BEDFORD, JOEL S.....	DOSE AND TIME FACTORS IN CELLULAR RADIOSENSITIVITY.....	2R01 CA18023-05	135,402
CAUGHEY, WINSLOW S.....	REACTIONS OF HEMEPROTEINS AND OXYGEN.....	5R01 HL15980-07	154,150
CONNELL, CAROLYN J.....	THE EFFECT OF HCG ON SERTOLI CELLS.....	7R01 HD13928-01	56,200
COSS, RONALD A.....	CELLULAR BASIS FOR HEAT KILLING & RADIOSENSITIZATION.....	1R23 CA26416-01	30,578
DALBOW, DAVID G.....	MECHANISM OF ADRIAMYCIN-INDUCED CARDIOMYOPATHY.....	5R01 CA22191-02	66,704
DE BRUIN, KENNETH E.....	STEREOSPECIFICITY IN ANTITUMOR ACTIVITY.....	5R01 CA19908-04	36,062
DEWEY, WILLIAM C.....	CELLULAR RESPONSES TO IRRADIATION.....	5R01 CA08618-14	197,791

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
DEWEY, WILLIAM C.....	MOLECULAR BASIS OF RADIOSENSITIZATION BY HYPERTHERMIA.....	2R01 CA18334-04	137,726
DEWEY, WILLIAM C.....	THIRD INTERNATIONAL HYPERTHERMIA CONFERENCE.....	1R13 CA26487-01	51,350
FAHRNEY, DAVID E.....	METABOLIC REGULATION IN MYOPLASMAS.....	1R01 AI15872-01	44,877
FIXMAN, MARSHALL.....	PROBLEMS IN THEORETICAL CHEMISTRY AND POLYMERS.....	7R01 GM27945-01	142,452
FOX, MICHAEL H.....	APPLICATIONS OF FLOW CYTOMETRY TO RADIATION BIOLOGY.....	1R23 CA25636-01	34,750
GILLETTE, EDWARD L.....	RADIATION REPAIR OF NORMAL MAMMALIAN TISSUES.....	5R01 CA13899-08	90,666
GILLETTE, EDWARD L.....	TUMOR & NORMAL TISSUE RESPONSE TO HEAT AND RADIATION.....	5R01 CA17831-05	82,244
GILLETTE, EDWARD L.....	HYPERTHERMIA AND IRRADIATION EFFECT ON TUMORS.....	3R01 CA24262-01S1	37,895
GORELL, THOMAS A.....	HORMONAL CONTROL OF DIFFERENTIATION AND REGRESSION.....	5R01 HD10613-02	48,690
GORTHY, WILLIS C.....	MORPHOLOGICAL AND HISTOCHEMICAL STUDIES OF CATARACTS.....	5R01 EY00378-10	80,897
HEGEDUS, LOUIS S.....	ORGANOMETALLIC SYNTHESIS OF BIOACTIVE COMPOUNDS.....	1R01 GM26178-01	59,976
HILL, GEORGE C.....	ELECTRON TRANSPORT SYSTEMS IN TRYPAOSOMES.....	5R01 AI11622-06	66,762
HILL, GEORGE C.....	BIOCHEMISTRY OF CULTURED INFECTIVE TRYPAOSOMES.....	1R01 AI15070-01A1	111,734
HISTAND, MICHAEL B.....	NONINVASIVE MEASUREMENT OF CARDIAC OUTPUT.....	5R01 HL22326-02	92,381
JORDAN, JOHN P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07127-11	77,054
LUMB, WILLIAM V.....	PORTACAVAL SHUNT AS TREATMENT FOR HYPERLIPEMIA.....	5R01 HL20183-03	78,370
MASKEN, JAMES F.....	NEUROENDOCRINE REGULATION OF PUBERTY.....	5R01 HD09363-02	53,410
MATHIAS, MELVIN M.....	DIETARY FAT COMPOSITION AND PROSTAGLANDIN SYNTHESIS.....	5R01 HL18239-04	48,354
MEYERS, ALBERT I.....	SYNTHETIC STUDIES OF STREPTOGRAMIN ANTIBIOTICS.....	1R01 AI15471-01	50,433
MEYERS, ALBERT I.....	SYNTHESIS OF MAYTANSINE AND ITS DERIVATIVES.....	5R01 CA16051-05	96,065
NETT, TORRANCE M.....	GN-RH-RECEPTOR INTERACTION: AFFINITY VERSUS BIOPOTENCY.....	5R01 HD07841-05	84,232
NISWENDER, GORDON D.....	REGULATION OF LH RECEPTORS AND PROGESTERONE SECRETION.....	5R01 HD11590-02	100,668
NOCKELS, CHERYL F.....	VITAMIN E IMPROVES IMMUNITY BY ALTERING CYCLIC AMP.....	5R01 AI13710-03	56,775
PAULE, MARVIN R.....	GENE SELECTION BY MULTIPLE EUKARYOTIC RNA POLYMERASES.....	2R01 GM22580-04	77,302
PAULE, MARVIN R.....	ISOLATION AND CHARACTERIZATION OF ACANTHAMOEBA GENES.....	1R01 GM26059-01	46,526
PAUTLER, EUGENE L.....	SUGAR TRANSPORT BY MAMMALIAN BLOOD-RETINAL BARRIERS.....	2R01 EY01643-04	62,882
PEARSON, LEONARD D.....	HOST-VIRUS INTERACTIONS IN A LOCAL LYMPH NODE.....	5R23 AI14893-02	44,188
PEHISTER, ROBERT D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05458-17	106,783
PHILLIPS, ROBERT W.....	DEVELOPMENT OF A SWINE MATURITY ONSET DIABETES MODEL.....	5R01 AM21206-03	70,929
RALPH, CHARLES L.....	FUNCTION OF THE PINEAL COMPLEX.....	5R01 NS12257-06	74,061
RASH, JOHN E.....	STUDIES OF EXCITABLE MEMBRANES.....	7R01 NS15991-01	51,773
ROBERTSHAW, DAVID.....	COLD INDUCED PULMONARY HYPERTENSION.....	5R01 HL20719-03	44,961
SNEIDER, THOMAS W.....	METHYLATION OF EUKARYOTIC DNA.....	5R01 CA18719-03	68,225
STERMITZ, FRANK R.....	ANTITUMOR COMPOUNDS FROM NORTH AMERICAN PLANTS.....	2R01 CA19243-04	53,872
STONE, HELEN B.....	RADIATION AND HYPOXIC CELL SENSITIZERS.....	2R01 CA20344-04	101,949
STORZ, JOHANNES.....	PATHOGENESIS OF CHLAMYDIAL POLYARTHRITIS ENTERITIS.....	2R01 AI08420-11A1	82,957
SUTHERLAND, THOMAS M.....	DEVELOPMENT OF ADIPOSE CELLS AND TISSUE IN OBESITY.....	5R01 AM18275-03	57,926
SWAN, HENRY.....	PREVENTION OF MYOCARDIAL HYPOXIA DURING BY-PASS.....	5R01 HL21969-02	62,550
TORNABENE, THOMAS G.....	EFFECTS OF LEAD ON PROCARYOTIC AND EUKARYOTIC CELLS.....	2R01 ES01047-05	44,469
TU, ANTHONY T.....	HEMORRHAGIC AND NECROTIC TOXINS IN SNAKE VENOMS.....	5R01 GM15591-12	67,331
TU, ANTHONY T.....	SEA SNAKE VENOMS AND TOXINS.....	2R01 GM19172-08	89,334
TU, ANTHONY T.....	ACTION OF LIZARD TOXINS AND ROLE IN ENVENOMATION.....	5R01 GM24718-02	52,126
TUCKER, ALAN.....	HYPOXIC PULMONARY VASCULAR HYPERTROPHY AND HYPERPLASIA.....	1R01 HL25815-01	46,642
WOODY, ROBERT W.....	OPTICAL PROPERTIES OF BIOLOGICAL MACROMOLECULES.....	5R01 GM22994-04	80,991
WOODY, ROBERT W.....	SPECTROSCOPIC STUDIES OF RNA POLYMERASE MECHANISM.....	2R01 GM23697-04	78,642
YOUNG, STUART.....	PATHOGENETIC MECHANISMS IN RETINAL DYSPLASIA.....	1R01 EY03100-01	65,979
ORGANIZATION TOTAL	58	4,218,861	

LAKEWOOD

AMC CANCER RESEARCH CENTER AND HOSPITAL ZIP CODE 80214

BOREK, ERNEST.....	MOLECULAR BIOLOGY OF ETHIONINE CARCINOGENESIS.....	5R01 CA23536-03	124,773
ORGANIZATION TOTAL	1	124,773	

JEFFERSON COUNTY HEALTH DEPARTMENT ZIP CODE 80226

JOHNSON, CARL J.....	EVALUATION OF LOW LEVEL PLUTONIUM & CANCER.....	1R01 CA25729-01	33,738
ORGANIZATION TOTAL	1	33,738	

STATE TOTAL 302 25,356,762

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER		ZIP CODE 06032	
BALLOW, MARK	IMMUNE RESPONSES TO MINOR HISTOCOMPATIBILITY ANTIGENS	1R01 AI14484-01A1	54,033
BALLOW, MARK	IMMUNOGENETICS OF SACRAL AGENESIS	2R01 AM20975-02	50,813
BALLOW, MARK	MEDIATORS OF INFLAMMATION IN TEAR SECRETIONS	5R23 EY02036-03	12,403
BALLOW, MARK	ALTERED METABOLISM & IMMUNE FUNCTION IN NEPHROSIS	5R01 HD12050-02	61,025
BECKER, ELMER L	IMMUNOLOGICALLY ACTIVATED ENZYME SYSTEMS OF CELLS	5R01 AI09648-10	111,906
BERLIN, RICHARD D	EFFECT OF MICROTUBULAR PROTEINS ON CELL SURFACES	5R01 CA15544-06	56,330
BIGAZZI, PIERLUIGI E	INFLAMMATORY AUTOIMMUNE RESPONSES AND NEOPLASIA	1R01 CA26053-01	39,146
BRONNER, FELIX	COPPER NUTRITION, ABSORPTION, AND CU-BINDING PROTEINS	1R01 AM26174-01	62,530
BURSTONE, CHARLES J	PREDICTION OF TOOTH DISPLACEMENT	5R01 DE03545-07	114,030
BURSTONE, CHARLES J	FORCE SYSTEMS FROM ORTHODONTIC APPLIANCE	5R01 DE03953-05	155,998
CARSON, JOHN H	MYELIN PROTEIN POLYMORPHISM AND MEMBRANE BIOGENESIS	1R01 NS15190-01	64,844
CATALANOTTO, FRANK A	EFFECTS OF MATERNAL ZINC DEFICIENCY ON ENAMEL ZINC	5R01 DE04830-02	25,968
CINTI, DOMINICK L	CYTOCHROME B5 IN MICROSOMAL ELONGATION OF FATTY ACIDS	5R01 AM21633-02	57,351
COHEN, STANLEY	COMPLEMENT AND CELLULAR ACTIVATION	5R01 AI12477-06	58,860
COHEN, STANLEY	ANTIBODIES TO LYMPHOCYTE-DERIVED MEDIATORS	5R01 AI13258-04	53,756
COYKENDALL, ALAN L	MOLECULAR TAXONOMY OF POTENTIAL PERIODONTAL PATHOGENS	5R01 DE04721-03	32,800
CRONLUND, MALCOLM	THE ROLE OF FIBRIN DEPOSITION IN CANCER	5R01 CA22202-02	27,680
DEUTSCHER, MURRAY P	ENZYMOLGY AND CONTROL OF AMINO ACID ACTIVATION	2R01 GM16317-12	152,929
ENGELMAN, RICHARD M	MYOCARDIAL PRESERVATION DURING ISCHEMIC ARREST	1R01 HL25559-01A2	51,391
FEINSTEIN, MAURICE B	MECHANISM OF ACTION OF ANESTHETICS	2R01 GM17536-10	70,426
FEINSTEIN, MAURICE B	CYCIC NUCLEOTIDES AND CALCIUM IN PLATELETS	2R01 HL18937-04	75,725
FERNANDEZ, SALVADOR M	DEVELOPMENTAL CHANGES IN THE MYOGENIC CELL SURFACE	5R01 GM23235-03	32,833
FERNANDEZ, SALVADOR M	NIGMS SHARED INSTRUMENTATION PROGRAM	1P41 GM27524-01	149,557
FERNANDEZ, SALVADOR M	SMOOTH MUSCLE DEVELOPMENT IN VITRO	5R01 HL23013-02	46,739
GAY, THOMAS J	PHYSIOLOGICAL STUDIES OF MASTICATION	1R01 DE04610-01A2	54,084
GAY, THOMAS J	THE MOTOR ORGANIZATION OF SPEECH PRODUCTION	2R01 NS10424-05	47,195
GLASEL, JAY A	CONFORMATIONS OF BIOLOGICALLY ACTIVE OPEN CHAIN PEPTIDES	1R01 NS15700-01	78,960
GOLDSCHNEIDER, IRVING	DEVELOPMENT OF IMMUNOLOGICALLY COMPETENT LYMPHOCYTES	5R01 AI09649-10	56,285
GOLDSCHNEIDER, IRVING	TERMINAL TRANSFERASE IN NORMAL & NEOPLASTIC LYMPHOCYTES	5R01 AI14743-03	115,927
GONDOS, BERNARD	GONADAL DIFFERENTIATION IN THE HUMAN FETUS	5R01 HD12918-02	62,216
GRASSO, JOSEPH A	STUDIES IN RBC DIFFERENTIATION	2R01 AM19167-05	78,016
GRIMM-JORGENSEN, YVONNE	THYROTROPIN RELEASING FACTOR: RELEASE AND FUNCTION	5R01 AM20929-02	35,365
HENDERSON, EDWARD G	IONIC MECHANISMS UNDERLYING RECEPTOR DESENSITIZATION	5R01 NS12563-03	42,977
HOCK, JANET M	BLOOD VESSEL RESPONSE IN PERIODONTAL DISEASE	1R01 DE05188-01	73,402
HOLLAND, MICHAEL J	CONTROL OF TRANSCRIPTION OF ISOLATED EUKARYOTIC GENES	2R01 GM23109-04	61,887
HOYER, LEON W	STUDIES OF ANTIBODIES TO ANTIHEMOPHILIC FACTOR	5R01 HL16626-06	89,246
HOYER, LEON W	STUDIES OF ANTIHEMOPHILIC FACTOR	5R01 HL16872-05	113,634
KAPLAN, JERRY	MEMBRANE DYNAMICS IN ALVEOLAR MACROPHAGES	5R01 HL12120-03	44,866
KAPLAN, JERRY	REGULATION OF PROTEASE SECRETION BY ALVEOLAR MACROPHAGES	1R01 HL23376-01	36,586
KATZ, ARNOLD M	ACTIONS OF DRUGS AND IONS ON CARDIAC MEMBRANES	5R01 HL21812-03	125,501
KATZ, ARNOLD M	CONTROL OF CATION FLUXES ACROSS CARDIAC MEMBRANES	2R01 HL22135-02	70,428
KATZ, ELTON P	THE DEVELOPMENTAL BIOLOGY OF CALCIFIED TISSUES	5R01 DE02953-10	59,709
KEGELES, S STEPHEN	CHILDREN'S ACCEPTANCE OF CRIES PREVENTIVE PROCEDURES	5R01 DE03868-05	111,261
KOLAKOWSKI, DONALD L	A STUDY OF HOST FACTORS IN CRIES SUSCEPTIBILITY	5R01 DE04938-02	40,795
KOPPEL, DENNIS E	MEMBRANE DYNAMICS OF LOCOMOTING TISSUE CELLS	5R01 GM23585-03	39,568
KREUTZER, DONALD L	LEUKOTACTIC MEDIATORS IN LUNG INFLAMMATORY REACTIONS	5R23 HL22437-02	39,105
KREUTZER, DONALD L	RESPONSE OF PULMONARY ENDOTHELIAL CELLS TO INJURY	1R01 HL25015-01	107,328
LANGELAND, KAARE	BIOCOMPATIBILITY OF ENDOODONTIC MATERIALS	5R01 DE04096-03	68,141
LOE, HARALD	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05677-11	111,151
LUNDY, JOEL	MECHANISM OF ANESTHESIA AND SURGERY INDUCED METASTASES	1R23 GM25535-01A1	35,490
LURIE, ALAN G	ENHANCED ORAL CARCINOGENESIS BY LOW DOSE X-RADIATION	2R01 DE03996-04A1	68,289
MASSEY, ROBERT U	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05678-11	171,349
MC CALL, DAVID	PH EFFECT IN HEART CELLS: INFLUENCE OF CARDIAC DRUGS	5R01 HL22568-02	33,253
MC LEAN, ROBERT H	EVALUATE C3 TYPE AND GLOMERULONEPHRITIS	1R01 AM25216-01	42,926
MOREST, D KENT	ANATOMY OF THE AUDITORY SYSTEM	2R01 NS14347-03	109,875
MUNDY, GREGORY R	THE MONOCYTE-MACROPHAGE SYSTEM AND BONE RESORPTION	5R01 AM21584-02	72,976

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
MUNDY, GREGORY R.....	OSTEOTROPISM OF MAMMARY CARCINOMA METASTASIS.....	1R01 CA25500-01	122,564
NANDA, RAVINDRA.....	ANTERIOR DISPLACEMENT OF MAXILLA BY CONTROLLED FORCES.....	5R01 DE03998-05	42,185
NUKI, KLAUS.....	LOCALIZATION IN GINGIVA OF BONE RESORPTION MEDIATORS.....	5R01 DE04728-02	91,063
O'ROURKE, J.....	UVEAL BLOOD FLOW AND METABOLISM.....	5R01 EY00123-08	48,492
OLIVER, JANET M.....	CHEDIAK-HIGASHI AND CANCER CELLS WITH SIMILAR DEFECTS.....	2R01 CA18564-04	45,904
OLIVER, JANET M.....	ACTION OF CARBAMATE HERBICIDES IN MAMMALIAN CELLS.....	5R01 ES01106-05	43,712
OSBORN, MARY J.....	BIOSYNTHESIS OF LIPOPOLYSACCHARIDES.....	5R01 AI08506-11	160,648
OZOLS, JURIS B.....	STRUCTURE AND PROTEOLYSIS OF HEPATIC MEMBRANE PROTEINS.....	1R01 GM26351-01	49,147
PAPPANO, ACHILLES J.....	PHARMACOLOGY OF DEVELOPING CARDIAC TISSUES.....	2R01 HL13339-09A1	63,776
PATTERSON, JOHN W.....	EXPERIMENTAL CATARACTS.....	3R01 EY00902-14S1	30,465
PATTERSON, JOHN W.....	LENS FIBER FORMATION.....	5R01 EY02128-02	53,525
PFEIFFER, STEVEN E.....	CLONAL CELL LINES OF THE NERVOUS SYSTEM.....	5R01 NS10861-06	57,656
PHILLIPS, ANTHONY F.....	INSULIN SECRETION IN THE FETUS AND IN NEONATES.....	1R01 AM26067-01	74,886
POYTON, ROBERT O.....	STRUCTURE AND ASSEMBLY OF CYTOCHROME C OXIDASE.....	5R01 GM21800-05	56,793
RAISZ, LAWRENCE G.....	FACTORS INFLUENCING BONE METABOLISM.....	5R01 AM18063-06	143,073
RESSLER, CHARLOTTE.....	CYSTINE DEGRADATION FOR CONTROL OF CELL GROWTH.....	1R01 CA25690-01	62,420
ROBINSON, KENNETH R.....	ELECTRICAL CURRENTS AND EMBRYONIC CELLS.....	7R01 HD14228-01	65,207
RODAN, GIDEON A.....	PARATHYROID HORMONE (PTH) BIOASSAY & CAMP IN PTH ACTION.....	5R01 AM17848-05	75,097
RODAN, GIDEON A.....	MECHANICAL AND ELECTRICAL EFFECTS ON OSTEOGENESIS.....	2R01 DE04327-04	93,142
ROSSOMANDO, EDWARD F.....	CELLULAR ASSEMBLY: ITS ROLE IN FACIAL MORPHOGENESIS.....	5R01 DE03715-05	38,715
ROSSOMANDO, EDWARD F.....	ABNORMAL PALATAL DEVELOPMENT INDUCED BY HADACIDIN.....	5R01 DE04657-03	41,094
ROTH, GERALD J.....	PROSTAGLANDIN SYNTHESIS IN HUMAN PLATELETS.....	5R01 HL20794-03	47,067
ROTHFIELD, LAWRENCE I.....	BIOSYNTHESIS OF THE BACTERIAL CELL ENVELOPE.....	5R01 AM13407-12	122,704
ROTHFIELD, LAWRENCE I.....	MOLECULAR ORGANIZATION OF PRESYNAPTIC MEMBRANES.....	5R01 NS14647-02	50,484
ROTHFIELD, NAOMI F.....	ROLE OF PROPERDIN IN CONNECTIVE TISSUE DISEASES.....	2R01 AM16576-07	94,328
ROTHFIELD, NAOMI F.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20621-02	207,002
ROWE, DAVID W.....	BIOCHEMICAL CHARACTERIZATION OF DIABETIC FIBROBLASTS.....	5R01 AM21309-03	47,926
SCHENKMAN, JOHN B.....	INDUCTION AND MODE OF ACTION OF HEPATIC DRUG OXIDASE.....	5R01 GM26114-02	131,750
SCHENKMAN, JOHN B.....	MICROSOMAL ENZYMES: MEMBRANE LOCATION AND INTERACTION.....	5R01 GM26530-02	50,968
SCHENKMAN, JOHN B.....	ACTIVE OXYGEN GENERATION BY HEPATIC MICROSOMES.....	5R01 GM26548-02	61,191
SETLOW, PETER.....	DEGRADATION REACTIONS IN SPORE GERMINATION.....	5R01 GM19698-08	85,663
SHA'AFI, RAMADAN I.....	CHEMOTAXIS AND ELECTROLYTE TRANSPORT IN NEUTROPHILS.....	5R01 AI13734-02	48,910
SHASKAN, EDWARD G.....	S-ADENOSYL-L-METHIONINE METABOLISM IN AGING RAT BRAIN.....	5R01 AG00340-03	35,077
SHASKAN, EDWARD G.....	PSYCHOSOCIAL AND BIOCHEMICAL RISKS FOR MONONUCLEOSIS.....	1R01 AI15901-01	82,764
SHEETZ, MICHAEL P.....	MODULATION OF RED CELL MEMBRANE ACTIVITIES BY LECTINS.....	1R01 HL23359-01	60,169
SHEETZ, MICHAEL P.....	CELL CYTOSKELETON: STRUCTURE AND MEMBRANE INTERACTIONS.....	1R01 HL23795-01	39,700
SHEK, THOMAS E.....	STRUCTURE AND FUNCTION OF DNA TUMOR VIRUS GENOMES.....	2R01 CA19151-04	72,658
SHERLINE, PETER.....	MICROTUBULES AND THE MECHANISM OF INSULIN SECRETION.....	2R01 GM22497-04	82,504
SLEE, ANDREW M.....	VIRULENCE FACTORS OF GRAM NEGATIVE CORRODING BACTERIA.....	1R01 DE04808-01A1	53,084
SMILOWITZ, HENRY M.....	DEVELOPMENTAL AND NEURAL CONTROL OF THE CELL SURFACE.....	5R01 NS13860-03	36,533
SPENCER, RICHARD P.....	PROGRAM IN RADIONUCLIDE STUDIES OF TUMORS AND GROWTH.....	5R01 CA17802-05	202,329
SPITZNAGLE, LARRY A.....	DEVELOPMENT OF TUMOR AND ORGAN IMAGING AGENTS.....	9R01 CA25739-04	47,224
STRITTMATTER, PHILIPP.....	STUDY OF STRUCTURE AND FUNCTION OF MICROSOMAL MEMBRANES.....	5R01 GM15924-12	155,782
SUNDERMAN, F WILLIAM, JR.....	NICKEL CARCINOGENESIS.....	2R01 ES01337-04	101,856
TANZER, JASON M.....	VIRULENCE CHARACTERIZATION IN STREPTOCOCCUS MUTANS.....	5R01 DE03758-05	107,809
TANZER, JASON M.....	SYMPOSIUM AND WORKSHOP ON ANIMAL MODELS IN CARIOLOGY.....	1R13 DE05389-01	45,280
TANZER, MARVIN L.....	STRUCTURE, FUNCTION AND PROPERTIES OF COLLAGEN.....	5R01 AM12683-11	71,900
TANZER, MARVIN L.....	BIOLOGY AND CHEMISTRY OF PROCOLLAGEN IN CELL CULTURE.....	5R01 AM17220-07	46,295
TANZER, MARVIN L.....	NEW ENGLAND AREA NMR RESEARCH RESOURCE.....	3P41 RR00639-05S1	67,037
TIBBETTS, CLARK J.....	ADENOVIRUS GENOME EXPRESSION—PHYSICAL MAPPING STUDIES.....	5R01 CA17130-05	73,918
TRUMMEL, CLARENCE L.....	RELATION OF INFLAMMATION TO BONE RESORPTION.....	5R01 DE04885-03	34,735
VARANI, JAMES.....	TUMOR CELLS WITH VARYING DEGREES OF MALIGNANCY.....	1R01 CA26263-01	96,984
VENHAM, LARRY L.....	YOUNG CHILD'S RESPONSE TO DENTAL STRESS.....	5R01 DE04409-03	78,422
VOLLE, ROBERT L.....	GANGLIONIC TRANSMISSION STUDIES.....	5R01 NS07540-12	65,952
WARD, PETER A.....	LEUKOCYTE CHEMOTAXIS.....	5R01 AI09651-09	72,240
WARD, PETER A.....	MECHANISMS OF PENETRATION OF RBC BY PROTOZOA.....	1R01 AI15171-01	56,398
WARD, PETER A.....	COMPLEMENT MEDIATED TUMOR CELL CHEMOTHERAPY.....	1R01 CA25892-01	140,941
WARD, PETER A.....	PATHOGENESIS OF INFLAMMATORY LUNG DISEASES.....	1P01 HL23192-01	590,812
WEINSTEIN, SAM.....	EXTENSIBILITY CHARACTERISTICS OF HUMAN CHEEK.....	2R01 DE04047-03	70,181
WU, HENRY C.....	BIOCHEMISTRY OF CELL DIVISION IN BACTERIA.....	5R01 CA11371-11	80,285

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
WU, HENRY C.....	MAMMALIAN CELL SURFACE GENETICS AND BIOCHEMISTRY.....	1R01 GM26010-01	92,694
ZURIER, ROBERT B.....	PROSTAGLANDINS CYCLIC NUCLEOTIDES AND INFLAMMATION.....	5R01 AM17309-06	76,163
ZURIER, ROBERT B.....	SYNOVIAL CELL ENDOCYTOSIS AND RHEUMATOID ARTHRITIS.....	1R01 AM25493-01	66,310
ORGANIZATION TOTAL	119 9,228,457		
HAMDEN			
QUINNIPIAC COLLEGE	ZIP CODE 06518		
RITCHIE, BRENDA B.....	HUMAN MUSCULAR FATIGUE.....	5R01 NS14756-02	59,410
ORGANIZATION TOTAL	1 59,410		
HARTFORD			
HARTFORD HOSPITAL	ZIP CODE 06115		
MADERAZO, EUFRONIO G.....	LEUKOTAXIS ENHANCING FACTOR AND LUNG INFECTIONS.....	5R01 HL22257-02	43,729
ORGANIZATION TOTAL	1 43,729		
MIDDLETOWN			
WESLEYAN UNIVERSITY	ZIP CODE 06457		
ALLEWELL, NORMA M.....	THERMODYNAMIC ANALYSIS OF ASPARTATE TRANSCARBAMYLASE.....	5R01 AM17335-07	56,005
BERRY, SPENCER J.....	CHARACTERIZATION OF INSECT OOCYTE MRNA.....	5R01 HD10435-02	37,178
DONADY, JOHN J.....	GENETIC CONTROL OF CELL DIFFERENTIATION.....	5R01 HD08286-05	55,803
GORTNER, ROSS A, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07107-12	53,047
HAAKE, PAUL C.....	PHOSPHORYLATION IN METABOLIC PROCESSES.....	5R01 AM12743-12	43,448
JACOBI, PETER A.....	A SYNTHETIC APPROACH TO THE CYTOTOXIC GERMACRONOLIDES.....	5R01 CA20483-03	52,461
KIEFER, BARRY I.....	RNA METABOLISM AND AGING: GENETIC APPROACH.....	1R01 AG02039-01	74,074
KIEFER, BARRY I.....	DEVELOPMENTAL GENETICS OF SPERMATID DIFFERENTIATION.....	5R01 GM19130-07	65,110
KOHLER, BRYAN E.....	SPECTROSCOPIC STUDIES OF THE VISUAL PIGMENTS.....	5R01 EY01733-04	45,853
LUKENS, LEWIS N.....	COLLAGEN SYNTHESIS AND ITS REGULATION.....	5R01 AM16162-07	88,108
LYNCH, CAROL B.....	GENETIC ANALYSIS OF BEHAVIORAL THERMOREGULATION.....	5R01 GM21993-05	62,014
LYNCH, CAROL B.....	AN ADAPTIVE MODEL OF MATERNAL BEHAVIOR.....	5R01 HD11293-02	20,258
LYNCH, G ROBERT.....	ROLE OF THE PINEAL GLAND IN TEMPERATURE.....	1R01 NS15503-01	48,957
PAWLOWSKI, PHILIP J.....	REGULATION OF COLLAGEN BIOSYNTHESIS.....	5R23 HL21663-02	39,940
POTTER, STANLEY S.....	TWO DIMENSIONAL RESTRICTION STUDIES OF DROSOPHILA DNA.....	1R01 GM26940-01	58,859
PRATT, REX F.....	BETA-LACTAMASES-INHIBITION, MECHANISM, AND EVOLUTION.....	5R01 AI15077-02	30,704
PRATT, REX F.....	THE CHEMICAL MODIFICATION OF HISTIDINE IN PROTEINS.....	5R01 GM24079-02	26,573
TURNER, ROBERT S, JR.....	ALTERED CELL ADHESIVENESS IN VIVO: MEMBRANE CHANGES.....	5R01 CA20350-03	30,830
WOLFE, JASON S.....	REGULATION OF GENE EXPRESSION IN SYNCHRONIZED CELLS.....	5R01 GM18014-09	64,796
ORGANIZATION TOTAL	19 954,018		
NEW HAVEN			
HASKINS LABORATORIES	ZIP CODE 06510		
BACCHI, CYRUS J.....	POLYAMINES IN TRYPANOSOMES—FUNCTION AND METABOLISM.....	5R01 AI13852-02	48,418
HARRIS, KATHERINE S.....	RESEARCH PROGRAM ON DYNAMICS OF SPEECH ARTICULATION.....	5P50 NS13617-17	272,601
HARRIS, KATHERINE S.....	LARYNGEAL FUNCTION IN NORMAL AND ABNORMAL SPEECH.....	5R01 NS13870-03	119,582
HUTNER, SEYMOUR H.....	CATIONIC TRYPANOCIDES: POLYAMINES AND LETHALITY.....	5R01 AI13801-02	72,335
KELSO, J A.....	MOVEMENT CONTROL FOLLOWING FINGER JOINT REPLACEMENT.....	7R01 AM25814-01	26,652
LIBERMAN, ALVIN M.....	NATURE AND ACQUISITION OF THE SPEECH CODE AND READING.....	5P01 HD011994-14	420,139
LIBERMAN, ALVIN M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05596-15	41,574
ORGANIZATION TOTAL	7 1,001,301		
JOHN B. PIERCE FOUNDATION OF CONNECTICUT	ZIP CODE 06519		
BARTOSHUK, LINDA M.....	TASTE AND AGING.....	1R01 AG01331-01	43,697
BARTOSHUK, LINDA M.....	TASTE OF WATER: EFFECTS OF SOLUTES AND ADAPTATION.....	5R01 ES00880-06	47,711
DOUGLAS, JAMES S.....	AIRWAY SMOOTH MUSCLE AND CYCLIC NUCLEOTIDES.....	5R01 HL20611-03	54,426
DOUGLAS, JAMES S.....	AIRWAY REACTIVITY: BETA ADRENOCEPTORS & PROSTAGLANDINS.....	5R01 HL20783-03	69,547
DU BOIS, ARTHUR B.....	PERIPHERAL CIRCULATION AND FLUID BALANCE.....	3R01 HL17407-05S1	6,557

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
DU BOIS, ARTHUR B.....	MECHANISM OF ACTION OF ASCORBIC ACID ON BRONCHI IN MAN.....	1R01 HL23959-01	56,797
NADEL, ETHAN R.....	BLOOD VOLUME AND VENOUS RETURN IN THERMAL STRAIN.....	5R01 HL20634-02	55,318
STEVENS, JOSEPH C.....	THERMO-TACTILE AND THERMO-GUSTATORY INTERACTIONS.....	1R01 NS15419-01	49,733
STITT, JOHN T.....	TEMPERATURE REGULATION: ACTION OF PROSTAGLANDIN E1.....	5R01 NS11487-06	59,863
STOLWIJK, JAN A.....	HUMAN RESPONSES TO THE THERMAL ENVIRONMENT.....	2P01 ES00354-12	344,050
STOLWIJK, JAN A.....	PERIPHERAL VENOMOTOR CONTROL IN THERMAL STRESS.....	5R01 HL17732-04	77,536
STOLWIJK, JAN A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05692-10	46,821
ORGANIZATION TOTAL	12	912,056	
YALE UNIVERSITY ZIP CODE 06520			
ADELBERG, EDWARD A.....	AMINO ACID TRANSPORT MUTANTS OF MAMMALIAN CELLS.....	1R01 AM25853-01	26,612
ALTMAN, SIDNEY.....	TRNA: STUDIES OF PRECURSORS, MUTANTS AND FUNCTION.....	5R01 GM19422-08	100,455
APFEL, ROBERT E.....	CHARACTERIZATION OF BIOMATERIALS BY ELASTIC PROPERTY.....	5R01 HL22233-02	38,153
ARMITAGE, IAN M.....	MULTINUCLEAR NMR PROBES OF BIOLOGICAL SYSTEMS.....	2R01 AM18778-04	89,565
ARONSON, PETER S.....	TRANSPORT MECHANISMS IN PROXIMAL CONVOLUTED TUBULE.....	5R01 AM20847-02	11,942
ASKENASE, PHILIP W.....	IMMUNOLOGY OF CUTANEOUS BASOPHIL HYPERSENSITIVITY.....	5R01 AI12211-06	121,200
BARNETT, RUSSELL J.....	CELL BIOLOGY OF PLASMA MEMBRANES.....	5R01 AM03688-20	124,110
BARTHOLO, STEPHEN W.....	TRANSMISSIBLE MURINE COLONIC HYPERPLASIA.....	2R26 CA15405-06	49,142
BAUE, ARTHUR E.....	SURGICAL ASPECTS OF SHOCK AND HYPOXIA.....	5R01 HL19673-04	142,757
BEATY, BARRY J.....	BUNYAVIRUS REASSORTANTS IN MOSQUITOES.....	1R01 AI15426-01	48,473
BEATY, BARRY J.....	EARLY DIAGNOSIS OF LA CROSSE ARBOVIRAL ENCEPHALITIS.....	5R01 AI15641-02	74,123
BECK, GERALD.....	COMMUNITY STUDIES OF OBSTRUCTIVE LUNG DISEASE.....	5R01 HL21352-03	51,366
BEHRMAN, HAROLD R.....	CONTROL OF CORPUS LUTEUM REGRESSION.....	5R01 HD10718-03	77,503
BENZ, EDWARD J, JR.....	DELTA & BETA GLOBIN GENE EXPRESSION IN HUMAN RED CELLS.....	1R01 HL24385-01	46,500
BERNARD, GARY D.....	OPTICAL INFORMATION PROCESSING IN EYES.....	5R01 EY01140-07	89,222
BERSON, JEROME A.....	DNA, PHOTOSYNTHESIS, AND THE CHEMISTRY OF TRIPLETS.....	5R01 GM23375-03	56,881
BERTINO, JOSEPH R.....	MECHANISM OF ACTION OF FOLATE ANTAGONISTS.....	3R01 CA08010-15S1	9,075
BERTINO, JOSEPH R.....	CLINICAL PHARMACOLOGY AND CANCER CHEMOTHERAPY.....	5P01 CA08341-14	1,073,748
BERTINO, JOSEPH R.....	QUINAZOLINE ANALOGS OF FOLIC ACID THERAPEUTIC AGENTS.....	5R26 CA24887-02	32,972
BIANCANI, PIERO.....	BIOPHYSICAL PRINCIPLES OF PERISTALTIC PHENOMENA.....	2R01 AM16021-08	107,513
BINDER, HENRY J.....	INTESTINAL ELECTROLYTE TRANSPORT IN HEALTH AND DISEASE.....	2R01 AM14669-09	160,089
BITENSKY, MARK W.....	MEMBRANE PROTEINS & CYCLIC GMP COORDINATED INTERACTION.....	5R01 AM20179-07	120,335
BITENSKY, MARK W.....	INTERACTIONS OF VIBRIO CHOLERA ENTEROTOXIN.....	5R01 CA22301-02	54,844
BOCKELMAN, CHARLES K.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07015-14	160,224
BOULPAEP, EMILE L.....	FUNCTIONAL STRUCTURE OF RENAL TUBULE.....	5R01 AM13844-10	84,329
BOYER, JAMES L.....	MECHANISM OF BILE SECRETION AND CHOLESTASIS.....	5R01 AM25636-02	180,613
BRACKEN, MICHAEL.....	PREGNANCY COMPLICATIONS AFTER INDUCED ABORTION.....	1R01 HD11357-01A1	226,821
BRAVERMAN, IRWIN M.....	ROLE OF MICROCIRCULATION IN CUTANEOUS DISORDERS.....	5R01 AM15739-08	124,282
BRAVERMAN, IRWIN M.....	PATHOGENESIS OF MYCOSIS FUNGOIDES.....	5R01 AM21153-02	74,471
BREAKEYFIELD, XANDRA O.....	BIOCHEMICAL AND GENETIC ANALYSIS OF MONOAMINE OXIDASE.....	2R01 NS12105-04A1	61,298
BREG, W ROY.....	CYTOGENETIC STUDIES IN MENTAL RETARDATION.....	5R01 HD11624-03	62,079
CADMAN, EDWIN C.....	RATIONAL SEQUENCING OF NUCLEOSIDE DRUG ANALOGUES.....	5R23 CA24187-02	34,512
CADMAN, EDWIN C.....	PURINE AND PYRIMIDINE SYNTHESIS INHIBITORS.....	1R01 CA27130-01	33,767
CANELLAKIS, EVANGELO S.....	RESEARCH TEAMS FOR ANTITUMOR DRUG DEVELOPMENT.....	5R01 CA23153-02	137,580
CANELLAKIS, EVANGELO S.....	REGULATION OF ENZYME ACTIVITY IN NORMAL & TUMOR CELLS.....	1R01 CA26546-01	88,938
CARIDE, VICENTE J.....	LIPOSOME MYOCARDIAL UPTAKE IN INFARCT AND ISCHEMIA.....	5R01 HL22470-02	106,880
CARTER, DAVID M.....	MODEL SYSTEMS TO STUDY ACCELERATED CUTANEOUS AGING.....	5P01 AG01012-02	322,378
CARTER, DAVID M.....	CELL RESPONSE TO DNA DAMAGE BY UV AND OTHER MUTAGENS.....	5R01 AM21784-08	93,901
CASALS-ARIET, JORDI.....	SUPPORT FOR WORLD REFERENCE CENTER FOR ARBOVIRUSES.....	5R01 AI10984-08	95,794
CASTLE, JOHN D.....	MOLECULAR EVENTS OF EXOCYTOSIS. IN VITRO STUDIES.....	1R01 GM26524-01	78,170
CHANDLER, WILLIAM K.....	ELECTRICAL AND CONTRACTILE PROPERTIES OF MUSCLE.....	5R01 NS07474-13	191,821
COHEN, LAWRENCE B.....	OPTICAL STUDIES OF NEURON ACTIVITY AND ORGANIZATION.....	5R01 NS08437-11	112,684
COLE, CHARLES N.....	CONTROL OF TUMOR VIRUS GENE EXPRESSION.....	5R01 CA22228-03	75,301
COLE, JACK W.....	CANCER CENTER SUPPORT GRANT.....	3P30 CA16359-04S1	340,167
COLE, JACK W.....	CANCER CENTER SUPPORT GRANT.....	3P30 CA16359-05	2,115,890
COLE, PATRICIA E.....	RNA-PROTEIN RECOGNITION IN RNA REPLICATION.....	5R01 GM26109-02	71,300
COLEMAN, JOSEPH E.....	METALLOENZYME SYNTHESIS, STRUCTURE AND FUNCTION.....	5R01 AM09070-15	80,834
COLEMAN, JOSEPH E.....	STRUCTURE AND FUNCTION OF DNA BINDING PROTEINS.....	5R01 GM21919-05	76,724
COLLINS, WILLIAM F, JR.....	A CENTER FOR ACUTE SPINAL CORD INJURY.....	5P50 NS10174-08	998,260
COLLINS, WILLIAM F, JR.....	METHYLPREDNISOLONE AND SPINAL CORD TRAUMA.....	1R01 NS15078-01	185,808

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
CONN, HAROLD O.	PORTAL SYSTEMIC SHUNTS AND COMPLICATIONS	2R01 AM18897-05	55,394
CONTRERAS, ROBERT J.	BEHAVIORAL ASPECTS OF SALT INTAKE AND HYPERTENSION	1R23 HL24732-01	43,633
COOPER, JACK R.	CHOLINERGIC NERVE ENDING PARTICLES	5R01 NS09836-08	63,978
COTLIER, EDWARD M.	BIOCHEMICAL STUDIES IN NORMAL AND CATARACTOUS LENSES	5R01 EY02490-03	140,651
COTLIER, EDWARD M.	INSULIN & GROWTH HORMONE RECEPTORS IN RETINAL VESSELS	1R01 EY02905-01	100,645
CROTHERS, DONALD M.	NATURAL AND ARTIFICIAL CONTROL OF DNA FUNCTION	2R01 CA15583-06	99,020
CROTHERS, DONALD M.	MACROMOLECULAR CONFORMATION AND DYNAMICS	5R01 GM21966-05	75,038
CROTHERS, DONALD M.	FRACTIONATION OF EUKARYOTIC DNA	5R01 GM25245-02	64,763
DANNIES, PRISCILLA S.	REGULATION OF HORMONE SYNTHESIS AND SECRETION	5R01 HD11487-02	54,953
DE FRONZO, RALPH A.	GLUCOSE INTOLERANCE AND AGING	5R01 AG00764-03	116,362
DE FRONZO, RALPH A.	INSULIN ACTION & INSULIN SECRETION IN HEALTH AND DISEASE	5R01 AM24092-02	103,573
DE LORENZO, ROBERT J.	PROTEIN PHOSPHORYLATION, EPILEPSY, & ANTICONVULSANTS	5R01 NS13632-03	29,235
DONALDSON, ROBERT M, JR.	BINDING AND TRANSPORT FUNCTIONS OF INTESTINAL MICROVILLI	5R01 AM17509-07	70,914
DOUGLAS, WILLIAM W.	STIMULUS-SECRETION COUPLING: CHROMAFFIN AND OTHER CELLS	5R01 NS09137-10	128,855
DOWNING, S EVANS	MYOCARDIAL PERFORMANCE AND METABOLISM IN THE NEWBORN	2R01 HL08659-15	125,124
DOWNING, S EVANS	RELATIONSHIP OF INSULIN TO CATECHOL CARDIOMYOPATHY	5R01 HL20401-04	102,304
DWYER, JOHN M.	CELLULAR IMMUNITY AND HUMAN DISEASE	5R01 AI11785-06	77,159
EBBERT, ARTHUR, JR.	GENERAL CLINICAL RESEARCH CENTERS—ADULT & CHILDREN	2M01 RR00125-16	1,391,254
EBBERT, ARTHUR, JR.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05358-18	201,413
EISENSTADT, JEROME M.	CYTOPLASMIC INHERITANCE IN CULTURED MAMMALIAN CELLS	5R01 GM21873-05	111,910
EISENSTADT, JEROME M.	REGULATION OF MAMMALIAN MITOCHONDRIAL BIOGENESIS	5R01 GM22142-04	40,403
EISENSTADT, JEROME M.	CHROMOSOME MEDIATED GENE TRANSFER IN CULTURED CELLS	5R01 GM24353-02	79,716
ENGELMAN, DONALD M.	CHOLESTERYL ESTERS IN MEMBRANES AND ATHEROSCLEROSIS	5R01 HL14111-08	62,286
ERNEST, MICHAEL J.	HORMONAL CONTROL OF TYROSINE AMINOTRANSFERASE MRNA	5R01 AM22030-02	57,289
EVANS, ALFRED S.	IMMUNOLOGY OF PERSISTENT INFECTIONS WITH EB VIRUS	5R01 CA12952-07	157,310
EVANS, ALFRED S.	CHILDHOOD ENVIRONMENT AND HODGKIN'S DISEASE	5R01 CA19499-03	58,839
EVANS, ALFRED S.	PREPARE BOOK ON BACTERIAL INFECTIONS OF HUMANS	1R01 LM03299-01	50,879
FALLER, JOHN W.	METAL CHELATE PROBES OF DNA-DRUG INTERACTIONS	5R01 CA21490-02	54,777
FARQUHAR, MARILYN G.	GLOMERULAR CAPILLARIES: NORMAL AND PATHOLOGIC	2R01 AM17724-05	127,239
FARQUHAR, MARILYN G.	STUDIES OF SECRETION IN PITUITARY AND OTHER CELLS	5R01 AM17780-06	134,377
FELIG, PHILIP	HORMONES, SUBSTRATES & LIVER IN GLUCOSE HOMEOSTASIS	5R01 AM13526-10	130,400
FISCHER, DIANA B.	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	5R10 CA21194-03	71,717
FISCHER, JAMES J.	RADIATION THERAPY AND BIOLOGY RESEARCH PROGRAM	2P01 CA06519-17	1,504,557
FIXMAN, MARSHALL	PROBLEMS IN THEORETICAL CHEMISTRY AND POLYMERS	5R01 GM13556-15	4,278
FORBES, THOMAS R.	THE EMERGENCE OF BRITISH FORENSIC MEDICINE	1R01 LM03266-01	22,458
FORGET, BERNARD G.	MOLECULAR BIOLOGY OF THALASSEMIA	2R01 AM19482-04	134,931
FORGET, BERNARD G.	CONTROL OF HUMAN FETAL HEMOGLOBIN SYNTHESIS	5R01 HL20922-03	68,570
FRANCKE, BERTOLD R.	GENE FUNCTIONS OF HERPES SIMPLEX VIRUS	1R01 AI15644-01	121,519
FRANCKE, UTA	INTRACHROMOSOMAL GENE MAPPING IN MAN	5R01 GM26105-02	107,375
FRIEDLAENDER, GARY E.	IMMUNOBIOLOGY OF BONE TUMORS AND BONE ALLOGRAFTS	5R01 CA22267-03	69,518
FRUTON, JOSEPH S.	PROTEIN CONFORMATION AND ENZYME CATALYSIS	5R01 GM18172-09	66,761
GALARDY, RICHARD E.	THE SYNTHESIS AND PROPERTIES OF MEMBRANE PEPTIDES	1R01 GM25702-01	56,599
GALL, JOSEPH G.	THE ORGANIZATION OF ANIMAL CELL NUCLEI	2R01 GM12427-16	152,441
GAREN, ALAN	HORMONAL CONTROLS OF DROSOPHILA DEVELOPMENT	5R01 GM24764-02	72,800
GEE, J BERNARD	OBSTRUCTIVE LUNG DISEASE & ALVEOLAR MACROPHAGES	2R01 HL19237-04	88,770
GEHA, ALEXANDER S.	SURGICAL ASPECTS OF MYOCARDIAL HYPERTROPHY	2R01 HL19182-04	191,775
GERLT, JOHN A.	ENZYMOLGY OF PHOSPHORUS METABOLISM	3R01 GM22350-03S1	7,143
GERLT, JOHN A.	ENZYMOLGY OF PHOSPHORUS METABOLISM	2R01 GM22350-04	83,667
GERSHON, RICHARD K.	RESPONSE OF THYMUS-DERIVED CELLS TO ANTIGEN	2R01 AI10497-09	119,908
GERSHON, RICHARD K.	IMMUNE RESPONSES TO TUMOR GRAFTS	3R01 CA08593-13S1	43,127
GERSHON, RICHARD K.	CHARACTERIZATION OF LYMPHOID POPULATIONS IN CANCER	5R01 CA14216-07	131,585
GIEBISCH, GERHARD H.	CARDIOVASCULAR & METABOLIC ASPECTS OF MEMBRANE TRANSPORT	2P01 AM17433-06	902,232
GILLIS, CHARLES N.	DISPOSITION OF VASOACTIVE HORMONES IN MAMMALIAN LUNG	2R01 HL13315-09	106,495
GILLIS, CHARLES N.	ADRENERGIC RECEPTORS IN PULMONARY VASCULAR MUSCLE	5R01 HL23245-02	86,178
GLASER, GILBERT H.	NEUROLOGICAL RESEARCH CENTER (EPILEPSY)	5P50 NS06208-14	223,519
GLENN, WILLIAM W.	REMOTE STIMULATION BY RADIO-FREQUENCY TRANSMISSION	5R01 HL04651-20	126,591
GODSON, GODFREY N.	DNA REPLICATION IN SMALL VIRUSES	5R01 AI11633-05	62,980
GOLDSMITH, TIMOTHY H.	VISUAL MECHANISMS	2R01 EY00222-19	98,937
GOLDSMITH, TIMOTHY H.	AVIAN COLOR VISION	1R01 EY03266-01	33,831
GREENGARD, PAUL	METABOLIC BASIS OF NEURAL FUNCTION	5R01 NS08440-11	84,740

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
GREGERSON, DALE S.....	THE NATURE AND ROLE OF ANTIIMMUNE RESPONSES IN UVEITIS.....	1R01 EY02365-01A1	108,057
GREGORY, DOUGLAS S.....	MECHANISM OF CONTROL OF AQUEOUS HUMOR FORMATION.....	3R01 EY01630-03S1	72,047
GRIFFITH, BRIGITTE P.....	HOST DEFENSE IN CONGENITAL CYTOMEGALOVIRUS INFECTION.....	1R23 AI16028-01	34,503
GROSS, IAN.....	PHOSPHOLIPID SYNTHESIS BY FETAL LUNG IN CULTURE.....	2R01 HL19752-04	105,351
HAMMOND, GRAEME L.....	CARDIOPULMONARY BYPASS AND THE VASCULAR ENDOTHELIUM.....	5R01 HL22244-02	99,088
HARDIN, JOHN A.....	BIOLOGICAL ROLE OF 8-IGM IN RHEUMATIC DISEASES.....	1R01 AM21603-01A1	99,508
HASELTINE, FLORENCE P.....	MECHANISMS OF SEX DIFFERENTIATION.....	1R01 HD12289-01	67,140
HAYSLETT, JOHN P.....	STUDY OF THE MECHANISM OF RENAL POTASSIUM ADAPTATION.....	2R01 AM18061-06	86,101
HAYSLETT, JOHN P.....	CONTROLLING POTASSIUM TRANSPORT IN INTESTINAL TISSUE.....	3R01 AM18777-03S1	25,166
HELLER, JOHN S.....	POST-TRANSLATIONAL CONTROL OF ORNITHINE DECARBOXYLASE.....	1R01 GM26559-01	68,198
HERRUP, KARL F.....	CNS DEVELOPMENT: A GENETIC AND CELL SURFACE STUDY.....	5R01 HD12213-02	83,929
HODSON, CECIL J.....	ULTRASONIC MONITORING OF VISCERAL BLOOD VESSELS.....	5R01 HL19791-03	86,809
HOFFMAN, JOSEPH F.....	MEMBRANE TRANSPORT PROCESSES IN RED BLOOD CELLS.....	5R01 HL09906-14	136,579
HOFFMAN, RONALD.....	REGULATION OF ERYTHROPOIESIS IN CANCER.....	5R01 CA22697-02	51,081
HORSTMANN, DOROTHY M.....	RESPONSES TO RUBELLA VIRION AND SUBUNIT VACCINES.....	2R01 AI11788-10	96,856
HORSTMANN, DOROTHY M.....	PATHOGENESIS & BIOLOGY OF EPSTEIN-BARR VIRUS INFECTIONS.....	1P01 AI14741-01A1	313,181
HORVATH, CSABA G.....	NOVEL HYDROPHOBIC INDEX FOR LFER OF ANTITUMOR AGENTS.....	5R01 CA21948-03	74,729
HORVATH, CSABA G.....	LIQUID CHROMATOGRAPHY OF BIOLOGICAL SUBSTANCES.....	5R01 GM20993-05	87,194
HOWARD-FLANDERS, PAUL.....	CROSS-LINKING OF NUCLEOPROTEINS BY RADIATION.....	5R01 GM11014-19	75,580
HSIUNG, GUEH-DJEN.....	EXPERIMENTAL MODELS FOR CYTOMEGALOVIRUS INFECTIONS.....	2R01 HD10609-04	89,340
HUBBARD, ANN L.....	CELL SURFACE SIALOGLYCOPROTEINS.....	5R01 GM23669-03	81,398
HUSZAR, GABOR B.....	URINARY 3MH EXCRETION AND METABOLIC STATE OF INFANTS.....	5R01 HD12183-02	65,540
HUTCHINSON, FRANKLIN.....	EFFECTS OF THE ANTITUMOR AGENT BLEOMYCIN ON DNA.....	3R01 CA17938-03S1	14,700
JACOBY, ROBERT O.....	GENETIC RESISTANCE TO LETHAL FLAVIVIRAL ENCEPHALITIS.....	5R01 AI14712-02	72,649
JACOBY, ROBERT O.....	RESOURCE FOR STUDY OF LABORATORY ANIMAL DISEASES.....	5P40 RR00393-12	310,899
JAMIESON, JAMES D.....	CELL SECRETION AND MEMBRANE FORMATION IN THE PANCREAS.....	5R01 AM17389-07	112,723
JANEWAY, CHARLES A, JR.....	THE SPECIFICITY OF T LYMPHOCYTE RECEPTORS.....	5R01 AI13766-03	49,230
JANEWAY, CHARLES A, JR.....	INFLUENCE OF H-2 ANTIGENS ON MOUSE T CELL RESPONSES.....	5R01 AI14579-02	73,987
KANKEL, DOUGLAS R.....	NERVOUS SYSTEM DEVELOPMENT AND SYNAPSE FORMATION.....	5R01 NS11788-06	71,376
KANKEL, DOUGLAS R.....	ACETYLCHOLINESTERASE: GENETICS-NEUROBIOLOGY.....	5R01 NS12346-05	75,496
KANKEL, DOUGLAS R.....	CONTROL OF VISUAL NEURON MORPHOLOGY: GENETIC ANALYSES.....	1R01 NS14877-01	32,075
KANTOR, FRED S.....	INTERPLAY OF HUMORAL FACTORS IN CELLULAR IMMUNITY.....	5R01 AI11077-07	153,091
KASHGARIAN, MICHAEL.....	THE PATHOLOGY OF RECOVERY FROM ACUTE RENAL INJURY.....	5R01 AM19930-03	62,007
KELSEY, JENNIFER L.....	ESTROGENS AND GENITAL CANCERS, A CASE-CONTROL STUDY.....	5R01 CA20556-03	179,172
KELSEY, JENNIFER L.....	FIBROCYSTIC BREAST DISEASE: EPIDEMIOLOGY & HISTOLOGY.....	1R01 CA26021-01	224,440
KELSEY, JENNIFER L.....	EPIDEMIOLOGY OF PROLAPSED LUMBAR AND CERVICAL DISCS.....	1R01 NS15230-01	215,181
KESSEN, WILLIAM.....	TEMPORAL ASPECTS OF YOUNG INFANTS' VISUAL PERCEPTION.....	5R01 HD11104-02	105,940
KIDD, KENNETH K.....	GENETICS OF HUMAN BEHAVIORAL DISORDERS: STUTTERING.....	5R01 NS11786-06	83,473
KIRCHNER, JOHN A.....	STUDY OF HEAD AND NECK CANCER BY SERIAL SECTION.....	5R01 CA22101-03	42,617
KIRK, R GARY.....	MEMBRANE TRANSPORT IN BLOOD CELLS AND TISSUE.....	5R01 AM21391-02	111,568
KITAHATA, LUKE M.....	NEUROPHARMACOLOGY-ANESTHESIA AND THE NERVOUS SYSTEM.....	5R01 NS09871-08	121,197
KLEINHAUS, ANNA L.....	NEURONAL EFFECTS OF CONVULSANT/ANTICONSULSANT DRUGS.....	5R01 NS08851-08	54,756
KONIGSBERG, WILLIAM H.....	RELATION OF PROTEIN STRUCTURE TO BIOLOGICAL FUNCTION.....	5R01 GM12607-15	155,755
KONIGSBERG, WILLIAM H.....	PURIFICATION OF TISSUE FACTOR (THROMBOPLASTIN).....	5R01 HL22957-02	75,925
KRASIN, FRANK L.....	A STUDY OF DOUBLE-STRAND BREAK REPAIR IN CELLULAR DNA.....	5R01 GM25260-02	32,591
LA MOTTE, ROBERT H.....	NEUROPHYSIOLOGY OF PAIN ADAPTATION AND HYPERALGESIA.....	5R01 NS14624-02	48,559
LAI, YIN-LOK.....	PERIPHERAL RETINAL DEGENERATION IN FISCHER RATS.....	5R01 EY02542-02	76,395
LAKS, HILLEL.....	MICROCIRCULATION OF THE HEART DURING CARDIAC SURGERY.....	1R01 HL24328-01	179,094
LANDMESSER, LYNN T.....	DEVELOPMENTAL AND TROPIC NEURAL INTERACTIONS.....	5R01 NS10666-08	55,615
LENGYEL, PETER.....	INTERFERON, ANIMAL VIRUSES AND PROTEIN SYNTHESIS.....	5R01 AI12320-05	96,359
LENER, AARON B.....	VITILIGO CENTER GRANT.....	1P50 AM25252-01	461,049
LENER, AARON B.....	BIOLOGY OF NORMAL AND MALIGNANT MELANOCYTES.....	5R01 CA04679-20	342,445
LEWIS, SIMON A.....	MODELING NA/IONS TRANSPORT IN MAMMALIAN URINARY BLADDER.....	5R01 AM20851-02	85,769
LI VOLSI, VIRGINIA A.....	THE ORIGIN OF THE OSTEOCLAST.....	5R01 AM20363-03	63,994
LIFTER, JOHN.....	BIOCHEMICAL STUDIES OF MEMBRANE BOUND IMMUNOGLOBULIN.....	5R01 CA25758-02	83,661
LOKE, JACOB S.....	SMOKE INHALATION: BIOCHEMICAL AND CELLULAR RESPONSES.....	5R23 HL22895-02	45,305
LYTTON, BERNARD.....	LOCALIZATION OF RENAL STONES WITH ULTRASOUND.....	5R01 AM19765-02	24,351
MACNAB, ROBERT M.....	PRINCIPLES OF SENSORY RECEPTION AND MOTOR FUNCTION.....	5R01 AI12202-06	62,693
MAGEE, PAUL T.....	STRUCTURE OF CHROMATIN FROM MEIOTIC YEAST.....	1R01 GM25258-01	37,930
MALAWISTA, STEPHEN E.....	BIOPHYSICAL MECHANISMS IN LEUKOCYTES AND MELANOCYTES.....	5R01 AM10493-14	137,433

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
MALAWISTA, STEPHEN E.	CONTROL OF LYSOSOMAL MOVEMENTS IN HUMAN LEUKOCYTES	5R01 AM19742-03	61,429
MALECH, HARRY L.	ANTIBODY BINDING TO HUMAN NEUTROPHILS	5R23 AI15252-02	46,500
MANUELIDIS, ELIAS E.	EXPERIMENTAL CREUTZFELDT-JAKOB DISEASE	2R01 NS12674-04	119,837
MANUELIDIS, LAURA M.	PATHOGENETIC DETERMINANTS OF HUMAN CNS TUMORS	5R01 CA15044-06	52,130
MARCHESI, SALLY L.	GLYCOPROTEINS OF PLATELET MEMBRANE AND PLATELET FUNCTION	5R01 HL20140-03	28,286
MARSH, JOHN C.	EASTERN COOPERATIVE ONCOLOGY GROUP—CLINICAL STUDIES	5R10 CA15485-06	124,435
MC COLLUM, ROBERT W.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05443-18	105,203
MC GUIRE, EDWARD J.	PERIPHERAL AND CENTRAL INNERVATION OF THE URINARY TRACT	5R01 AM21485-02	66,026
MC GUIRE, JOSEPH S.	CONTROL OF EPIDERMAL CELL DIFFERENTIATION	5R01 AM13929-10	146,908
MEIGS, J WISTER	CANCER IN PERSONS EXPOSED TO EXOGENOUS ESTROGENS	5R01 CA20347-04	55,750
MEIGS, J WISTER	POPULATION BASED STUDY OF LOWER URINARY TRACT TUMORS	1R26 CA26692-01	47,570
MICHAEL, CHARLES R.	NEUROPHYSIOLOGY OF ALL-CONE VISION	5R01 EY00568-11	100,544
MILLER, I GEORGE, JR	STUDIES OF EPSTEIN-BARR VIRUS	2R01 CA12055-08	117,261
MILLER, WILLIAM H.	STRUCTURE AND FUNCTION OF EYES	5R01 EY00089-15	71,835
MILLER, WILLIAM H.	PHOTORECEPTOR FUNCTION	1R01 EY03196-01	88,709
MOORE, PETER B.	RIBOSOME STRUCTURE AND FUNCTION	5R01 AI09167-11	97,311
MOOSEKER, MARK S.	MICROVILLAR MOVEMENT IN INTESTINAL EPITHELIAL CELLS	1R01 AM25387-01	94,996
MURPHY, DONAL B.	EXPRESSION OF IA LOCI IN SUBCLASSES OF LYMPHOCYTES	5R01 AI14349-03	85,577
ODGEN, JOHN A.	NORMAL AND ABNORMAL POSTNATAL SKELETAL DEVELOPMENT	5R01 HD10854-03	81,594
ORNSTON, L NICHOLAS	ORIGINS OF METABOLIC DIVERSITY	5R01 GM25487-02	78,969
OTVOS, JAMES D.	MULTINUCLEAR NMR INVESTIGATIONS OF METALLOTHIONEIN	5R23 ES01674-02	35,104
PALADE, GEORGE E.	CELLULAR MEMBRANES RESEARCH CENTER	5P50 GM21714-05	640,484
PALADE, GEORGE E.	TEM-SEM-X-RAY MICROANALYSIS ELECTRON MICROSCOPE	1P41 GM27574-01	165,000
PALADE, GEORGE E.	LOCALIZATION OF PORE SYSTEMS IN CAPILLARY WALLS	5R01 HL17080-06	169,859
PAPERMASTER, DAVID S.	MEMBRANE BIOSYNTHESIS IN NORMAL AND DYSTROPHIC RETINA	5R01 EY00845-06	80,707
PAPERMASTER, DAVID S.	IMMUNOCYTOCHEMISTRY OF MEMBRANE BIOSYNTHESIS IN EYE	1R01 EY03239-01	107,965
PATTON, CURTIS L.	CYCLOC AMP AND REGULATION IN TRYPAANOSOMES	1R01 AI15742-01	93,603
PAWLEK, JOHN M.	INSULIN AND THE REGULATION OF THE MELANOMA PHENOTYPE	5R01 AM23032-02	20,128
PEARSON, HOWARD A.	MANAGEMENT OF HEMOSIDEROSIS IN THALASSEMIA	3R01 HL19961-03S1	16,586
PINCUS, JONATHAN H.	SYNAPTIC TRANSMISSION OF CONVULSANT/ANTICONVULSANT DRUGS	1R01 NS15145-01	45,947
PLATT, TERRY.	REGULATORY SEQUENCES IN TRP OPERON MRNA OF E COLI	2R01 GM22830-04	95,723
POULSON, DONALD F.	STUDIES ON HEREDITARY ANDROCIDAL INFECTIONS	5R01 AI10467-08	110,936
POWLEY, TERRY L.	HYPOTHALAMIC CONTROL OF BODY WEIGHT AND FEEDING	5R01 AM15511-09	56,995
PRESTEGARD, JAMES H.	NMR INVESTIGATIONS OF VESICULAR MEMBRANES	5R01 GM19035-08	72,259
PRESTEGARD, JAMES H.	SOUTHERN NEW ENGLAND HIGH FIELD NMR FACILITY	3P41 RR00798-05S1	31,080
PRUSOFF, WILLIAM H.	IODODEOXYURIDINE, IODO-DNA, AND BIOLOGICAL ACTIVITY	2R01 CA05262-19	168,903
RAE, PETER M.	GENE INTERRUPTIONS IN DROSOPHILA	1R01 GM26378-01	87,014
RAKIC, PASKO T.	PRENATAL DEVELOPMENT OF THE PRIMATE VISUAL SYSTEM	5R01 EY02593-02	118,648
RAKIC, PASKO T.	NEUROGENETIC PROCESSES IN THE FETAL BRAIN	2R01 NS14841-02	163,590
RASMUSSEN, HOWARD	HORMONAL AND IONIC CONTROL OF METABOLISM	5R01 AM19813-04	243,169
RASMUSSEN, HOWARD	UROLITHIASIS CENTER	5P50 AM20570-03	439,513
RASMUSSEN, HOWARD	CELLULAR EVENTS IN BONE REMODELING OF TOOTH MIGRATION	5R01 DE04724-03	96,099
REID, TED W.	ROLE OF GLUTAMINE TRANSFERASE IN THE RETINA	2R01 EY01656-04	70,937
REID, TED W.	GROWTH AND METABOLISM OF RETINAL CELLS	1R01 EY02709-01	91,272
REYNOLDS, HERBERT Y.	IMMUNE RESPONSES IN THE HUMAN LUNG	5R01 HL22302-02	48,087
RICHARDS, FRANK F.	STUDY OF POLYFUNCTIONAL ANTIBODY-COMBINING REGIONS	5R01 AI08614-12	126,116
RICHARDS, FRANK F.	MECHANISM OF ANTIGENIC VARIATION IN T. CONGOLENSIS	1R01 AI15530-01	74,924
RICHARDS, FREDERIC M.	PROGRAM IN MACROMOLECULAR STRUCTURE, MOTION, CONTROL	5P01 GM22778-04	476,732
RITCHIE, J MURDOCH	STUDY OF C FIBERS	2R01 NS08304-12	93,425
RITCHIE, J MURDOCH	DEMYELINATING DISEASE—BIOPHYSICS OF NERVE DYSFUNCTION	5R01 NS12327-05	67,362
ROONEY, SEAMUS A.	EFFECT OF HORMONES ON LUNG PHOSPHOLIPID BIOSYNTHESIS	2R01 HD10192-04	200,559
ROONEY, SEAMUS A.	PULMONARY SURFACTANT PRODUCTION IN NEWBORN ANIMALS	5R01 HD10108-03	113,058
ROOT, RICHARD K.	HUMAN PHAGOCYTE FUNCTION IN HEALTH AND DISEASE	5R01 AI13251-04	119,851
ROSENBAUM, JOEL L.	SYNTHESIS AND ASSEMBLY OF MICROTUBULES	5R01 GM14642-13	118,881
ROSENBERG, LEON E.	METABOLISM OF AMINO ACIDS AND ORGANIC ACIDS	2R01 AM09527-15	123,283
ROSENBERG, LEON E.	TISSUE CULTURE STUDIES OF INBORN METABOLIC ERRORS	5R01 AM12579-11	178,120
ROSENBERG, LEON E.	STUDY OF HUMAN GENETICS AND INHERITED DISEASE	5P50 GM20124-07	740,182
ROSENZWEIG, MARK R.	DETERMINANTS OF CHILD MORTALITY	5R01 HD12172-02	82,982
RUDDLE, FRANK H.	SOMATIC CELL GENETIC APPROACHES TO THE STUDY OF AGING	1R01 AG01940-01	86,039
RUDDLE, FRANK H.	GENETIC ANALYSIS OF SOMATIC CELL POPULATIONS	5R01 GM09966-18	322,925

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
RUDDLE, NANCY H.....	PROPAGATION OF THYMUS-DERIVED LYMPHOCYTE LINES.....	5R01 CA16885-04	72,976
RUDDLE, NANCY H.....	MURINE LEUKEMIA VIRUS INDUCTION AND REPLICATION.....	5R01 CA21333-03	59,096
RUDNICK, GARY W.....	ION AND 5-HYDROXYTRYPTAMINE TRANSPORT BY PLATELETS.....	5R01 HL21217-02	64,820
SARTORELLI, ALAN C.....	BIOCHEMICAL PHARMACOLOGY OF ANTINEOPLASTIC AGENTS.....	5R01 CA02817-23	340,810
SASAKI, CLARENCE T.....	POSTNATAL RESPIRATORY DEVELOPMENT AS RELATED TO SIDS.....	5R01 HD09494-05	96,927
SCHAFER, DAVID E.....	PHYSICAL STUDIES OF ENTEROTOXIN-MEMBRANE INTERACTIONS.....	5R01 GM24704-02	41,745
SCHULZ, ROBERT J.....	CALORIMETRIC MEASUREMENT OF FRICKE DOSIMETER G VALUES.....	1R01 CA26348-01	84,988
SCHWARTZ, PAULINE M.....	ALLOPURINOL MODIFICATION OF 5-FLUOROURACIL TOXICITY.....	1R23 CA25742-01	24,374
SEARS, MARVIN L.....	PHYSIOLOGIC STUDIES OF INTRAOCULAR PRESSURE.....	5R01 EY00237-18	259,652
SEARS, MARVIN L.....	VISION RESEARCH CENTER.....	5P30 EY00785-09	274,891
SHAW, RICHARD K.....	LONG-TERM ASSESSMENT OF FLOW IN VASCULAR GRAFTS.....	1R01 HL22352-01A1	45,704
SHAYWITZ, BENNETT A.....	ONTOGENY OF BRAIN CATECHOLAMINES AND HYPERACTIVITY.....	3R01 NS12384-03S1	72,072
SHEPHERD, GORDON M.....	INTEGRATIVE MECHANISMS OF CORTICAL NEURONS.....	3R01 NS07609-12S1	12,647
SHEPHERD, GORDON M.....	INTEGRATIVE MECHANISMS OF CORTICAL NEURONS.....	5R01 NS07609-13	120,711
SHERWIN, ROBERT S.....	GLUCOREGULATORY HORMONE INTERACTIONS IN DIABETES.....	5R01 AM20495-03	79,119
SHOPE, ROBERT E.....	CONTROL OF ARBOVIRUS INFECTIONS OF MAN.....	5P01 AI1132-08	150,906
SHOPE, ROBERT E.....	ANTIGENIC PROPERTIES OF BACULOVIRUSES.....	5R01 AI13727-03	67,011
SHULMAN, ROBERT G.....	NMR STUDIES OF METABOLISM AND REGULATION IN CELLS.....	1R01 AM27121-01	499,316
SLAYMAN, CAROLYN W.....	GENETIC STUDY OF ION TRANSPORT IN NEUROSPORA.....	2R01 GM15761-11	104,764
SLAYMAN, CLIFFORD L, JR.....	ELECTROGENIC PUMPS IN NEUROSPORA: PROPERTIES, CONTROL.....	5R01 GM15858-12	119,660
SLIGAR, STEPHEN G.....	HEME PROTEIN REDUCTASES.....	5R01 GM24976-02	49,068
SOLL, DIETER G.....	AMINOACYL-TRNA IN AGING DROSOPHILA.....	1R01 AG01806-01	57,881
SOLL, DIETER G.....	TRANSFER RNA (BACTERIA, YEAST).....	3P01 GM22854-03S1	9,500
SOLL, DIETER G.....	TRANSFER RNA (BACTERIA, YEAST).....	5R01 GM22854-04	134,260
SOMAN, VIJAY R.....	GLUCAGON AND INSULIN RECEPTORS IN GLUCOSE METABOLISM.....	5R01 AM21158-03	53,607
STEERE, ALLEN C.....	LYME ARTHRITIS: A NEW EPIDEMIC DISEASE.....	5R01 AM20358-03	312,613
STEITZ, JOAN A.....	MOLECULAR MECHANISMS IN GENE EXPRESSION.....	9R01 GM26154-09	145,983
STEVENS, CHARLES F.....	MECHANISM OF NERVE EXCITATION.....	5R01 NS12961-04	74,586
STEVENS, CHARLES F.....	BASIC NEURAL MECHANISMS.....	5R01 NS12962-05	85,232
STURTEVANT, JULIAN M.....	PHYSICOCHEMICAL STUDIES OF BIOCHEMICAL REACTIONS.....	5R01 GM04725-23	77,369
SUMMERS, WILLIAM C.....	GENETIC STUDY OF ANIMAL VIRUSES.....	5R01 CA13515-07	82,189
SUSSEX, IAN M.....	EXPRESSION OF GENES CODING FOR BEAN STORAGE PROTEIN.....	5R01 GM24775-02	71,043
TANAKA, KAY.....	STUDIES OF DISEASES OF ORGANIC ACID METABOLISM.....	5R01 AM17453-07	102,043
TIGNOR, GREGORY H.....	RABIES SEROGROUP VIRUS INFECTIONS: IMMUNOPATHOLOGY.....	5R22 AI12541-05	80,467
TOMITA, TSUNEO.....	CELLULAR ORIGIN OF TRANSRETINAL POTENTIALS.....	5R01 EY02528-02	109,797
TRINKAUS, JOHN P.....	CONTACT BEHAVIOR OF DEVELOPING AND TRANSFORMED CELLS.....	5R01 CA22451-06	75,910
TRITTON, THOMAS R.....	MEMBRANE TARGETS IN CANCER CHEMOTHERAPY.....	1R01 CA24955-01	53,064
TSIEN, RICHARD W.....	PHARMACOLOGICAL CONTROL OF CARDIAC MEMBRANE CURRENTS.....	5R01 HL13306-09	132,426
VARGA, JANOS M.....	CELL CYCLE DEPENDENCE OF CELL SURFACE RECEPTORS.....	1R01 CA26081-01	83,450
WAKSMAN, BYRON H.....	SPECIFICITY AND INFORMATION TRANSFER IN SENSITIVITY.....	5R01 AI06455-15	119,563
WAKSMAN, BYRON H.....	IMMUNE RESPONSE IN EXPERIMENTAL TRYPAOSOMIASIS.....	5R01 AI13949-03	120,857
WAKSMAN, BYRON H.....	THE BEHAVIOR OF CELL SUSPENSIONS IN VITRO AND IN VIVO.....	5R01 CA23887-16	91,789
WARSHAW, JOSEPH B.....	CELLULAR ENERGY METABOLISM DURING FETAL DEVELOPMENT.....	5R01 HD08293-06	128,457
WARSHAW, JOSEPH B.....	PREVENTION OF PULMONARY OXYGEN TOXICITY IN THE NEWBORN.....	5R01 HD10949-02	87,369
WASSERMAN, HARRY H.....	SINGLET OXYGEN REACTIONS WITH ORGANIC SUBSTRATES.....	5R01 GM13854-13	120,522
WATERMAN, TALBOT H.....	PHOTORECEPTOR MEMBRANE TURNOVER CONTROLS.....	1R01 EY02929-01	96,417
WEINER, ALAN M.....	EXTRACHROMOSOMAL RIBOSOMAL RNA GENES OF DICTYOSTELIUM.....	1R01 GM26312-01	59,082
WEISS, ROBERT M.....	AGE DEPENDENT FACTORS IN URETERAL FUNCTION.....	5R01 AG00112-03	51,404
WEISSMAN, SHERMAN M.....	VIRAL TRANSFORMATION MOLECULAR BASIS—DNA VIRUS.....	2P01 CA16038-06	1,207,145
WEISSMAN, SHERMAN M.....	FUNCTION OF SV40 GENE PRODUCTS.....	5R01 CA16106-05	60,879
WYMAN, ROBERT J.....	THE GENETIC SPECIFICATION OF NEURAL CIRCUITS.....	5R01 NS07314-13	85,066
WYMAN, ROBERT J.....	GENETIC ANALYSIS OF THE NERVOUS SYSTEM.....	1R01 NS14887-01	34,750
YU, ROBERT K.....	GLYCOSPHINGOLIPIDS IN NORMAL AND MS NERVOUS SYSTEMS.....	5R01 NS11853-05	68,581
ZARET, BARRY L.....	SEQUENTIAL MULTINUCLIDE STUDY OF ACUTE INFARCTION.....	5R01 HL21690-03	177,291
ZIEGLER, FREDERICK E.....	SYNTHETIC STUDIES ON MACROLIDE ANTIBIOTICS.....	1R01 AI15617-01	90,408
ZIEGLER, FREDERICK E.....	SYNTHETIC STUDIES OF CYTOTOXIC NATURAL PRODUCTS.....	5R01 CA16432-06	94,493
ZIGLER, EDWARD F.....	COGNITION AND MOTIVATION IN RETARDED INDIVIDUALS.....	3P01 HD03008-12S1	26,403
ZIGLER, EDWARD F.....	COGNITION AND MOTIVATION IN RETARDED INDIVIDUALS.....	2P01 HD03008-13	405,304
ORGANIZATION TOTAL	288	39,488,350	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
STORRS			
UNIVERSITY OF CONNECTICUT	ZIP CODE 06268		
AMBELLAN, ELISABETH H.	GLUCOCORTICOID EFFECTS ON PROTEIN SYNTHESIS IN VITRO	5R01 AM19725-03	59,656
BAILEY, WILLIAM F.	WEAR OF DENTAL RESTORATIVE MATERIALS	5R23 DE04708-03	15,050
BERG, CLAIRE M.	TRANSPOSABLE ELEMENT MUTAGENESIS IN BACTERIA	2R01 AI14278-03	61,398
CHOVNIK, ARTHUR	GENETIC STUDIES IN DROSOPHILA MELANOGASTER	5R01 GM09886-18	179,248
CLARK, HUGH	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07014-14	114,546
COHEN, STEVEN D.	ORGANOPHOSPHATE ESTERASE INHIBITION & DRUG TOXICITY	5R01 ES01093-03	60,423
COONS, RONALD E.	QUARANTINES AND STEAMSHIPS AT TRIESTE, 1836-1851	1R01 LM03113-01	12,150
DAVID, CARL W.	POLYPEPTIDE SOLUTION CONFORMATION PREDICTION	1R01 GM26525-01	61,300
DENENBERG, VICTOR H.	LONGITUDINAL ASSESSMENT & HIGH RISK INFANT PREDICTION	1R01 HD12948-01	97,509
DRAKE, ALLEN D.	PHOTOELECTRIC IMPEDANCE MEASUREMENTS ON AUDITORY SYSTEM	1R01 NS15719-01	27,116
EPLING, GARY A.	PHOTOTOXICITY IN PHARMACOLOGICALLY ACTIVE COMPOUNDS	2R01 AI12200-04A2	49,670
FULLER, JAMES H.	MUSCULAR CONTROL OF HEAD MOVEMENTS	5R01 NS13809-02	33,904
GIACOBINI, EZIO	LOCALIZATION AND METABOLISM OF PIPECOLIC ACID IN CNS	1R01 NS15086-01	39,268
GOETINCK, PAUL F.	MOLECULAR BASIS OF NORMAL AND MUTANT LIMB DEVELOPMENT	5R01 HD09174-05	90,327
GOLDMAN, BRUCE D.	PHOTOPERIODIC REGULATION OF MAMMALIAN REPRODUCTION	5R01 HD05481-09	76,137
GOLDMAN, BRUCE D.	ENVIRONMENTAL AND HORMONAL FACTORS IN HIBERNATION	5R01 HD10478-03	30,330
GORDON, MALCOLM W.	TYROSYLATION OF TUBULIN IN DIFFERENTIATING TISSUES	5R01 NS14240-02	42,215
GOULD, STEVEN J.	BIOSYNTHETIC STUDIES USING 15N-13C CNMR SPECTROSCOPY	1R01 GM25996-01	70,767
HALL, BARRY G.	EXPERIMENTAL EVOLUTION OF LACTOSE UTILIZATION	5R01 AI14766-02	41,329
HENKEL, JAMES G.	SYNTHESIS AND STUDY OF NEW CNS ANTITUMOR AGENTS	1R01 CA25436-01	43,716
HEYWOOD, STUART M.	MOLECULAR CONTROLS IN MUSCLE DIFFERENTIATION	5R01 HD03316-11	105,507
HIGHTOWER, LAWRENCE E.	NDV INFECTION: ANALYSIS AT THE SUBCELLULAR LEVEL	5R01 HL23588-02	30,981
HITE, GILBERT J.	SYNTHESIS AND EVALUATION OF DES-4-AZAPENICILLINS	5R01 AI13773-02	36,024
JENSEN, ROBERT G.	LIPID STRUCTURE OF NORMAL AND HYPERLIPOPROTEINS	5R01 HL16807-03	71,693
KEGELES, GERSON	RELAXATION KINETICS OF RIBOSOME SUBUNIT INTERACTION	5R01 GM24062-03	40,300
KNOX, JAMES R.	A NEW APPROACH TO ENZYME-RESISTANT PENICILLINS	5R01 AI10925-07	70,084
KRAMER, PAUL A.	SPECIAL INITIATIVE GRANT FOR RESEARCH ON AGING	5R21 AG01168-02	81,993
KRIDER, HALLIE M.	BROU EFFECTS ON THE RIBOSOMAL DNA OF DROSOPHILA	5R01 GM23605-02	57,113
LANGNER, RONALD O.	LIPID FLUX AND COLLAGEN SYNTHESIS IN ATHEROSCLEROSIS	5R01 HL15478-06	56,033
LAUGHLIN, WILLIAM S.	BIOBEHAVIORAL ADAPTATION	1R01 AG01299-01	160,300
LUCAS-LENARD, JEAN M.	TRANSLATIONAL CONTROL MECHANISMS	5R01 AI15898-09	113,741
MARCUS, PHILIP I.	GENE EXPRESSION, VIRUS REPLICATION AND CELL GROWTH	2P01 CA14733-06	309,726
MARCUS, PHILIP I.	HOST CELL INTERACTION OF ANIMAL VIRUSES	5R01 CA20882-09	81,669
MAXSON, STEPHEN C.	EARLY EXPERIENCE, GENOTYPE, ENVIRONMENT AND BEHAVIOR	5R01 HD11220-03	54,596
MUGNAINI, ENRICO	ORGANIZATION AND DEVELOPMENT OF NERVOUS TISSUE	2R01 NS09904-09	97,005
ROMANO, ANTONIO H.	SUGAR TRANSPORT AND MALIGNANT TRANSFORMATION	5R01 CA14274-06	55,064
ROSENBERG, PHILIP	PROPERTIES OF CHEMICALLY MODIFIED PHOSPHOLIPASE A	5R01 NS14521-02	71,976
ROTH, JAY S.	DNASES AND LEUKEMIA	5R01 CA18543-02	47,941
ROTH, JAY S.	REDUCTION OF RIBONUCLEOTIDES IN NORMAL AND TUMOR TISSUES	5R01 CA22329-02	32,664
SACHS, BENJAMIN D.	ANALYSIS OF MASCULINE BEHAVIOR	5R01 HD08933-05	60,162
SCHUSTER, TODD M.	BIOPHYSICAL STUDIES OF VIRUS ASSEMBLY	5R01 AI11573-06	90,459
SCHUSTER, TODD M.	HEMEPROTEINS: STATIC & RAPID KINETIC MAGNETIC STUDIES	1R01 HL24644-01	48,167
SCHWARTING, ARTHUR E.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05743-02	28,990
SCHWARTING, ARTHUR E.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09078-02	90,808
SHAW, ROBERT E.	A STUDY OF GROWTH OF NORMAL AND ABNORMAL FACES	1R01 DE04990-01	107,097
SIMONELLI, ANTHONY P.	THE STUDY OF DISSOLUTION MECHANISMS FOR RENAL CALCULI	5R01 AM18891-02	57,165
SOMES, RALPH G, JR.	REGISTRY OF SPECIALIZED GENETIC STOCKS	5P40 RR00529-11	9,377
SPEYER, JOSEPH F.	MOLECULAR MECHANISMS OF INFORMATION TRANSFER	5R01 GM15697-12	76,920
SUSZKIW, JANUSZ B.	MECHANISM OF CHOLINERGIC TRANSMISSION	1R01 NS15674-01	73,205
YANG, TSU-JU T.	CELLS INVOLVED IN SPONTANEOUS REGRESSION OF TUMORS	5R01 CA23469-02	63,123
ZEAMAN, BETTY H.	READING-LIKE BEHAVIOR IN NONREADING RETARDED ADULTS	5R01 HD11158-03	54,776
ZEAMAN, DAVID	MINIATURE LANGUAGE SYSTEMS IN RETARDATES	1R01 HD12386-01	60,607
ORGANIZATION TOTAL	52	3,601,325	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
WEST HARTFORD			
UNIVERSITY OF HARTFORD	ZIP CODE 06117		
BECK, ANN F	SCIENCE, MEDICINE AND DEVELOPMENT IN EAST AFRICA	3R01 LM01803-04S2	2,136
GRAY, EDWARD T, JR	TRACE ANALYSIS OF AQUEOUS CHLORAMINES	1R23 ES02033-01	19,949
ORGANIZATION TOTAL	2 22,085		
STATE TOTAL	501 55,310,731		
DELAWARE			
NEWARK			
UNIVERSITY OF DELAWARE	ZIP CODE 19711		
BISCHOFF, KENNETH B	PHARMACOKINETICS OF THE NEUROTOXIN 2,5-HEXANEDIONE	1R01 ES02138-01	51,296
BOORD, ROBERT L	LATERAL LINE PATHWAYS	2R01 NS11272-06	46,858
COLMAN, ROBERTA F	EFFECT OF COENZYMES ON ENZYME STRUCTURE AND FUNCTION	5R01 AM17552-07	101,736
COLMAN, ROBERTA F	AFFINITY LABELS OF NUCLEOTIDE SITES IN DEHYDROGENASES	5R01 GM21200-06	39,383
FRANCIS, DAVID W	GENETIC STUDIES ON DEVELOPMENT OF POLYSPONDYLUM	5R01 GM24847-02	67,973
GRANDA, ALLEN M	PROCESSING OF VISUAL INFORMATION	2R01 EY01540-10	80,566
GRANDA, ALLEN M	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07016-06	59,479
MOLLOY, GEORGE R	STRUCTURE OF NUCLEAR RNA AND MESSENGER RNA FORMATION	3R01 CA19535-03S1	11,523
MUNSON, BURNABY	CI-MS STUDIES OF THERMOLABILE BIOMEDICAL COMPOUNDS	5R01 GM25269-02	53,920
NORTHMORE, DAVID P	FUNCTION IN GROWING AND REGENERATING VISUAL SYSTEMS	1R01 EY02697-01	45,107
PEASE, LILA G	PEPTIDE CONFORMATIONS AND INTERACTIONS WITH MEMBRANES	7R01 GM27616-01	36,663
PENE, JACQUES J	VIRAL CHROMOSOMES: MEMBRANE INTERACTIONS	1R01 AI16132-01	84,162
RECHNITZ, GARRY A	CLINICAL ANALYSIS WITH SELECTIVE MEMBRANE ELECTRODES	5R01 GM25308-02	61,641
RECHNITZ, GARRY A	BIO-SELECTIVE ELECTRODES USING LIVING BACTERIAL CELLS	1R01 GM25312-01	34,113
SCOTT, THOMAS R, JR	NEURAL CODING OF TASTE INFORMATION	5R01 NS10405-06	36,176
SIMMONS, DANIEL T	ORIGIN AND FUNCTION OF SV40-SPECIFIC TAU ANTIGENS	1R01 CA25942-01	64,001
SKEEN, LESLIE C	ORGANIZATION AND FUNCTIONS OF PREFRONTAL NEOCORTEX	5R01 NS14535-02	36,509
THORPE, COLIN	FLAVOPROTEINS IN FATTY ACID METABOLISM	1R01 GM26643-01	51,255
TRIPP, MARENES R	EFFECTS OF HYDROCARBONS ON DEFENSE MECHANISMS	5R01 ES01531-03	45,720
WAGNER, ROGER C	MICROPINOCYTOSIS IN ISOLATED CAPILLARY ENDOTHELIUM	5R01 HL16666-06	42,367
WETLAUFER, DONALD B	KINETICS AND MECHANISMS OF PROTEIN SELF-ASSEMBLY	5R01 GM23713-04	69,310
WRISTON, JOHN C, JR	GLYCOSYLATED L-ASPARAGINASE AND GLYCOSYLATED LIPOSOMES	5R01 GM25378-02	75,878
ORGANIZATION TOTAL	22 1,195,636		
WILMINGTON			
WILMINGTON MEDICAL CENTER	ZIP CODE 19801		
FRELICK, ROBERT W	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA20743-03	29,113
ORGANIZATION TOTAL	1 29,113		
STATE TOTAL	23 1,224,749		
DIST OF COL			
WASHINGTON			
AEROSPACE MEDICAL ASSOCIATION	ZIP CODE 20001		
BENFORD, ROBERT J	THE HERITAGE OF AVIATION MEDICINE	3R01 LM02656-02S1	3,433
ORGANIZATION TOTAL	1 3,433		
AMERICAN ASSOCIATION FOR DENTAL RESEARCH	ZIP CODE 20005		
GREEN, DANIEL B	BLOC TRAVEL FOR N.I.D.R. SUPPORTED INVESTIGATIONS	1R13 DE05614-01	75,104

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
DIST OF COL—Continued				
ORGANIZATION TOTAL	1	75,104		
AMERICAN INSTITUTES FOR RESEARCH ZIP CODE 20007				
EHRlich, PAUL S.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05615-12	31,055
ORGANIZATION TOTAL	1	31,055		
AMERICAN NATIONAL RED CROSS ZIP CODE 20006				
GREENWALT, TIBOR J.....		STUDIES OF BLOOD GROUP ANTIGENS AND ANTIBODIES.....	5R01 HL11154-13	80,457
INGHAM, KENNETH C.....		SUBUNIT INTERACTIONS IN GLYCOPROTEIN HORMONES.....	5R01 AM19719-03	43,501
INGHAM, KENNETH C.....		PRECIPITATION OF PROTEINS WITH POLY(ETHYLENE GLYCOL).....	5R01 HL21791-02	65,369
JAMIESON, GRAHAM A.....		GENETIC AND CULTURAL STUDIES OF AUSTRALIA ANTIGEN.....	5R01 GM21736-05	8,966
JAMIESON, GRAHAM A.....		ROLE OF PLATELET MEMBRANES IN HEMOSTASIS.....	5R01 HL14697-08	97,330
JAMIESON, GRAHAM A.....		MEMBRANE GLYCOPROTEINS OF PLATELETS AND LEUKOCYTES.....	5R01 HL20971-11	85,223
JAMIESON, GRAHAM A.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05737-08	42,013
KOSOW, DAVID P.....		REGULATION OF THE ACTIVATION OF HUMAN FACTORS X AND II.....	2R01 HL19282-04	58,187
MENACHE-ARONSON, DORIS.....		ISOLATION AND CHARACTERIZATION OF NEW PLASMA DERIVATIVES.....	1R01 HL24944-01	116,914
MERYMAN, HAROLD T.....		PRESERVATION OF ORGANS BY FREEZING.....	2R01 GM17959-07	92,096
SCHANFIELD, MOSES S.....		SELECTED BLOOD TRANSFUSION TOPICS.....	5R01 HL23654-02	38,415
ORGANIZATION TOTAL	11	728,471		
AMERICAN REGISTRY OF PATHOLOGY ZIP CODE 20306				
FINE, BEN S.....		FOVEOMACULAR AGING IN THE RHESUS MONKEY.....	1R01 EY03060-01	106,885
ORGANIZATION TOTAL	1	106,885		
AMERICAN SOCIETY OF ALLIED HEALTH PROFESSIONS ZIP CODE 20036				
BURKE, JOHN.....		INDEX OF GRADUATE THESES AND PROJECTS IN ALLIED HEALTH.....	5R01 LM03193-02	5,730
ORGANIZATION TOTAL	1	5,730		
AMERICAN UNIVERSITY ZIP CODE 20016				
SLOTNICK, BURTON M.....		ANATOMICAL BASIS OF OLFACTORY DISCRIMINATION.....	5R01 NS13057-02	36,149
ORGANIZATION TOTAL	1	36,149		
BROOKINGS INSTITUTION ZIP CODE 20036				
RUSSELL, LOUISE B.....		THE BABY BOOM GENERATION: AN ECONOMIC 'HISTORY'.....	5R01 HD11693-02	118,263
ORGANIZATION TOTAL	1	118,263		
CATHOLIC UNIVERSITY OF AMERICA ZIP CODE 20064				
ATABEK, BULENT H.....		FLOW FIELD IN AORTA AND ITS MAJOR BRANCHES.....	5R01 HL12083-12	71,954
HUNT, JOHN B.....		SPIN-LABELLED PURINE NUCLEOSIDES AND NUCLEOTIDES.....	5R01 GM24664-02	45,950
MC MANUS, FREDERICK R.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07123-11	24,080
MULLINS, JAMES M.....		STRUCTURAL AND CHEMICAL ANALYSIS OF THE MIDBODY.....	1R01 GM26802-01	33,011
SCHWAB, JOHN M.....		STEREOCHEMISTRY AND MECHANISMS OF ENZYME REACTIONS.....	1R01 GM26074-01	47,674
YOUNISS, JAMES.....		DEVELOPMENT OF IMAGERY: STRUCTURE AND PROCESS.....	5R01 HD10390-03	42,195
ZON, GERALD.....		4-HYDROXYCYCLOPHOSPHAMIDE/ALDOPHOSPHAMIDE CHEMISTRY.....	5R01 CA21345-02	58,038
ORGANIZATION TOTAL	7	322,902		
CHILDREN'S HOSPITAL NATIONAL MEDICAL CENTER ZIP CODE 20010				
LEIKIN, SANFORD L.....		COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA03888-22	124,739
LEIKIN, SANFORD L.....		CLINICAL CANCER EDUCATION PROGRAM/PEDIATRICS.....	5R25 CA21241-02	87,486
PARROTT, ROBERT H.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05515-17	19,616
ORGANIZATION TOTAL	3	231,841		
GALLAUDET COLLEGE ZIP CODE 20002				
PICKETT, JAMES M.....		PERCEPTION OF COMPLEX AUDITORY STIMULI BY THE DEAF.....	5R01 NS05464-15	109,782
TITZE, INGO R.....		CLINICAL TECHNIQUES FOR EVALUATION OF PHONATORY CONTROL.....	5R01 NS14364-02	6,997
ORGANIZATION TOTAL	2	116,779		
GEORGE WASHINGTON UNIVERSITY ZIP CODE 20052				
ABRAMSON, FRED P.....		MASS SPECTROMETRIC INVESTIGATION OF DES DISPOSITION.....	5R01 CA20753-02	54,488
ABRAMSON, FRED P.....		CARDIOVASCULAR DRUG INTERACTIONS: METABOLISM MODELS.....	5R01 HL22718-02	50,352

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
ABRAVANEL, EUGENE.....	THE COURSE OF EARLY IMITATION DURING INFANCY.....	1R01 HD12075-01	42,520
ANDERSON, REBECCA J.....	DETECTION OF NEUROTOXICITY OF ENVIRONMENTAL AGENTS.....	5R01 ES01951-02	36,603
BAILEY, J MARTYN.....	PROSTAGLANDIN SYNTHESIS IN TRANSFORMED CELLS.....	5R01 CA15356-05	66,235
BAILEY, J MARTYN.....	PROSTACYCLIN-THROMBOXANES IN THE CARDIOVASCULAR SYSTEM.....	5R01 HL22527-02	97,301
BLOOM, SHERMAN.....	STRUCTURE-FUNCTION PATHOLOGY OF ISOLATED HEART CELLS.....	3R01 HL22137-02S1	5,436
BRADLEY, EILEEN W.....	LATE EFFECTS OF FAST NEUTRONS ON CORD-BRAIN-LUNG.....	5R01 CA18143-05	272,178
CORNFIELD, JEROME.....	MULTIPARAMETER METHODS FOR CARDIOVASCULAR RESEARCH.....	5R01 HL15191-08	107,316
DRUM, BRUCE A.....	ROLES OF TONIC AND PHASIC NEURAL SYSTEMS IN VISION.....	2R01 EY01672-04A1	87,028
ECKELMAN, WILLIAM C.....	BIOLOGIC TRACERS LABELED WITH GAMMA EMITTING ISOTOPES.....	5R01 CA18675-05	152,842
FINKELSTEIN, JAMES D.....	SULFUR AMINO ACID METABOLISM IN MAMMALS.....	5R01 AM13048-12	54,930
GILSON, BARBARA E.....	TISSUE INTERACTIONS IN DRUG INDUCED LIMB TERATOGENESIS.....	1R01 HD13419-01	36,039
GOLDSTEIN, ALLAN L.....	THE ROLE OF THE ENDOCRINE THYMUS IN THE AGING PROCESS.....	1R01 AG01531-01	126,798
GOLDSTEIN, ALLAN L.....	CHEMICAL & IMMUNOLOGICAL CHARACTERISTICS OF THYMOSIN.....	1R01 CA24974-01	221,901
GOLDSTEIN, ALLAN L.....	CHEMICAL & IMMUNOLOGICAL CHARACTERISTICS OF THYMOSIN.....	5R01 CA25017-02	79,782
HALPERIN, MAX.....	EARLY STOPPING IN LONG-TERM CLINICAL TRIALS.....	1R01 GM26012-01	44,735
HOLLINSHEAD, ARIEL C.....	CANCER SERUM INDEX: A TEST FOR PROSTATIC CANCER.....	1R26 CA25828-01	19,005
IRWIN, DAVID.....	RIBONUCLEOPROTEIN COMPLEXES IN RENAL CARCINOMA.....	7R01 CA27553-01	54,944
JACKSON, MICHAEL J.....	DRUG TRANSPORT IN THE GI TRACT AND OTHER EPITHELIA.....	2R01 GM22369-04	85,436
JOHNSON, KURT E.....	ROLE OF EXTRACELLULAR MATRIX IN FROG GASTRULATION.....	5R01 HD11634-02	48,171
KERNS, JAMES M.....	DEVELOPMENT AND STRUCTURE OF EXTRAOCULAR MOTOR UNITS.....	1R01 NS13606-01A2	57,730
KLUBES, PHILIP.....	SYNERGISM DURING COMBINATION CANCER CHEMOTHERAPY.....	5R01 CA17601-05	74,010
KUMAR, AJIT.....	MESSENGER RNA METABOLISM IN MAMMALIAN CELLS.....	7R01 CA27358-01	85,359
LEONARD, FRED.....	MAXILLOFACIAL MATERIALS.....	5R01 DE03860-06	61,415
LEONARD, FRED.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05359-18	136,257
LEVINE, RICHARD F.....	PHYSIOLOGY OF PLATELET PRODUCTION.....	1R01 HL23399-01	35,090
MANTEL, NATHAN.....	CANCER EPIDEMIOLOGY: STATISTICAL METHODS.....	5R01 CA15686-05	118,875
ORNITZ, ROBERT D.....	MANTA NEUTRON CLINICAL TRIAL FOR LOCALIZED CANCERS.....	3P01 CA17465-04S1	267,449
ORNITZ, ROBERT D.....	MANTA NEUTRON CLINICAL TRIAL FOR LOCALIZED CANCERS.....	2P01 CA17465-05	71,017
PIPBERGER, HUBERT V.....	DIGITAL COMPUTER ANALYSIS OF THE ELECTROCARDIOGRAM.....	5R01 HL15047-07	416,664
PIPBERGER, HUBERT V.....	ECG LEADS TO ESTIMATE EXTENT OF MYOCARDIAL INJURY.....	1R01 HL23715-01	57,870
REBA, RICHARD C.....	SYNTHESIS OF MOLECULES FOR MYOCARDIAL IMAGING.....	2R01 HL19127-04	151,040
ROTHBLAT, LAWRENCE A.....	EARLY VISUAL EXPOSURE: BRAIN MORPHOLOGY AND BEHAVIOR.....	9R01 EY03304-04	43,483
RZESZOTARSKI, WACLAW J.....	CARDIOSELECTIVITY OF BETA-ADRENOCEPTOR ANTAGONISTS.....	5R01 HL22522-02	82,933
SIDRANSKY, HERSHEL.....	EFFECT OF NUTRITIONAL STRESS ON CARCINOGENESIS.....	5R01 CA22997-03	49,673
SLABY, FRANK J.....	ROLE OF MYOINOSITOL METABOLISM IN PANCREAS SECRETION.....	5R01 AM20865-02	64,363
SMITH, JAMES C, JR.....	CHARACTERIZING ZINC BINDING PROTEINS IN HYPERZINCEMIA.....	5R01 AM20420-03	30,019
SOLOMON, HENRY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07019-14	21,638
STRAW, JAMES A.....	PHARMACOKINETICS OF RESCUE FROM ANTIFOLATE TOXICITY.....	5R01 CA22866-02	69,338
VAHOUNY, GEORGE V.....	SYNTHESIS AND ROLE OF PROSTAGLANDINS IN ADRENAL CELLS.....	5R01 AM20014-03	45,043
VAHOUNY, GEORGE V.....	REGULATION OF CHOLESTEROL ESTER LEVELS IN BLOOD & TISSUE.....	2R01 HL02033-24	120,744
VAHOUNY, GEORGE V.....	MYOCARDIAL LIPID METABOLISM AND REGULATION.....	5R01 HL09489-14	88,485
VAHOUNY, GEORGE V.....	PROSTAGLANDIN SYNTHESIS/FUNCTION IN ADULT CARDIAC CELLS.....	1R01 HL24138-01	51,783
WALSH, RAYMOND J.....	PROLACTIN BINDING SITES IN THE CNS.....	1R01 NS15609-01	43,611
WILLIAMS, JERRY R.....	DNA METABOLISM AND HUMAN AGING.....	5R01 AG01736-02	108,310
ORGANIZATION TOTAL.....	46 4,096,239		
GEORGETOWN UNIVERSITY ZIP CODE 20057			
ANDREWS, PETER M.....	THE CELL BIOLOGY OF NORMAL AND NEPHROTIC KIDNEYS.....	1R01 AM25417-01	61,208
BASH, JERRY A.....	SUPPRESSOR MACROPHAGE-MEDIATED IMMUNOSENESCENCE.....	1R23 AG02291-01	47,970
BATES, RICHARD D, JR.....	MOLECULAR DYNAMICS OF HYDROGEN BONDING IN FLUIDS.....	5R01 GM23670-03	37,650
BELLANTI, JOSEPH A.....	INTERDISCIPLINARY RESEARCH IN IMMUNOLOGIC DISEASES.....	5P50 AI15321-02	186,828
BITTER-SUERMANN, HINRICH.....	IMMUNE REACTIONS IN SPLEEN GRAFTED HOSTS.....	1R01 AI16106-01	70,700
BLECHER, MELVIN.....	MECHANISMS OF ACTION OF HORMONES AND CYCLIC NUCLEOTIDES.....	5R01 AM05475-18	97,493
CALDERONE, RICHARD A.....	EXPERIMENTAL CANDIDA ALBICANS ENDOCARDITIS.....	5R23 HL21370-02	27,388
CAPORALE, LYNN H.....	COMPLEMENT AND INFLAMMATION: A BIOCHEMICAL APPROACH.....	1R01 AI15591-01	53,094
CHIRIKJIAN, JACK G.....	RNA MODIFYING ENZYMES IN NORMAL AND NEOPLASTIC CELLS.....	5R01 CA16914-04	65,407
CUTLER, SIDNEY J.....	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.....	5R26 CA23078-03	286,989
CUTLER, SIDNEY J.....	EXPLORATORY STUDIES OF CANCER PATIENT DATA CONTROL.....	1R10 CA25146-01	44,734
DOUKAS, HARRY M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05306-18	17,305
DOUKAS, HARRY M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05360-18	128,626

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
DRITSCHLO, ANATOLY	RADIATION DOSE RATE EFFECT ON REPAIR DEFICIENT CELLS	1R23 CA27545-01	33,865
FELLER, WILLIAM F.	CHARACTERIZATION OF DNA POLYMERASES IN HUMAN MILK	5R01 CA17623-05	62,378
GABRIEL, OTTMAR	METABOLISM AND FUNCTION OF DEOXSUGARS	5R01 AI07241-14	55,577
HAMOSH, MARGIT	PERINATAL FAT DIGESTION, ROLE OF OROPHARYNGEAL LIPASE	5R01 HD10823-03	82,787
HAMOSH, MARGIT	BLOOD TRIGLYCERIDE AND LIPOPROTEIN LIPASE IN THE LUNG	2R01 HL19056-04	62,983
HAMOSH, PAUL	EFFECT OF PROLACTIN ON LUNG MATURATION	5R01 HD11353-02	60,135
HERZBERG, DONALD	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07136-08	32,826
HOWARD, DARLENE V.	AGING AND SEMANTIC STRUCTURE	5R23 AG00713-02	35,409
HSU, CHAO-K.	ANIMAL RESOURCES IMPROVEMENTS	1P40 RR01212-01	100,155
JOSE, PEDRO A.	ONTOGENY OF RENAL AND VASCULAR ADRENERGIC RECEPTORS	1R01 HL23081-01A1	69,529
KAO, CARL C.	STUDIES OF REGENERATED AXONS IN GRAFTED SPINAL CORDS	3R01 NS14413-02S1	27,227
KUMAR, SOMA	SYNTHESIS OF FATTY ACIDS IN MAMMALIAN TISSUES	5R01 AM16086-07	61,363
LEMP, MICHAEL A.	EFFECT OF SYSTEMIC DRUGS ON TEAR PRODUCTION	5R01 EY02228-02	48,114
LORBER, MORTIMER	THE CAPSULE AS A DELIMITER OF SALIVARY GLAND REPAIR	5R01 DE04817-02	45,935
MACDONALD, JOHN S.	PHASE II COMBINATION STUDIES IN PANCREATIC CANCER	1R26 CA25759-01	37,621
MACGREGOR, CAROLYN H.	CELL MEMBRANE PROTEASES	2R01 GM25153-03	74,561
MARAK, GEORGE E, JR.	LENS-INDUCED UVEITIS AND SYMPATHETIC OPHTHALMIA	2R01 EY00887-07A1	71,102
MC CURDY, PAUL R.	ABNORMAL HEMOGLOBIN SYNDROMES	5R01 HL14131-19	32,662
MC GEE, RICHARD	FUNCTIONAL REGULATION OF CLONAL NEURONAL CELLS	1R01 NS14975-01	51,271
NEALE, JOSEPH H.	ANALYSIS OF RAPIDLY TRANSPORTED AXONAL PROTEIN	1R01 NS14933-01	19,454
NEEFE, JOHN R.	DEFECTIVE SELF-RECOGNITION AS A CAUSE OF CANCER	3R01 CA23882-01S1	50,752
NEEFE, JOHN R.	MURINE T LYMPHOCYTE RECEPTORS FOR ALLOANTIGENS	3R01 CA25041-01S1	34,676
NORR, SIGMUND C.	CHARACTERIZATION OF SYMPATHETIC NEURON DIFFERENTIATION	1R01 DE05057-01	51,858
PANCAKE, SAMUEL J.	ANTIGENS INDUCED BY POLYOMA VIRUS TRANSFORMATION	5R01 CA21912-03	43,761
POPE, MICHAEL T.	STABLE ORGANIC DERIVATIVES OF HETEROPOLY ACIDS	2R01 GM23263-04	46,924
POPPER, ARTHUR N.	PROCESSING OF ACOUSTIC INFORMATION	2R01 NS15090-02	64,102
POTTER, JOHN F.	VINCENT T LOMBARDI CANCER RESEARCH CENTER SUPPORT	5P30 CA14626-06	390,487
POTTER, JOHN F.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA19028-04	123,375
PREUSS, HARRY G.	OXIDATIVE METABOLISM OF GLUTAMINE BY THE KIDNEY	5R01 AM15458-08	60,875
PRINCIOTTO, JOSEPH V.	TRANSFERRIN, IRON DONATION AND ACQUISITION	5R01 AM19030-03	71,520
RAMWELL, PETER W.	ROLE OF ANDROGEN AS A RISK FACTOR IN ATHEROGENESIS	5R01 HL17516-05	193,004
RAMWELL, PETER W.	PROSTAGLANDIN PRECURSORS AND VASCULAR REACTIVITY	5R01 HL18718-05	220,174
RAO, NARSING A.	PATHOLOGY AND PATHOGENESIS OF OPTIC NEURITIS	1R01 EY02155-01A1	64,329
RECAN, LILLIAN	PANCREATIC AND INTESTINAL GLUCAGONS IN RATS AND MAN	5R01 AM19610-03	51,582
ROSENTHAL, LEONARD J.	ANALYSIS OF DEFECTIVE HUMAN CYTOMEGALOVIRUS	1R01 AI15992-01	53,001
SAUM, WILLIAM R.	FUNCTIONAL CHARACTERISTICS OF ATRIAL RECEPTORS	5R23 HL22245-03	37,471
SCHEIN, PHILIP S.	PHARMACOLOGY OF NONMYELOSUPPRESSIVE ANTITUMOR AGENTS	2R01 CA17583-04	66,595
SMULSON, MARK E.	HISTONE ADP-RIBOSYLATION AND HELA CELL REPLICATION	2R01 CA13195-07	66,423
SMULSON, MARK E.	CARCINOGENS AND CHROMATIN STRUCTURE AND FUNCTION	1R01 CA25344-01	77,053
STEINHARDT, JACINTO	HYDROLYSIS OF AMIDE AND PEPTIDE BONDS IN PEPTIDES	1R01 GM23663-01A1	39,937
STEINHARDT, JACINTO	STUDIES IN THE POLYMERIZATION OF SICKLE-CELL HEMOGLOBIN	2R01 HL12256-16	96,845
SULIK, KATHLEEN K.	FACIAL DEVELOPMENT, MAXILLARY PROCESS AND CLEFT PALATE	1R23 DE05342-01	33,664
WALTERS, LEROY B.	DEVELOPING AN INFORMATION SYSTEM FOR BIOETHICS	5R01 LM01702-06	81,961
WOOLLEY, PAUL V.	BINDING OF METHYL-NITROSOUREA IN PANCREATIC TISSUE	3R26 CA19744-02S1	18,048
WOOLLEY, PAUL V.	BINDING OF METHYL-NITROSOUREA IN PANCREATIC TISSUE	5R26 CA19744-03	65,895
YANG, DAVID C.	EMBRYONIC CELL ASSOCIATION & DEVELOPMENT	5R01 GM25363-02	54,996
YANG, DAVID C.	INTERACTION OF TRANSFER RNA AND SYNTHETASES	1R01 GM25848-01	71,347
ORGANIZATION TOTAL	60 4,421,001		
GERONTOLOGICAL SOCIETY ZIP CODE 20006			
BUSSE, EWALD W.	TRAVEL - 12TH INTERNATIONAL CONGRESS OF GERONTOLOGY	1R13 AG02194-01	11,817
MARTIN, GEORGE M.	BASIC ISSUES IN BIOGERONTOLOGY: SYMPOSIA-WORKSHOP	1R13 AG01842-01	18,792
ORGANIZATION TOTAL	2 30,609		
GORGAS MEMORIAL INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE ZIP CODE 20006			
BENENSON, ABRAM S.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05769-04	18,485
GALINDO, PEDRO	ECOLOGY OF VECTOR BORNE VIRUSES IN PANAMA	5R01 AI02984-20	238,363
READ, ROBERT G.	MICROCLIMATE AND ECOLOGY OF VECTOR BORNE DISEASE	5R01 AI11889-06	29,578
REEVES, WILLIAM C.	CERVICAL CANCER EPIDEMIOLOGY IN PANAMA	1R01 CA25419-01	88,592
WALTON, BRYCE C.	SENTINEL ANIMALS IN LEISHMANIASIS	1R01 AI15430-01	6,732

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
DIST OF COL—Continued				
ORGANIZATION TOTAL	5	381,750		
HOWARD UNIVERSITY ZIP CODE 20059				
ALAM, ZAHUR.....		CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	5R10 CA21185-03	68,602
ARCHER, JUANITA A.....		HUMAN FETAL ISLETS: PRESERVATION AND INSULIN RECEPTOR.....	5R01 AM21050-02	73,572
ASHE, WARREN K.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05361-18	107,355
ASHE, WARREN K.....		CENTER FOR THE HEALTH SCIENCES SUPPORT.....	5S06 RR08157-03	349,603
BAROFSKY, ANNA-LISA.....		SEROTONINERGIC MECHANISMS IN OVULATION INHIBITION.....	5R01 HD10676-03	73,068
BOWEN, DONNELL.....		METHOTREXATE POLYGLUTAMATES & ANTIFOL-FLUOROPYRIMIDINE.....	7R23 CA28108-01	30,139
CASTRO, OSWALDO L.....		STUDY OF HUMAN SICKLE ERYTHROCYTES IN PRIMATE ANIMALS.....	1R01 HL25392-01	119,512
COSTELLO, LESLIE C.....		PROSTATE CITRATE METABOLISM.....	5R01 HD08420-05	48,622
GOLDSON, ALFRED L.....		INTRAOPERATIVE RADIATION THERAPY FOR PANCREAS CANCER.....	1R26 CA26658-01A1	31,212
GOOLSBY, CHARLES M.....		BIOMEDICAL INTERDISCIPLINARY PROJECT.....	5S06 RR08016-09	718,024
HAKIM, RAZIEL S.....		METAPLASIA IN A NONDIVIDING CELL SYSTEM.....	5R01 HD11918-03	42,710
HAWTHORNE, EDWARD W.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07117-07	60,421
KOVI, JOSEPH.....		PROSTATIC CARCINOMA IN AMERICAN BLACKS.....	1R26 CA26679-01	120,612
LAING, CALBERT A.....		STUDIES ON SOLUBLE ANTIGENS ON MTV INDUCED MAMMARY TUMOR.....	5R01 CA23372-02	64,089
LANGFORD, GEORGE M.....		CALCIUM INDUCTION OF COILED SHEET POLYMERS OF TUBULIN.....	5R01 GM24446-02	23,030
LEAK, LEE V.....		THE LYMPHATIC SYSTEM IN HEALTH AND IN INFLAMMATION.....	2R01 AI10639-09	117,800
LEAK, LEE V.....		ONTOGENY, ULTRASTRUCTURE, FUNCTION IN LYMPHATIC SYSTEM.....	5R01 HL13901-09	92,829
MALVEAUX, FLOYD J.....		IGE RECEPTORS ON HUMAN BASOPHILS AND LUNG MAST CELLS.....	1R01 AI16247-01	52,189
MORRIS, HAROLD P.....		INDUCTION—CHARACTERIZATION—MINIMAL DEVIATION HEPATOMAS.....	3R01 CA10729-10S2	48,149
MORRIS, HAROLD P.....		INDUCTION-CONTINUATION-GENETICS OF EXPERIMENTAL TUMOR.....	1R01 CA24621-01	166,604
RAPISARDI, SALVATORE C.....		FINE STRUCTURE OF LABELED CELLS IN LATERAL GENICULATE.....	1R01 EY02953-01	70,520
SCOTT, ROLAND B.....		SUPPORT FOR CENTER FOR SICKLE CELL DISEASE.....	5P60 HL15160-08	1,080,428
SILVA, OMEGA L.....		CALCITONIN AS A MARKER FOR CANCER OF THE BREAST.....	5R01 CA22137-03	25,902
TANAKA, DUKE, JR.....		DEVELOPMENT OF FRONTAL LOBE CONNECTIONS.....	2R01 NS12463-04	67,687
WHITE, JACK E.....		CANCER CENTER SUPPORT GRANT (COMPREHENSIVE).....	3P30 CA14718-06S2	59,063
WHITE, JACK E.....		CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA19376-04	152,589
ORGANIZATION TOTAL	26	3,864,331		
INDIVIDUAL AWARD-D'AMORE, ARCANGELO R. ZIP CODE 20008				
D'AMORE, ARCANGELO R.....		PSYCHOANALYSIS: THE WASHINGTON-BALTIMORE EXPERIENCE.....	5R01 LM03119-02	5,075
ORGANIZATION TOTAL	1	5,075		
NATIONAL BIOMEDICAL RESEARCH FOUNDATION ZIP CODE 20007				
BARKER, WINONA C.....		HOMOLOGOUS PHYSIOLOGICAL SYSTEMS IN HUMAN DEVELOPMENT.....	5R01 HD09547-05	79,712
DAYHOFF, MARGARET O.....		COMPUTER STUDY OF SEQUENCES OF AMINO ACIDS IN PROTEINS.....	5R01 GM08710-19	290,374
ORGANIZATION TOTAL	2	370,086		
U.S. DEPARTMENT OF THE ARMY—WALTER REED ARMY MEDICAL CENTER ZIP CODE 20012				
PARK, ROBERT C.....		GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA23501-02	20,197
ORGANIZATION TOTAL	1	20,197		
U.S. SMITHSONIAN INSTITUTION ZIP CODE 20560				
HOROWITZ, DONALD L.....		ETHNIC POLITICS AND POPULATION COMPOSITION.....	3R01 HD07817-04S1	5,921
ORGANIZATION TOTAL	1	5,921		
UNIVERSITIES RESEARCH ASSOCIATION ZIP CODE 20037				
COHEN, LIONEL.....		FERMILAB NUCLEON THERAPY FACILITY.....	5P01 CA18081-05	777,506
ORGANIZATION TOTAL	1	777,506		
UNIVERSITY OF THE DISTRICT OF COLUMBIA ZIP CODE 20008				
KONDO, NORMAN S.....		ENVIRONMENTAL CARCINOGENS & OTHER BIOMEDICAL PROBLEMS.....	3S06 RR08005-08S2	2,055
KONDO, NORMAN S.....		ENVIRONMENTAL CARCINOGENS & OTHER BIOMEDICAL PROBLEMS.....	5S06 RR08005-09	291,194
ORGANIZATION TOTAL	2	293,249		
URBAN INSTITUTE ZIP CODE 20037				
GOODMAN, JOHN L, JR.....		URBAN RESIDENTIAL MOBILITY IN THE 1970'S.....	1R01 HD13442-01	98,473
ORGANIZATION TOTAL	1	98,473		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
WASHINGTON HOSPITAL CENTER	ZIP CODE 20010		
MAUGER, ANTHONY B.....	STUDIES ON NEW ANALOGUES OF ACTINOMYCIN.....	2R01 CA11627-13	91,584
ORGANIZATION TOTAL	1 91,584		
STATE TOTAL	179 16,232,633		
FLORIDA			
CORAL GABLES			
UNIVERSITY OF MIAMI	ZIP CODE 33124		
CORBETT, MICHAEL D.....	HYDROXAMIC ACID PRODUCTION BY MARINE ORGANISMS.....	5R01 CA21992-03	77,085
CORBETT, MICHAEL D.....	HYDROXAMIC ACID PRODUCTION IN MICROBIAL ECOSYSTEMS.....	5R01 CA23492-02	62,305
ECKSTEIN, EUGENE C.....	PLATELET CONCENTRATION IN THE MARGINAL LAYER.....	5R01 HL22455-02	39,317
METZ, CHARLES B.....	ISOLATION AND STUDY OF MAMMALIAN SPERM ISOANTIGENS.....	5R01 HD06663-04	69,961
NEUMANN, PAUL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07022-12	26,482
ORGANIZATION TOTAL	5 275,150		
DAYTONA BEACH			
BETHUNE-COOKMAN COLLEGE	ZIP CODE 32015		
COPELAND, RICHARD F.....	BIOMEDICAL RESEARCH AND TRAINING PROGRAM.....	2S06 RR08119-06	182,378
ORGANIZATION TOTAL	1 182,378		
GAINESVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA	ZIP CODE 32611		
ABRAMS, ROBERT M.....	GLUCOSE CONSUMPTION AND HEAT PRODUCTION OF FETAL BRAIN.....	1R01 HD11911-01A1	84,850
ACHEY, PHILLIP M.....	BIOLOGICAL AND PHYSICAL ACTION OF RADIATION ON DNA.....	2R01 CA12447-07A1	44,391
ALDRICH, HENRY C.....	MEMBRANE STRUCTURE, CELL CONTACT AND CELL FUSION.....	5R01 GM21825-04	51,264
ALLEN, CHARLES M, JR.....	BIOSYNTHESIS OF DOLICHYL PHOSPHATE IN ANIMAL CELLS.....	5R01 GM25496-02	32,422
ALLEN, DON L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05728-08	19,220
AYOUB, ELIA M.....	HOST FACTORS IN THE PATHOGENESIS OF RHEUMATIC FEVER.....	3R01 HL20533-09S1	18,861
BAZER, FULLER W.....	PROGESTERONE-INDUCED PROTEINS IN THE PREGNANT UTERUS.....	5R01 HD08560-05	59,219
BERNSTEIN, JERALD J.....	REGENERATION IN THE CENTRAL NERVOUS SYSTEM.....	2R01 NS06164-14	72,030
BIRDSELL, DALE C.....	MECHANISM OF VIRULENCE OF ACTINOMYCES VISCOSUS T14V.....	5R01 DE04617-03	55,218
BLEIWEIS, ARNOLD S.....	CELL-WALL ANTIGENS OF CARIOGENIC STREPTOCOCCI.....	5R01 DE02901-11	72,312
BLOCK, A JAY.....	SLEEP APNEA AND DESATURATION-MECHANISMS AND INCIDENCE.....	5R01 HL22622-02	48,231
BLOCK, EDWARD R.....	OXYGEN TOXICITY PREVENTION WITH SUPEROXIDE DISMUTASE.....	5R01 HL21115-02	28,971
BRAYLAN, RAUL C.....	FLOW ANALYSIS OF HUMAN MALIGNANT LYMPHOID CELLS.....	5R01 CA23393-02	95,359
BROWNELL, WILLIAM E.....	PHYSIOLOGICAL STUDIES OF HEARING.....	5R01 NS12209-05	50,829
BURCHARDT, HANS.....	EVALUATION OF ANTICANCER CHEMOTHERAPY ON BONE GRAFTS.....	5R01 CA22763-02	53,232
CASSIN, SIDNEY.....	REGULATION OF THE PERINATAL PULMONARY CIRCULATION.....	2R01 HL10834-10	58,715
CATON, DONALD.....	FETAL GROWTH AND DEVELOPMENT.....	2R01 HD05659-09	90,289
CLARK, WILLIAM B.....	ADHERENCE OF PERIODONTAL DISEASE-ASSOCIATED BACTERIA.....	1R23 DE05429-01	35,407
CORNELIUS, C E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05788-03	23,891
CUNNINGHAM, WALTER R.....	INTELLIGENCE AND MEMORY IN YOUNG AND OLD ADULTS.....	1R23 AG01162-01	41,816
DAWSON, WILLIAM W.....	APPLICATION OF LASER SPECKLE TO MACULAR EVALUATION.....	1R01 EY02985-01	52,336
DEAL, WILLIAM B.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00082-17	427,331
DEAL, WILLIAM B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05362-18	157,267
DRUMMOND, WILLA H.....	MECHANISMS OF FETAL & NEONATAL ASPHYXIC SYNDROMES.....	5R01 HD12987-02	99,283
DUCKWORTH, DONNA H.....	EXTRA-CHROMOSOMAL GENETIC ELEMENTS AND THE CELL SURFACE.....	5R01 AI12056-05	66,125
DUNN, BEN M.....	PEPSIN INHIBITOR: STRUCTURE-FUNCTION MANIPULATIONS.....	5R01 AM18865-05	62,813
ENNEKING, WILLIAM F.....	QUANTITATION OF BONE TRANSPLANT REPAIR.....	5R01 AM14063-08	40,406
ENNEKING, WILLIAM F.....	ELECTROMAGNETIC STIMULATION OF BONE GRAFTS.....	1R01 AM22197-01	49,268
ENNEKING, WILLIAM F.....	RADICAL LOCAL RESECTION IN MUSCULOSKELETAL SARCOMA.....	3R01 CA16559-05S1	5,769
ENNEKING, WILLIAM F.....	RADICAL LOCAL RESECTION IN MUSCULOSKELETAL SARCOMA.....	2R01 CA16559-06	86,785

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
ENOCH, JAY M.....	THE ETIOLOGY OF REDUCED VISUAL FUNCTION.....	5R01 EY01418-05	171,628
ENOCH, JAY M.....	CLINICAL APPLICATION OF HYPERACUITY AND RELATED TESTS.....	1R01 EY02303-01	108,072
FINLAYSON, BIRDWELL.....	UROLITHIASIS CENTER.....	5P50 AM20586-03	405,281
FISHER, WALDO R.....	STUDIES OF THE STRUCTURE OF LOW DENSITY LIPOPROTEIN.....	5R01 HL10316-14	175,226
FLANEGAN, JAMES B.....	MOLECULAR BIOLOGY OF POLIOVIRUS RNA REPLICATION.....	1R01 AI15559-01A1	21,317
FREGLY, MELVIN J.....	ORAL CONTRACEPTIVES AND HYPERTENSION.....	5R01 HL14526-08	74,834
GARNICA, ADOLFO D.....	TISSUE CUPROPROTEINS IN THE MURINE MUTANT BRINDLED.....	1R01 NS14927-01	32,378
GELATT, KIRK N.....	INHERITED GLAUCOMA.....	5R01 EY01932-03	67,294
GELATT, KIRK N.....	CONGENITAL CATARACTS.....	5R01 EY02199-02	41,710
GIBBS, CHARLES H.....	INVESTIGATION OF FUNCTIONAL MANDIBULAR MOVEMENTS.....	5R01 DE04157-06	91,807
GIBBS, CHARLES H.....	INVESTIGATION OF TOOTH FORCES AND TOOTH MOBILITY.....	5R01 DE04350-04	22,775
GIFFORD, GEORGE E.....	NUTRITIONAL ASPECTS OF VITAMIN A AND CANCER.....	1R01 CA22183-01A2	55,959
GOLDBERG, EUGENE P.....	INTRACULAR LENS COATINGS TO PREVENT CORNEA DAMAGE.....	5R01 EY02063-02	57,078
GREGG, JAMES H.....	CELL SLIME MOLD INTERACTION/REGULATION/DIFFERENTIATION.....	5R01 GM10138-17	60,329
GURIN, SAMUEL.....	HOMARINE AND PYRIDINE CARBOXYLIC ACIDS IN CRUSTACEA.....	2R01 GM22744-04	23,426
HEATON, MARIETA B.....	ANALYSES OF NEUROBLAST MIGRATION.....	1R01 NS14886-01	42,385
HEILMAN, KENNETH M.....	THE NEGLECT SYNDROME IN MAN.....	5R01 NS12218-03	18,387
HEILMAN, KENNETH M.....	GESTURE AND ACQUISITION OF MOTOR SKILL IN APRAXIA.....	1R01 NS15229-01	53,558
HENCH, LARRY L.....	INTERFACIAL BEHAVIOR OF BIOMATERIALS.....	5R01 GM24858-02	100,838
HENCH, LARRY L.....	BIOMATERIALS GORDON RESEARCH CONFERENCE.....	1R13 GM26920-01	3,000
HOLLIER, HARRY.....	A COMMUNICATION SCIENCES RESEARCH PROGRAM.....	5P01 NS06459-14	205,052
HOLLINGER, THOMAS G.....	THE ORIGIN OF CHROMOSOMAL ABNORMALITIES.....	1R01 HD13228-01	52,560
INGRAM, LONNIE O.....	PHOSPHOLIPID METABOLISM DURING SYNCHRONOUS DIVISION.....	5R01 GM24059-02	35,892
KADZIELAWA, KRZYSZTOF.....	A-METHYL-NE INHIBITION OF CENTRAL SYMPATHETIC NEURONS.....	1R01 NS15613-01	41,660
KALLENBACH, ERNST A.....	TRACER AND FINE STRUCTURE STUDIES OF THE ENAMEL ORGAN.....	5R01 DE02241-14	21,575
KALRA, PUSHPA S.....	STERIODS AND HYPOTHALAMIC INTERACTIONS IN MALE RATS.....	5R01 HD11362-02	41,274
KALRA, SATYA P.....	OVARIAN STEROIDS IN THE GONADOTROPIN RELEASE MECHANISM.....	2R01 HD08634-04A1	73,286
KARLAN, MARC S.....	BIOGLASS-SOFT TISSUE BIOMATERIALS IN THE EAR.....	5R01 NS14556-02	43,716
KARLAN, MARC S.....	PATHOPHYSIOLOGY OF THE EAR.....	1R01 NS14592-01	46,965
KEM, WILLIAM R.....	STRUCTURE AND MEMBRANE ACTION OF PROTEIN CYTOTOXINS.....	1R01 GM25849-01	43,984
KING, GREGORY J.....	STUDIES ON STRESS-RELATED BONE RESORPTION.....	5R23 DE04844-02	19,919
KITZMILLER, JAMES B.....	GENETICS OF ANOPHELINE MOSQUITOES.....	5R01 AI15015-02	46,218
KOLTS, BYRON E.....	IMMUNOCHEMICAL STUDIES OF SECRETIN.....	3R01 AM19425-03S1	9,474
LARKIN, LYNN H.....	ROLE OF RELAXIN IN GESTATION AND PARTURITION.....	5R01 HD08552-05	44,286
LEONARD, CHRISTIANA M.....	NEURAL SUBSTRATE OF BEHAVIORAL DEVELOPMENT.....	5R01 NS13516-03	62,548
MACLAREN, NOEL K.....	FACTORS AFFECTING CHEMICALLY INDUCED MURINE DIABETES.....	5R01 AM25403-02	71,209
MAHAN, PARKER.....	JAW MOVEMENTS AND RELATED MUSCLE ACTIVITIES IN MAN.....	5R01 DE04924-02	17,203
MANGOS, JOHN A.....	STUDIES OF EXOCRINE GLAND FUNCTION IN CYSTIC FIBROSIS.....	5R01 AM19200-05	118,573
MANSHEIM, BERNARD J.....	IMMUNOCHEMICAL STUDIES IN PERIODONTAL DISEASE.....	1R01 DE05352-01	58,505
MAREN, THOMAS H.....	NEW APPROACHES TO GLAUCOMA AND LENS PHARMACOLOGY.....	5R01 EY02227-02	130,174
MAREN, THOMAS H.....	NEW PHARMACOLOGY ASPECTS RELATED TO CARBONIC ANHYDRASE.....	5R01 HL22258-02	47,101
MC GUIGAN, JAMES E.....	IMMUNOLOGY AND DISEASES OF THE GASTROINTESTINAL TRACT.....	2R01 AM13711-10	114,286
MC GUIRE, PETER M.....	THE GENETIC TOXICOLOGY OF TWO S-TRIAZINE HERBICIDES.....	5R01 ES01652-02	55,612
MERIMEE, THOMAS J.....	INSULIN AND HGH: SECRETION AND METABOLIC ACTIONS.....	5R01 AM18130-06	90,138
METCALF, JOSEPH F.....	IMMUNOCYTOCHEMICAL STUDIES OF HERPETIC KERATITIS.....	5R01 EY01580-04	55,047
MOSCOVICI, CARLO.....	SPECIFICITY OF AVIAN MYELOBLASTOSIS VIRUS.....	5R01 CA10697-13	70,225
NOONAN, KENNETH D.....	CONTROL OF LECTIN RECEPTOR MOBILITY.....	2R01 GM23227-04	59,195
NORMANN, SIGURD J.....	MONOCYTE FUNCTION IN NEOPLASIA.....	5R01 CA22517-03	35,670
NOTELOVITZ, MORRIS.....	PSYCHOSOCIAL AND BIOLOGIC ADAPTATION TO AGING IN WOMEN.....	1R01 AG00796-01	101,128
O'BRIEN, THOMAS W.....	CHARACTERIZATION OF MAMMALIAN MITOCHONDRIAL RIBOSOMES.....	2R01 GM15438-11	67,252
O'BRIEN, THOMAS W.....	IMMUNOCHEMISTRY OF MAMMALIAN MITOCHONDRIAL RIBOSOMES.....	1R01 GM23322-01A2	78,527
O'BRIEN, THOMAS W.....	CHLORAMPHENICOL-INDUCED APLASTIC ANEMIA.....	1R01 GM25888-01	53,455
O'RAND, MICHAEL G.....	ISOLATION OF SPERM MEMBRANE AUTOANTIGENS.....	5R01 HD10618-03	27,692
OTIS, ARTHUR B.....	PRESSURE-FLOW RELATIONSHIPS IN BREATHING.....	1R01 HL23515-01	40,891
PETTY, ROY W.....	INFLUENCE OF SKELETAL IMPLANT MATERIALS ON INFECTION.....	1R01 AM24007-01A1	59,057
PIOTROWSKI, GEORGE.....	STUDIES OF SYNOVIAL JOINTS.....	5R01 AM20339-02	47,936
POLACK, FRANK M.....	ULTRAMICROSCOPIC CHANGES IN CORNEA AND CORNEAL GRAFTS.....	5R01 EY00415-11	48,440
POLACK, FRANK M.....	EXTERNAL OCULAR DISEASE CENTER.....	3P50 EY00446-10S1	95,582
PRESTON, JAMES F.....	AMANTIN-PROTEIN CONJUGATES AS POTENTIAL INHIBITORS.....	2R01 CA19043-04	28,440
RAMPHAL, REUBEN.....	A MODEL FOR BRONCHOPULMONARY INFECTIONS.....	1R01 AI15833-01	56,312

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
RASBURY, WILEY C.....	BEHAVIORAL CORRELATES OF RENAL FAILURE IN CHILDREN.....	5R01 AM19095-02	50,369
REITH, EDWARD J.....	ULTRASTRUCTURE OF TOOTH DEVELOPMENT.....	2R01 DE04059-04	31,920
RHOTO, ALBERT L, JR.....	BRAIN STEM SENSORY CONNECTIONS.....	2R01 NS10978-06	22,378
ROBERTS, R MICHAEL.....	SEX STEROID ACTION ON CULTURED UTERINE EPITHELIAL CELLS.....	5R01 HD10436-03	36,204
ROMRELL, LYNN J.....	SPERM SPECIFIC MEMBRANE PROTEINS IN SPERMATOGENESIS.....	5R01 HD10852-02	35,703
ROSS, WARREN E.....	STUDIES OF DNA DAMAGE AND REPAIR BY ANTITUMOR AGENTS.....	1R01 CA24586-01	54,778
RUBIN, MELVIN L.....	VISION RESEARCH CENTER (CORE).....	1P30 EY02681-01A1	117,133
SCHWARTZ, MICHAEL A.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09077-02	69,352
SHARP, DAN C.....	PINEAL-HYPOTHALAMIC ROLE IN SEASONAL REPRODUCTION.....	1R01 HD10862-01A2	32,042
SILVERMAN, DAVID N.....	CATALYTIC MECHANISM OF CARBONIC ANHYDRASE.....	5R01 GM25154-02	83,465
SILVERMAN, DAVID N.....	MEMBRANE DIFFUSION OF BICARBONATE AND CO2 USING 18O.....	2R01 HL18671-04	57,738
SISLER, HARRY H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07021-14	91,802
SMALL, PARKER A, JR.....	LOCAL IMMUNOLOGIC REACTIONS.....	5R01 AI07713-13	86,788
SMITH, RICHARD T.....	CELLULAR MECHANISMS IN TUMOR-SPECIFIC IMMUNITY.....	2R01 CA15334-06	81,355
SMITH, RICHARD T.....	ONTOGENY OF IMMUNE MECHANISMS.....	5R01 HD00384-22	106,607
TOSKES, PHILLIP P.....	RETINAL CHANGES IN MALABSORPTION.....	1R01 EY02831-01	104,545
VIERCK, CHARLES J, JR.....	SPINAL SOMESTHETIC PATHWAYS.....	2R01 NS07261-13	74,295
WAGNER, PATRICIA A.....	SUPPLEMENTAL ZINC, TASTE & HEALTH IN AGING WOMEN.....	5R01 AG00833-02	48,281
WEINER, ROY S.....	EFFECTIVE CANCER THERAPY WITH NUTRITIONAL SUPPORT.....	1R01 CA26628-01	114,315
WELTNER, WILLIAM, JR.....	BIOPHYSICAL PROPERTIES OF CELL SURFACE CARBOHYDRATES.....	2R01 GM21920-03	48,509
WINEFORDNER JAMES D.....	MOLECULAR SPECTROMETRIC METHODS FOR DRUGS.....	5R01 GM11373-17	68,125
YOUNG, DAVID M.....	NERVE GROWTH FACTOR: SECRETION BY CANCER CELLS.....	7R01 CA28110-01	33,241
YOUNG, DAVID M.....	SALIVA NERVE GROWTH FACTOR: THE NATURALLY OCCURRING FORM.....	7R01 NS16321-01	12,805
ZOLTIEWICZ, JOHN A.....	ENZYMATIC AND NON-ENZYMATIC DESTRUCTION OF THIAMINE.....	2R01 AM17442-04A1	36,266
ZOLTIEWICZ, JOHN A.....	STEREOSPECIFIC BINDING OF PROTEINS TO DNA.....	5R01 GM17503-09	45,054
ORGANIZATION TOTAL	115 7,670,321		
MELBOURNE			
FLORIDA INSTITUTE OF TECHNOLOGY ZIP CODE 32901			
BURCHFIELD, HARRY P.....	METABOLISM AND CARCINOGENICITY OF ORGANOHALOGENS.....	5R01 ES01883-03	156,705
JAMDAR, SUBHASH C.....	REGULATION OF ADIPOSE LIPID METABOLISM.....	7R01 AM26181-01	55,708
STORRS, ELEANOR E.....	COMPARATIVE SUSCEPTIBILITY OF ARMADILLOS TO LEPROSY.....	1R22 AI15249-01A1	89,536
WEBSTER, GEORGE C.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09032-03	91,075
ORGANIZATION TOTAL	4 393,024		
MIAMI			
PAPANICOLAOU CANCER RESEARCH INSTITUTE ZIP CODE 33136			
AHMAD, FAZAL.....	BACTERIAL LIPOGENESIS STUDIES.....	1R01 AI15894-01	63,976
AHMAD, FAZAL.....	REGULATION OF FATTY ACID BIOSYNTHESIS IN MAMMARY TUMORS.....	5R01 CA15196-05	73,126
AHMAD, FAZAL.....	BIOCHEMICAL STUDIES ON CENTRAL NERVOUS SYSTEM MYELIN.....	5R01 NS13646-02	14,267
AHMAD, FAZAL.....	STUDIES OF NEURONAL PHOSPHOPROTEIN PHOSPHATASE.....	1R01 NS14947-01	44,016
ALTMAN, NORMAN H.....	PRODUCTION OF RATS WITH ISOLOGOUSLY TRANSPLANTED R3327.....	2R26 CA18625-05	68,340
BLOCK, RONALD E.....	CHARACTERIZATION OF BIOLOGICAL TISSUES BY NMR.....	5R01 CA13056-06	50,472
BRADA, ZBYNEK.....	ETHIONINE METABOLISM IN HYPERPLASTIC NODULES IN LIVER.....	5R01 CA23516-02	87,445
KOHEN, ELLI.....	INTRACELLULAR ENZYME KINETICS AND CARCINOGENS.....	5R01 CA21153-03	45,885
KOHEN, ELLI.....	REGULATION OF INTRA & INTERCELLULAR COMMUNICATION.....	5R01 GM20866-06	57,350
MELOCHE, H PAUL.....	MICROENVIRONMENTAL GEOMETRY OF C-C LYASE ACTIVE SITES.....	5R01 GM24926-03	69,664
MELOCHE, H PAUL.....	NIGMS SHARED INSTRUMENTATION PROGRAM.....	1P41 GM27572-01	151,878
SCHULTZ, JULIUS.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05690-09	40,490
ORGANIZATION TOTAL	12 766,909		
UNIVERSITY OF MIAMI ZIP CODE 33101			
ADACHI, KENJI.....	ROLE OF CYCLIC NUCLEOTIDES IN PATHOGENESIS OF PSORIASIS.....	5R01 AM17179-06	117,495
AHN, YEON-SOONG.....	INJURY TO MACROPHAGES IN AUTOIMMUNE DISORDERS.....	1R01 AM25485-01	61,263
ANDERSON, DOUGLAS R.....	EXPERIMENTAL PATHOLOGY OF THE OPTIC NERVE.....	5R01 EY00031-09	156,183
ANDERSON, DOUGLAS R.....	OPHTHALMIC RESEARCH CORE FACILITY.....	5P30 EY02180-02	147,860
AWAD, WILLIAM M, JR.....	CHARACTERIZATION OF PRONASE ENZYMES.....	5R01 GM22468-04	70,953

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
BARRETT, ELLIEN E	NEUROTRANSMITTER RELEASE KINETICS	5R01 NS17404-05	43,771
BARRETT, JOHN N	PACEMAKER MECHANISMS IN NEURONS AND HEART CELLS	5R01 NS12207-05	88,472
BASSETT, ARTHUR L	EFFECT OF DRUGS ON DEVELOPMENT OF CARDIAC FAILURE	2R01 HL19044-04	95,234
BOUCKER, ROBERT J, JR	STUDIES ON AGING EFFECTS OF SEX HORMONES	5R01 HL17865-05	106,536
BOUCKER, ROBERT J, JR	DRUG TREATMENT OF VASCULAR SCLEROPROTEIN DEFECTS	5R01 HL17909-05	119,182
BOUCKER, ROBERT J, JR	REGULATION OF LYSYL CROSS-LINKING IN VASCULAR TISSUE	5R01 HL22040-02	127,405
BOURGOIGNIE, JACQUES I	RENAL FAILURE: PATHOPHYSIOLOGY AND POSSIBLE PREVENTION	2R01 AM19822-04	117,711
BREW, KATH	CHEMICAL STUDIES OF ENZYMES AND PROTEINS	5R01 GM21363-06	80,951
BROLL, LARI	AROMATIC AMINE N OXIDATION IN BLADDER CANCER	5R26 CA16900-05	60,367
CANTERBURY, JANET M	RADIOIMMUNOASSAY OF PARATHYROID HORMONE IN MAN	2R01 AM16768-08	169,189
CASWELL, ANTHONY H	ISOLATED T TUBULES AND TRIADS OF MUSCLE	5R01 AM21601-02	93,413
CHRISTAKIS, GEORGE	DETERMINANTS OF CHD RISK FACTORS IN ADOLESCENCE	1R01 HL23356-01	470,281
CLAFLIN, ALICE J	MEMBRANE ANTIGENS OF RAT PROSTATE ADENOCARCINOMA	5R26 CA21696-02	77,539
CLARK, MARTIN R	HORMONAL REGULATION OF PROSTAGLANDIN SYNTHESIS	1R01 HD13073-01	84,565
CLARKSON, JOHN G	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY	5R10 EY02468-02	168,033
COWMAN, RICHARD A	HUMAN SALIVA STREPTOCOCCAL METABOLIC INTERACTIONS	2R01 DE04778-04A1	59,184
DOWNEY, KATHLEEN M	FIDELITY OF DNA SYNTHESIS WITH DNA POLYMERASE	1R01 GM25394-01	42,595
FENNA, ROGER E	STRUCTURAL STUDIES OF LACTOSE SYNTHETASE	1R01 GM26767-01	68,941
FITZGERALD, DOROTHEA R	CARIOGENESIS OF PLAQUE BACTERIA IN TEST MODELS	5R01 DE04265-05	124,688
FLETCHER, MARY A	IMMUNOCHEMICAL STUDIES OF MONONUCLEOSIS ANTIBODIES	5R01 AM16763-08	122,643
FORSTER, RICHARD K	MANAGEMENT OF FUNGAL KERATITIS AND ENDOPHTHALMITIS	5R01 EY00674-08	82,483
GACE, DONALD M	MACULAR PHOTOCOAGULATION STUDY	1R10 EY02549-01	61,054
GELHARD, HENRY	A PROSPECTIVE STUDY BLOOD PRESSURE IN NEWBORN TWINS	5R01 HL19930-04	191,374
GINSBURG, MYRON D	BRAIN BLOOD FLOW AND METABOLISM IN HYPOXIA ISCHEMIA	7R01 NS15883-01	84,736
GOLDBERG, STEPHEN I	INDUCTION OF MAMMALIAN RETINAL REGENERATION	2R01 EY01981-03	54,588
GOLDBERG, STEPHEN I	MAMMALIAN RETINAL REGENERATION	1R01 EY02579-01	83,345
GREEN, BARTH A	OUTCOME VS EMERGENCY CARE IN SPINAL CORD INJURY	5R01 NS14468-02	210,594
HAMASAKI, DUCO I	EFFECT OF VISUAL DEPRIVATION ON VISION	5R01 EY00376-10	118,074
HARRIS, RACHEL J	PROJECT CID: COMPLIANCE INTERVENTION FOR DIABETES	1R73 AM26001-01	43,224
HAYNES, DUNCAN H	MEMBRANE PHOTODAMAGE INDUCED BY ANTIDIABETIC DRUGS	5R01 AM20086-03	39,342
HAYNES, DUNCAN H	SARCOPLASMIC RETICULUM CA2+ TRANSPORT AND RELEASE	5R01 GM23990-02	77,008
HAYNES, DUNCAN H	BINDING, TRANSPORT OF CALCIUM AND POTASSIUM IONOPHORES	5R01 HL23392-02	38,726
HERSCHEIR, JONATHAN	AQUEOUS HUMOR AND CONJUNCTIVAL FIBROBLASTS	5R01 EY02436-02	55,136
HOLIDAY, DUNCAN A	METABOLISM OF VOLATILE FLUORIDATED ANESTHETICS	5R01 GM16498-11	89,735
HOWELL, DAVID S	ROLE OF PHOSPHOLIPIDS IN MINERALIZATION OF OSTEOID	2R01 AM08662-16	109,887
ISAACS, RUSSELL E	REGULATION OF 2,3-DIPHOSPHOGLYCERATE IN ERYTHROCYTES	5R01 AM20815-02	30,671
JANDOWNE, DAVID	NERVE MEMBRANE ASYMMETRY	1R01 NS13789-01A2	78,869
JEE, ERNEST Y	PHOSPHOPROTEIN PHOSPHATASES: PROPERTIES & REGULATION	2R01 AM18512-05	104,284
LITNOTAY, DENIS	A UNIQUE PEPTIDE INHIBITOR OF ADENYLATE CYCLASE	3R01 AM19192-03S1	12,566
ELMAIRE, WILLIAM J	MECHANISM OF OVULATION	5R01 HD08747-05	93,266
LESSNER, HOWARD E	SOUTHEASTERN CANCER STUDY GROUP	5R10 CA05641-19	323,911
LOCKWOOD, ALAN H	HYPOXIC AND HEPATIC COMA: MECHANISMS AND THERAPY	1R01 NS14996-01	126,833
LOCKWOOD, ALAN H	CEREBRAL METABOLISM & FUNCTION: P EMISSION TOMOGRAPHY	1P01 NS15639-01	865,832
LOEWENSTEIN, WERNER R	A PROGRAM ON THE ETIOLOGY AND DIAGNOSIS OF CANCER	5R01 CA14464-06	206,025
LOPEZ, DIANA M	CELL MEDIATED IMMUNITY IN MOUSE MAMMARY TUMOR MODELS	1R01 CA25583-01	116,857
LUBS, HERBERT A	FURTHER STUDIES OF THE MARKER X AND MENTAL RETARDATION	1R01 HD13898-01	50,818
LUBS, HERBERT A	GENETICS OF SPECIFIC DYSLAXIA	1R01 HD13899-01	78,762
MAGLEBY, KARI L	MECHANISMS OF VARIABLE SYNAPTIC EFFICACY	5R01 NS10277-07	87,465
MAJNIN, THEODORE I	PROSTATE CANCER TISSUE COLLECTION CENTER	5R26 CA15480-06	204,357
MANSFIELD, PETER W	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17912-05	126,342
MARSH, JOHN M	MECHANISM OF GONADOTROPIN ACTION	5R01 HD03142-13	136,721
MARSHALL, JAMES J	SYNTHETIC CARBOHYDRATE PROTEIN CONJUGATES	2R01 GM21258-04A1	84,815
MASSARO, DONALD J	PROTEIN TURNOVER AND AMINO ACID TRANSPORT BY LUNG	5R01 HL20366-04	71,012
MASSARO, GLORIA D	CELLULAR BASIS OF SMALL AIRWAYS FUNCTION	5R01 HL22333-02	85,614
MC CABE, MEAD M	CELL ADHERENCE OF DENTAL PLAQUE FORMING STREPTOCOCCI	5R01 DE04321-05	100,131
MILLER, JOSHUA	ENHANCEMENT & GRAFT ADAPTATION IN ORGAN TRANSPLANTATION	5R01 AM25243-03	85,042
MOLNICH, KARI H	STRUCTURE OF TRYPTOPHANYL tRNA SYNTHETASE OF E. COLI	2R01 GM23188-04	138,484
MYRBERG, ROBERT J	STUDIES OF SURVIVORS OF PREHOSPITAL CARDIAC ARREST	5R01 HL18769-05	144,003
MYRBERG, ROBERT J	ELECTROPHYSIOLOGY AFTER HEALED MYOCARDIAL INFARCTION	5R01 HL21735-02	74,150
PAPPER, EMANUEL M	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00261-14	268,214

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
PAPPER, EMANUEL M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05363-18	201,413
PENNELL, J PHILLIP	EFFECT OF ISLET IMPLANTS ON DIABETIC NEPHROPATHY	5R01 AM20735-03	77,700
POTTER, LINCOLN T.	ACETYLCHOLINE RECEPTOR-CHANNEL MOLECULES	5R01 NS14651-02	99,772
POWELL, JANET T.	STUDIES OF B-GALACTOSIDE BINDING PROTEIN OF RAT LUNG	1R01 HL24261-01	63,183
PRESSMAN, BERTON C.	CHROMAFFIN GRANULES, IONOPHORES AND THE HEART	1R01 HL23931-01	83,769
PRESSMAN, BERTON C.	CARDIOVASCULAR PROPERTIES OF CARBOXYLIC IONOPHORES	1R01 HL23932-01	99,107
RABINOVITCH, ALEXANDER	PANCREATIC ISLET CELL STUDIES	1R01 AM25832-01	48,196
RADOMSKI, JACK I.	ENVIRONMENTAL BLADDER CARCINOGENS	3R26 CA14927-05S1	8,672
RADOMSKI, JACK I.	ENVIRONMENTAL BLADDER CARCINOGENS	2R26 CA14927-06	118,026
RAMSAY, R EUGENE	PHARMACOKINETICS & TERATOGENICITY OF ANTICONVULSANTS	1R01 HD12740-01	45,613
RIBBONS, DOUGLAS W.	ENZYMES OF AROMATIC OXIDATIONS FROM MICROORGANISMS	5R01 GM20172-05	115,951
ROSENTHAL, MYRON	IN SITU STUDIES OF DRUG ACTIONS ON CNS METABOLISM	5R01 NS14319-03	95,242
ROSENTHAL, MYRON	CEREBRAL ISCHEMIA, VIABILITY AND OXIDATIVE METABOLISM	2R01 NS14325-03	178,628
ROWE, MARC I.	SHOCK IN INFANCY: METABOLIC AND HEMODYNAMIC ASPECTS	2R01 HD04154-11	85,469
RUBIN, ROBERT W.	THE ROLE OF MICROTUBULES IN MALIGNANT TRANSFORMATION	3R01 CA19855-03S1	11,883
RUSSELL, THOMAS R.	PROSTAGLANDINS AND CYCLIC GMP IN DIFFERENTIATION	5R01 AM21575-03	57,266
RYAN, JAMES W.	HUMORAL MEDIATORS OF PULMONARY INFLAMMATION	2R01 HL22087-03	141,094
RYAN, JAMES W.	IMMEDIATE METABOLIC FATES OF KININS AND ANGIOTENSINS	5R01 HL22896-02	153,340
RYAN, UNA S.	CELL BIOLOGY OF THE ALVEOLAR-CAPILLARY UNIT	5R01 HL21568-03	135,442
SCHNEIDER, PERITZ	RESEARCH CENTER FOR CEREBRAL VASCULAR DISEASE	2P50 NS05820-14	751,077
SCOTT, MARCIA S.	MEMORY IN YOUNG CHILDREN	2R01 HD09819-04	60,774
SCOTT, WALTER A.	ORGANIZATION OF HISTONES ON SV40 AND VARIANT DNA	5R01 AI12852-05	49,938
SCOTT, WALTER A.	PANCREATIC ISLET CELL TRANSFORMATION BY SV40 MUTANTS	5R01 AM21213-03	41,309
SEIBERT, G BURTON, JR.	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES	5R10 CA21186-03	100,036
SMITH, DAVID S.	STRUCTURE AND FUNCTION IN EXCITABLE CELLS	2R01 NS10447-07A1	96,328
SMITH, ERIC E.	INHIBITION OF DEXTRANSUCRASES OF CARIOGENIC ORGANISMS	5R01 DE03118-09	59,982
SO, ANTERO G.	FIDELITY OF DNA SYNTHESIS IN HEMATOPOIETIC TISSUES	1R01 AM26206-01	115,940
THOMAS, VERA F.	KINETICS OF UPTAKE AND EXCRETION OF VAPORS IN MAN	5R01 ES01029-05	50,389
VAN BREEMEN, CORNELIS	NA-CA INTERACTIONS IN SMOOTH MUSCLE	1R01 HL23559-01	66,841
VAN BREEMEN, CORNELIS	NA-CA INTERACTIONS IN THE ETIOLOGY OF HYPERTENSION	1R01 HL25359-01	44,926
WEINSTEIN, GERALD D.	PATHOPHYSIOLOGY & CHEMOTHERAPY IN PSORIASIS & CANCER	5R01 AM14887-13	38,202
WERNER, RUDOLF K.	MECHANISM OF DNA CHAIN GROWTH IN MAMMALIAN CELLS	5R01 GM22510-02	67,844
WHELAN, WILLIAM J.	SYNTHESIS AND STRUCTURE OF MAMMALIAN LIVER GLYCOGEN	5R01 AM12532-12	173,305
WHELAN, WILLIAM J.	THE MECHANISM OF STARCH DIGESTION IN MAMMALS	5R01 AM17733-05	84,383
WIESER, PAUL B.	CARNITINE AND ADIPOSE TISSUE METABOLISM	5R01 AM21251-02	68,759
WILSON, DAVID L.	AXOPLASMIC TRANSPORT OF PROTEINS	5R01 NS14328-02	63,449
WISE, GARY E.	SICKLE CELL CRISIS: ROLE OF THE ERYTHROCYTE MEMBRANE	5R01 HL21096-03	57,409
WOESSNER, J FREDERICK, JR.	HUMAN CARTILAGE PROTEASES IN ARTHRITIS	5R01 AM16940-07	91,116
WOESSNER, J FREDERICK, JR.	TISSUE COLLAGENASE AND ITS CONTROL BY STEROIDS	5R01 HD06773-08	90,816
WU, MING-CHI	COLONY STIMULATING FACTOR AND MODULATORS OF MYELOPOIESIS	1R01 AM26207-01	66,808
YUNIS, ADEL A.	PATHOGENETIC MECHANISMS IN BLOOD DISEASES	3P01 AM09001-13S1	68,903
YUNIS, ADEL A.	DRUG-INDUCED BONE MARROW INJURY	1R01 AM26218-01A1	108,462
YUNIS, ADEL A.	PANCREATIC CARCINOMA IN CONTINUOUS CULTURE	2R26 CA19182-04	78,935
ZIBOH, VINCENT A.	BIOCHEMICAL BASIS OF PROSTAGLANDIN ACTION IN THE SKIN	2R01 AM14941-07	118,743
ZUBROD, C GORDON	COMPREHENSIVE CANCER CENTER FOR THE STATE OF FLORIDA	2P30 CA14395-07	1,221,541
ZUBROD, C GORDON	CYTOKINETICS AND CHEMOTHERAPY OF HUMAN SOLID TUMORS	3P01 CA19321-03S1	205,317
ORGANIZATION TOTAL	111	13,720,102	
MIAMI BEACH			
MIAMI HEART INSTITUTE	ZIP CODE 33140		
MAYROVITZ, HARVEY N.	HUMAN MICROCIRCULATORY EFFECTS OF BETA-BLOCKADE	1R01 HL23477-01	28,546
ORGANIZATION TOTAL	1	28,546	
MOUNT SINAI MEDICAL CENTER	ZIP CODE 33140		
SACKNER, MARVIN A.	VOLUMES AND COMPLIANCE OF PULMONARY CIRCULATION	2R01 HL10622-13	62,488
WANNER, ADAM	PATHOPHYSIOLOGY OF BRONCHIAL ASTHMA	5R01 HL20989-02	69,518
WOODSIDE, KENNETH H.	STUDIES OF PULMONARY ALVEOLAR MACROPHAGE FUNCTION	7R01 HL24787-01	62,910
ORGANIZATION TOTAL	3	194,916	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
ORLANDO			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF CENTRAL FLORIDA ZIP CODE 32816			
KUHN, DAVID T.....	DEVELOPMENTAL STUDY OF HOMOEOSIS IN D MELANOGASTER.....	1R01 AG01846-01	63,178
ORGANIZATION TOTAL	1	63,178	
SAINT PETERSBURG			
ECKERD COLLEGE ZIP CODE 33733			
DEMBROSKI, THEODORE M.....	CORONARY-PRONE BEHAVIOR AND CARDIOVASCULAR REACTIVITY.....	5R01 HL22809-02	70,286
ORGANIZATION TOTAL	1	70,286	
LIFE SCIENCES, INC.—BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 33710			
NONOYAMA, MEIHAN.....	ONCOGENICITY OF EPSTEIN-BARR VIRUS.....	2R01 CA21665-04	85,586
ORGANIZATION TOTAL	1	85,586	
SARASOTA			
MOTE MARINE LABORATORY ZIP CODE 33577			
TAVOLGA, WILLIAM N.....	ECHOLLOCATION AND ACOUSTIC ORIENTATION.....	5R01 NS13746-03	25,916
ORGANIZATION TOTAL	1	25,916	
TALLAHASSEE			
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY ZIP CODE 32307			
LEE, HENRY J.....	NEW LOCAL ANTI-INFLAMMATORY STEROIDS.....	1R01 AM21627-01	27,620
SHETTY, A SUBBAYYA.....	ENZYMATIC DETOXIFICATION OF HYDROXYANTHRANILIC ACID.....	5R01 CA18817-03	35,709
TIERLIKIS, LAMBROS P.....	BIOCHEMICAL AND PHARMACOLOGICAL INVESTIGATIONS.....	5S06 RR08111-08	440,626
ORGANIZATION TOTAL	3	503,955	
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306			
BAKER, HOWARD D.....	HUMAN VISUAL SENSITIVITY AND VISUAL PIGMENT LEVELS.....	2R01 EY01394-05	37,754
BEIDLER, LLOYD M.....	HETEROGENEITY OF NERVE RECEPTOR SITES OF SWEET CELLS.....	1R01 NS15407-01	65,283
BERKLEY, KAREN J.....	CONVERGENCE OF SOMATOSENSORY PATHWAYS IN THALAMUS.....	5R01 NS11892-06	51,510
BERKLEY, MARK A.....	NEURAL MECHANISMS IN SPATIAL VISION.....	5R01 EY00953-08	73,407
BILLARD, LYNNE.....	EPIDEMIC PROCESSES, ESTIMATION AND SEQUENTIAL ANALYSIS.....	1R01 GM26851-01	14,989
CANCALON, PAUL.....	ISOLATION AND IDENTIFICATION OF OLFACTORY RECEPTORS.....	1R01 NS14912-01	36,318
DE BUSK, A GIB.....	CELL SURFACE FUNCTION AND CELLULAR AGING.....	5R01 AG00194-05	30,950
DOUGHERTY, RALPH C.....	NEW SCREENING METHODS FOR TOXIC SUBSTANCES.....	5R01 ES01878-02	42,368
ELAM, JOHN S.....	STUDY OF AXONAL GLYCOPROTEINS AND GLYCOSAMINOGLYCANS.....	2R01 NS11456-07	51,633
FREEMAN, MARC E.....	CONTROL OF PROLACTIN SECRETION.....	5R01 HD11669-02	43,332
FREEMAN, MARC E.....	CONTROL OF LUTEINIZING HORMONE SECRETION.....	5R01 HD12233-02	38,480
FRIEDEN, EARL.....	THE BIOCHEMISTRY OF CERULOPLASMIN.....	1R01 AM25451-01	51,892
FRIEDEN, EARL.....	AMPHIBIAN DEVELOPMENT; THYROID INDUCED METAMORPHOSIS.....	5R01 HD01236-24	108,169
GILMER, PENNY J.....	HISTOCOMPATIBILITY ANTIGENS IN DEFINED MEMBRANES.....	1R01 CA25747-01	51,147
GOEDKEN, VIRGIL L.....	STRUCTURAL AND REACTIVITY OF IRON AND COBALT COMPLEXES.....	5R01 HL20996-03	79,458
GRAZIADEI, PASQUALE P.....	FUNCTIONAL ANATOMY OF OLFACTORY AND TASTE RECEPTORS.....	5R01 NS08943-09	48,944
GREENBERG, MICHAEL J.....	PHARMACOLOGY OF MOLLUSCAN HEARTS.....	5R01 HL09283-15	61,689
HERZ, WERNER.....	ANTITUMOR LACTONES—PHYTOCHEMISTRY.....	5R01 CA13121-21	84,568
HOFER, KURT G.....	TUMOR CELL HYPOXIA AS A FACTOR IN CANCER THERAPY.....	5R01 CA21673-02	61,988
JOHNSON, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07020-14	98,429
KENSHALO, DANIEL R.....	PSYCHOPHYSICAL AND NEURAL RESPONSE TO THERMAL STIMULI.....	2R01 NS02992-19	75,767
LIEBESKIND, LANNY S.....	AN ORGANOTRANSITION METAL ENTRY TO ANTITUMOR QUINONES.....	1R01 CA26374-01	53,219
LIGHT, ROBLEY J.....	METABOLISM OF HYDROXY FATTY ACIDS AND GLYCOLIPIDS.....	5R01 AM15150-08	60,141
LINDER, BRUNO.....	ATTRACTION OF INTERMEDIATE TO LARGE MOLECULES.....	5R01 GM23223-04	46,358
MANDELKERN, LEO.....	CONFORMATIONAL AND OPTICAL PROPERTIES OF POLYPEPTIDES.....	5R01 GM20860-05	42,207
MARZLUFF, WILLIAM F, JR.....	CONTROL OF HISTONE MRNA SYNTHESIS: AN APPROACH TO AGING.....	5R01 AG00413-05	58,610
MARZLUFF, WILLIAM F, JR.....	CONTROL OF MILK PROTEIN SYNTHESIS IN MAMMARY TUMORS.....	5R01 CA20428-03	28,875
MASTERTON, R BRUCE.....	SENSORY CORTEX.....	5R01 NS07726-13	96,620

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
RHODES, WILLIAM C.....	ELECTRONIC RESPONSE PROPERTIES OF BIOMOLECULES.....	1R01 GM23942-01A1	37,161
RILL, RANDOLPH L.....	CHARACTERIZATION OF CHROMATIN SUBUNITS.....	5R01 GM21126-05	55,308
SCHATTEN, GERALD P.....	THE EGG SURFACE DURING FERTILIZATION.....	1R01 HD12913-01	23,650
SMITH, JAMES C.....	TASTE AVERSION AS A FACTOR IN CANCER THERAPY.....	1R01 CA22768-01A1	64,316
TAYLOR, J HERBERT.....	DNA METHYLATION: PATTERNS AND POSSIBLE REGULATORY ROLES.....	1R01 AG01807-01	70,335
TUCKER, DON.....	RELATION OF NEURAL RESPONSES TO ODOR PROPERTIES.....	5R01 NS08814-10	37,469
TUNKL BLUMSACK, JUDITH E.....	TECTAL FUNCTION IN VISION: A BEHAVIORAL ANALYSIS.....	5R01 EY02259-02	33,377
WELLER, ROBERT H.....	FEMALE EMPLOYMENT STATUS & SUBSEQUENT FERTILITY.....	5R01 HD10974-02	26,938
WHITNEY, GLAYDE D.....	BEHAVIOR GENETIC APPROACH TO CHEMOSENSORY FUNCTION.....	1R01 NS15560-01	113,346
WILLIAMS, THEODORE P.....	DAMAGING EFFECTS OF VISIBLE LIGHT.....	5R01 EY02250-02	71,146
ORGANIZATION TOTAL	38 2,127,151		
TAMPA			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA ZIP CODE 33620			
BALIS, JOHN U.....	THE SURFACTANT SYSTEM IN DIFFUSE ALVEOLAR DAMAGE.....	1R01 HL23320-01	68,056
BIERSDORF, WILLIAM R.....	ELECTROPHYSIOLOGICAL STUDIES OF VISUAL ADAPTATION.....	7R01 EY03155-01	33,204
BOREN, HOLLIS G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05749-07	56,909
CHUANG, HANSON Y.....	PLASMA PROTEINS ADSORBED TO ARTIFICIAL ORGANS.....	5R01 HL22585-02	30,487
CORY, JOSEPH G.....	CYTOTOXICITY AND RIBOSOMAL RNA MATURATION.....	5R01 CA14762-05	54,212
CORY, JOSEPH G.....	TUMOR CELL INHIBITION BY NUCLEOTIDE ALDEHYDE ANALOGS.....	5R01 CA15577-06	50,210
CORY, JOSEPH G.....	A NEW APPROACH TO COMBINATION CHEMOTHERAPY.....	1R01 CA27398-01	35,998
EIKMAN, EDWARD A.....	OBJECTIVE INTERPRETATION OF LIVER IMAGES.....	3R01 GM22890-03S1	29,942
FITZPATRICK, DAVID F.....	CALCIUM AND PHOSPHONOSITIDES IN VASCULAR FUNCTION.....	1R01 HL24605-01	52,267
HACKNEY, JOHN F.....	GLUCOCORTICOID RECEPTORS AND CLEFT PALATE.....	1R01 DE05168-01	41,158
HARTMANN, ROBERT C.....	CELLULAR DEFECTS IN NOCTURNAL HEMOGLOBINURIA.....	5R01 HL18012-05	41,666
KELLER, RONALD K.....	REGULATION OF GLYCOPROTEIN SYNTHESIS.....	5R01 GM25364-02	23,292
KLEIN, THOMAS W.....	PERTUSSIS VACCINE ANTIGENS MODULATING MACROPHAGES.....	1R01 AI15108-01A1	37,909
KRZANOWSKI, JOSEPH J.....	HISTAMINE TACHYPHYLAXIS IN AIRWAY SMOOTH MUSCLE.....	1R01 HL24658-01	46,540
LINSEY, BRUCE G.....	ENSEMBLE NEURAL CODING.....	1R01 NS14934-01A1	10,100
MARTIN, DEAN F.....	MANAGEMENT OF RED TIDE ENVIRONMENTAL HEALTH HAZARDS.....	5R01 ES01485-03	55,987
MASON, REGINALD G, JR.....	ENDOTHELIAL LININGS FOR ARTIFICIAL ORGANS.....	1R01 HL22587-01	44,693
MASON, REGINALD G, JR.....	AN INHIBITOR OF PLATELET ADHESION TO ARTIFICIAL ORGANS.....	5R01 HL22627-02	18,478
NESS, GENE C.....	REGULATION OF CHOLESTEROL BIOSYNTHESIS.....	5R01 HL18094-05	43,481
OLSSON, RAY A.....	CORONARY FLOW REGULATION BY ADENOSINE.....	5R01 HL20782-02	57,727
PHELPS, CHRISTOPHER P.....	FUNCTIONAL RESPONSES TO HYPOTHALAMIC DAMAGE.....	5R01 HD11345-02	31,754
POLLET, ROBERT J.....	INSULAR RECEPTOR CHARACTERIZATION OF HUMAN LYMPHOCYTES.....	5R01 AM18608-05	48,793
PRICE, JOEL M.....	PARAMETRIC MECHANICAL STUDIES OF HYPERTENSIVE ARTERIES.....	5R01 HL21103-02	37,229
RODRICK, GARY E.....	COMPARATIVE STUDY OF ASCARID SUCCINATE DEHYDROGENASE.....	1R01 AI16163-01	18,875
RODRICK, GARY E.....	SCHISTOSOME SUSCEPTIBILITY STUDY OF BRAZILIAN SNAILS.....	1R21 AI16287-01	16,200
SCHIMMEL, STEVEN D.....	MEMBRANE DEVELOPMENT IN NORMAL VS DYSTROPHIC MUSCLE.....	2R01 NS12558-04	44,242
SHANNON, ROGER.....	RESPIRATORY MUSCLE AFFERENTS IN RESPIRATORY CONTROL.....	5R01 HL17715-05	27,435
SHELLEY, SUE A.....	COMPOSITIONAL CHANGES OF AMNIOTIC FLUID SURFACTANT.....	1R01 HD13278-01	49,684
SOLOMONSON, LARRY P.....	NITRATE REDUCTASE: REGULATION AND PROPERTIES.....	2R01 GM23407-04	74,435
SOLOMONSON, LARRY P.....	NIGMS SHARED INSTRUMENTATION PROGRAM.....	1P41 GM27495-01	52,600
SPECTER, STEVEN C.....	IMMUNITY IN ORAL HERPES VIRUS INFECTION.....	7R23 DE05642-01	13,877
WEBER, LEE A.....	REGULATION OF MRNA TRANSLATION IN ANIMAL CELLS.....	1R01 CA26847-01	45,700
WHEELER, WILLIAM.....	VISION: SPATIAL, TEMPORAL AND ADAPTING EFFECTS.....	5R01 EY02921-02	55,442
WIGGINS, JAY R.....	DRUGS AND EXCITATION-CONTRACTION COUPLING IN HEART.....	5R01 HL22685-02	37,033
ORGANIZATION TOTAL	34 1,385,615		
VERO BEACH			
FLORIDA DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES—FLORIDA MEDICAL ENTOMOLOGY LABORATORY ZIP CODE 32960			
BIDLINGMAYER, WILLIAM L.....	MOSQUITO FLIGHT PATHS IN RELATION TO THE ENVIRONMENT.....	5R01 AI11921-05	66,226
BOROVSKY, DOV.....	VITELLOGENIN SYNTHESIS IN BITING DIPTERA.....	1R01 AI15349-01	46,266
BREELAND, SAMUEL G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05553-15	17,538
LINLEY, JOHN R.....	THE BIOLOGY OF CULICOIDES.....	3R01 AI09354-09S1	4,622
LINLEY, JOHN R.....	THE BIOLOGY OF CULICOIDES.....	5R01 AI09354-10	46,495

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
FLORIDA—Continued				
ORGANIZATION TOTAL	5	181,147		
STATE TOTAL	336	27,674,180		
GEORGIA				
ALBANY				
UNIVERSITY SYSTEM OF GEORGIA—ALBANY STATE COLLEGE		ZIP CODE 31705		
SMITH, CLIFFORD L.	INTERDISCIPLINARY BIOMEDICAL SCIENCE RESEARCH	5S06 RR08023-09	89,784	
ORGANIZATION TOTAL	1	89,784		
ATHENS				
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA		ZIP CODE 30602		
AGOSIN, MOISES	MICROSOMAL HEMOPROTEINS IN TRYPANOSOMATIDAE	5R01 AI12244-05	41,133	
AGOSIN, MOISES	JUVENOID METABOLISM IN TRIATOMA INFESTANS AND MAMMALS	5R01 AI13633-03	51,732	
AGOSIN, MOISES	GENETIC CONTROL OF CYTOCHROME P-450 IN DROSOPHILA	1R01 AI15333-01	61,593	
BALDWIN, JACK N.	A COMPARATIVE STUDY OF STAPHYLOCOCCAL PLASMIDS	1R01 AI15442-01	28,665	
BLANTON, C DE WITT, JR.	SYNTHESIS OF DIHYDROQUINAZOLINES AS ANTICONVULSANTS	1R01 NS15460-01	27,864	
BOWEN, JOHN M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05601-09	15,638	
DAMIAN, RAYMOND T.	SCHISTOSOME IMMUNITY MECHANISMS	7R22 AI16929-01	85,431	
DERVARTANIAN, DANIEL V.	HIGH-ENERGY INTERACTIONS IN MULTI-HEME SYSTEMS	5R01 GM18895-09	76,281	
DOUGLAS, CHARLES H.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07025-14	111,137	
DURE, LEON S, III.	REGULATION OF TRANSLATION IN A DEVELOPMENT SYSTEM	5R01 GM24787-02	46,549	
EITEMILLER, RONALD R.	MICRONUTRIENTS AND PROTECTIVE AGENTS IN HUMAN MILK	1R01 HD12451-01	52,819	
FOSTER, JUDITH A.	ELASTIN STRUCTURE, FIBROGENESIS AND DISEASE	2R01 HL22208-03	112,677	
GILES, NORMAN H.	GENETIC REGULATORY MECHANISMS IN NEUROSPORA	3R01 GM23051-03S1	5,000	
GILES, NORMAN H.	GENETIC REGULATORY MECHANISMS IN NEUROSPORA	5R01 GM23051-04	160,208	
HILL, RICHARD K.	STEREOCHEMICAL STUDIES OF BIOSYNTHETIC REACTIONS	5R01 GM16944-09	43,054	
HOLL, JAMES E.	ADRENOCEPTOR INTERCONVERSION AND HORMONE HOMEOSTASIS	5R01 HL22873-02	26,154	
KADIS, SOLOMON	ROLE OF DIETARY IRON IN PYLONEPHRITIS	1R01 AI15718-01	24,813	
KEY, JOE L.	RNA METABOLISM IN DEVELOPMENT AND HORMONAL REGULATION	5R01 CA11624-10	88,419	
KLOWDEN, MARC J.	PHYSIOLOGY OF MOSQUITO HOST-SEEKING	1R01 AI16063-01	43,353	
KOCHERT, GARY D.	PROGRAMMED DEVELOPMENT AND SENESENCE IN VOLVOX	7R01 AG02289-01	53,832	
KUSHNER, SIDNEY R.	A BIOCHEMICAL ANALYSIS OF GENETIC RECOMBINATION	5R01 GM21454-05	51,879	
KUSHNER, SIDNEY R.	FUNCTIONAL EXPRESSION OF EUKARYOTIC DNA IN E COLI	1R01 GM26389-01	72,404	
LEA, ARDEN O.	ENDOCRINOLOGY OF MOSQUITO REPRODUCTION AND BEHAVIOR	5R01 AI09410-10	65,542	
LEE, JOHN W.	BACTERIAL BIOLUMINESCENCE: A BLUE FLUORESCENCE PROTEIN	2R01 GM19163-03A1	45,887	
LJUNGDAHL, LARS G.	BIOCHEMISTRY OF VITAMIN B12 AND FOLIC ACID COMPOUNDS	5R01 AM12913-11	85,049	
MARTIN, ROY J.	GESTATIONAL DIABETES	5R01 AM25610-02	80,357	
MARTIN, ROY J.	METABOLIC REGULATION OF GROWTH AND DEVELOPMENT	5R01 HD12947-02	94,586	
MATHESON, NANCY R.	OXIDATIVE INACTIVATION OF PROTEASE INHIBITORS	1R23 HL24524-01	37,180	
MC RORIE, ROBERT A.	ACROLYSIN-ACROSIN IN FERTILITY EVALUATION AND CONTROL	5R01 HD10791-03	66,379	
MENDICINO, JOSEPH F.	ENZYME INTERACTIONS IN METABOLIC REGULATION	2R01 AM13150-12	87,279	
MENDICINO, JOSEPH F.	REGULATION OF GLYCOPROTEIN BIOSYNTHESIS IN LUNG	5R01 HL20858-03	28,289	
MENDICINO, JOSEPH F.	CONTROL AND DIFFERENTIATION OF MUCUS-PRODUCING CELLS	1R01 HL24688-01	51,898	
OWENS, WILLIAM A.	A DEVELOPMENTAL INTEGRATIVE INVESTIGATION	5R01 HD04135-11	54,921	
PATEL, GORDHAN L.	STUDY OF A LIVER HELIX DESTABILIZING PROTEIN IN VIVO	1R01 CA26360-01	56,189	
PELLETIER, S WILLIAM	TUMOR-INHIBITORY AGENTS IN PLANTS OF SOUTHEASTERN U.S.	5R01 CA24180-02	97,589	
PROENZA, LUIS M.	ELECTROPHYSIOLOGY OF RETINAL CELLS IN VISION	5R01 EY00973-07	43,493	
PRZYBYLA, ALAN E.	THE ROLE OF GLUCOCORTICOIDS IN MUSCLE DEVELOPMENT	1R01 AM22027-01	39,766	
SCHIERMAN, LOUIS W.	IMMUNOGENETIC STUDY OF A HERPES VIRUS INDUCED LYMPHOMA	5R01 CA23660-03	82,832	
SRIVASTAVA, PRAKASH N.	ACROSOMAL ENZYMES AND THEIR INHIBITORS IN FERTILIZATION	5R01 HD10871-03	67,929	
STAMMER, CHARLES H.	DEHYDROPEPTIDE RENIN SUBSTRATES	3R01 HL17896-03S2	6,361	
SUMMERS, ANNE O.	EFFECT OF HG TRANSFORMING GUT FLORA ON HG TOXICITY	2R01 ES01887-02	48,724	
TRAVIS, JAMES.	PROTEOLYTIC ENZYMES AND INHIBITORS IN LUNG DISEASE	5R01 HL14778-11	64,760	
TRAVIS, JAMES.	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS	1R01 HL24840-01	50,023	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
VAPNEK, DANIEL.....	PLASMID REPLICATION AND RECOMBINATION IN E. COLI.....	5R01 AI14989-02	91,907
VAPNEK, DANIEL.....	TRANSCRIPTION OF PLASMID DNA IN ESCHERICHIA COLI.....	5R01 GM20160-07	41,617
WADE, ADELBERT E.....	DIET AND CHEMICAL CARCINOGENESIS.....	5R01 CA20695-03	38,797
WADE, ADELBERT E.....	EFFECT OF DIETARY FAT TYPE ON CHEMICAL CARCINOGENESIS.....	1R01 CA25794-01	38,299
ORGANIZATION TOTAL	47 2,746,288		
ATLANTA			
ATLANTA UNIVERSITY CENTER ZIP CODE 30310			
JOHNSON, JOE, JR.....	BIOCHEMICAL CHARACTERIZATION OF MESSENGER RNA.....	1R01 GM26202-01	64,584
JOHNSON, JOE, JR.....	BIOMEDICAL SCIENCES RESEARCH IMPROVEMENT SUPPORT.....	5S06 RR08006-09	1,458,638
ORGANIZATION TOTAL	2 1,523,222		
CYSTIC FIBROSIS FOUNDATION ZIP CODE 30326			
LOBECK, CHARLES C, JR.....	WORKING CONFERENCE ON CYSTIC FIBROSIS.....	1R13 HD12981-01	5,000
ORGANIZATION TOTAL	1 5,000		
EMORY UNIVERSITY ZIP CODE 30322			
BESHARSE, JOSEPH C.....	DISK RENEWAL IN RETINAL VISUAL CELLS.....	5R01 EY02414-02	37,125
BESHARSE, JOSEPH C.....	VISUAL CELL & PIGMENT CELL INTERFACE AND DISC TURNOVER.....	1R01 EY03222-01	98,724
BINKLEY, FRANCIS.....	MIXED DISULFIDES AND METABOLIC CONTROL.....	5R01 AM20979-02	38,010
BINKLEY, FRANCIS.....	MILK, MAMMARY TISSUE AND GLUTAMYL TRANSFERASE.....	5R01 HD11431-02	38,111
CAMPBELL, DAVID G.....	PIGMENTARY GLAUCOMA THERAPY: THYMOXAMINE, MACROPHAGES.....	1R01 EY03230-01	120,812
CAMPBELL, WALLACE G, JR.....	PATHOLOGY OF HYPERTENSIVE-ASSOCIATED ARTERITIS.....	3R01 HL19539-03S1	16,225
CAVANAGH, H DWIGHT.....	BIOCHEMICAL CONTROL OF GROWTH IN CORNEAL EPITHELIUM.....	2R01 EY01920-04	116,240
COLLINS, DELWOOD C.....	ESTRONE SULFATE: ITS ROLE IN ESTROGEN ACTION.....	1R01 HD13503-01	82,936
DANNER, DEAN J.....	BRANCHED-CHAIN ALPHA KETOACID METABOLISM.....	5R01 HD08388-05	72,314
DE HAAN, ROBERT L.....	DIFFERENTIATION OF THE HEART-CELL MEMBRANE.....	2R01 HL16567-05	129,734
DI GIROLAMO, MARIO.....	AGING, NUTRITION AND TISSUE RESPONSIVENESS TO HORMONES.....	1R01 AG00789-01A1	81,691
DI GIROLAMO, MARIO.....	CONTROL MECHANISMS OF GLUCOSE METABOLISM IN FAT CELLS.....	5R01 AM17403-06	68,662
DUSENBERY, RUTH L.....	BIOCHEMISTRY OF DNA REPAIR AND MUTATION IN DROSOPHILA.....	1R23 ES02037-01	43,186
ELMER, WILLIAM A.....	EARLY NORMAL AND ABNORMAL LIMB DEVELOPMENT.....	5R01 HD10945-02	37,437
ENGLISH, ARTHUR W.....	MEDIAL GASTROCNEMIUS MUSCLE FUNCTION IN LOCOMOTION.....	5R01 AM19916-02	32,392
ENGLISH, ARTHUR W.....	INTERLIMB COORDINATION DURING STEPPING.....	1R01 NS15452-01	64,286
FARAJ, BAHJAT A.....	THE ROLE OF TYROSINE METABOLISM IN LIVER DISEASE.....	5R01 AM21646-02	68,857
FINNERTY, VICTORIA M.....	FINAL EXPRESSION OF B-GLUCURONIDASE IN DROSOPHILA.....	1R01 AG02113-01	23,265
FINNERTY, VICTORIA M.....	A NEW SYSTEM FOR SCREENING ENVIRONMENTAL MUTAGENS.....	5R01 ES01804-02	45,450
FINNERTY, VICTORIA M.....	REGULATION OF GENE EXPRESSION IN DROSOPHILA.....	5R01 GM23736-03	66,595
FRITZ, MICHAEL E.....	ION TRANSPORT IN SALIVARY GLANDS.....	5R01 DE02879-09	92,362
FULLER, ELLEN O.....	EFFECT OF TRAINING-DETRAINING ON THE RAT HEART.....	5R01 HL16420-03	66,893
GOLDSMITH, DAVID J.....	THE SYNTHESIS OF ANTIFEEDING AGENTS.....	5R01 ES01615-03	56,043
GOULD, KENNETH G.....	ALTERATION OF CERVICAL MUCUS COMPOSITION.....	2R01 HD10943-02	50,547
HARTZELL, H CRISS JR.....	INNERVATION OF THE HEART: ACETYLCHOLINE RECEPTORS.....	5R01 HL21195-03	31,047
HERSEY, STEPHEN J.....	INTRACELLULAR REACTIONS IN GASTRIC MUCOSA.....	5R01 AM14752-09	87,032
HUGULEY, CHARLES M, JR.....	CLINICAL CANCER EDUCATION PROGRAM (GENERAL).....	5R25 CA17998-05	167,484
HUMPHREY, DONALD R.....	CORTICAL NEURONAL MECHANISMS OF MOTOR CONTROL.....	5R01 NS10183-08	74,807
HUNT, LINDSAY M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05308-18	26,136
ISRAILI, ZAFAR H.....	PHARMACOKINETIC AND PHASE I STUDY OF AMINOPTERIN.....	5R01 CA22863-02	56,989
JOHNSON, LEWIS D.....	STUDY OF BASEMENT MEMBRANE GLYCOPROTEIN AND COLLAGEN.....	5R01 CA14797-05	5,380
KANN, HERBERT E.....	ANTINEOPLASTIC DRUGS: MOLECULAR PHARMACOLOGIC STUDIES.....	5R01 CA16620-05	82,047
KELLER, JAMES W.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA03227-23	420,010
KIBLER, ROBERT F.....	STUDIES IN DEMYELINATING DISEASES.....	5P50 NS11418-06	344,470
KINKADE, JOSEPH M, JR.....	QUANTITATIVE STUDIES ON GRANULOCYTE DIFFERENTIATION.....	5R01 CA22294-03	62,603
KUCK, JOHN F, JR.....	LENS METABOLISM IN NORMAL AND PRECATARACTOUS STATES.....	2R01 EY00260-17	103,413
KUO, JYH-FA.....	MECHANISM AND ROLE OF CYCLIC GMP IN HEART.....	3R01 HL15696-06S1	14,850
KUO, JYH-FA.....	MECHANISM AND ROLE OF CYCLIC GMP IN HEART.....	5R01 HL15696-07	98,131
LA VIA, MARIANO F.....	B LYMPHOCYTE ACTIVATION IN YOUNG AND AGED MICE.....	5R01 AG00132-03	28,407
LERMAN, SIDNEY.....	BIOPHYSICAL & MORPHOLOGICAL STUDIES OF AGING.....	1R21 AG01309-01	58,680
LERMAN, SIDNEY.....	LENS PROTEINS & FLUORESCENCE: IN VIVO & IN VITRO STUDY.....	3R01 EY01575-04S1	21,300

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
LERMAN, SIDNEY.....	LENS PROTEINS & FLUORESCENCE: IN VIVO & IN VITRO STUDY.....	5R01 EY01575-05	129,981
LESTER, CHARLES T.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07023-14	92,147
LETBETTER, WILLIAM D.....	ANATOMICAL BASIS OF SPINAL SENSORY-MOTOR ORGANIZATION.....	5R01 NS11949-05	36,393
LEVIN, MARTIN L.....	CONSEQUENCES OF BEING BORN TO AN ADOLESCENT MOTHER.....	1R01 HD12397-01	67,270
LIOTTA, DENNIS C.....	IMPORTANT COMPOUNDS VIA ORGANOSELENIUM REAGENTS.....	1R01 GM26908-01	53,550
MANDELL, LEON.....	NMR SPECTROSCOPY OF BIOLOGICALLY IMPORTANT COMPOUNDS.....	5R01 GM10848-23	75,825
MANNING, JOHN W.....	INTEGRATED CONTROL OF CARDIOVASCULAR ACTIVITY.....	5R01 HL16648-17	73,208
MC BRIDE, RUSSELL L.....	SOMATO-VISCERAL INTEGRATION IN LATERAL HABENULA.....	5R01 NS13945-02	30,366
MC CORMICK, DONALD B.....	INVESTIGATIONS OF FLAVIN SYSTEMS.....	7R01 AM26746-01	19,584
MENGER, FREDRIC M.....	INVESTIGATION OF BIO-ORGANIC SYSTEMS BY DYNAMIC NMR.....	5R01 GM21457-05	63,446
MUSEY, PAUL I.....	DIET EFFECT ON ESTROGEN BIOSYNTHESIS AND METABOLISM.....	1R01 CA24616-01A1	68,974
MYERS, ORIE E, JR.....	SUPPORT FOR YERKES REGIONAL PRIMATE RESEARCH CENTER.....	5P40 RR00165-19	2,116,529
NAHMAS, ANDRE J.....	LATENCY OF HERPES SIMPLEX IN ORO-FACIAL INFECTIONS.....	1R01 DE05194-01	62,462
NAHMAS, ANDRE J.....	ELECTRON MICROSCOPY IN CONGENITAL VIRAL INFECTIONS.....	1R01 HD12358-01	86,388
NEILL, JIMMY D.....	GONADOTROPIN SECRETION DURING LACTATION IN THE MONKEY.....	2R01 HD07066-07	42,980
NOE, BRYAN D.....	ROLE OF PROGLUCAGON IN GLUCAGON BIOSYNTHESIS.....	5R01 AM16921-05	37,697
NOE, BRYAN D.....	LOCALIZATION OF CONVERSION OF PROGLUCAGON TO GLUCAGON.....	5R01 AM19890-03	31,839
PADWA, ALBERT.....	SYNTHESIS OF FUSED HETEROCYCLIC COMPOUNDS.....	7R01 CA26750-01	44,452
PADWA, ALBERT.....	HETEROCYCLIC SMALL RING COMPOUNDS.....	7R01 CA26751-01	56,290
PRIEST, JEAN H.....	DERMATOGLYPHICS AND CLINICAL DISEASE.....	5R01 GM19268-06	28,220
PRIEST, ROBERT E.....	BASEMENT MEMBRANE COMPOSITION AND PATHOLOGY.....	1R01 AM25584-01	60,444
PRIEST, ROBERT E.....	DIFFERENTIATION IN HUMAN AMNIOTIC FLUID CELLS.....	5R01 HD11379-02	54,711
RAGAB, ABDELSALAM H.....	SOUTHWEST ONCOLOGY GROUP (CLINICAL).....	5R10 CA20549-03	149,223
REICHERT, LEO E, JR.....	TESTICULAR RECEPTORS OF FOLLICLE STIMULATING HORMONE.....	5R01 HD08228-06	37,186
RICHARDSON, ARTHUR P.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00039-19	721,014
RICHARDSON, ARTHUR P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05364-18	171,780
RINARD, GILBERT A.....	BIOCHEMICAL ASTHMA MECHANISMS IN AIRWAY SMOOTH MUSCLE.....	1R01 HL24621-01	109,972
RUBIN, BYRON H.....	THREE-DIMENSIONAL STRUCTURE OF CHLOROPEROXIDASE.....	1R01 GM26905-01	55,238
RUDMAN, DANIEL.....	PITUITARY ADIPOKINETIC SUBSTANCES.....	5R01 AM13129-13	142,244
RUDMAN, DANIEL.....	ABNORMAL METABOLISM OF CANCER PATIENTS.....	5R01 CA12646-08	96,027
RUMBAUGH, DUANE M.....	LANGUAGE FORMATION STUDIES.....	5P01 HD06016-09	236,644
SCOTT, JOHN W, JR.....	PHYSIOLOGICAL ANALYSIS OF THE OLFACTORY PROJECTIONS.....	5R01 NS12400-02	46,497
SCOTT, JUNE R.....	LYSOGENY AND BACTERIOPHAGE P1.....	5R01 CA11673-10	119,873
SHAPIRA, RAYMOND.....	STRUCTURE, METABOLISM & FUNCTION OF MYELIN PROTEINS.....	5R01 NS08278-10	63,984
SILBERMAN, MORTON S.....	ANIMAL CARE PROGRAM AND FACILITY IMPROVEMENT.....	5P40 RR01149-02	221,854
SMITH, P DENNIS.....	ENVIRONMENTAL MUTAGENESIS AND DNA REPAIR.....	5R01 ES01101-05	93,276
SUTIN, JEROME.....	PLASTICITY AND REGENERATION IN A NORADRENERGIC SYSTEM.....	5R01 NS14778-02	35,118
TAKAI, YOSHIO.....	SYSTEM DEGENERATION OF CNS-EXPERIMENTAL APPROACH.....	5R01 EY01967-03	74,322
TIGGES, JOHANNES W.....	THE EFFERENT FIBERS OF THE VISUAL CORTICES.....	5R01 EY00638-08	67,380
TSOU, RICHARD C.....	EFFECTS OF CATECHOLAMINES ON GONADOTROPHS.....	1R01 HD14236-01	60,421
WAITZMAN, MORTON B.....	METABOLIC SYSTEMS IN AQUEOUS HUMOR DYNAMICS.....	3R01 EY00243-15S1	20,409
WAITZMAN, MORTON B.....	METABOLIC SYSTEMS IN AQUEOUS HUMOR DYNAMICS.....	5R01 EY00243-16	118,575
WALDRON, CHARLES A.....	CLINICAL CANCER EDUCATION (DENTAL).....	5R25 CA19253-04	40,261
WARFIELD, DAVID K.....	A CLINICAL STUDY OF DENTAL MATERIALS AND TECHNIQUES.....	5R01 DE03504-10	46,681
WARING, GEORGE O, III.....	ANIMAL MODELS OF CORNEAL DYSTROPHIES AND DEGENERATIONS.....	7R01 EY03302-01	37,296
WARREN, W DEAN.....	CIRRHOSIS, SHUNT SURGERY, AND NITROGEN METABOLISM.....	2R01 AM15736-09	165,113
WHITE, JOHN F.....	GUT SUGAR TRANSPORT: ELECTROPHYSIOLOGY AND ENERGETICS.....	5R01 AM17361-06	22,136
WILLIS, ISAAC.....	PHOTOAugMENTATION AND CARCINOGENESIS.....	5R01 CA17555-05	50,597
WOODS, WENDELL D.....	BIOCHEMICAL REGULATION IN OCULAR TISSUES.....	3R01 EY00945-07S1	69,515
WU, GUANG-JER.....	REGULATION OF TRANSCRIPTION.....	1R01 CA25270-01	86,922
ORGANIZATION TOTAL	91 9,702,997		
MOREHOUSE COLLEGE ZIP CODE 30314			
BAILEY, GORDON B.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09081-02	85,452
WEBER-LEVINE, MARGARET L.....	VISUAL EVOKED POTENTIAL CHANGES WITH AGE.....	1R23 AG01583-01	42,378
ORGANIZATION TOTAL	2 127,830		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY ZIP CODE 30332			
BALE, WILLIAM F.....	ORGAN SPECIFIC TUMOR LOCALIZING ANTIBODY.....	1R01 CA25958-01	110,014
BURDETTE, EVERETTE C.....	DIELECTRIC MEASUREMENTS OF NORMAL & NEOPLASTIC TISSUE.....	5R01 CA22771-02	67,302

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
BURGESS, EDWARD M.....	THE CHEMISTRY OF NEW FUNCTIONAL GROUPS IN ENZYMES.....	2R01 GM12672-09A1	85,807
CRENSHAW, JOHN W. JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07024-14	74,781
DUSENBERY, DAVID B.....	GENETICS OF THERMAL ACCLIMATION, MEMBRANES AND AGING.....	5R01 AG00942-02	70,941
FELTON, RONALD H.....	PORPHYRIN IONS IN METABOLISM: PHYSICAL PROPERTIES.....	2R01 AM14344-10	107,320
GIDDENS, DON P.....	HEMODYNAMICS OF NORMAL AND DISEASED CAROTID ARTERIES.....	5R01 HL22635-02	75,198
HALL, CAROLE L.....	FATTY ACYL COA DEHYDROGENASE/ELECTRON TRANS FLAVOPROTEIN.....	5R01 GM25494-02	60,247
HALL, DWIGHT H.....	ORGANIZATION AND EXPRESSION OF THE GENOME OF PHAGE T4.....	5R01 GM24455-03	70,069
HOUSE, HERBERT O.....	ENHANCING THE SPECIFICITY OF SYNTHETIC PROCEDURES.....	5R01 GM20197-09	131,799
KOBLASZ, ARTHUR.....	NONLINEAR ANALYSIS OF THE HUMAN ELECTRORETINOGRAM.....	7R23 EY03022-01	13,732
MAREK, MIROSLAV.....	EFFECT OF CORROSION ON DENTAL AMALGAMS.....	2R01 DE03601-07	41,844
MAY, SHELDON W.....	NON-HEME IRON OXYGENASE CATALYSIS.....	5R01 GM23474-03	61,766
POWERS, JAMES C.....	TRITATION OF PROTEINS AND OTHER BIOMOLECULES.....	5R01 GM25181-02	102,643
POWERS, JAMES C.....	SYNTHETIC PROTEASE INHIBITORS.....	5R01 HL18679-05	52,696
POWERS, JAMES C.....	ACTIVE SITE STUDIES ON BLOOD PROTEASES.....	5R01 HL22530-02	36,456
WARTELL, ROGER M.....	CONFORMATIONS OF LIGAND-DNA COMPLEXES AND DNA OLIGOMERS.....	5R01 GM24734-02	54,689
YEARGERS, EDWARD K.....	AGING EFFECT OF GAMMA RADIATION ON A DORMANT NEMATODE.....	1R01 AG01061-01	15,133
YOUNG, ROBERT A.....	TOOTH ENAMEL APATITE AT THE ATOMIC LEVEL.....	5R01 DE01912-16	135,233
YU, NAI-TENG.....	COMPARATIVE RAMAN STUDIES OF HUMAN AND ANIMAL LENSES.....	2R01 EY01746-04	45,057
YU, NAI-TENG.....	LASER-EXCITED RAMAN SPECTROSCOPY OF BIOPOLYMERS.....	5R01 GM18894-09	75,546
ZALKOW, LEON H.....	THE ANTITUMOR AGENT OF APLOPAPPUS HETEROPHYLLUS.....	3R01 CA18819-03S1	8,567
ZALKOW, LEON H.....	NATURAL ANTITUMOR AGENTS FROM THE SENECEIONEAE.....	5R01 CA23277-02	40,783
ORGANIZATION TOTAL	23	1,537,623	
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA STATE UNIVERSITY ZIP CODE 30303			
BROWN, JOSEPHINE V.....	PREMATURITY, EARLY INTERACTION, AND SOCIAL COMPETENCE.....	5R01 HD11209-03	80,783
CHERNIAK, ROBERT.....	COMMON ANTIGEN OF CLOSTRIDIUM PERFRINGENS.....	1R01 AI15453-01	43,872
WILSON, W DAVID.....	INTERACTION OF ANTHRACYCLINE DRUGS WITH DNA.....	5R01 CA24454-02	26,140
ORGANIZATION TOTAL	3	150,795	
AUGUSTA			
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901			
ABDEL-LATIF, ATA A.....	METABOLISM AND FUNCTION OF GLYCEROLIPIDS IN THE IRIS.....	5R01 EY02181-02	47,633
ABDEL-LATIF, ATA A.....	NEUROTRANSMITTERS & POLYPHOSPHOINOSITIDE TURNOVER.....	5R01 EY02918-10	44,766
ABRAHAM, EDATHARA C.....	MINOR FETAL HEMOGLOBIN COMPONENTS.....	1R01 AM25265-01	36,408
ALLEN, MARSHALL B. JR.....	ISOLATED PITUITARY RESPONSE TO LHRH AND ESTROGENS.....	2R01 HD09445-04A1	64,242
BAYS, ROBERT A.....	STABILITY OF ORTHOGNATHIC SURGICAL PROCEDURES.....	1R01 DE05542-01	32,052
BEST, GARY K.....	STAPHYLOCOCCAL TOLERANCE AND GRANULOCYTIC FUNCTION.....	5R01 AI14656-02	61,591
BHALLA, VINOD K.....	INTERACTION OF GONADOTROPIN WITH TESTIS.....	3R01 HD08910-03S1	5,116
BHALLA, VINOD K.....	INTERACTION OF GONADOTROPIN WITH TESTIS.....	2R01 HD08910-04	62,050
BLACK, OWEN, JR.....	EFFECTS OF CARCINOGENS ON MACROMOLECULAR EVENTS.....	5R26 CA16263-02	49,015
BOCKMAN, DALE E.....	ANTIGEN ABSORPTION AND B CELL RESPONSE IN GUT.....	5R01 AI14222-02	38,855
BOCKMAN, DALE E.....	EXPERIMENTALLY-INDUCED PANCREATIC ADENOCARCINOMA.....	2R26 CA22063-03	45,519
BOINEAU, JOHN P.....	DELAYED & ASYMMETRIC VENTRICULAR CONDUCTION MECHANISMS.....	5R01 HL18398-05	57,879
BOND, GARY C.....	ARTERIAL BARORECEPTORS AND RENAL FUNCTION.....	2R01 HL21094-02	53,352
BOSHELL, JERRY L.....	STIMULATION OF REGENERATING RAT SUBMANDIBULAR GLANDS.....	1R23 DE05072-01	18,557
BULKACZ, JAIME.....	PHOSPHOLIPASE ACTIVITY OF PLAQUE MICROORGANISMS.....	5R01 DE04799-02	53,725
CIARLONE, ALFRED E.....	CHANGES IN BRAIN AMINES BY DENTAL LOCAL ANESTHETICS.....	5R23 DE04824-02	33,071
COSTOFF, ALLEN.....	THE HYPOTHALAMO-HYPOPHYSICAL-OVARIAN AXIS IN AGING.....	5R01 AG00756-03	32,953
COSTOFF, ALLEN.....	MORPHOMETRY OF PITUITARY GONADOTROPES AND MAMMOTROPES.....	1R01 HD11571-01A1	37,179
DIRKSEN, THOMAS R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05795-02	33,180
DIRKSEN, THOMAS R.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09043-03	67,052
FAIRHURST, CARL W.....	BONDING OF PORCELAIN TO SEMI- AND NON-PRECIOUS METALS.....	5R01 DE04252-05	90,264
FAIRHURST, CARL W.....	PIN AND SLOT RETENTION IN AMALGAM AND COMPOSITE MATERIAL.....	5R01 DE04394-03	11,980
GARVER, FREDERICK A.....	STRUCTURAL STUDIES OF UNIQUE MYELOMA IMMUNOGLOBULINS.....	5R01 CA15215-05	49,563
GELFANT, SEYMOUR.....	THE CELL CYCLE IN PSORIASIS.....	5R01 AM19735-03	87,463
GILMAN, JOHN G.....	GENETIC CONTROL OF DPG IN FETAL MOUSE AND RAT BLOOD.....	1R23 HL25803-01	42,800
GODT, ROBERT E.....	CA/IONS, LENGTH & FORCE VS VELOCITY IN ASTRIATED MUSCLE.....	3R01 AM25851-01S1	3,698
GOODALE, FAIRFIELD.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05365-18	115,087

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
GREEN, KEITH.....	ROLE OF DRUGS ON THE COMPONENTS OF AQUEOUS FORMATION.....	5R01 EY01329-04	72,304
GREEN, KEITH.....	ION AND WATER MOVEMENT IN OCULAR TISSUES.....	5R01 EY01413-06	71,665
GREENBAUM, LOWELL M.....	ANTI-PROTEASES AS POTENTIAL ASCITES RETARDANTS.....	7R01 CA28065-01	79,491
HENDRICH, CHESTER E.....	MENTAL DEFICIENCY IN PROGENY OF HYPOTHYROID MOTHERS.....	1R01 HD11411-01A1	47,803
HILL, JAMES M.....	IONTOPHORESIS OF ARA-AMP TO HERPES VIRUS LESIONS.....	5R01 DE04917-02	75,552
HODGE, LON D.....	METABOLISM OF ADENOVIRUS RNA.....	5R01 CA25727-02	89,120
HODGE, LON D.....	REGULATORY PROCESSES BIOCHEMISTRY IN SYNCHRONIZED CELLS.....	5R01 CA25735-02	91,573
HUISMAN, TITUS H.....	INHOMOGENEITY OF HEMOGLOBIN TYPES.....	5R01 HL05168-20	131,018
HUISMAN, TITUS H.....	COMPREHENSIVE SICKLE CELL CENTER.....	5P60 HL15158-08	1,310,560
HULL, DAVID S.....	DRUGS, PATHOLOGIC CONDITIONS AND CORNEA ENDOTHELIUM.....	5R01 EY02386-02	26,410
LAPP, DAVID F.....	TREHALOSE METABOLISM IN THE PARASITIC NEMATODE ASCARIS.....	5R01 AI11732-05	35,825
MAHESH, VIRENDRA B.....	EFFECT OF PROGESTERONE ON GONADOTROPIN SECRETION.....	5R01 HD10795-02	69,996
MERCHANT, HUBERT W.....	NUTRITIONAL FACTORS IN ORAL ULCERS: ZN, B12, FOLATE.....	5R01 DE04725-02	38,966
MULDOON, THOMAS G.....	REGULATION OF STEROID HORMONE RECEPTOR ACTIVITY.....	5R01 AM17650-05	45,752
O'CONNER, JAMES L.....	HYPOTHALAMIC LHRH DEGRADING ENZYMES AND THE ESTRUS CYCLE.....	1R01 HD13100-01	52,135
OGLE, THOMAS F.....	INTERACTIONS BETWEEN ADRENAL-PLACENTAL FUNCTION.....	5R01 HD12139-02	24,725
OKABE, TORU.....	AMALGAMATION KINETICS ON AG-SN (OX) ALLOYS.....	5R01 DE04262-05	75,500
PASHLEY, DAVID H.....	PERMEABILITY CHARACTERISTICS OF DENTIN.....	2R01 DE03780-07	86,260
SOHAL, GURKIRPAL S.....	CELL DEATH AND CYTODIFFERENTIATION.....	3R01 GM23484-02S1	6,724
SPRINKLE, TERRY J.....	2',3'CYCLIC NUCLEOTIDE-3'PHOSPHOHYDROLASE BIOCHEMISTRY.....	5R01 NS15307-02	63,866
STOMING, TERRANCE A.....	METABOLISM OF 3-METHYLCHOLANTHRENE IN LIVER AND LUNG.....	5R01 CA21481-03	24,939
SULLIVAN, HUMBERT G.....	INTRACRANIAL PRESSURE DYNAMICS.....	7R01 NS15995-01	79,741
TISCHFIELD, JAY A.....	GENETICS OF RESISTANCE TO ADENINE ANALOGS IN VITRO.....	7R01 GM26917-01	72,246
TYLER, JEAN M.....	STRUCTURAL REQUIREMENTS OF ISLET GLUCOSE RECEPTORS.....	5R01 AM18178-03	41,966
WEBSTER, PAUL D. III.....	CONTROL OF PANCREATIC DUCTAL AND ACINAR CELL FUNCTION.....	5R01 AM13131-12	83,623
WHITFORD, GARY M.....	INFLUENCE OF ACID-BASE STATUS ON FLUORIDE METABOLISM.....	2R01 DE04332-04	56,390
WHITFORD, GARY M.....	DETERMINANTS OF FLUORIDE IN THE ORAL ENVIRONMENT.....	5R01 DE04832-02	36,566
WILSON, JOHN T.....	FINE STRUCTURAL ANALYSIS OF HUMAN HEMAGLOBIN GENES.....	1R01 HL23294-01	98,373
ORGANIZATION TOTAL	55	4,264,139	
CLAXTON			
EVANS COUNTY HEALTH DEPARTMENT ZIP CODE 30417			
HAMES, CURTIS G.....	EPIDEMIOLOGICAL STUDY OF ATHEROSCLEROSIS IN EVANS COUNTY.....	5R01 HL03341-23	51,775
ORGANIZATION TOTAL	1	51,775	
FORT VALLEY			
UNIVERSITY SYSTEM OF GEORGIA—FORT VALLEY STATE COLLEGE ZIP CODE 31030			
BLACK, DAN T.....	BIOMEDICAL SCIENCES RESEARCH SUPPORT PROGRAM.....	5S06 RR08084-06	74,425
CHENNAULT, MADELYN.....	MIDDLE GEORGIA COMMUNITY HYPERTENSION INTERVENTION PROG.....	1R01 HL24004-01	231,585
ORGANIZATION TOTAL	2	306,010	
SAVANNAH			
UNIVERSITY SYSTEM OF GEORGIA—SAVANNAH STATE COLLEGE ZIP CODE 31404			
EMEH, CHUKWUDI O.....	BIOMEDICAL SCIENCE SUPPORT (MULTIDISCIPLINARY).....	5S06 RR08144-05	199,090
ORGANIZATION TOTAL	1	199,090	
STATESBORO			
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA SOUTHERN COLLEGE ZIP CODE 30458			
OLIVER, JAMES H. JR.....	REPRODUCTION IN TICKS AND MITES.....	5R01 AI09556-10	56,983
ORGANIZATION TOTAL	1	55,983	
STATE TOTAL	230	20,761,536	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
HAWAII			
HONOLULU			
BERNICE P. BISHOP MUSEUM ZIP CODE 96819			
GOFF, MADISON L.....	LARVAL TROMBICULIDAE.....	5R01 AI13893-03	33,238
ORGANIZATION TOTAL	1 33,238		
EAST-WEST CENTER ZIP CODE 96848			
PALMORE, JAMES A. JR.....	CHILD SPACING IN KOREA AND THE PHILIPPINES.....	5R01 HD12071-02	47,531
RETFERDORF, ROBERT D.....	OWN-CHILDREN FERTILITY ESTIMATES BY MARITAL DURATION.....	1R01 HD12634-01	24,011
ORGANIZATION TOTAL	2 71,542		
INSTITUTE OF BEHAVIORAL SCIENCES ZIP CODE 96814			
WADE, TERENCE C.....	DEPENDENCY, STRESS AND LIFE SATISFACTION IN THE AGED.....	1R01 AG01377-01	20,255
ORGANIZATION TOTAL	1 20,255		
KAPIOLANI-CHILDREN'S MEDICAL CENTER ZIP CODE 96826			
MELISH, MARIAN E.....	HOST RESPONSE TO STAPHYLOCOCCAL EPIDERMOLYTIC TOXIN.....	5R01 AI14998-02	48,164
MELISH, MARIAN E.....	ETIOLOGY AND PATHOGENESIS OF KAWASAKI SYNDROME.....	1R01 HL23824-01	91,637
SETO, DEXTER S.....	VIRAL HYPERSENSITIVITY IN SUDDEN INFANT DEATH SYNDROME.....	5R01 HD11671-03	92,313
SETO, DEXTER S.....	RESEARCH PROGRAM FOR LOW-BIRTH-WEIGHT INFANTS.....	1P20 HD13068-01	31,275
ORGANIZATION TOTAL	4 263,389		
QUEEN'S MEDICAL CENTER ZIP CODE 96813			
MC NAMARA, JOSEPH J.....	MYOCARDIAL PRESERVATION AND CORONARY REPERFUSION.....	5R01 HL14571-06	102,922
MC NAMARA, JOSEPH J.....	INFARCT SIZING AND MYOCARDIAL PRESERVATION.....	1R01 HL23154-01	92,099
ORGANIZATION TOTAL	2 195,021		
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
BEARDEN, JAMES C. JR.....	RDNA-BINDING PROTEINS AND CONTROL OF RDNA IN TUMORS.....	1R01 CA25618-01	65,105
BENEDICT, ALBERT A.....	IMMUNOGLOBULINS AND IMMUNE RESPONSES.....	5R01 AI05660-16	78,815
BENEDICT, ALBERT A.....	INHERITED IMMUNODEFICIENCY-AUTOIMMUNITY IN CHICKENS.....	1R01 AI15687-01	80,412
BRYANT-GREENWOOD, GILLIAN.....	THE RADIOIMMUNOASSAY OF RELAXIN AND ITS APPLICATIONS.....	5R01 HD06633-07	79,038
CLAYBAUGH, JOHN R.....	INFLUENCE OF ANGIOTENSIN ON VASOPRESSIN CONTROL.....	1R01 HL23434-01	24,906
COLE, ROBERT E.....	GENOTYPE AND ENVIRONMENT IN BEHAVIORAL PROCESSES.....	5R01 HD09459-02	61,430
COOKE, IAN M.....	CARDIAC PACEMAKER: BIOPHYSICAL INTEGRATIVE MECHANISMS.....	5R01 NS11808-05	64,489
COOKE, IAN M.....	ELECTRICAL ACTIVITY AND NEUROSECRETION IN VITRO.....	1R01 NS15453-01	69,871
CROWELL, DAVID H.....	NEONATAL NEUROPHYSIOLOGY AND METABOLIC DERANGEMENT.....	3R01 HD09981-03S1	23,943
FURUSAWA, EIICHI.....	STUDIES OF NARCISSUS ALKALOID WITH ANTILEUKEMIC ACTIVITY.....	5R01 CA12733-08	71,292
GIBBONS, IAN R.....	STRUCTURAL BASIS OF SPERMATOZOAN MOTILITY.....	5R01 HD06565-13	114,770
GIBBONS, IAN R.....	PROPERTIES OF DYNEIN ISOENZYMES.....	5R01 HD10002-04	64,541
GILLARY, HOWARD L.....	VISUAL MECHANISMS IN A REGENERATING GASTROPOD RETINA.....	5R01 EY01531-04	43,735
GREENWOOD, FREDERICK C.....	BIOMEDICAL SCIENCES.....	2S06 RR08125-06	250,646
GUILLORY, RICHARD J.....	COMPLEX I CHARACTERIZATION WITH PHOTOAFFINITY LABELS.....	5R01 GM24348-02	60,920
HADFIELD, MICHAEL G.....	DEVELOPING OPISTHOBRANCH MODELS FOR MEDICAL RESEARCH.....	5P40 RR01057-03	76,050
HALSTEAD, SCOTT B.....	INFECTION ENHANCEMENT—AN EXPERIMENTAL MODEL OF AIDS.....	5R01 HD08693-06	76,367
HARTLINE, DANIEL K.....	QUANTITATIVE SIMULATION OF SIMPLE NEURONAL NETS.....	2R01 NS15314-02	97,905
HELFRICH, PHILIP.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07026-14	102,585
HUMPHREYS, TOM D.....	DEVELOPMENTAL REGULATION OF MACROMOLECULAR SYNTHESIS.....	5R01 HD06574-09	56,818
JACOBS, PATRICIA A.....	A PROGRAM OF RESEARCH IN POPULATION CYTOGENETICS.....	2R01 HD07879-06	292,131
JACOBS, PATRICIA A.....	THE CHROMOSOME CONSTITUTION OF HUMAN SPERMATOZOA.....	5R01 HD11419-02	44,830
KANE, ROBERT E.....	CELL PROTEINS IN DIVISION AND EARLY DEVELOPMENT.....	5R01 GM14363-14	32,884
KOLONEL, LAURENCE N.....	CASE-CONTROL STUDY OF LUNG CANCER AND DIETARY VITAMIN.....	1R01 CA26515-01	98,080
LIND, NANCY K.....	MECHANISM OF ACTION OF FIRE ANT VENOM.....	5R01 ES01687-02	30,975
LIU, ROBERT S.....	ISOMERS OF VITAMIN A, CAROTENE AND VISUAL PIGMENT.....	2R01 AM17806-05	89,474
LYTTLE, TERENCE W.....	POPULATION GENETICS OF DROSOPHILA Y-CHROMOSOME DRIVE.....	5R01 GM24083-02	31,552
MATSUMOTO, HIROMU.....	METABOLISM OF CYCASIN-RELATED COLON CARCINOGENS.....	2R26 CA18631-04	76,118
MI, MING-PI.....	PREGNANCY OUTCOMES IN HUMAN POPULATIONS.....	1R01 HD12142-01	85,943
MOORE, RICHARD E.....	ANTICANCER COMPOUNDS FROM MARINE ORGANISMS.....	5R01 CA12623-07	89,052
MORISHIGE, WALTER K.....	HORMONAL REGULATION OF LUNG FUNCTION.....	2R01 HL19195-04	46,270

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
HAWAII—Continued			
MORTON, NEWTON E.....	A RESEARCH PROGRAM IN POPULATION GENETICS.....	5R01 GM17173-10	211,564
MORTON, NEWTON E.....	CHROMOSOME MAPPING IN MAN.....	5R01 GM23021-04	56,491
MORTON, NEWTON E.....	GENETIC RISKS AS AN OUTCOME OF SEGREGATION ANALYSIS.....	5R01 GM23498-03	21,440
MORTON, NEWTON E.....	GENETIC EPIDEMIOLOGY OF HYPERLIPEMIA.....	5R01 HL16774-05	51,411
NOMURA, ABRAHAM M.....	MUTAGENS AND LOWER URINARY TRACT CANCER IN HAWAII.....	1R26 CA25903-01	63,468
NORTON, TED R.....	EVALUATION OF HEART STIMULANTS IN SEA ANEMONES.....	5R01 HL15991-06	46,882
OISHI, NOBORU.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17984-05	132,881
PIETTE, LAWRENCE H.....	ESR STUDIES OF BIOLOGICAL FREE RADICAL MECHANISMS.....	5R01 CA10977-15	80,968
PIETTE, LAWRENCE H.....	CANCER CENTER SUPPORT GRANT.....	2P30 CA15655-04A1	474,147
RAD, DABEERU C.....	PATH ANALYSIS OF FAMILY RESEMBLANCE.....	5R01 GM24941-02	46,793
ROGERS, BEVERLY J.....	ANALYSIS OF HUMAN SPERM FERTILIZING ABILITY.....	5R01 HD11555-02	30,007
ROGERS, BEVERLY J.....	FACTORS AFFECTING ACROSOME REACTION AND FERTILIZATION.....	1R01 HD12890-01	40,757
SCHATZ, IRWIN J.....	MULTIPURPOSE ARTHRITIS CENTER OF HAWAII.....	5P60 AM22060-02	277,406
SIDDIQUI, WASIM A.....	IN-VITRO CULTIVATION OF HUMAN MALARIAL PARASITES.....	1R21 AI16273-01	56,090
SOOD, SATYA P.....	BIOLOGICAL, BIOCHEMICAL, BIOPHYSICAL STUDIES.....	5S06 RR08073-09	25,300
WELLINGTON, JOHN S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05599-13	51,813
YAMAMOTO, HISASHI.....	TOTAL SYNTHESIS OF BATRACHOTOXIN.....	1R01 NS15386-01	56,548
YANAGIMACHI, RYUZO.....	EVENTS IN MAMMALIAN SPERMATOZOA LEADING TO FERTILIZATION.....	5R01 HD03402-12	88,977
YASUNOBU, KERRY T.....	STUDIES OF CYTOCHROME P-450 AND CYTOCHROME OXIDASE.....	5R01 GM22556-04	55,442
ORGANIZATION TOTAL	50 4,349,332		
STATE TOTAL	60 4,932,777		
IDAHO			
MOSCOW			
UNIVERSITY OF IDAHO ZIP CODE 83843			
EROSCHENKO, VICTOR P.....	EFFECT OF KEPONE ON QUAIL OVIDUCT EGGSHELL STRUCTURE.....	5R01 ES01642-02	34,986
KLUETZ, MICHAEL D.....	DIAMINE OXIDASE: ITS ACTION AND ROLE IN RAPID GROWTH.....	5R01 GM23436-03	22,060
MEAD, RODNEY A.....	HORMONAL CONTROL OF DELAYED IMPLANTATION.....	5R01 HD06556-08	42,488
MILLER, LOIS K.....	GENETIC CHARACTERIZATION OF BACULOVIRUSES.....	5R01 ES01567-03	41,733
RITTER, ROBERT C.....	BEHAVIORAL BIOLOGY OF GLUCOPRIVIC FEEDING.....	5R01 AM20035-02	34,493
WHITE, ROBERT D.....	INTERACTION OF ULTRASOUND WITH PHOSPHOLIPID VESICLES.....	1R01 GM26642-01	69,060
WILLETT, JAMES D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07170-03	17,413
ORGANIZATION TOTAL	7 262,233		
STATE TOTAL	7 262,233		
ILLINOIS			
CARBONDALE			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM—SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE ZIP CODE 62901			
BE MILLER, JAMES N.....	POTENTIAL GLYCOSYLTRANSFERASE INHIBITORS.....	1R01 GM26193-01	54,277
BOLEN, DAVID W.....	ELEMENTARY STEPS IN ENZYME CATALYSIS.....	5R01 GM22300-05	41,970
BONE, LEON W.....	PHEROMONES AND REGULATION OF NEMATODE MATING BEHAVIOR.....	7R01 AI16763-01	68,141
BORGIA, PETER T.....	REGULATORY ROLE OF CYCLIC NUCLEOTIDES IN MUCOR.....	5R01 GM25176-02	27,393
BORGIA, PETER T.....	NIGMS SHARED INSTRUMENTATION PROGRAM.....	1P41 GM27425-01	75,664
DINGERSON, MICHAEL R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07118-10	32,484
HARGRAVE, PAUL A.....	RHODOPSIN STRUCTURE AND FUNCTION.....	5R01 EY01275-06	93,723
HARGRAVE, PAUL A.....	RHODOPSIN TOPOGRAPHY IN THE ROD CELL DISC MEMBRANE.....	3R01 EY02875-01S1	6,148
HAYNES, STEPHEN N.....	ASSESSMENT OF MUSCLE-CONTRACTION HEADACHE.....	5R01 NS14739-02	26,953
LIT, ALFRED.....	EFFECTS OF ILLUMINATION ON BINOCULAR SPACE PERCEPTION.....	3R01 EY00383-14S2	6,205
LIT, ALFRED.....	EFFECTS OF ILLUMINATION ON BINOCULAR SPACE PERCEPTION.....	2R01 EY00383-15	46,542
PARKER, JACK M.....	HIGH LEVEL MISTRANSLOCATION—PROKARYOTIC/EUKAROTIC CELLS.....	1R01 GM25855-01	32,462

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
PETERSON, RUDOLPH N.....	MOTILITY AND METABOLISM OF HUMAN SPERMATOZOA.....	5R01 HD10947-04	51,466
PETERSON, RUDOLPH N.....	ISOLATE SPERMATOZOAN RECEPTORS INVOLVED IN FERTILIZATION.....	1R01 HD13094-01	51,917
SUNG, MICHAEL T.....	HISTONE H5 AND AVIAN ERYTHROPOIESIS.....	5R01 HL20300-03	64,694
WINET, HOWARD.....	EXPERIMENTAL BIOPHYSICAL MODELS FOR GAMETE TRANSIT.....	1R01 HD12102-01A1	41,941
ORGANIZATION TOTAL	16 721,980		
CHAMPAIGN			
SOCIETY FOR THE STUDY OF REPRODUCTION ZIP CODE 61820			
GORSKI, ROGER A.....	SYMPOSIUM ON DEVELOPMENTAL REPRODUCTIVE BIOLOGY.....	1R13 HD13437-01	8,865
ORGANIZATION TOTAL	1 8,865		
CHICAGO			
AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE ZIP CODE 60601			
SMITH, ALFRED R.....	AAPM CHARGED PARTICLE BEAM DOSIMETRY TASK GROUP.....	5R01 CA22286-03	28,190
WOOTTON, PETER.....	AAPM FAST NEUTRON BEAM DOSIMETRY PHYSICS TASK GROUP.....	5R01 CA20826-02	26,568
ORGANIZATION TOTAL	2 54,758		
AMERICAN DENTAL ASSOCIATION ZIP CODE 60611			
STANFORD, JOHN W.....	STANDARD TEST METHODS FOR BIOMATERIALS & INSTRUMENTATION.....	3R01 DE03505-10S1	49,947
ORGANIZATION TOTAL	1 49,947		
AMERICAN DENTAL ASSOCIATION HEALTH FOUNDATION ZIP CODE 60611			
BOWEN, RAFAEL L.....	IMPROVEMENT OF PREVENTIVE AND RESTORATIVE MATERIALS.....	5R01 DE05129-02	107,609
BROWN, WALTER E.....	MECHANISM OF DENTAL CARIES.....	2R01 DE04385-04	79,301
BROWN, WALTER E.....	CHEMISTRY OF CALCIUM PHOSPHATES.....	5R01 DE05030-03	162,736
BROWN, WALTER E.....	PREVENTION OF DENTAL CARIES.....	5R01 DE05354-02	149,659
BROWN, WALTER E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05689-11	47,751
GRABER, THOMAS M.....	ORTHODONTIC TREATMENT WITH REMOVABLE APPLIANCES.....	1R01 DE05307-01	93,990
MABIE, CURTIS P.....	DENTAL PORCELAIN IMPROVEMENT WITH INORGANIC POLYMERS.....	5R01 DE05353-02	29,867
WATERSTRAT, RICHARD M.....	CONSTITUTION DIAGRAMS FOR ALLOYS OF THE NOBLE METALS.....	5R01 DE05031-03	42,508
ORGANIZATION TOTAL	8 713,421		
CHICAGO HEALTH DEPARTMENT ZIP CODE 60602			
WHIPPLE, IRA T.....	MYOCARDIAL FUNCTION, RISK FACTORS AND FUTURE CHD.....	5R01 HL16908-05	41,468
ORGANIZATION TOTAL	1 41,468		
CHICAGO HEART ASSOCIATION ZIP CODE 60606			
SCHOENBERGER, JAMES A.....	CHICAGO HEART HEALTH CURRICULUM PROGRAM.....	1R01 HL21892-01A1	276,559
ORGANIZATION TOTAL	1 276,559		
CHICAGO STATE UNIVERSITY ZIP CODE 60628			
MYLROIE, AUGUSTA A.....	FACULTY AND STUDENT RESEARCH DEVELOPMENT.....	5S06 RR08043-09	141,012
SHERMAN, WARREN V.....	LIGHT RESPONSE OF THE PURPLE MEMBRANE OF H. HALOBIMUM.....	5R01 EY02219-02	35,624
ORGANIZATION TOTAL	2 176,636		
CHILDREN'S MEMORIAL HOSPITAL ZIP CODE 60614			
HONIG, GEORGE R.....	REGULATION OF HEMOGLOBIN SYNTHESIS.....	5R01 AM19046-04	64,609
HONIG, GEORGE R.....	CHILDRENS CANCER STUDY GROUP A.....	2R10 CA07431-16	148,803
HUNT, CARL E.....	PULMONARY EFFECTS OF INFUSED PROSTAGLANDIN PRECURSORS.....	1R01 HL24607-01	41,709
NADLER, HENRY L.....	2-MACROGLOBULIN-PROTEASE COMPLEX IN CYSTIC FIBROSIS.....	5R01 AM18462-05	110,505
NADLER, HENRY L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05475-17	31,329
PACHMAN, LAUREN M.....	IMMUNOGENETIC STUDY OF JUVENILE DERMATOMYOSITIS.....	5R01 AM21589-02	46,146
WESSEL, HANS U.....	EXERCISE PERFORMANCE IN CHILDREN WITH HEART DISEASE.....	5R01 HL17578-05	69,883
ORGANIZATION TOTAL	7 512,984		
DE PAUL UNIVERSITY ZIP CODE 60604			
GIBBS, DANIEL.....	NEUROENDOCRINE CONTROL OF INSECT DEVELOPMENT.....	1R01 AI15139-01A1	62,314

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
YI, PON N.....	TUMOR HYPERTHERMIA: MEMBRANE POTENTIAL AND FLUIDITY.....	5R01 CA19758-03	35,742
ORGANIZATION TOTAL	2 98,056		
FIELD MUSEUM OF NATURAL HISTORY ZIP CODE 60605			
HERSHKOVITZ, PHILIP.....	LIVING NEW WORLD MONKEYS (PLATYRRHINA)—VOLUME 2.....	1R24 RR01226-01	94,748
ORGANIZATION TOTAL	1 94,748		
HEALTH AND HOSPITALS GOVERNING COMMISSION OF COOK COUNTY—COOK COUNTY HOSPITAL ZIP CODE 60612			
BURKE, GERALD.....	THYROID STIMULATORS AND THYROID STIMULATION.....	5R01 AM17561-06	115,708
ORGANIZATION TOTAL	1 115,708		
HEKTOEN INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 60612			
LEV, MAURICE.....	CONGENITAL HEART DISEASE RESEARCH PROGRAM.....	5R01 HL07605-17	80,175
ORGANIZATION TOTAL	1 80,175		
IIT RESEARCH INSTITUTE ZIP CODE 60616			
EHRlich, RICHARD.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05744-04	38,956
EISENBERG, WALTER C.....	SINGLET MOLECULAR OXYGEN AND LUNG PATHOGENESIS.....	5R01 ES01524-02	125,276
KROTOSZYNSKI, BOGUSLAW K.....	DEVELOPMENT OF BIOCHEMICAL MARKERS FOR DIABETES MELLITUS.....	5R01 AM21030-03	104,597
MEHTA, RAJENDRA G.....	RETINOIDS AND MAMMARY CARCINOGENESIS.....	1R01 CA26030-01	62,829
RAJAN, KRISHNASWAMY S.....	METAL CHELATES OF L-DOPA FOR PARKINSONISM.....	2R01 NS11556-05	88,173
RYAN, JON M.....	A STUDY OF LENS CELL DIVISION AND DIFFERENTIATION.....	5R01 EY02298-02	42,429
THOMAS, GAIL B.....	AIR POLLUTANTS INTERACTION WITH CHRONIC RESPIRATORY DIS.....	5R23 ES01729-02	61,880
UCHIC, JOHN T.....	ANTICONVULSANT DRUGS: INHIBITORS OF GABA TRANSAMINASE.....	1R01 NS15445-01	78,472
ORGANIZATION TOTAL	8 602,612		
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
STEINER, JAN W.....	CANCER CENTER SUPPORT GRANT.....	1P30 CA21742-01A1	350,530
STEINER, JAN W.....	CANCER CENTER PATIENT DATA SYSTEM PROPOSAL.....	5R10 CA21898-03	121,789
ORGANIZATION TOTAL	2 472,319		
ILLINOIS DEPARTMENT OF MENTAL HEALTH AND DEVELOPMENTAL DISABILITIES—ILLINOIS MENTAL HLTH INST ZIP CODE 60612			
KARRER, RATHE.....	RESPONSE PREPARATION AND RETARDED DEVELOPMENT.....	5R01 HD08265-05	41,587
ORGANIZATION TOTAL	1 41,587		
ILLINOIS INSTITUTE OF TECHNOLOGY ZIP CODE 60616			
BUSH, C ALLEN.....	CARBOHYDRATE STRUCTURE OF BAND 3 MEMBRANE PROTEIN.....	1R01 GM26336-01	65,762
GROSSWEINER, LEONARD I.....	FAST PHOTSENSITIZED REACTIONS OF AROMATIC COMPOUNDS.....	2R01 GM20117-16	67,659
GURALNICK, SIDNEY A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07027-14	25,814
HOSKIN, FRANCIS C.....	BIOCHEMICAL BASIS OF OP PESTICIDE EFFECTS ON FUNCTION.....	5R01 ES02116-10	69,042
KOPPLE, KENNETH D.....	INFLUENCE OF SOLVATION ON PEPTIDE CONFORMATION.....	1R01 GM26071-01	142,430
KUSANO, KIYOSHI.....	ELECTROPHYSIOLOGY OF SYNAPTIC TRANSMISSION.....	5R01 NS12275-05	29,608
TIMKOVICH, RUSSELL.....	BIOLOGICAL FUNCTION OF CYTOCHROME C AND RELATED PROTEINS.....	5R01 GM23869-03	39,289
ORGANIZATION TOTAL	7 439,604		
INDIVIDUAL AWARD—KING, LESTER S. ZIP CODE 60657			
KING, LESTER S.....	THE PERSISTENT PROBLEMS OF MEDICINE.....	5R01 LM03157-02	14,000
ORGANIZATION TOTAL	1 14,000		
INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH ZIP CODE 60611			
BAILIT, HOWARD L.....	DENTAL CONFERENCE ON BEHAVIORAL/SOCIAL SCIENCES.....	1R13 DE05319-01	47,625
ORGANIZATION TOTAL	1 47,625		
LOYOLA UNIVERSITY OF CHICAGO ZIP CODE 60611			
FAY, RICHARD R.....	MECHANISMS OF AUDITORY ANALYSIS BY NERVOUS SYSTEMS.....	1R01 NS15268-01	41,372
ORGANIZATION TOTAL	1 41,372		
MEDICAL LIBRARY ASSOCIATION ZIP CODE 60611			
BERK, ROBERT A.....	CONFERENCE ON EDUCATION FOR MEDICAL LIBRARIANSHIP.....	1R13 LM03248-01	14,782
ORGANIZATION TOTAL	1 14,782		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
MERCY HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
BLAIR, WILLIAM H.....	ANIMAL MODEL: OAT CELL LUNG CARCINOMA.....	5R01 CA22346-02	48,890
HAWRYLEWICZ, ERVIN J.....	EFFECT OF DIET ON THE HYPOTHALAMUS AND BREAST TUMORS.....	1R01 CA26547-01	77,400
ORGANIZATION TOTAL	2 126,290		
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
COE, FREDRIC L.....	SPECIALIZED CENTER OF RESEARCH IN UROLITHIASIS.....	5P50 AM20585-03	361,296
COHEN, SIDNEY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05476-17	83,451
FRIED, WALTER.....	FACTORS REGULATING HEMATOPOIESIS.....	5R01 AM19455-03	75,815
FROHMAN, LAWRENCE A.....	NEUROENDOCRINE CONTROL OF ANTERIOR PITUITARY HORMONES.....	2R01 AM18722-04	144,183
GOLDMAN, MARGARET B.....	IMMUNE REGULATION OF HUMORAL PROTEINS.....	1R01 AI15869-01	62,695
GOTOFF, SAMUEL P.....	NEONATAL GROUP B STREPTOCOCCAL INFECTIONS.....	5R01 HD09700-03	77,710
GOTOFF, SAMUEL P.....	PERINATAL IMMUNITY—GROUP B BETA HEMOLYTIC STREPTOCOCCI.....	5R01 HD11576-02	84,031
HIRSCH, LEROY J.....	PHYSIOLOGICAL CONTROL OF THE SPLANCHNIC CIRCULATION.....	5R01 HL15607-07	138,237
HOFFMAN, WILLIAM E.....	CEREBROVASCULAR CHANGES IN AGE AND HYPERTENSION.....	1R01 HL25399-01	77,875
LEVITSKY, LYNNE L.....	METABOLISM IN THE SUBHUMAN PRIMATE AND OVINE FETUS.....	1R01 HD13138-01	92,215
MOORE, EDDIE S.....	COMPENSATORY RENAL HYPERTROPHY IN FETAL LAMBS.....	1R01 HD11821-01A1	62,190
ROBBINS, KENNETH C.....	PLASMINOGEN: ACTIVATION & STRUCTURE-FUNCTION RELATIONS.....	5R01 HL04366-20	70,375
ROBBINS, KENNETH C.....	PLASMINOGEN: ACTIVATION & STRUCTURE-FUNCTION RELATIONS.....	2R01 HL04366-21	152,007
ROBBINS, KENNETH C.....	PLASMINOGEN-DERIVED ACTIVATORS IN THROMBOLYTIC THERAPY.....	1R01 HL24845-01	103,302
SCHNEIDER, ARTHUR B.....	RADIATION-INDUCED THYROID CANCER.....	5R01 CA21518-03	72,145
SHERWOOD, LOUIS M.....	REGULATION OF THE PARATHYROID GLANDS.....	5R01 AM19236-04	84,163
SHERWOOD, LOUIS M.....	CHEMISTRY AND PHYSIOLOGY OF PLACENTAL LACTOGEN.....	5R01 HD08225-06	76,386
STACHURA, MAXIMILIAN E.....	SYNTHESIS, STORAGE AND RELEASE OF PITUITARY GH AND PRL.....	5R01 AM19640-03	46,375
ORGANIZATION TOTAL	18 1,864,451		
NATIONAL OPINION RESEARCH CENTER ZIP CODE 60637			
CLARK, TERRY N.....	RETRENCHMENT AND URBAN POLICY MAKING.....	1R01 HD13121-01	56,499
ORGANIZATION TOTAL	1 56,499		
NATIONAL PARAPLEGIA FOUNDATION ZIP CODE 60601			
GRAFSTEIN, BERNICE.....	CONFERENCE: REGENERATION IN THE CENTRAL NERVOUS SYSTEM.....	1R13 NS15349-01	40,860
ORGANIZATION TOTAL	1 40,860		
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
ATKINSON, ARTHUR J, JR.....	CLINICAL PHARMACOLOGY OF COMMONLY USED DRUGS.....	2P01 GM22371-04	160,741
BENVENISTE, KATHY B.....	COLLAGEN SYNTHESIS IN DILANTIN GINGIVAL HYPERPLASIA.....	5R01 DE05547-02	54,960
BERLIN, NATHANIEL I.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA15145-05	483,927
BERRY, ROBERT W.....	REGULATION OF NEURONAL PROTEIN SYNTHESIS STUDIES.....	5R01 NS11519-06	37,652
BORENSZTAJN, JAYME.....	PHYSICAL EXERCISE AND LIPOPROTEIN LIPASE ACTIVITY.....	5R01 AM25232-03	72,934
BOUCK, NOEL P.....	GENETIC ANALYSIS OF MALIGNANT TRANSFORMATION.....	1R01 CA27306-01	84,070
BOYNE, ALAN F.....	THE MECHANISM OF CHOLINERGIC NEUROSECRETION.....	5R01 NS13043-03	25,102
BRAUN, THEODOR.....	SPERM ADENYLATE CYCLASE: MOLECULAR NATURE AND FUNCTION.....	2R01 HD10006-03	46,380
BREWER, JOHN I.....	TROPHOBLASTIC DISEASE—CLINICAL & IMMUNOLOGICAL.....	3R01 CA12109-08S1	66,326
CARONE, FRANK A.....	RENAL HANDLING OF PROTEINS AND PEPTIDES.....	2R01 AM14610-09	61,095
CARRUTHERS, MARY M.....	ROLE OF CAPSULAR POLYSACCHARIDE IN ENTERIC VIRULENCE.....	1R01 AI15521-01	38,898
CHATTERTON, ROBERT T, JR.....	PROGESTIN-GLUCOCORTICOID INTERACTIONS IN LACTOGENESIS.....	7R01 HD13975-01	25,102
CHILDS, GWEN V.....	HORMONE STORAGE AND SECRETION IN GONADOTROPHS.....	2R01 HD10930-02	42,475
COHEN, ISAAC.....	COUPLING OF PLATELET CONTRACTILE PROTEINS TO FIBRIN.....	5R01 HL20106-03	53,344
COHEN, ISAAC.....	EFFECTS OF PLATELET ACTIVATION ON MEMBRANE COMPONENTS.....	1R01 HL23479-01	45,341
DAL CANTO, MAURO C.....	VIRUS-INDUCED DEMYELINATION.....	2R01 NS13011-04	55,793
DISTERHOFT, JOHN F.....	COCHLEAR NUCLEUS IN EYE BLINK CONDITIONING.....	5R01 NS12317-05	57,775
DUNCAN, JAMES L.....	STREPTOLYSIN O ACTION ON MAMMALIAN CELL MEMBRANES.....	3R01 AI11644-06S1	3,793
DUNCAN, JAMES L.....	STREPTOLYSIN O ACTION ON MAMMALIAN CELL MEMBRANES.....	2R01 AI11644-07	47,027
ECKENHOFF, JAMES E.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00048-18	673,641
ECKENHOFF, JAMES E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05370-18	171,257
EISENSTEIN, REUBEN.....	BIOLOGY OF AORTIC GROUND SUBSTANCE.....	2R01 HL18625-04	66,541
FAHL, WILLIAM E.....	HYDROCARBON CARCINOGENESIS IN MOUSE AND HUMAN CELLS.....	1R01 CA25189-01	47,786
FARBMAN, ALBERT I.....	DIFFERENTIATION OF ORAL EPITHELIUM.....	5R01 DE03934-05	77,434

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
FARBMAN, ALBERT I.....	CYTOLOGICAL STUDIES OF INDUCTION DURING DEVELOPMENT.....	2R01 NS06181-12	87,834
FELDMAN, JACK L.....	NEURAL BASIS OF RESPIRATORY RHYTHM.....	1R01 HL23820-01	68,401
FLOURET, GEORGE R.....	SYNTHETIC ANTIOVULATORY AGENTS.....	5R01 HD08869-05	89,109
FREINKEL, NORBERT.....	CONTROL MECHANISMS IN DIABETES AND NORMAL METABOLISM.....	5R01 AM10699-15	236,949
FREINKEL, NORBERT.....	DIABETES IN PREGNANCY.....	5P50 HD11021-03	1,154,704
FREINKEL, RUTH K.....	ROLE OF DEGRADATIVE EVENTS IN KERATINIZATION.....	5R01 AM16441-13	76,625
GHOSH, SANTIBRATA.....	VASOACTIVE AGENT AND BIOPHYSICS OF ARTERIAL TRANSPORT.....	2R01 HL18004-03	46,978
GOSCH, FLORA C.....	ASSESSMENT OF HABITUAL SALT INTAKE IN SCHOOL CHILDREN.....	1R01 HL23468-01	40,116
GRAYHACK, JOHN T.....	PROSTATIC FLUID IN DIAGNOSIS OF PROSTATIC CANCER.....	2R26 CA16736-06A1	56,220
GREENER, EVAN H.....	PROPERTIES OF HIGH COPPER CONCENTRATION AMALGAMS.....	5R01 DE03637-05	61,103
HARRIS, STANLEY C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05311-18	44,947
HAST, MALCOLM H.....	CEREBRAL REPRESENTATION OF THE LARYNGEAL MUSCLE.....	5R01 NS14103-02	67,125
HECHTER, OSCAR M.....	STEROID RECEPTORS IN SPECIFIC CELL TYPES IN BPH.....	1R01 AM25369-01	97,134
HOLLENBERG, PAUL F.....	HEMOPROTEIN-CATALYZED OXYGENATIONS OF CARCINOGENS.....	5R01 CA16954-04	63,364
HSUEH, WEI.....	PROSTAGLANDIN BIOSYNTHESIS IN LUNG MACROPHAGES.....	1R23 AI16147-01	37,700
HUNZICKER-DUNN, MARY E.....	GONADOTROPIN ACTION IN FOLLICLES AND CORPORA LUTEA.....	5R01 HD11356-02	93,067
JANIS, RONALD A.....	ROLE OF PHOSPHOPROTEINS IN MYOMETRIAL CONTRACTION.....	1R01 HD11028-01A1	45,447
JANIS, RONALD A.....	CALCIUM REGULATION AND HYPERTENSION.....	5R01 HL21030-02	61,034
JUNGSMANN, RICHARD A.....	PROTEIN KINASE TRANSLLOCATION AND GENE EXPRESSION.....	5R01 GM23895-02	67,804
JUNGSMANN, RICHARD A.....	GONADOTROPIN REGULATION OF OVARIAN DIFFERENTIATION.....	1R01 HD12046-01	63,979
KIM, BYUNG S.....	MECHANISMS OF IDIOTYPE SUPPRESSION.....	1R01 AI15446-01	52,282
KOENIG, HAROLD.....	DRUG-INDUCED PHOSPHOLIPIDOSIS IN BRAIN.....	5R01 NS14700-02	52,901
KOUSHANPOUR, ESMAIL.....	MECHANISMS OF BARORECEPTOR ADAPTATION IN HYPERTENSION.....	5R01 HL22667-02	37,539
KURAMITSU, HOWARD K.....	SUCROSE METABOLIZING ENZYMES OF STREPTOCOCCUS MUTANS.....	5R01 DE03258-08	54,512
KURAMITSU, HOWARD K.....	CARIOGENIC MECHANISMS OF GINGIVAL PLAQUE BACTERIA.....	1R01 DE05141-01	79,944
LEE, CHUNG.....	STUDY ON GROWTH AND REGRESSION IN RAT MAMMARY TUMORS.....	5R01 CA14727-06	50,468
LEE, CHUNG.....	STUDY OF CASTRATION-INDUCED REGRESSION IN RAT PROSTATE.....	5R01 HD11611-02	45,791
LESCH, MICHAEL.....	MYOCARDIAL PROTEIN DEGRADATION.....	2R01 HL19648-04	102,085
LIPTON, HOWARD L.....	THEILER'S VIRUS-INDUCED DEMYELINATING DISEASE IN MICE.....	5R01 AI14139-03	54,381
MARSHALL, SALLY J.....	X-RAY AND SEM ANALYSIS OF CU RICH DENTAL AMALGAM.....	5R23 DE04704-03	22,539
MELVOLD, ROGER W.....	PRODUCTION AND ANALYSIS OF HISTOCOMPATIBILITY MUTANTS.....	1R01 AI16919-01	87,304
MERRILL, JOHN M.....	CLINICAL TRIALS—EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA17145-05	210,490
MERRILL, JOHN M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18004-05	84,195
NARAHASHI, TOSHIO.....	MODE OF ACTION OF INSECTICIDES: ELECTROPHYSIOLOGICAL.....	5R01 NS14143-03	109,720
NARAHASHI, TOSHIO.....	CELLULAR NEUROPHARMACOLOGICAL STUDY OF DRUG ACTION.....	2R01 NS14144-03	74,499
NARAHASHI, TOSHIO.....	CELLULAR PHARMACOLOGY OF NEUROMUSCULAR TRANSMISSION.....	2R01 NS14145-03	40,707
OKITA, GEORGE T.....	ROLE OF NA, K-ATPASE INHIBITION ON DIGITALIS ACTION.....	2R01 HL18598-04	58,499
OLINGER, EDWARD J.....	CELLULAR REGULATION OF HEPATOCYTE EXCRETORY FUNCTION.....	1R01 AM20366-01A1	84,815
ORR, MARY F.....	DEVELOPMENT AND CYTODIFFERENTIATION OF THE INNER EAR.....	5R01 NS08569-11	34,081
OYASU, RYOICHI.....	IN VIVO BLADDER CARCINOGENESIS OF NITROSOAMINES.....	3R26 CA14649-05S1	9,271
OYASU, RYOICHI.....	IN VIVO BLADDER CARCINOGENESIS OF NITROSOAMINES.....	2R26 CA14649-06	109,135
PATERSON, PHILIP Y.....	IMMUNE BASIS OF DISEASE—ALLERGIC ENCEPHALOMYELITIS.....	2R01 NS06262-15	135,756
PATERSON, ROY.....	ALLERGIC DISEASES CENTERS GRANT.....	5P50 AI11403-07	152,023
PATERSON, ROY.....	CLINICAL & LABORATORY STUDIES RELATING TO LUNG DISEASE.....	5P01 AI11759-06	102,938
PETERSON, DARRYL R.....	RENAL TRANSPORT AND HYDROLYSIS OF PEPTIDE HORMONES.....	1R01 AM25464-01	50,495
PHILLIPS, LAWRENCE S.....	METABOLIC FUELS, DIABETES, AND SOMATOMEDIN ACTIVITY.....	5R01 AM21483-02	66,625
PONZIO, NICHOLAS M.....	MODELS OF LYMPHOCYTE MIGRATION AND LOCALIZATION.....	5R01 AI15247-02	40,161
PONZIO, NICHOLAS M.....	LYMPHOCYTE RESPONSES TO SYNGENEIC ANTIGENS.....	5R01 CA22544-02	49,710
PYSH, JOSEPH J.....	MORPHOLOGY AND CYTOPHYSIOLOGY OF SYNAPTIC TRANSMISSION.....	5R01 NS11325-05	39,204
RABINOWITZ, STANLEY G.....	PATHOGENESIS—SLOW VESICULAR STOMATITIS VIRUS INFECTION.....	2R01 NS13045-04	58,396
RAFFERTY, NANCY S.....	ETIOLOGY OF CATARACT.....	5R01 EY00698-09	39,960
REDDY, JANARDAN K.....	BIOLOGY OF TRANSPLANTABLE PANCREATIC CARCINOMA OF RAT.....	5R26 CA23055-02	52,716
REDDY, JANARDAN K.....	BIOLOGIC STUDIES WITH LIVER PEROXISOME PROLIFERATORS.....	2R01 GM23750-04	113,231
RUNDELL, MARY K.....	STRUCTURAL ANALYSIS OF THE SV40 TUMOR ANTIGEN.....	5R01 CA21327-03	59,010
RYMER, WILLIAM Z.....	INTERNEURONAL CONTRIBUTIONS TO THE CONTROL OF MOVEMENT.....	1R01 NS14959-01A1	53,919
SILINSKY, EUGENE M.....	ADENINE NUCLEOTIDE RELEASE FROM MOTOR NERVE ENDINGS.....	2R01 NS12782-04	34,530
SMITH, DAVID W.....	TRANSFER RNA OF RED BLOOD CELL PRECURSORS.....	5R01 AM19617-02	96,095
SEHLMANN, RAINER.....	PHARMACOLOGY OF SYNAPTIC TRANSMISSION IN THE BRAIN.....	5R01 NS06820-11	34,027
STAMLER, JEREMIAH.....	GLYCEMIA, OTHER TRAITS AND CV DEATH IN 40,000 PERSONS.....	5R01 HL21010-03	144,780
STAMLER, JEREMIAH.....	PREVENTION OF HYPERTENSION: RANDOMIZED TRIAL.....	1R01 HL21823-01A1	188,026

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
STERN, PAULA H.....	EFFECT OF HORMONES ON BONE RESORPTION IN VITRO.....	5R01 AM11262-13	104,743
STUPP, SAMUEL I.....	PHYSICOCHEMICAL MODIFICATIONS OF DENTAL RESTORATIVES.....	1R23 DE05152-01	34,490
U'PRICHARD, DAVID C.....	BRAIN ADRENERGIC RECEPTOR MECHANISMS.....	1R01 NS15595-01	53,912
VEIS, ARTHUR.....	THE STRUCTURE AND ORGANIZATION OF COLLAGEN FIBERS.....	2R01 AM13921-19	152,118
VEIS, ARTHUR.....	MATRIX COMPONENT INTERACTIONS IN CALCIFIED TISSUES.....	5R01 DE01374-19	66,231
WARD, WILLIAM F.....	MODIFICATION OF RADIATION-INDUCED PULMONARY FIBROSIS.....	1R01 CA26397-01	75,884
WARREN, JOHN R.....	CELL SURFACES AND GROWTH OF PANCREATIC CARCINOMA.....	1R26 CA27443-01	54,448
WILLIAMS, ROBERT M.....	STUDIES OF BB RAT DIABETES.....	1R01 AM26733-01	101,873
WU, CHAU H.....	MUSCLE IONIC CONDUCTANCES IN EXPERIMENTAL MYOTONIA.....	1R01 AM25454-01	57,917
YEH, JAY Z.....	MOLECULAR MECHANISM OF LOCAL ANESTHETIC ACTION.....	5R01 GM24866-02	27,727
ORGANIZATION TOTAL	94	8,755,137	
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER ZIP CODE 60612			
BACUS, JAMES W.....	QUANTIFICATION OF RED CELL MORPHOLOGY AND ANEMIA.....	1R01 HL24293-01	93,642
FIDEL, BARRY A.....	REGULATION OF PLATELET FUNCTION IN THE ACUTE PHASE.....	1R01 HL23457-01A1	70,430
KNOSPE, WILLIAM H.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA12640-08	134,724
PENN, RICHARD D.....	STUDIES OF SPASTICITY IN BRAIN-INJURED PATIENTS.....	1R01 NS15630-01	85,560
ROBERTS, JIMMY L.....	DNA & ANTIDNA IN NEPHRITIS AND INFLAMMATORY DISEASES.....	1R01 AM26070-01	34,039
SCHNEIDER, ANNE S.....	AGING INTELLECT, AND CEREBRAL ATROPHY ON CT SCAN.....	5R01 AG00579-02	77,435
ORGANIZATION TOTAL	6	495,830	
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
ADLER, SOLOMON S.....	HEMOPOIETIC MICROENVIRONMENT VIABILITY STUDIES.....	5R01 CA22736-02	72,092
ANDERSON, KENNING M.....	CONTROL OF PROSTATE CELL GROWTH AND CELL DIVISION.....	5R01 CA22246-02	67,322
ANDRIACCHI, THOMAS P.....	BIOMECHANICAL STUDY OF TOTAL KNEE REPLACEMENT.....	5R01 AM20702-02	90,209
BRUESCHKE, ERICH E.....	DEVELOPMENT OF A TRANSCUTANEOUS POWER TRANSFER SYSTEM.....	5R01 HL21632-03	82,160
CLASEN, RAYMOND A.....	EXPERIMENTAL CEREBRAL INJURY AND EDEMA.....	2R01 NS03677-17	71,019
COLE, EDMOND R.....	STUDY OF PLASMINOGEN ACTIVATORS FROM TISSUES.....	2R01 HL15817-07	79,088
CUNNINGHAM, CAROLYN M.....	MEMBRANE ACTIVATION OF ALTERNATIVE COMPLEMENT PATHWAY.....	1R23 AI16082-01	41,448
DONALDSON, SUE K.....	CARDIAC CONTRACTILITY: ISCHEMIA AND HYPOXIA.....	5R01 HL23128-02	49,455
ECONOMOU, STEVEN G.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20371-03	47,985
EISENBERG, ROBERT S.....	ANALYSIS OF THE ACTION POTENTIAL OF CARDIAC MUSCLE.....	5R01 HL20230-03	82,018
FLANAGAN, MALACHI J.....	NATIONAL BLADDER CANCER COLLABORATIVE GROUP A.....	5R26 CA16886-06	120,146
FOX, JACOB H.....	CEREBRAL DECLINE IN AGING.....	5P01 AG00905-02	234,254
GALANTE, JORGE O.....	TOTAL SURGICAL REPLACEMENT OF THE HUMAN HIP JOINT.....	2R01 AM16485-08	188,414
GEWURZ, HENRY.....	STUDIES OF THE BIOLOGY OF THE C-REACTIVE PROTEINS.....	2R01 AI12870-04	134,107
GOTTLIEB, GERALD L.....	BIOENGINEERING INVESTIGATION OF THE HUMAN MOTOR SYSTEM.....	5R01 NS12877-02	75,076
HARRIS, JULES E.....	COLLABORATIVE CLINICAL TRIALS WITH THE ECOG.....	1R10 CA25988-01	208,245
HEGYVARY, CSABA.....	DIGITALIS-RECEPTOR OF THE HEART.....	5R01 HL16611-05	63,201
HEJNA, WILLIAM F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05477-17	116,577
KNOSPE, WILLIAM H.....	HEMOPOIESIS & ITS MICROENVIRONMENT.....	1R01 AM20442-01A1	86,373
KUETTNER, KLAUS E.....	BIOCHEMISTRY OF BONE AND CONNECTIVE TISSUE.....	5R01 AM09132-14	115,507
KUETTNER, KLAUS E.....	ANTITUMOR INVASION FACTORS DERIVED FROM CARTILAGE.....	5R01 CA21566-03	107,848
LEWIS, EDMUND J.....	STUDY OF GLOMERULAR EPITHELIAL CELL FUNCTION.....	1R01 AM21536-01	69,575
LEWIS, EDMUND J.....	A SERUM C3 ACTIVATING FACTOR IN GLOMERULONEPHRITIS.....	1R01 AM25348-01	34,005
LINT, THOMAS F.....	CONTROL OF COMPLEMENT-MEDIATED TUMOR CELL CYTOLYSIS.....	1R01 CA26143-01	109,713
MATHIAS, RICHARD T.....	VOLUME REGULATION IN NORMAL AND CATARACTOUS LENSES.....	1R01 EY03095-01	66,250
PAULI, BENDICHT U.....	LOCAL REGULATION OF INVASIVENESS IN BLADDER TUMORS.....	5R26 CA25034-02	117,241
PENN, RICHARD D.....	QUANTITATIVE STUDY OF HYDROCEPHALUS.....	1R01 NS15522-01	34,205
PLATE, JANET M.....	IMMUNOLOGICAL EFFECTS ON TUMOR GROWTH & REJECTION.....	3R01 CA25612-01S1	59,284
PRANCAN, ARTHUR V.....	CONTROL OF PLATELET AGGREGATION IN SHOCK.....	5R01 HL23114-02	27,536
RAE, JAMES L.....	NORMAL AND CATARACTOUS LENS CELL BIOELECTRIC PROPERTIES.....	1R01 EY03282-01	201,903
SHEKELLE, RICHARD B.....	A PROSPECTIVE STUDY OF PERSONALITY AND RISK OF CANCER.....	5R01 CA22536-02	92,082
TAYLOR, SAMUEL G, IV.....	ADJUVANT CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CANCER.....	5R01 CA25793-02	76,736
ORGANIZATION TOTAL	32	3,021,074	
UNIVERSITY OF CHICAGO ZIP CODE 60637			
AGARWAL, KAN L.....	BIOSYNTHESIS OF GASTRIN IN GASTRIC AND ISLET CELL TUMOR.....	1R01 AM21901-01A1	58,272
AGARWAL, KAN L.....	NUCLEIC ACID-PROTEIN INTERACTIONS.....	2R01 GM22199-04	86,711
ALBERTE, RANDALL S.....	CONTROL OF ORGANELLE MEMBRANE BIOGENESIS.....	1R01 GM23944-01A2	70,028

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
ARNSDORF, MORTON F.	ELECTROPHARMACOLOGIC ACTIONS OF ANTIARRHYTHMIC DRUGS	1R01 HL21788-01A1	35,610
BOWMAN, JAMES E.	COMPREHENSIVE SICKLE CELL CENTER	5P60 HL16005-06	1,109,110
BUTLER, ROBERT A.	THE ROLE OF SPECTRAL CUES IN SOUND LOCALIZATION	3R01 NS11154-04S1	9,202
CHIANG, KWEN-SHENG	MEIOSIS AND REPRODUCTION	5R01 HD05804-09	133,987
CIFONELLI, J ANTHONY	THE CHEMISTRY AND BIOLOGICAL EFFECTS OF HEPARIN	5R01 HL19820-03	87,617
COZZARELLI, NICHOLAS R	ENZYMOLOGICAL AND GENETIC STUDIES OF DNA POLYMERASES	5R01 GM21397-05	71,547
COZZARELLI, NICHOLAS R	RNA LIGASE FUNCTION AND USE IN DNA SYNTHESIS	2R01 GM22729-04	80,919
CREWE, ALBERT V.	SCANNING MICROSCOPE LABORATORY FOR GENERAL FACULTY USE	5P41 RR00984-04	177,661
DAWSON, GLYN	GLYCOSPHINGOLIPID METABOLISM AND MENTAL RETARDATION	5R01 HD06426-08	71,392
DE BRUYN, PETER P.	LEUKOPOIETIC MECHANISMS	2R01 CA05493-19	148,273
DE GROOT, LESLIE J.	BIOSYNTHESIS AND ACTION OF THYROID HORMONE	5R01 AM13377-12	152,919
DE SOMBRE, EUGENE R	STUDIES OF MAMMARY TUMOR PEROXIDASE	5R01 CA21525-03	88,828
DORFMAN, ALBERT	BIOCHEMISTRY AND BIOLOGY OF CONNECTIVE TISSUE	5P01 AM05996-18	171,343
DORFMAN, ALBERT	MENTAL RETARDATION RESEARCH CENTER	2P30 HD04583-11	469,165
DORFMAN, ALBERT	BIOLOGICAL BASIS OF MENTAL RETARDATION	5P01 HD09402-05	383,926
DORFMAN, ALBERT	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN	2M01 RR00305-13	470,110
EATON, PHILIP E.	SYNTHESIS OF DODECAHEDRANE AND 16-HEXAQUINACENE	5R01 CA12961-07	107,690
ELKIND, MORTIMER M.	COMPLEMENTATION OF CELLULAR RADIATION REPAIR PATHWAYS	1R01 CA25259-01	132,936
EMMANOUEL, DIMITRIOS S	ENDOCRINE ABNORMALITIES IN UREMIA	2R01 AM19250-04	68,561
EPSTEIN, WOLFGANG	BIOCHEMICAL STUDIES OF ATP-DRIVEN BACTERIAL TRANSPORT	5R01 GM22323-05	48,334
EPSTEIN, WOLFGANG	FUNCTION OF THE RECA PROTEIN OF E. COLI	5R01 GM23016-04	57,088
ESPOSITO, MICHAEL S.	GENETIC CONTROL OF MEIOTIC RECOMBINATION	5R01 GM23277-03	90,479
FARBER, ROSANN A.	GENETIC STUDIES OF HUMAN CHROMOSOME REPLICATION	1R01 GM24778-01A1	62,358
FIELD, MICHAEL	HEAT-STABLE E COLI ENTEROTOXIN: STRUCTURE & FUNCTION	1R22 AI15904-01	71,370
FIELD, MICHAEL	REGULATION OF INTESTINAL FLUID TRANSPORT	2R01 AM21345-03	119,520
FITCH, FRANK W.	ANTIBODY FORMATION BY LYMPHOID CELLS	5R01 AI04197-18	113,063
FITCH, FRANK W.	SPECIFIC SUPPRESSION OF CELL-MEDIATED IMMUNE RESPONSE	5R01 AI09268-11	90,499
FOZZARD, HARRY A.	CELL BIOLOGY OF CARDIAC AND SKELETAL MUSCLE	5P01 HL20592-03	544,352
FRENKEL, NIZA B.	REPLICATION & TRANSCRIPTION OF HERPES SIMPLEX VIRUS DNA	1R01 AI15488-01	83,613
FRIED, JOSEF	TOTAL SYNTHESIS OF MAYTANSINOIDS	5R01 CA20905-03	53,891
FRIEDMANN, HERBERT C.	ENZYME STUDIES ON VITAMIN B12 AND ITS CONSTITUENTS	2R01 AM09134-14A1	29,461
GARBER, BEATRICE B.	NEURAL RECOGNITION FACTORS IN BRAIN HISTOGENESIS	2R01 NS10714-07	80,413
GETZ, GODFREY S.	LIPIDS AND CONTROL OF MITOCHONDRIAL BIOGENESIS	2R01 GM18858-07	112,609
GOLDBERG, JAY M.	PHYSIOLOGY OF VESTIBULAR SYSTEM	2R01 NS01330-23	136,073
GOLDBERG, LEON I.	CLINICAL PHARMACOLOGY CENTER	5P50 GM22220-04	435,905
GOLDWASSER, EUGENE	HEMOPOIETIC STEM CELLS AND INDUCED DIFFERENTIATION	5R01 CA18375-05	87,233
GOLDWASSER, EUGENE	PURIFICATION AND PROPERTIES OF ERYTHROPOIETIN	3R01 HL21676-02S1	62,812
GOLDWASSER, EUGENE	PURIFICATION AND PROPERTIES OF ERYTHROPOIETIN	5R01 HL21676-03	186,147
GROBSTEIN, PAUL	DEVELOPMENT OF CONNECTIVITY IN ANURAN VISUAL SYSTEMS	2R01 EY01658-04	63,103
GROSS, MARTIN	TRANSLATIONAL CONTROL OF PROTEIN SYNTHESIS BY HEMIN	5R01 GM24949-02	47,538
GROSSMAN, SEBASTIAN P.	ROLE OF SUBTHALAMIC MECHANISMS IN INGESTIVE BEHAVIOR	5R01 AM25245-04	73,486
GUILLERY, RAINER W.	ABNORMALITIES IN VISUAL PATHWAYS	5R01 EY02374-04	115,984
GUILLERY, RAINER W.	ARCHITECTONIC AND SYNAPTIC ORGANIZATION IN THE BRAIN	2R01 NS14283-03	110,190
GUNN, ROBERT B.	MOLECULAR MECHANISMS OF ANION TRANSPORT	5R01 HL20365-04	69,427
GUNN, ROBERT B.	MECHANISMS AND CELLULAR FUNCTIONS OF ION TRANSPORT	5R01 HL20725-03	56,242
GURNEY, CLIFFORD W.	PATHOPHYSIOLOGY AND THERAPY OF PANCYTOPENIA	5R01 CA22039-03	107,212
GURNEY, CLIFFORD W.	HEMATOPOIETIC TOXICOLOGY OF ENVIRONMENTAL POLLUTANTS	1R01 ES01969-01	95,815
HALPERN, JACK	METAL COMPLEXES RELATED TO VITAMIN B12	5R01 AM13339-11	83,167
HARVEY, RONALD G.	CHEMISTRY OF CARCINOGENIC HYDROCARBONS	5R01 CA11968-08	114,905
HASELKORN, ROBERT	PROTEIN SYNTHESIS IN VIRUS-INFECTED BACTERIA	5R01 AI09315-15	129,305
HASELKORN, ROBERT	DIFFERENTIATION IN NITROGEN-FIXING BLUE-GREEN ALGAE	5R01 GM21823-05	91,903
HELLER, ALFRED	ONTOGENESIS AND NEUROCHEMISTRY OF BRAIN FUNCTION	5P01 NS12324-05	445,840
HERBST, ARTHUR L.	EXOGENOUS MATERNAL HORMONES AND CANCER IN DAUGHTERS	5R01 CA20084-03	81,214
HOLLYDAY, MARGARET	DEVELOPMENT OF SPECIFIC NEURONAL CONNECTIONS	5R01 NS14066-02	25,256
HUGGINS, CHARLES B.	ENDOCRINOLOGY OF EXPERIMENTAL LEUKEMIA	2R01 CA11603-10A1	113,846
HUNTER, ROBERT L.	SELECTIVE STIMULATION OF CELL-MEDIATED CANCER IMMUNITY	5R01 CA14364-07	81,209
HUTCHISON, CLYDE A, JR	LOCAL STRUCTURE IN ENZYMES—A NEW APPROACH	5R01 GM21668-05	104,296
HUTTENLOCHER, JANELLEN	CONCEPTUAL DEVELOPMENT AND LANGUAGE COMPREHENSION	5R01 HD09283-06	67,519
HUTTENLOCHER, PETER R	SYNAPTIC AND DENDRITIC DEVELOPMENT AND MENTAL DEFECT	5R01 HD09335-05	59,259
JARABAK, JOSEPH W.	PROSTAGLANDIN METABOLISM IN THE HUMAN PLACENTA	2R01 HD07045-08	115,868

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
JASPAN, JONATHAN B.	GLUCAGON METABOLISM	1R01 AM25913-01	43,584
JENSEN, ELWOOD V.	STEROIDS AND GROWTH	5R01 CA02897-23	121,058
JOHNSON, D GALE	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07029-14	109,431
JOSEPHS, ROBERT	1 MEV SCANNING TRANSMISSION ELECTRON MICROSCOPE	5R01 GM19079-08	122,588
JOSEPHS, ROBERT	MOLECULAR STRUCTURE OF SICKLE CELL FIBERS	5R01 HL22654-02	37,206
KAISER, EMIL T.	THE MECHANISM OF CARBOXYPEPTIDASE ACTION	5R01 AM07957-15	60,001
KAISER, EMIL T.	CHEMICAL AND BIOCHEMICAL APPLICATIONS OF OXIMES	5R01 CA17150-05	68,687
KAISER, EMIL T.	PHOSPHATE TRANSFER ENZYMES	2R01 GM19037-06A1	66,464
KAPLAN, EDWIN L.	GASTROINTESTINAL INFLUENCES ON CALCIUM HOMEOSTASIS	5R01 AM19942-03	74,700
KARL, RICHARD C.	ROLE OF CALCIUM AND CYCLIC AMP IN INSULIN RELEASE	1R23 AM26130-01	42,399
KATZ, ADRIAN I.	NA-K-ATPASE AND RENAL TUBULAR TRANSPORT OF SODIUM	5R01 AM13601-08	85,515
KAUFMAN, GARY E.	ULTRASOUND EFFECTS ON MAMMALIAN CELLS IN MONOLAYER	5R23 CA25785-02	35,624
KIEFF, ELLIOTT D.	EBV INTERACTION WITH LYMPHOBLASTS IN VITRO & IN VIVO	5R01 CA17281-05	111,225
KLEIN, PETER D.	METABOLISM OF 13C COMPOUNDS IN DIGESTIVE DISEASES	2R01 AM18741-04	134,632
KOHLER, HEINZ	ANTIGEN AND ANTIBODY IN THE IMMUNE RESPONSE	5R01 AI11080-07	87,703
KOHLER, HEINZ	ANALYSIS OF IDIOTYPE MUTANTS	5R01 CA22958-02	53,625
KOHLER, HEINZ	STRUCTURE OF THE MAJOR RED CELL MEMBRANE POLYPEPTIDE	5R01 GM25687-02	90,274
KORNHAUSER, DAVID M.	5-FLUOROURACIL DISPOSITION & DRUG INTERACTIONS	1R01 CA25543-01	63,201
LANZL, LAWRENCE H.	ELECTRON THERAPY DOISMETRY BASED ON FERMI AGE THEORY	1R01 CA25573-01	66,416
LARRAMENDI, LUIS M.	E.M. STUDIES OF NEUROGENESIS AND SYNAPTOGENESIS	5R01 NS10454-08	72,538
LAW, JOHN H.	STUDY OF LIPID METABOLISM	5R01 GM13863-14	127,049
LAW, JOHN H.	MULTIUSER EQUIPMENT FOR AMINO ACID ANALYSIS	1P41 GM27458-01	109,901
LEVY, DONALD H.	THE SPECTROSCOPY OF PORPHYRINS IN SUPERSONIC JETS	1R01 GM25907-01	105,790
LEVY, JERRE	VARIATIONS IN CEREBRAL AND MANUAL ASYMMETRY	1R01 HD13010-01	50,270
LEWERT, ROBERT M.	PHILIPPINE SCHISTOSOMIASIS JAPONICA: IMMUNE RESPONSES	3R22 AI07724-12S1	5,789
LEWERT, ROBERT M.	PHILIPPINE SCHISTOSOMIASIS JAPONICA: IMMUNE RESPONSES	2R22 AI07724-13	65,931
LIAO, SHUTSUNG	MACROMOLECULAR SYNTHESIS IN ACCESSORY GENITAL ORGANS	5R01 AM09461-15	118,050
LIM, RAMON	MATURATION FACTORS AND CANCER CELLS	1R01 CA27031-01	31,415
LIM, RAMON	STUDIES OF BRAIN CELL DIFFERENTIATION	5R01 NS14316-02	48,611
LINDHEIMER, MARSHALL D.	THE KIDNEY AND VOLUME REGULATION IN PREGNANCY	5R01 HD05572-08	89,387
LOKEN, MICHAEL R.	B LYMPHOCYTE DIFFERENTIATION AND MATURATION	5R01 AI14872-02	50,053
MAKINEN, MARVIN W.	ENZYME COMPLEXES IN CRYSTALS—A NEW APPROACH	5R01 GM21900-05	63,226
MANASEK, FRANCIS J.	FACTORS REGULATING EMBRYONIC CARDIAC MORPHOGENESIS	2R01 HL13831-09	133,983
MARKOVITZ, ALVIN	CAPSULE SYNTHESIS, DIVISION AND RADIATION SENSITIVITY	2R01 AI06966-14	117,887
MARTIN, TERENCE E.	RNA SYNTHESIS AND TRANSPORT IN MAMMALIAN CELLS	5R01 CA12550-08	98,563
MATHEWS, MARTIN B.	MECHANICAL REGULATION OF CELLULAR SYNTHETIC RESPONSE	1R01 HL23022-01	114,496
MATZ, GREGORY J.	SENSORY DISEASE CLINICAL RESEARCH CENTER	5P50 NS03358-18	532,701
MC KENZIE, SUSAN L.	REGULATION OF GENE EXPRESSION IN DROSOPHILA	1R01 GM25874-01	99,091
MEWISSEN, DIEUDONNE J.	POTENTIAL CARCINOGENIC AND GENETIC EFFECTS OF TRITIUM	3R01 CA13080-07S1	43,817
MILLER, J BRUCE	STRUCTURE-FUNCTION RELATIONS OF IMMUNOREGULATORY PROTEIN	1R01 CA25750-01	96,371
MOLTZ, HOWARD	CHEMICAL CONTROL OF MATERNAL BEHAVIOR	5R01 HD06872-08	52,363
MORSE, PETER H.	EXPERIMENTAL HYPERVISIOSITY RETINOPATHY	5R01 EY01921-02	60,215
MOSCONA, ARON A.	THE CELL SURFACE IN CELL RECOGNITION AND DIFFERENTIATION	5R01 HD01253-21	214,394
MOULDER, JAMES W.	PHAGOCYTOSIS OF CHLAMYDIAE	5R01 AI13175-05	74,101
NEUGARTEN, BERNICE L.	ADULT LIVES AND PATTERNS OF AGING IN AN URBAN SETTING	3P01 AG00123-03S1	6,082
O'SHEA, MICHAEL R.	FUNCTIONAL ROLE OF THE AMINERGIC NERVOUS SYSTEM	7R01 NS16298-01	35,451
OVERTON, JANE H.	CELL-CELL AND CELL-SUBSTRATE ADHESION	5R01 GM24041-02	52,766
PAGE, ERNEST	CARDIAC ION TRANSPORT AND ULTRASTRUCTURE	5R01 HL10503-14	128,692
PERI, BARBARA A.	DEVELOPMENT OF IMMUNITY TO CARIOGENIC STREP	5R23 DE04771-03	27,464
PETES, THOMAS D.	YEAST CHROMOSOME STRUCTURE AND REPLICATION	5R01 GM24110-03	73,346
POKORNY, JOEL M.	PSYCHOPHYSICAL STUDIES OF COLOR-DEFECTIVE OBSERVERS	5R01 EY00901-06	91,653
QUINTANS, JOSE	IDIOTYPES, LYMPHOCYTES AND MACROPHAGES	5R01 AI14530-02	36,212
RABINOWITZ, MURRAY	MITOCHONDRIAL ASSEMBLY AND REPLICATION	5R01 HL04442-21	128,298
RABINOWITZ, MURRAY	PROTEIN AND RNA SYNTHESIS IN HEART MUSCLE	2R01 HL09172-16	190,237
RAHMAN, YUEH-ERH	NEW IRON CHELATOR DELIVERY SYSTEM FOR COOLEY'S ANEMIA	5R01 AM21592-02	72,300
RAHMAN, YUEH-ERH	ENHANCED CANCER CHEMOTHERAPY BY LIPOSOMAL CARRIERS	5R01 CA21556-03	58,005
RECKARD, CRAIG R.	EFFECTS OF PANCREATIC ISLET TRANSPLANTATION	5R01 AM20756-03	62,348
REFETOFF, SAMUEL	REGULATION AND MECHANISM OF HORMONE ACTION	2R01 AM15070-08	141,372
RESNEKOV, LEON	STUDY OF ISCHEMIC HEART DISEASE	5P50 HL17648-05	1,064,105
RICE, STUART A.	WATER: EXPERIMENTAL AND THEORETICAL STUDIES	2R01 GM22728-04	71,312

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
RICHMAN, DAVID P.	ANTI-IDIOTYPIC ANTIBODIES IN MYASTHENIA	1R01 NS15462-01	63,472
ROIZMAN, BERNARD	MECHANISMS OF VIRAL INFECTION IN RELATION TO CANCER	5R01 CA08494-15	141,230
ROSENBERG, IRWIN H.	ABSORPTION OF MONOGLUTAMYL AND POLYGLUTAMYL FOLATES	2R01 AM15351-09	168,767
ROSENBERG, IRWIN H.	CLINICAL NUTRITION RESEARCH UNIT	1P30 AM26678-01	438,740
ROSENFELD, ROBERT L.	FREE PLASMA SEX HORMONE AND ANDROGEN ACTION	5R01 HD06308-08	84,323
ROSENFELD, ROBERT L.	BIOACTIVE LH IN NORMAL AND ABNORMAL PUBERTY	1R01 HD12355-01	95,252
ROSENFELD, ROBERT L.	ANDROGEN EFFECTS ON LH AND FSH	1R01 HD13502-01	110,969
ROTHBERG, RICHARD M.	IMMUNE RESPONSES OF NEWBORNS TO INGESTED ANTIGENS	5R01 AI07854-11	84,946
ROTHMAN-DENES, LUCIA B.	NOVEL TRANSCRIBING ACTIVITIES IN N-4-INFECTED E. COLI	5R01 AI12575-05	64,055
ROWLEY, DONALD A.	PATHOLOGIC STUDIES ON INFLAMMATION AND IMMUNITY	5R01 AI10242-18	93,542
ROWLEY, JANET D.	CHROMOSOME ABERRATIONS IN CANCER	3R01 CA16910-03S1	12,178
ROWLEY, JANET D.	CHROMOSOME ABERRATIONS IN MYELOPROLIFERATIVE DISEASES	2R01 CA16910-04	73,725
ROWLEY, JANET D.	ACUTE LEUKEMIA AFTER RADIATION AND/OR CHEMOTHERAPY	5R01 CA23954-02	127,080
ROWLEY, JANET D.	LEUKEMIA PROGNOSTIC FACTORS—MULTIDISCIPLINARY STUDY	1R01 CA25568-01	114,954
RUBENSTEIN, ARTHUR H.	PROINSULIN AND C-PEPTIDE: SECRETION AND METABOLISM	5R01 AM13941-10	89,500
RUBENSTEIN, ARTHUR H.	DIABETES RESEARCH AND TRAINING CENTER	3P60 AM20595-02S1	34,312
RUBENSTEIN, ARTHUR H.	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20595-03	959,774
SCANU, ANGELO M.	LIPOPROTEINS—CELL SURFACE INTERACTIONS	2P01 HL18577-04	726,757
SCHREIBER, HANS	PATHOBIOLOGY OF MYELOMA AND ANTI-IDIOTYPIC IMMUNITY	5R01 CA22677-02	47,439
SCHWARTZ, ERIC A.	DEVELOPMENT OF PHOTORECEPTORS IN A VERTEBRATE EYE	5R01 EY02440-02	56,164
SCHWARTZ, NANCY B.	REGULATION OF BIOSYNTHESIS OF PROTEOGLYCAN	5R01 AM19622-03	57,473
SCHWARTZ, STEPHEN A.	MOLECULAR CHARACTERIZATION OF ODONTOGENESIS BY BROU	5R23 DE04970-02	27,375
SHAPIRO, JAMES A.	DNA INSERTION MECHANISMS: TRANSPOSONS AND CARCINOGENS	5R01 GM24960-02	114,672
SIGLER, PAUL B.	STRUCTURAL ANALYSIS OF BIOLOGICAL MACROMOLECULES	5R01 GM15225-11	70,071
SIGLER, PAUL B.	MOLECULAR INTERACTIONS AT THE CELL SURFACE	5R01 GM22324-05	60,427
SIGLER, PAUL B.	SPECIFIC MOLECULAR INTERACTIONS AT THE CELL SURFACE	5R01 GM25234-03	48,491
SMITH, VIVIANNE C.	TRICHROMACY IN PROTONOPES AND DEUTERANOPES	5R01 EY01876-03	41,578
SPEAR, PATRICIA G.	HERPESVIRUS GENE EXPRESSION IN TRANSFORMED CELLS	5R01 CA21776-03	70,545
STECK, THEODORE L.	MECHANISMS OF MORPHOGENESIS IN CELLULAR SLIME MOLDS	5R01 GM22321-05	100,960
STEINER, DONALD F.	STUDIES OF PANCREATIC HORMONES	5R01 AM13914-10	211,631
STOCK, LEON M.	FREE RADICAL REACTIONS IN CHEMICAL CARCINOGENESIS	5R01 CA20049-02	53,022
STRAUSS, BERNARD S.	STUDY MODE OF ACTION OF CHEMICAL MUTAGENS	2R01 GM07816-20	106,679
STRAUSS, BERNARD S.	ELECTRON MICROSCOPY APPLIED TO DNA METABOLISM	1P41 GM27528-01	109,099
STUART, FRANK P.	IMMUNOLOGICAL ENHANCEMENT OF RENAL ALLOGRAFTS	5R01 CA20091-12	146,753
TAGER, HOWARD S.	BIOSYNTHESIS AND SECRETION OF PEPTIDE HORMONES	5R01 AM18347-06	60,827
THROCKMORTON, LYNN H.	LONGEVITY STUDIES WITH DROSOPHILA	1R01 AG01941-01	60,216
THROCKMORTON, LYNN H.	PROTEIN DIFFERENTIATION IN DROSOPHILA	5R01 GM23007-04	120,605
TOBACK, FREDERICK G.	BIOCHEMICAL REGULATION OF CONTROLLED RENAL GROWTH	5R01 AM18413-05	64,264
TOBACK, FREDERICK G.	MEMBRANES AND PHOSPHOLIPIDS IN RENAL HYPERPLASIA	5R01 GM22328-05	125,755
TRIPATHI, RAMESH C.	PHYSIOPATHOLOGY OF AQUEOUS HUMOUR OUTFLOW SYSTEM	5R01 EY02046-02	75,126
ULINSKI, PHILIP S.	ANATOMY OF THE THALAMUS	5R01 NS12518-05	65,595
ULTMANN, JOHN E.	CANCER CENTER SUPPORT PROGRAM	5P30 CA14599-06	947,775
ULTMANN, JOHN E.	VIRAL ONCOLOGY RESEARCH CENTER PROGRAM	2P01 CA19264-04	693,839
ULTMANN, JOHN E.	CANCER BIOLOGY RESEARCH CENTER	3P01 CA19265-03S1	500,119
ULTMANN, JOHN E.	CLINICAL CANCER RESEARCH CENTER	3P01 CA19266-03S1	300,597
URETZ, ROBERT B.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00055-18	615,655
URETZ, ROBERT B.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05367-18	201,413
VESSELENOVITCH, STAN D.	ROLE OF SEX HORMONES IN HEPATOCARCINOGENESIS	1R01 CA25522-01	155,396
VESSELENOVITCH, STAN D.	SYNTHETIC STEROIDS AND HEPATOCARCINOGENESIS	1R01 CA25549-01	65,819
WADE, MICHAEL J.	GENETICAL CONSEQUENCES OF DISPERSAL AND EXTINCTION	2R01 GM22523-04	59,996
WEISS, SAMUEL B.	VIRUS DEVELOPMENT AND TRANSLATIONAL CONTROL	5R01 AI12479-08	99,726
WESTLEY, JOHN L.	SULFANES IN METABOLISM	5R01 GM18939-08	82,898
WIED, GEORGE L.	AUTOMATED CANCER CELL DIAGNOSIS BY THE TICAS METHOD	5R01 CA13271-11	299,876
WILLIAMS-ASHMAN, HOWARD G.	BIOCHEMISTRY OF THE MALE GENITAL TRACT	5R01 HD04592-11	132,949
WILSON, HUGH R.	THE SPATIOTEMPORAL BASIS OF GRATING PERCEPTION	5R01 EY02158-02	39,617
WISSLER, ROBERT W.	STUDY OF LIPOPROTEINS, ARTERY WALL, AND ATHEROSCLEROSIS	5P50 HL15062-08	1,385,803
WOOL, IRA G.	ENDOCRINE REGULATION OF PROTEIN SYNTHESIS	5R01 AM04842-18	64,819
WOOL, IRA G.	THE STRUCTURE AND FUNCTION OF EUKARYOTIC RIBOSOMES	5R01 GM21769-05	109,723
YANG, NIEN-CHU C.	MOLECULAR MECHANISMS OF MUTAGENESIS AND CARCINOGENESIS	5R01 CA10220-11	82,227
YANG, SEN L.	SPECIFIC ANTIBODIES IN RHESUS MONKEY OVIDUCTAL FLUID	1R01 HD12759-01	102,769

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
ZAK, RADOVAN H.....	DEVELOPMENT AND REGRESSION OF CARDIAC HYPERTROPHY.....	5R01 HL16637-05	117,431
ORGANIZATION TOTAL	184 26,630,369		
UNIVERSITY OF HEALTH SCIENCES/CHICAGO MEDICAL SCHOOL ZIP CODE 60612			
BLIVAIS, BEN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05366-18	36,207
EZDINLI, EDIZ Z.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA14144-07	153,313
HANSEN, TIMOTHY R.....	VASCULAR SMOOTH MUSCLE IN HYPERTENSION.....	2R01 HL19226-04	34,449
HOSEY, M MARLENE.....	MEMBRANE PHOSPHORYLATION IN THE DEVELOPING MYOCARDIUM.....	1R01 HL23306-01A1	55,781
KELLER, JOHN M.....	ANIMAL CELL SURFACE HEPARIN SULFATE AND TRANSFORMATION.....	2R01 CA23016-03	98,606
KELLER, JOHN M.....	STRUCTURAL PROTEINS OF HUMAN CELL NUCLEIC ACIDS.....	1R01 GM25785-01	108,808
KELLER, JOHN M.....	BIOCHEMISTRY OF HEPARIN SULFATE.....	5R01 HD11770-02	52,042
KEMP, ROBERT G.....	ALLOSTERIC PROPERTIES OF PHOSPHOFRUCTOKINASE.....	5R01 AM19912-04	69,681
KEMP, ROBERT G.....	METABOLIC EVENTS IN VIRUS-INDUCED LEUKEMOGENESIS.....	5R01 CA21631-04	80,051
MARCUS, FRANK.....	CONTROL OF ENZYMES OF GLUCONEOGENESIS IN DIABETIC MICE.....	5R01 AM21167-03	42,737
MC CORMACK, CHARLES E.....	FACTORS INFLUENCING THE TIMING OF OVULATION IN RATS.....	1R01 HD13131-01	16,410
OLTMANS, GARY A.....	CNS ABNORMALITIES IN GENETICALLY OBESE-DIABETICS.....	1R01 NS15600-01	50,149
TANG, PEI C.....	NEURAL PROSTHESIS FOR VOIDING NEUROGENIC BLADDER.....	1R01 NS15353-01	41,019
TSE, WARREN W.....	ATRIOVENTRICULAR NODE & ADJACENT TISSUES AUTOMATICITY.....	5R01 HL21574-02	19,972
ORGANIZATION TOTAL	14 859,225		
UNIVERSITY OF ILLINOIS AT CHICAGO CIRCLE ZIP CODE 60680			
BOUCK, GEORGE B.....	STRUCTURAL AND FUNCTIONAL ORGANELLE INTERACTIONS.....	2R01 GM19537-07	53,234
DAVIS, JOHN D.....	CONTROL OF FOOD INTAKE AND BODY WEIGHT BY GLYCEROL.....	1R01 AM26030-01	35,355
GORENSTEIN, DAVID G.....	NMR PROBES OF ENZYMES AND NUCLEIC ACIDS.....	5R01 GM17575-08	55,132
HULETT, F MARION.....	MEMBRANE PROTEIN-PROTEIN SECRETION STUDIES.....	2R01 GM21909-04	64,767
JENSEN, RICHARD J.....	THE DEMOGRAPHY OF MENTAL RETARDATION: USA, 1851-1915.....	1R01 HD11902-01A1	105,126
KAGAN, JACQUES.....	PHOTOTOXICITY OF A-TERTHIENYL AND RELATED COMPOUNDS.....	5R01 GM24144-02	48,766
KHAN, M A.....	EFFECTS AND METABOLISM OF PHOTOISOMERS OF CYCLODIENES.....	5R01 ES01479-03	73,414
LEVINE, MICHAEL W.....	ROD AND CONE SYSTEMS: PROPERTIES AND INTERACTIONS.....	5R01 EY01951-03	47,155
LIEBMAN, SUSAN W.....	NONSENSE SUPPRESSION AND ANTISUPPRESSION IN YEAST.....	5R01 GM24189-03	46,216
MC CORMICK, BRUCE H.....	IMAGE PROCESSING FOR CLINICAL OPHTHALMOSCOPY.....	2R01 EY01261-05	377,835
MILLER, IRVING F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07158-04	59,423
NYBERG, DENNIS W.....	GENETIC ANALYSIS OF METAL TOLERANCE IN PARAMECIUM.....	1R01 ES02003-01	32,877
OSCAI, LAWRENCE B.....	EFFECT OF EXERCISE ON LIPID METABOLISM.....	5R01 AM17357-06	44,051
OSCAI, LAWRENCE B.....	EFFECTS OF REGULATION OF APPETITE IN THE NEWBORN.....	5R01 HD10987-02	46,635
POLLACK, EMANUEL D.....	TARGET TISSUE INFLUENCES ON NERVE GROWTH IN VITRO.....	1R01 NS13814-01A1	40,325
SCHULTZ, ALBERT B.....	BIOMECHANICAL STUDIES OF IDIOPATHIC SCOLIOSIS.....	5R01 AM15575-08	113,579
SCHULTZ, ALBERT B.....	BIOMECHANICAL STUDIES OF LOW-BACK SYNDROMES.....	1R01 NS15100-01	145,983
ORGANIZATION TOTAL	17 1,389,873		
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
ANDERSON, EDMUND G.....	PHARMACOL OF CENTRIFUGAL REGULATION OF PRIMARY AFFERENTS.....	1R01 NS14985-01	49,339
ANDERSON, TRUMAN O.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05369-18	178,428
BARANY, MICHAEL.....	PROTEIN PHOSPHORYLATION IN MUSCLE.....	5R01 NS21172-05	48,592
BENEVENTO, LOUIS A.....	VISUAL, SENSORY, MOTOR AND ASSOCIATIONAL SYSTEMS.....	5R01 EY02940-02	58,809
BURNS, ELIZABETH M.....	NEUROPATHOLOGICAL CORRELATES OF MENTAL RETARDATION.....	2R01 HD09792-03	52,656
BURT, CHARLES T.....	SIGNIFICANCE OF PHOSPHODIESTERS TO MUSCULAR SYSTEMS.....	1R01 AM25156-01	46,987
CHATTERTON, ROBERT T, JR.....	PROGESTIN-GLUCOCORTICOID INTERACTIONS IN LACTOGENESIS.....	1R01 HD12481-01	27,852
COHEN, CARL.....	IMMUNOBIOLOGY OF THE LABORATORY RABBIT.....	5P40 RR00627-09	131,287
CORDELL, GEOFFREY A.....	ANTITUMOR PRINCIPLES OF CATHARANTHUS & RHAZYA SPECIES.....	2R01 CA20164-03	64,202
CUNHA-VAZ, JOSE G.....	BLOOD-RETINAL BARRIER IN DIABETES MELLITUS.....	1R01 EY03106-01	127,494
DAS GUPTA, TAPAS K.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17954-05	191,587
DE SIMONE, JOSEPH.....	CONTROL OF HEMOGLOBIN SYNTHESIS.....	5R01 HL20920-02	70,022
DOUGHTY, CLYDE C.....	HUMAN CATARACTS AND ALDOSE REDUCTASE PROPERTIES.....	5R01 EY00449-08	34,344
DOUGHTY, CLYDE C.....	CATARACT ENZYME ALDOSE REDUCTASE ACTIVE SITE.....	1R01 EY03025-01	55,815
DRAY, SHELTON.....	IMMUNOGLOBULIN ALLOTYPES.....	5R01 AI07043-15	201,238
DRAY, SHELTON.....	TUMOR IMMUNOTHERAPY WITH 'IMMUNE' RNA.....	3R01 CA18241-03S1	20,751
DRAY, SHELTON.....	ANTITUMOR ACTIVITY OF TUMOR-BEARER LYMPHOID CELLS.....	1R01 CA26480-01	149,092
EPSTEIN, SAMUEL S.....	CARCINOGENICITY OF ORALLY ADMINISTERED ASBESTOS.....	5R01 CA21684-03	54,664
EPSTEIN, SAMUEL S.....	QUANTITATIVE CARCINOGENESIS PROJECTION BETWEEN SPECIES.....	1R01 CA24959-01	39,250

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
FEINBERG, HAROLD.....	ADP-INDUCED NA/ION INFLUX LINKED TO PLATELET AGGREGATION.....	1R01 HL22410-01A1	43,224
FIAT, DANIEL.....	OXYGEN-17 NMR STUDIES OF PEPTIDE CONFORMATION.....	5R01 GM24813-02	74,910
FRIEDENSON, BERNARD A.....	EXPRESSION OF ANTIBODIES IN INBREEDING RABBITS.....	1R01 AI15907-01	99,755
GIBORI, GEULA.....	REGULATION OF LUTEAL FUNCTION IN THE PREGNANT RAT.....	5R01 HD11119-02	51,697
GIBORI, GEULA.....	LUTEOTROPIC FUNCTION OF THE DECIDUAL TISSUE IN THE RAT.....	1R01 HD12356-01	48,111
GOLDBERG, MORTON F.....	OPHTHALMIC RESEARCH CENTER CORE GRANT.....	5P30 EY01792-02	97,730
HANLY, W CAREY.....	REGULATION AND FUNCTION OF THE SECRETORY IGA SYSTEM.....	5R01 HD10855-03	68,080
HO, ANDREW K.....	DEVELOPMENTAL DEFECTS IN THE HEART AND 6-HYDROXYDOPAMINE.....	1R01 HL22429-01A1	29,389
HOLIAN, OKSANA M.....	CYCIC AMP DEPENDENT PROTEIN KINASE IN GASTRIC MUCOSA.....	1R01 AM25571-01	21,588
HORNG, WAYNE J.....	REGULATION OF IG VH REGION ALLOTYPES.....	5R01 AI15228-02	59,204
HORWITZ, DAVID L.....	ENDOGENOUS AND EXOGENOUS INSULIN IN DIABETES MELLITUS.....	5R01 AM26695-02	60,812
JAFFE, RANDAL C.....	THYROID HORMONE REGULATION OF TADPOLE METAMORPHOSIS.....	2R01 AM18985-04	47,477
JAMPOL, LEE M.....	A LONGITUDINAL STUDY OF HYPERTENSIVE RETINOPATHY.....	5R01 EY02214-02	43,970
JOHNSON, MICHAEL E.....	BIOPHYSICAL APPROACHES TO ERYTHROCYTE SICKLING.....	1R01 HL23697-01	66,450
JONASSON, OLGA.....	DIABETES AND ISLET CELL STUDIES IN THE PRIMATE.....	3R01 AM18284-03S1	27,744
JONASSON, OLGA.....	DIABETES AND ISLET CELL STUDIES IN THE PRIMATE.....	2R01 AM18284-04	217,183
KNIGHT, KATHERINE L.....	STRUCTURE AND GENETIC CONTROL OF RABBIT IGA.....	5R01 AI11234-07	103,149
KURTZMAN, NEIL A.....	CONTROL OF RENAL HYDROGEN ION SECRETION.....	5R01 AM20170-02	60,325
LASKIN, DANIEL M.....	PSYCHOPHYSIOLOGY OF TMJ & OTHER FACIAL PAIN SYNDROMES.....	5R01 DE02899-11	84,598
LE BRETON, GUY C.....	DIRECT ANTAGONISM OF THE TXA2 BLOOD PLATELET RECEPTOR.....	1R01 HL24530-01	61,935
LEVITSKY, SIDNEY.....	INTRAOPERATIVE PROTECTION OF THE MYOCARDIUM.....	2R01 HL18288-05	168,580
LEVITSKY, SIDNEY.....	PHRENIC NERVE PACING: NONINVASIVE DIAPHRAGM ANALYSIS.....	5R01 HL22844-02	107,878
LEVY, RICHARD A.....	OPIATE ACTION ON CNS TERMINALS OF TOOTH PULP FIBERS.....	1R01 DE05390-01	53,291
MADISON, VINCENT S.....	ROLE OF PEPTIDE-SOLVENT AND PEPTIDE-LIPID COMPLEXES.....	2R01 GM22514-04	63,525
MAINES, MAHIN D.....	TOXICITY OF ORGANIC MERCURY FOR THE FETUS AND NEWBORN.....	5R01 ES00820-06	90,531
MAINES, MAHIN D.....	EFFECT OF TOXIC METALS ON DRUG & HEMOPROTEIN METABOLISM.....	1R01 ES02180-01	94,321
MAYER, EUGENE P.....	BACTERIAL ADHERENCE AS A PROBE FOR LYMPHOCYTE SUBSETS.....	1R01 AI14630-01A1	61,629
MEYER, JULIA.....	STUDIES ON NORMAL AND ALTERED ORAL MUCOSA.....	5R01 DE02342-10	95,942
MOLNAR, JANOS.....	BIOCHEMICAL STUDIES OF A MAJOR OPSONIC PROTEIN.....	5R01 CA25047-05	42,098
MORRIS, PAUL W.....	EUKARYOTE RNA POLYMERASE-DNA SITE SELECTION PROCESS.....	2R01 GM22147-04	82,623
MUHL, ZANE F.....	FUNCTIONAL PROPERTIES OF RABBIT JAW MUSCLES.....	2R01 DE04164-04	18,319
NELSON, KENRAD E.....	IMMUNOBIOLOGY AND EPIDEMIOLOGY OF LEPROSY.....	1P01 AI16308-01	548,349
OMACHI, AKIRA.....	ERYTHROCYTE METABOLISM IN MUSCULAR DISEASE.....	5R01 NS14134-02	37,627
ORTH, DAVID H.....	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY.....	5R10 EY02467-02	127,539
OSTRO, MARC J.....	CELLULAR TRANSLATION OF LIPOSOMALLY-DELIVERED MRNA.....	5R23 HL22839-02	45,568
POPESCU, MIRCEA.....	REGULATION OF VIRAL INFECTION OF LYMPHOCYTES.....	1R01 AI15138-01A1	81,014
PROUDFIT, HERBERT K.....	BULBOSPINAL MECHANISMS INVOLVED IN MORPHINE ANALGESIA.....	5R01 NS12649-05	58,874
PRUZANSKY, SAMUEL.....	STUDY OF CRANIOFACIAL ANOMALIES.....	5P01 DE02872-10	361,677
RABB, MAURICE F.....	COMPREHENSIVE SICKLE CELL CENTER.....	5P60 HL15168-08	1,140,632
REYNOLDS, WYNETKA A.....	PERINATAL RESEARCH SOCIETY—ANNUAL MEETING.....	2R13 HD11653-02	7,700
ROSEN, KENNETH M.....	PROSPECTIVE STUDIES OF CONDUCTION DISEASE.....	5R01 HL18794-05	131,491
ROSEN, KENNETH M.....	PAROXYSMAL SUPRAVENTRICULAR DYSRHYTHMIA.....	1R01 HL23566-01	155,745
SABATINI, SANDRA.....	STUDY THE ROLE OF RENAL BICARBONATE ATPASE.....	1R01 AM22099-01	44,926
SACHS, HOWARD G.....	DEVELOPMENT OF NORMAL AND MYOPATHIC MAMMALIAN HEART.....	2R01 HL18032-04A1	45,315
SCHLESINGER, DAVID H.....	PROTEIN INHIBITORS OF CALCIUM PHOSPHATE PRECIPITATION.....	5R01 DE05059-02	60,698
SCHULMAN, MARTIN P.....	ROLE OF LIPIDS IN DRUG METABOLISM: AGE-RELATED CHANGES.....	1R01 AG01238-01	44,170
SHARP, JOHN T.....	RESPIRATORY MUSCLES AND VENTILATORY CONTROL IN MAN.....	2R01 HL08789-12	61,467
SKOSEY, JOHN L.....	NEUTROPHIL FUNCTIONAL-METABOLIC RELATIONSHIPS.....	1R01 AM26094-01	45,210
STORTI, ROBERT V.....	EXPRESSION AND ISOLATION OF DROSOPHILA MUSCLE GENES.....	1R01 GM27611-01	79,878
SUGAR, JOEL.....	TRIGGER MECHANISMS OF RECURRENT HERPES KERATITIS.....	5R01 EY02426-02	48,422
TAO, MARIANO.....	PROTEIN KINASE, SPECTRIN AND SHAPE OF ERYTHROCYTES.....	1R01 AM23045-01	104,060
TAO, ROBERT V.....	BIOCHEMISTRY AND METABOLISM OF LENTICULAR CERAMIDES.....	5R01 EY01821-03	39,022
TEODORESCU, MARIUS C.....	BINDING OF BACTERIA TO NORMAL & LEUKEMIC LYMPHOCYTES.....	5R01 CA21399-03	33,512
TICHY, ANNA M.....	POSTBURN GASTRIC MICROCIRCULATION.....	5R01 GM23405-03	31,919
TISSOT, ROBERT G.....	THE MAJOR HISTOCOMPATIBILITY COMPLEX OF THE RABBIT.....	5R01 CA23026-03	36,468
TISSOT, ROBERT G.....	THE IMMUNOBIOLOGY OF THE LABORATORY RABBIT.....	2R01 GM18350-09	60,313
TOWNSEL, JAMES G.....	SYNAPTIC CHEMISTRY AND CARDIOREGULATION IN LIMULUS.....	1R01 HL24140-01	63,229
TSO, MARK O.....	PATHOLOGY OF RETINAL DYSFUNCTION.....	2R01 EY01903-04	106,322
TSO, MARK O.....	PATHOLOGY OF DISEASES OF OPTIC NERVE HEAD.....	2R01 EY01904-04	105,565
TSO, MARK O.....	PATHOLOGY OF AN INHERITED RETINAL DYSTROPHY IN ANIMALS.....	5R01 EY02596-02	61,807

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
VAINISI, SAMUEL J.....	STUDIES ON OPHTHALMIC DISEASES.....	5R01 EY00874-08	85,853
VAN ALTEN, PIERSON J.....	ONTOGENY OF ADAPTIVE IMMUNITY.....	3R01 CA20172-03S1	13,494
VARY, JAMES C.....	MECHANISM OF BACTERIAL SPORE GERMINATION.....	2R01 AI12678-04	99,337
VENTON, DUANE L.....	ANTITUMOR AGENTS-SYNTHESIS OF 5'-NUCLEOSIDE CHELATORS.....	5R01 CA24047-02	49,308
VERHAGE, HAROLD G.....	HORMONAL CONTROL OF THE OVIDUCT.....	5R01 HD11404-02	52,727
VYGANTAS, CHARLES M.....	DIABETIC RETINOPATHY IN NONHUMAN PRIMATES.....	5R01 EY02183-02	78,894
WALTER, RODERICH W.....	BIOFUNCTIONAL CONFORMATION OF PEPTIDE HORMONES.....	5R01 AM18399-05	172,618
WALTER, RODERICH W.....	POLYMER ASSISTED PEPTIDE SYNTHESIS IN MIXED MEDIA.....	1R01 AM20314-01A2	89,207
WALTER, RODERICH W.....	BIOCHEMICAL STUDIES OF NEUROHORMONAL COMMUNICATION.....	1R01 NS15226-01	72,490
WEISSMANN, BERNARD.....	STRUCTURAL STUDY OF LUNG HEPARINOID POLYSACCHARIDES.....	5R01 HL21615-02	66,198
WERLEY, HARRIET H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05776-02	22,776
YOUNG, ROCKEFELLER S.....	PSYCHOPHYSICAL STUDY OF PHOTOPIC ABNORMALITIES.....	1R01 EY03062-01	83,694
ZANEVELD, LOURENS J.....	HUMAN SPERM ENZYMES, INHIBITORS AND FERTILIZATION.....	2R01 HD09868-04	103,294
ORGANIZATION TOTAL	92	8,606,868	
DE KALB			
NORTHERN ILLINOIS UNIVERSITY ZIP CODE 60115			
BRILES, WORTHIE E.....	IMMUNOGENETICS OF TUMOR RELATED ALLOANTIGENS.....	5R01 CA12796-08	77,249
ERMAN, JAMES E.....	THE MECHANISM OF CYTOCHROME C PEROXIDASE CATALYSIS.....	5R01 GM18648-08	58,027
HAMPEL, ARNOLD E.....	AMINOACYL-TRNA SYNTHETASES IN CHO CELLS.....	2R01 GM19506-07	67,821
KRESHECK, GORDON C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07176-02	27,208
MITCHELL, JOHN L.....	REGULATION OF ORNITHINE DECARBOXYLASE ACTIVITY.....	5R01 AM17949-05	54,966
MITTLER, SIDNEY.....	HYPERTHERMIA AND RADIATION INDUCED GENETIC DAMAGE.....	5R01 CA23245-02	47,147
STEPHENS, M IRENE.....	A LONGITUDINAL STUDY OF S-MISARTICULATING CHILDREN.....	5R01 NS15069-02	62,369
VITELLO, LIDIA B.....	PHYSICOCHEMICAL PROPERTIES OF BRAIN PROTEOGLYCAN.....	1R01 NS15476-01	46,540
ORGANIZATION TOTAL	8	441,327	
EDWARDSVILLE			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM—SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE ZIP CODE 62026			
BAICH, ANNETTE.....	CONTROL OF ORNITHINE TRANSAMINASE IN ANIMAL CELLS.....	1R01 GM26030-01A1	47,367
BROWN, DAVID G.....	SALIVARY GLANDS, POLYAMINES AND CHEMOTHERAPY.....	5R23 DE04447-03	20,974
LEVY, MICHAEL R.....	FACTORS INFLUENCING RATES OF ENZYME DEGRADATION.....	5R01 GM23281-04	41,403
MATTA, MICHAEL S.....	POLAR EFFECTS IN MODEL SUBSTRATES OF CHYMOTRYPSIN.....	5R01 GM18652-08	62,311
ORGANIZATION TOTAL	4	172,055	
EVANSTON			
AMERICAN ACADEMY OF PEDIATRICS ZIP CODE 60204			
D'ANGIO, GIULIO J.....	NATIONAL WILMS' TUMOR STUDY.....	2R10 CA11722-11	284,780
ORGANIZATION TOTAL	1	284,780	
EVANSTON HOSPITAL ZIP CODE 60201			
DUBE, VOLKER E.....	ANTI-II ANTIBODIES AND II ANTIGENS IN CARCINOMAS.....	1R01 CA26268-01	89,372
SPRINGER, GEORG F.....	HUMAN BREAST CANCER-ASSOCIATED ANTIGENS AND CYTOTOXIN.....	3R01 CA19083-03S1	14,983
SPRINGER, GEORG F.....	HUMAN CANCER RELATION OF MN AND PRECURSOR STRUCTURES.....	5R01 CA22540-18	96,422
VICK, NICHOLAS A.....	FINE STRUCTURE OF VIRAL INDUCED BRAIN TUMORS.....	2R01 NS12745-04A1	53,867
ORGANIZATION TOTAL	4	254,644	
NORTHWESTERN UNIVERSITY ZIP CODE 60201			
BASOLO, FRED.....	SYNTHETIC OXYGEN CARRIERS.....	2R01 HL13412-18	73,142
BENDER, MYRON L.....	MECHANISM OF ACTION OF PROTEASES.....	2R01 GM20853-17A1	66,239
BERGMAN, RICHARD N.....	QUANTITATIVE STUDIES OF METABOLIC ORGAN DYNAMICS.....	5R01 AM20443-03	83,269
BLAKE, R RANDOLPH.....	SPATIAL VISION IN NORMAL AND VISUALLY DEPRIVED ANIMALS.....	5R01 EY01596-04	44,141
BOLLENBACHER, W E.....	PEPTIDE CONTROL OF DEVELOPMENT.....	1R01 NS15387-01	79,367
CAMPBELL, CONSTANCE S.....	REPRODUCTIVE RHYTHMICITY: IMPACT OF THE ENVIRONMENT.....	2R01 HD10050-04A1	62,573
DALLOS, PETER J.....	STIMULUS-RELATED DC POTENTIALS OF THE COCHLEA.....	5R01 NS06730-13	95,225
DALLOS, PETER J.....	STUDIES IN COCHLEAR HAIR CELL TRANSDUCTION.....	2R01 NS08635-09	143,315

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
DOERING, JEFFREY L.....	DEVELOPMENTAL CONTROL OF 5SDNA EXPRESSION IN XENOPUS.....	1R01 GM25985-01	71,035
DUMAS, LAWRENCE B.....	EUKARYOTIC CELL PROTEINS THAT INITIATE DNA SYNTHESIS.....	5R01 GM23443-03	73,109
ENGEL, JAMES D.....	EXPRESSION OF DEVELOPMENTALLY RELATED AVIAN GENES.....	1R01 HL24415-01	113,390
ENROTH-CUGELL, CHRISTINA A.....	RETINAL GANGLION CELL RESPONSES TO TIME-VARYING STIMULI.....	5R01 EY00206-19	93,940
EPSTEIN, MAX.....	MATERIALS AND COMPONENTS FOR MINIATURE FIBERSCOPES.....	5R01 GM21367-05	88,249
GESTELAND, ROBERT C.....	ROLE OF CELLULAR ORGANELLES IN OLFACTORY RECEPTION.....	5R01 NS14663-02	46,935
GILBERT, LAWRENCE I.....	BIOCHEMICAL ANALYSIS OF THE ACTION OF HORMONES.....	5R01 AM02818-21	122,665
GOLDBERG, ERWIN.....	REPRODUCTIVE BIOCHEMISTRY OF TESTES SPECIFIC LDH-X.....	5R01 HD05863-08	105,205
GRANGER, NOELLE.....	NEUROENDOCRINE REGULATION OF ENDOCRINE GLANDS.....	1R01 NS14816-01	44,940
HINES, RODERICK L.....	ELECTRON PHASE MICROSCOPY OF BIOMOLECULES ON CRYSTALS.....	5R01 GM25443-02	15,170
HOFFMAN, BRIAN M.....	COBOGLOBINS: COBALT SUBSTITUTED MYO- AND HEMOGLOBINS.....	2R01 HL13531-07	72,685
IBERS, JAMES A.....	MOLECULAR OXYGEN CARRIERS—SYNTHESIS, STRUCTURE, BONDING.....	2R01 HL13157-10	102,795
JACOBS, JOHN E.....	NON-INVASIVE SYSTEM FOR ARTERIOSCLEROSIS STUDIES.....	5R01 HL22604-02	89,879
KAUFFMAN, JOHN W.....	RAMAN SPECTROSCOPY OF ERYTHROCYTE AND MODEL MEMBRANES.....	5R01 HL21404-02	60,521
KERTESZ, ANDREW E.....	FUNCTIONAL ASPECTS OF PANUM'S FUSIONAL AREAS.....	2R01 EY01055-08	111,705
KLEIN, WILLIAM L.....	CONTROL OF MUSCARINIC ACETYLCHOLINE RECEPTOR TURNOVER.....	1R01 NS15299-01	63,418
KLOTZ, IRVING M.....	STABILITY OF HYDROGEN AND OTHER BONDS IN PROTEINS.....	2R01 GM09280-18	60,363
KLOTZ, IRVING M.....	MOLECULAR BIOLOGY OF HEMERYTHRIN AND HEMOCYANIN.....	5R01 HL08299-17	111,181
KLOTZ, IRVING M.....	ALTERNATIVE ASPIRINS AS ANTISICKLING AGENTS.....	1R01 HL22719-01	62,306
LAMBERT, JOSEPH B.....	CONFORMATIONAL ANALYSIS OF DRUG-RELATED HETEROCYCLES.....	1R01 GM26124-01	44,695
LETSINGER, ROBERT L.....	NEW METHODS FOR THE SYNTHESIS OF POLYNUCLEOTIDES.....	5R01 GM10265-17	110,124
LOACH, PAUL A.....	STRUCTURE AND FUNCTION OF PHOTOSYNTHETIC MEMBRANES.....	5R01 GM11741-13	90,415
LOACH, PAUL A.....	THE MECHANISM OF MITOCHONDRIAL ELECTRON TRANSFER.....	1R01 GM26098-01	56,056
LORAND, LASZLO.....	HUMAN ERYTHROCYTES STUDIES.....	1R01 AM25412-01	80,444
LORAND, LASZLO.....	COAGULATION OF BLOOD.....	5R01 HL02212-24	118,389
LORAND, LASZLO.....	ENZYME ASSAYS IN BLOOD CLOTTING.....	5R01 HL16346-10	109,936
MACK, RAYMOND W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07028-14	150,828
MARGOLIASH, EMANUEL.....	ANTIGENICITY OF GLOBULAR PROTEINS.....	5R01 AI12001-06	77,701
MARGOLIASH, EMANUEL.....	MITOCHONDRIAL MEMBRANE METABOLIC ROLE OF CYTOCHROME C.....	5R01 GM19121-08	165,417
MARGOLIASH, EMANUEL.....	A QUANTITATIVE STUDY TO IMPROVE THE EDMAN CHEMISTRY.....	5R01 GM24806-02	98,537
MARGOLIASH, EMANUEL.....	AMINO ACID ANALYZER FOR BIOCHEMICAL RESEARCH.....	5R01 HL11119-18	39,416
MARSHALL, JAMES A.....	SYNTHESIS OF TUMOR INHIBITORY COMPOUNDS.....	5R01 CA11089-17	87,296
MERLOVE, MARC L.....	WOMEN'S LIFE CYCLE TIME ALLOCATION—ECONOMETRIC STUDY.....	5R01 HD12037-02	57,183
NEUHAUS, FRANCIS C.....	BIOSYNTHESIS OF BACTERIAL CELL-WALL COMPONENTS.....	2R01 AI04615-18	140,084
NOLL, HANS.....	CELL SURFACE PROTEINS IN EMBRYOGENESIS.....	1R01 GM26968-01	101,771
OFFNER, FRANKLIN F.....	MEMBRANE ACTIVITY THEORY.....	5R01 NS08137-09	37,199
PIERCE, SUSAN K.....	CELLULAR MECHANISMS REGULATING IMMUNE RESPONSES.....	5R01 AI14765-02	58,710
ROSENFELD, JOEL P.....	OPERANT NEURAL CONTROL IN TRIGEMINAL PAIN SYSTEMS.....	1R01 DE05204-01	31,861
ROSENFELD, JOEL P.....	MORPHINE AND NOCICEPTIVE BRAIN STIMULATION.....	2R01 GM23696-03	34,912
SCHWARTZ, NEENA B.....	ENVIRONMENTAL AND HORMONAL INTERPLAY OF OVULATION.....	5R01 HD07504-07	114,087
SEKULER, ROBERT W.....	HUMAN AGING AND VISUAL PERCEPTION.....	1R01 AG01251-01	120,272
SHEMIN, DAVID.....	PORPHYRINS: ENZYMIC MECHANISMS AND CONTROL OF SYNTHESIS.....	5R01 AM13091-12	99,796
SILVERMAN, RICHARD B.....	MECHANISM OF ACTION AND DESIGN OF ANTITUMOR AGENTS.....	5R01 CA21156-03	65,951
SILVERMAN, RICHARD B.....	NEW INACTIVATORS OF GABA TRANSAMINASE.....	1R01 NS15703-01	42,986
SIMPSON, SIDNEY B, JR.....	AGING IN VITRO: ARE LIZARD CELLS AN EXCEPTION.....	1R01 AG01476-01	51,576
SPEAR, BRIAN B.....	ORGANIZATION OF GENE-SIZED DNA PIECES IN OXYTRICHA.....	5R01 GM23440-03	37,674
TUREK, FRED W.....	REPRODUCTION: INTERACTION OF PHOTOPERIOD AND STEROIDS.....	2R01 HD09885-04	47,658
TUREK, FRED W.....	REPRODUCTION: ROLE OF MELATONIN AND THE PINEAL GLAND.....	1R01 HD12622-01	48,569
WIGHTMAN, FREDERIC L.....	AUDITORY SPECTRAL PATTERN PERCEPTION—PITCH PERCEPTION.....	5R01 NS12045-04	58,156
WU, TAI T.....	ATTEMPTS TO PREDICT 3-D PROTEIN BACKBONE STRUCTURE.....	5R01 GM21482-05	31,635
ORGANIZATION TOTAL	58 4,566,096		
GALESBURG			
KNOX COLLEGE	ZIP CODE 61401		
GEER, BILLY W.....	GENETICS OF LATE SPERM DEVELOPMENT AND FUNCTION.....	1R01 HD11199-01A1	52,164
ORGANIZATION TOTAL	1 52,164		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
HARVEY			
INGALLS MEMORIAL HOSPITAL ZIP CODE 60426			
ORTH, DAVID H	MACULAR PHOTOCOAGULATION STUDY	1R10 EY03288-01	40,844
ORGANIZATION TOTAL	1 40,844		
HINES			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 60141			
GREENLEE, HERBERT B	LIVER ABNORMALITIES AFTER JEJUNOILEAL BYPASS	5R01 AM21833-02	48,646
HELD, IRENE R	NEUROTROPHIC REGULATION OF MUSCLE PROTEIN SYNTHESIS	5R01 NS11755-05	42,451
LAWRENCE, ANN M	CHARACTERIZATION OF SUBMAXILLARY GLAND 'BIG' GLUCAGON	5R01 AM20307-03	23,483
LAWRENCE, ANN M	ECTOPIC ANTERIOR PITUITARY HORMONES OF BRAIN ORIGIN	1R01 AM21947-01	28,986
ORGANIZATION TOTAL	4 143,566		
MAYWOOD			
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153			
CASTRO, ANTHONY J	NEURAL PLASTICITY IN THE MOTOR SYSTEM	3R01 NS13230-04S1	16,526
CASTRO, ANTHONY J	NEURAL PLASTICITY IN THE MOTOR SYSTEM	5R01 NS13230-05	49,295
FARRAND, STEPHEN K	MOLECULAR GENETICS OF AGROBACTERIUM PLASMIDS	2R01 CA19402-04	66,737
FRANKFATER, ALLEN	THE BIOCHEMISTRY OF AUTONOMIC CONTROL AND SIDS	5R01 HD10311-03	29,255
GAIK, GERALDINE C	QUAIL CELL GRAFTS AND THE CHICK TRIGEMINAL GANGLION	5R01 DE04785-02	4,400
LANGE, CHARLES F	IMMUNOCHEMISTRY OF AGING KIDNEY—NEONATE TO ADULT	5R01 AG00497-02	38,598
NEAFSEY, EDWARD J	THE TWO MOTOR SYSTEMS	7R01 NS16146-01	46,163
NORTH, RICHARD A	SINGLE NEURON ACTIVITY	5R01 NS06672-13	50,075
O'MORCHOE, CHARLES C	THE ORIGIN AND FORMATION OF RENAL LYMPH	5R01 AM18473-05	77,651
PEISS, CLARENCE N	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05368-18	79,044
RANDALL, WALTER C	REGULATION OF THE CARDIOVASCULAR SYSTEM	5P01 HL08682-16	516,453
SAYEED, MOHAMMED M	CELLULAR ASPECTS OF LUNG INJURY	5R01 HL20878-03	50,722
SCHMIDT, ROBERT S	NEUROETHOLOGY	5R01 NS06673-14	49,428
SCHULTZ, RICHARD M	THERMODYNAMIC STUDIES OF ENZYME-SUBSTRATE ASSOCIATION	3R01 AM16733-05S1	1,250
SCHULTZ, RICHARD M	THERMODYNAMIC STUDIES OF ENZYME-SUBSTRATE ASSOCIATION	5R01 AM16733-06	30,470
SCHULTZ, RICHARD M	TRANSITION-STATE AFFINITY PURIFICATION OF PROTEASES	1R01 HL24910-01	55,063
SPENCER, HERTA	INTERACTION OF FLUORIDE WITH MINERALS IN MAN	5R01 DE02486-11	73,652
STODOLSKY, MARVIN	CHROMOSOMAL FORMS OF COLIPHAGE P1 AND ITS DERIVATIVES	2R01 GM21435-03	30,167
YOTIS, WILLIAM W	BINDING OF FLUORIDE BY CARIOGENIC BACTERIA	5R01 DE05027-02	46,452
ORGANIZATION TOTAL	19 1,311,401		
NORMAL			
ILLINOIS STATE UNIVERSITY ZIP CODE 61761			
RICHARDSON, ARLAN G	EFFECT OF DIET AND AGING ON MACROMOLECULAR SYNTHESIS	1R01 AG01548-01	82,088
RICHARDSON, ARLAN G	AGE-RELATED CHANGES IN CHEMICAL CARCINOGENESIS	1R01 CA24856-01A1	48,921
ORGANIZATION TOTAL	2 131,009		
NORTH CHICAGO			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 60064			
BREEN, MOIRA	ISOLATION AND CHARACTERIZATION OF THE PROTEOGLYCAN	5R01 AG00902-02	33,614
ORGANIZATION TOTAL	1 33,614		
PEORIA			
UNIVERSITY OF ILLINOIS PEORIA SCHOOL OF MEDICINE ZIP CODE 61605			
DIETRICH, JOHN W	MEMBRANE-RELATED EVENTS IN BONE, CALCIUM METABOLISM	5R01 AM20901-02	30,028
MASI, ALFONSO T	EXPERIMENTAL CLINICAL RHEUMATOID ARTHRITIS STUDY	3R01 AM25663-01S1	1,562
ORGANIZATION TOTAL	2 31,590		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
SPRINGFIELD			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM-SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF MEDICINE		ZIP CODE 62702	
CASPARY, DONALD M.....	CODING IN AUDITORY NEURONS: EFFECTS OF AMINO ACIDS.....	1R01 NS15640-01	27,545
DUNAWAY, GEORGE A.....	PFK REGULATORY FACTOR: ACTION, STRUCTURE AND METABOLISM.....	1R01 AM25804-01	50,518
SU, CHE.....	NERVE AND MUSCLE IN MESENTERIC AND PULMONARY VESSELS.....	1R01 HL24683-01	63,457
TEWARI, RAM P.....	ACQUIRED IMMUNITY TO EXPERIMENTAL HISTOPLASMOIS.....	1R01 AI16158-01	50,449
ORGANIZATION TOTAL	4	191,969	
URBANA			
INTERNATIONAL CONGRESS OF PLANT PROTECTION		ZIP CODE 61801	
HORSFALL, JAMES G.....	SUPPORT OF IX INTERNATIONAL CONGRESS OF PLANT PROTECTION.....	1R13 ES02188-01	15,000
ORGANIZATION TOTAL	1	15,000	
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN		ZIP CODE 61801	
BAILAR, JOHN C, JR.....	CHIRAL HEAVY METAL CANCER CHEMOTHERAPEUTIC AGENTS.....	1R01 CA26704-01	18,761
BALDWIN, THOMAS O.....	THE MECHANISM OF AGE-RELATED ENZYME MODIFICATION.....	5R01 AG00884-02	43,342
BARR, LLOYD.....	ISOLATION AND ANALYSIS OF HEART NA CHANNEL.....	5R01 HL21342-03	64,512
BAUMRUCKER, CRAIG R.....	CALCIUM TRANSPORT AND DISTRIBUTION IN MAMMARY CELLS.....	5R01 HD10942-02	33,688
BEAK, PETER A.....	NEW SYNTHETIC METHODS USEFUL FOR CHEMOTHERAPEUTICS.....	5R01 GM18874-08	67,048
BROWN, ANN L.....	STRATEGIES FOR STUDYING PROSE PASSAGES.....	5R01 HD06864-08	58,364
BROWN, THEODORE L.....	METAL ION BINDING STUDIES.....	5R01 GM23395-03	57,114
BUETOW, DENNIS E.....	PROTEIN BIOSYNTHESIS IN MITOCHONDRIA.....	5R01 GM19641-06	47,502
CAIN, CHARLES A.....	IMMUNOLOGICAL ASPECTS OF HYPERTHERMIA CANCER THERAPY.....	1R01 CA24930-01	82,237
CAMPIONE, JOSEPH C.....	COGNITION IN THE RETARDED CHILD.....	2P01 HD05951-09	353,369
CARTER, CAROL S.....	BRAIN MECHANISMS OF BEHAVIORAL DIMORPHISM.....	1R01 NS13421-01A2	40,000
CLARK, JOHN M, JR.....	THE MECHANISM OF MESSENGER-RNA TRANSLATION.....	5R01 GM08647-18	48,768
COATES, ROBERT M.....	THE 6-AZA-CLAISEN REARRANGEMENT IN CARCINOGENESIS.....	5R01 CA20436-03	48,975
COATES, ROBERT M.....	SPECIFICITY IN TERPENE AND STEROL BIOSYNTHESIS.....	2R01 GM13956-14	98,591
COHEN, LESLIE B.....	INFORMATION PROCESSING IN THE HUMAN INFANT.....	5R01 HD03858-10	69,985
CONNOR, JOHN A.....	INTRACELLULAR CALCIUM AND PH IN NEURONS.....	1R01 NS15186-01	52,719
CONRAD, H EDWARD.....	STRUCTURE AND METABOLISM OF CHONDROITIN SULFATE.....	2R01 HD08057-16	98,981
CONRAD, H EDWARD.....	HEPARIN AND HEPARIN SULFATE: STRUCTURE AND ACTIVITY.....	5R01 HL21763-10	49,650
COOK, KELSEY D.....	MASS SPECTROMETRY OF NON-VOLATILE, ORGANIC COMPOUNDS.....	5R01 GM19749-05	55,309
CROFTS, ANTHONY R.....	THE PROTON PUMPS OF PHOTOSYNTHETIC BACTERIA.....	1R01 GM26305-01	120,195
CRONAN, JOHN E, JR.....	GENETIC APPROACHES TO REGULATION OF LIPID METABOLISM.....	2R01 AI15650-02	127,866
DEBRUNNER, PETER G.....	RESONANCE SPECTROSCOPY OF ENZYMES.....	5R01 GM16406-11	92,485
DELCOMYN, FRED.....	THE NEURAL BASIS OF BEHAVIOR.....	1R01 NS15632-01	31,883
DIERKS, RICHARD E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05460-17	28,803
DUCOFF, HOWARD S.....	X-RAYS INCREASE INSECT LONGEVITY: POSSIBLE MECHANISM.....	1R01 AG01416-01	50,169
DUCOFF, HOWARD S.....	SPLIT-DOSE REPAIR-DIVIDING VS. POSTMITOTIC CELLS.....	5R01 CA13779-07	42,637
DUNN, FLOYD.....	ULTRASONIC ABSORPTION BY BIOLOGICAL MATERIALS.....	2R01 GM12281-16	64,179
DUNN, FLOYD.....	UPDATING OF ULTRASONIC EXPOSURE INSTRUMENTATION.....	1P41 GM27429-01	56,105
EBREY, THOMAS G.....	STUDIES ON THE MECHANISM OF VISUAL EXCITATION.....	5R01 EY01323-07	57,471
FENG, ALBERT S.....	PLASTICITY OF DENDRITIC DEVELOPMENT.....	5R01 NS14488-02	41,617
FRAUENFELDER, HANS.....	HEME PROTEIN REACTIONS.....	5R01 GM18051-08	101,829
GABRIDGE, MICHAEL G.....	MECHANISM OF PATHOGENESIS IN MYCOPLASMA PNEUMONIA.....	2R01 AI12559-04A1	54,991
GABRIDGE, MICHAEL G.....	PATHOBIOLOGY OF CILIATED RESPIRATORY EPITHELIAL CELLS.....	1R01 HL23806-01	34,172
GARST, JOHN E.....	STRUCTURE-TOXICITY RELATIONSHIPS AMONG HETEROCYCLES.....	7R23 ES02193-01	36,634
GENNIS, ROBERT B.....	PROTEIN-LIPID INTERACTION.....	5R01 HL16101-06	50,794
GLASER, MICHAEL.....	LIPID METABOLISM AND MEMBRANE STRUCTURE AND FUNCTION.....	5R01 GM21953-05	78,213
GUMPORT, RICHARD I.....	STUDIES OF T4 RNA LIGASE.....	1R01 GM25621-01	69,292
GUNSALUS, IRWIN C.....	METABOLIC MECHANISMS.....	5R01 AM00562-27	219,040
GUNSALUS, IRWIN C.....	PROTEIN STRUCTURE MODIFICATION AND OXIDATION.....	5R01 GM21161-05	48,385
HAGER, LOWELL P.....	BIOCHEMICAL STUDIES OF T ANTIGEN AND TRANSFORMED CELLS.....	5R01 CA17619-04	68,314
HAGER, LOWELL P.....	ENZYMATIC ACTIVATION MECHANISMS.....	5R01 GM07768-20	121,942
HELMAN, SANDY I.....	ELECTROPHYSIOLOGY: RENAL TUBULES AND OTHER EPITHELIA.....	3R01 AM16663-07S1	18,213
HELMAN, SANDY I.....	ELECTROPHYSIOLOGY: RENAL TUBULES AND OTHER EPITHELIA.....	5R01 AM16663-08	73,713

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
HENDRICKSON, DAVID N.....	METAL SITES IN METALLOPROTEINS.....	5R01 HL13652-09	59,662
HIXON, JAMES E.....	LUTEOTROPIC AND LUTEOLYTIC EFFECTS OF PGF 2-ALPHA.....	5R01 HD11759-02	63,971
JACKSON, GARY L.....	CONTROL OF LUTEINIZING HORMONE BIOSYNTHESIS.....	3R01 HD09659-03S1	7,903
JACKSON, GARY L.....	CONTROL OF LUTEINIZING HORMONE BIOSYNTHESIS.....	2R01 HD09659-04	71,970
JACKSON, GARY L.....	NEURAL PATHWAYS FROM PHOTORECEPTORS TO THE PITUITARY.....	1R01 HD13037-01	51,156
JONAS, ANA.....	STRUCTURE AND FUNCTION OF SERUM LIPOPROTEINS.....	5R01 HL16059-07	50,651
KAPLAN, SAMUEL.....	INDUCTION AND BIOGENESIS OF SUBCELLULAR ORGANELLES.....	5R01 GM15590-13	62,993
KATZENELLENBOGEN, BENITA S.....	ANTIESTROGENS: REPRODUCTIVE TISSUE AND TUMOR GROWTH.....	2R01 CA18119-04	107,001
KATZENELLENBOGEN, BENITA S.....	EFFECTS OF ESTROGEN ON HUMAN UTERUS TISSUE IN VITRO.....	5R01 HD06726-08	87,284
KATZENELLENBOGEN, JOHN A.....	UTERINE ESTROGEN RECEPTOR: AFFINITY LABELING.....	5R01 AM15556-09	59,323
KATZENELLENBOGEN, JOHN A.....	RATIONAL DESIGN OF BREAST TUMOR LOCALIZING AGENTS.....	1R01 CA25836-01	131,482
KEMPER, BYRON W.....	BIOSYNTHESIS OF PARATHYROID HORMONE.....	5R01 AM18866-04	44,430
KONISKY, JORDAN.....	MODE OF ACTION OF I-COLICINS ON ESCHERICHIA COLI.....	2R01 AI10106-09	55,294
LARSEN, JOSEPH R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07030-14	201,413
LARSON, RICHARD A.....	ENVIRONMENTAL HYDROPEROXIDES: FORMATION & REACTIONS.....	1R01 ES02426-01	42,414
LEONARD, NELSON J.....	NUCLEOSIDES, NUCLEIC ACIDS, AND CELL DIVISION FACTORS.....	5R01 GM05829-21	120,494
LEVINE, NORMAN D.....	TAXONOMY OF THE APICOMPLEXAN PROTOZOA.....	1R01 AI15367-01	17,321
MALMSTADT, HOWARD V.....	ANALYTICAL/CLINICAL REACTION-RATE METHODOLOGY.....	5R01 GM21984-05	85,028
MAPELI, JOSEPH G.....	ROLES OF LGN SUBNUCLEI IN CORTICAL VISUAL PROCESSING.....	1R01 EY02695-01	73,098
MANGEL, WALTER F.....	A NEW ASSAY FOR TRANSFORMED CELLS.....	1R01 CA25633-01	147,004
MARTIN, JAMES C.....	SYNTHETIC AND PHYSICAL STUDIES OF ANTICANCER AGENTS.....	5R01 CA13963-07	65,386
METCALF, ROBERT L.....	NEUROTOXICITY OF HALOGENATED PHOSPHONATE ESTERS.....	5R01 ES01492-03	50,444
MILNER, JOHN A.....	ARGININE DEFICIENCY AND OROTIC ACIDURIA.....	5R01 AM19294-03	47,163
NANNEY, DAVID L.....	AGING AND TEMPORAL PATTERNING IN TETRAHYMENA.....	5R01 AG00010-03	63,863
NANNEY, DAVID L.....	GENETIC STUDIES WITH TETRAHYMENA.....	5R01 GM07779-18	113,189
NISHIDA, TOSHIRO.....	ROLE OF PLASMA LIPOPROTEINS IN ATHEROSCLEROSIS.....	2R01 HL17597-06	79,436
O'BRIEN, WILLIAM D, JR.....	ULTRASONIC PROPAGATION PROPERTIES IN INTACT TISSUE.....	5R01 GM24994-02	125,500
OLDFIELD, ERIC.....	PHYSICAL STUDIES OF PROTEINS AND PROTEIN-LIPID SYSTEMS.....	2R01 HL19481-04	44,001
ORDAL, GEORGE W.....	PHOTOTACTIC AND CHEMOTACTIC BEHAVIOR OF BACTERIA.....	5R01 GM21130-06	68,800
PLEWA, MICHAEL J.....	A MAIZE MONITOR FOR ENVIRONMENTAL GENOTOXINS.....	5R01 ES01895-02	42,712
PROSSER, C LADD.....	MEMBRANE PROPERTIES OF GASTROINTESTINAL MUSCLES.....	5R01 AM12768-11	53,544
RASMUSEN, BENJAMIN A.....	GENETICS OF BLOOD TYPES AND STRESS SUSCEPTIBILITY.....	1R01 AM25684-01	36,932
REICHMANN, MANFRED E.....	AUTOINTERFERENCE IN VIRUS INFECTIONS AND MALIGNANCY.....	5R01 AI12070-06	110,308
RINEHART, KENNETH L, JR.....	CHEMISTRY AND BIOCHEMISTRY OF CERTAIN ANTIBIOTICS.....	5R01 AI01278-23	88,038
RINEHART, KENNETH L, JR.....	MASS SPECTRA OF ANTIBIOTICS AND RELATED COMPOUNDS.....	5R01 AI04769-18	79,979
RINEHART, KENNETH L, JR.....	HIGH RESOLUTION MASS SPECTRA OF BIOORGANIC COMPOUNDS.....	9R01 GM27029-10	224,427
SAVAGE, DWAYNE C.....	INFLUENCES OF NORMAL MICROFLORA ON GUT HISTOLOGY.....	2R01 AI11858-07	82,750
SCHOEN, ROBERT.....	COHORT MARRIAGE, DIVORCE AND FERTILITY IN 4 NATIONS.....	5R01 HD11756-02	19,513
SEGRE, DIEGO.....	PARAMETERS OF THE IMMUNE RESPONSE IN AGED MICE.....	2R01 AG00451-07	97,521
SHAPIRO, DAVID J.....	REGULATION OF HMG-COA REDUCTASE AND STEROL SYNTHESIS.....	5R01 HL17882-05	38,832
SHAW, PAUL D.....	MECHANISM OF ACTION OF MARINE ANTIMICROBIAL AGENTS.....	5R01 AI14048-03	24,022
SHERWOOD, ORRIN D.....	RELAXIN: BIOCHEMICAL AND PHYSIOLOGICAL STUDIES.....	5R01 HD08700-05	45,251
STAPLETON, HARVEY J.....	ELECTRON SPIN RELAXATION AT ACTIVE SITES IN PROTEINS.....	1R01 GM24488-01A1	51,587
STEFFENSEN, DALE M.....	GENE MAPPING BY IN SITU HYBRIDIZATION.....	5R01 GM21123-05	43,914
STOCUM, DAVID L.....	STUDY PATTERN REGULATION IN REGENERATING AMPHIBIAN LIMBS.....	1R01 HD12659-01	40,748
SWITZER, ROBERT L.....	NOVEL CONTROL MECHANISMS IN ENDOSPORE FORMATION.....	5R01 AI11121-07	49,472
SWITZER, ROBERT L.....	REGULATION AND MECHANISM OF PRPP SYNTHETASE.....	5R01 AM13488-11	71,875
TEITELBAUM, PHILIP.....	EFFECT OF LEARNING ON LATERAL HYPOTHALAMIC RECOVERY.....	5R01 NS11671-07	99,647
UHLENBECK, OLKE C.....	STRUCTURE AND FUNCTION OF RIBONUCLEIC ACID.....	5R01 GM19059-08	97,501
UHLENBECK, OLKE C.....	ORGANIZATION OF DROSOPHILA TRNA GENES.....	5R01 GM25083-01	42,889
VISEK, WILLARD J.....	DIETARY PROTEIN-FAT INTERACTIONS IN DMBA MAMMARY CANCER.....	5R01 CA22326-02	46,105
WEBER, GREGORIO.....	PROTEIN CONFIGURATION BY FLUORESCENCE TECHNIQUES.....	5R01 GM11223-17	173,496
WEBER, MICHAEL J.....	EARLY CELLULAR CHANGES IN VIRAL ONCOGENESIS.....	2R01 CA12467-08	122,892
WEBER, MICHAEL J.....	MEMBRANE LIPIDS IN ROUS SARCOMA VIRUS INFECTION.....	5R01 CA20410-03	50,102
WEBER, MICHAEL J.....	PROTEASE-ACTIVATED PRO-DRUGS IN CANCER CHEMOTHERAPY.....	5R01 CA23498-02	65,204
WILLIS, JOHN S.....	ION TRANSPORT IN CELLS OF HIBERNATING MAMMALS.....	5R01 GM11494-16	88,674
WILLIS, JUDITH H.....	ANALYSIS OF DEVELOPMENT IN INSECTS.....	5R01 AG00248-08	81,940
WOLFE, RALPH S.....	NEW MICROBIAL VITAMIN-COENZYME RELATIONSHIPS.....	2R01 AI12277-06	93,777
WONG, PAUL K.....	GENETIC STUDIES OF MURINE LEUKEMIA VIRUSES.....	2R01 CA17695-04A1	79,322
WONG, PAUL K.....	GENETIC STUDIES OF MOLONEY MURINE SARCOMA VIRUSES.....	2R01 CA19723-04	84,809

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
YANKWICH, PETER E.....	MODELING THE TRANSITION STATE OF ENZYMIC REACTIONS.....	2R01 GM18362-04A1	45,840
ZEH, JOHN E.....	CENTRAL NERVOUS CONTROL OF RENIN AND BLOOD PRESSURE.....	2R01 HL15307-07	112,648
ORGANIZATION TOTAL	105 7,761,802		
STATE TOTAL	742 71,897,543		
INDIANA			
BLOOMINGTON			
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401			
ALLERHAND, ADAM.....	CARBON-13 NMR STUDIES OF SPECIFIC SITES IN PROTEINS.....	2R01 GM22620-04	64,060
ASLIN, RICHARD N.....	PERCEPTION OF SPEECH AND NONSPEECH SOUNDS IN INFANTS.....	5R01 HD11915-02	46,944
BLUMENTHAL, THOMAS.....	QBETA REPLICASE AND PROTEIN SYNTHESIS FACTORS.....	5R01 GM21024-06	64,561
BONNER, JAMES J.....	MOLECULAR DISSECTION OF GENE REGULATION IN DROSOPHILA.....	1R01 GM26693-01	77,152
BRIGGS, ROBERT W.....	GENE ACTION IN OOGENESIS AND EMBRYONIC DEVELOPMENT.....	5R01 GM05850-21	56,364
CHOOI, YEAN W.....	RIBOSOMAL TRANSCRIPTION UNITS IN D. MELANOGASTER.....	5R01 GM23410-02	63,379
CRAIG, JAMES C.....	CUTANEOUS PATTERN PERCEPTION.....	5R01 NS09783-09	51,441
ELIZONDO, REYNALDO S.....	TEMPERATURE REGULATION AND ADAPTATION IN MACACA MULATTA.....	2R01 AM16703-04A1	49,708
GURD, FRANK R.....	STRUCTURE AND REACTIVITY OF PROTEINS AND LIPOPROTEINS.....	5R01 HL05556-20	128,595
GURD, FRANK R.....	SPECIFIC ENRICHMENT OF MYOGLOBINS FOR CARBON-13 NMR.....	5R01 HL14680-08	74,109
GURD, RUTH S.....	STRUCTURE-FUNCTION RELATIONSHIPS OF GLUCAGON.....	5R01 AM21121-03	31,992
HARMONY, JUDITH A.....	THE CHEMISTRY OF HUMAN PLASMA LIPOPROTEINS.....	5R01 GM19631-16	46,929
HARMONY, JUDITH A.....	INTERACTION OF PLASMA LIPOPROTEINS WITH ERYTHROCYTES.....	3R01 HL20882-02S1	14,590
HARMONY, JUDITH A.....	INTERACTION OF PLASMA LIPOPROTEINS WITH ERYTHROCYTES.....	5R01 HL20882-03	49,299
HAUROWITZ, FELIX.....	MECHANISM OF ANTIGEN-INDUCED ANTIBODY FORMATION.....	2R01 AI09752-30	18,389
HIEFTJE, GARY M.....	NEW METHODS FOR MEASUREMENT OF TRANSIENT CHEMICAL EVENTS.....	1R01 GM24473-01A1	65,581
HOFSTETTER, HENRY W.....	MYOPIA STUDY.....	3R01 EY02411-01S1	18,170
JACOBSON, RICHARD M.....	THE TOTAL SYNTHESIS OF LITHOSPERMIC ACID.....	1R01 GM24856-01	31,793
JASKUNAS, S RICHARD.....	REGULATION OF RIBOSOME BIOSYNTHESIS.....	5R01 GM24347-03	79,369
KAUFMAN, THOMAS C.....	ORGANIZATION OF THE DROSOPHILA GENOME.....	5R01 GM24299-03	37,020
MAHLER, HENRY R.....	THE BIOSYNTHESIS OF RESPIRATORY ENZYMES.....	2R01 GM12228-16	135,784
MAHLER, HENRY R.....	DYNAMICS OF NEURONAL MEMBRANE PROTEINS.....	5R01 NS08309-09	78,973
MAHOWALD, ANTHONY P.....	ULTRASTRUCTURAL STUDIES OF DROSOPHILA DEVELOPMENT.....	5R01 HD07983-06	66,922
MALACINSKI, GEORGE M.....	REGULATION OF GENE ACTION IN EARLY EMBRYOGENESIS.....	5R01 HD11295-02	53,443
NOVOTNY, MILOS V.....	HIGH-RESOLUTION GC METABOLIC PROFILES.....	5R01 GM23668-03	51,102
NOVOTNY, MILOS V.....	IMPROVE BIOCHEM. HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY.....	5R01 GM24349-02	32,137
POLISKY, BARRY A.....	EUCARYOTIC DNA EXPRESSION IN BACTERIA.....	5R01 GM24212-03	62,085
PORT, ROBERT F.....	TEMPORAL INVARIANTS IN SPEECH PRODUCTION AND PERCEPTION.....	1R01 HD12511-01	18,483
PREER, JOHN R, JR.....	GENETICS AND GENERAL BIOLOGY OF PARAMECIUM.....	5R01 GM20038-06	55,116
PUTNAM, FRANK W.....	BLOOD PLASMA PROTEINS: STRUCTURE AND FUNCTION.....	5R01 AM19221-04	98,757
PUTNAM, FRANK W.....	ABNORMAL PROTEINS IN MULTIPLE MYELOMA.....	3R01 CA08497-14S1	85,760
RAFF, RUDOLF A.....	REGULATION OF PROTEIN SYNTHESIS IN EARLY DEVELOPMENT.....	5R01 HD06902-08	68,564
RANDOLPH, POLLEY A.....	PHYSIOLOGY AND GENETICS OF REPRODUCTION IN MAMMALS.....	5R01 HD11264-03	41,677
RICHARDSON, JOHN P.....	FACTORS THAT CONTROL RNA TRANSCRIPTION.....	5R01 AI10142-09	61,129
RICHARDSON, JOHN P.....	ENZYMES OF NUCLEAR RNA METABOLISM.....	1R01 GM26038-01	44,157
RICHMOND, ROLLIN C.....	MECHANISM OF FERTILITY LOSS IN AGING DROSOPHILA MALES.....	1R01 AG02035-01	85,905
SCHROEDER, DOLORES M.....	ANATOMICAL ORGANIZATION OF INFRARED SYSTEM.....	5R01 NS14031-02	44,787
SHERMAN, STEVEN J.....	SOCIAL PSYCHOLOGICAL FACTORS IN ADOLESCENT SMOKING.....	1R01 HD13449-01	89,384
SHINER, VERNON J, JR.....	COMPUTATION OF ISOTOPE EFFECTS IN BIOCHEMISTRY.....	1R01 GM25956-01	47,573
SINCLAIR, JOHN H.....	CONSTRUCTION OF A PHYSICAL MAP OF ZEA MAYS MITDNA.....	1R01 GM25721-01	86,243
SONNEBORN, TRACY M.....	NORMAL AND ABNORMAL CELL GROWTH AND HEREDITY.....	5R01 GM15410-12	61,393
SURZYCKI, STEFAN J.....	ADENOVIRUS GENE EXPRESSION IN VITRO AND IN VIVO.....	5R01 AI13382-04	63,978
SURZYCKI, STEFAN J.....	TRANSCRIPTION OF CHLOROPLAST DNA OF C. REINHARDI.....	5R01 GM22968-04	53,821
SZABO, ATTILA.....	ELECTRONIC, THERMODYNAMIC AND KINETICS OF HEMOGLOBIN.....	5R01 HL21483-02	23,888
TAYLOR, MILTON W.....	MUTANTS OF MAMMALIAN CELL LINES.....	2R01 GM18924-07	81,718
WEINBERG, EUGENE D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07031-14	128,499
WEISMER, GARY G.....	ACOUSTIC CHARACTERISTICS OF 'S' SOUND MISARTICULATION.....	1R01 NS15551-01	39,708

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
WHITE, DAVID.....	CELL INTERACTIONS IN THE FRUITING MYXOBACTERIUM.....	1R01 GM24565-01A1	32,896
WILSON, STEPHEN R.....	THE TOTAL SYNTHESIS OF SELECTED PYRROLIZIDINE ALKALOIDS.....	5R01 GM24438-03	39,113
WILSON, STEPHEN R.....	SYNTHETIC APPLICATIONS OF ALKOXIDE INDUCED (1,3) SHIFTS.....	1R01 GM26039-01	60,120
ORGANIZATION TOTAL	50 2,962,560		
GOSHEN			
GOSHEN COLLEGE ZIP CODE 46526			
GROVE, STANLEY N.....	ROLE OF SUBCELLULAR COMPONENTS IN FUNGAL GROWTH.....	1R01 AI14678-01A1	59,745
JACOBS, MERLE E.....	BETA-ALANINE HARDENING OF SUPPORTING TISSUES.....	1R01 AG02010-01	131,679
JACOBS, MERLE E.....	EFFECTS OF BETA-ALANINE ON BEHAVIOR AND STRUCTURE.....	5R01 GM18680-08	43,703
ORGANIZATION TOTAL	3 235,127		
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202			
ALDO-BENSON, MARLENE A.....	ROLE OF HAPTEN-BEARING CELL IN TOLERANCE.....	5R01 CA23886-02	38,340
ALLMANN, DAVID W.....	EFFECT OF FLUORIDE ON CAMP AND GLUCOSE METABOLISM.....	5R01 DE04387-03	42,478
ARMSTRONG, WILLIAM M.....	ION TRANSPORT IN SMALL INTESTINE.....	5R01 AM12715-11	58,352
ARMSTRONG, WILLIAM M.....	IONIC TRANSFER MECHANISMS IN AIRWAY EPITHELIUM.....	1R01 HL23332-01	41,184
BAEHNER, ROBERT L.....	LEUKOCYTE METABOLISM RELATED TO RECURRENT INFECTION.....	2R01 AI10892-07	133,215
BAEHNER, ROBERT L.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA13809-07	147,261
BAEHNER, ROBERT L.....	BIOCHEMICAL BASIS OF OXYGEN DAMAGE TO LUNG CELLS.....	2R01 HL19779-04	95,480
BEERING, STEVEN C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05371-18	194,536
BEN-JONATHAN, NIRA.....	CONTROL OF PROLACTIN SECRETION BY CATECHOLAMINES.....	5R01 NS13243-02	47,334
BENSON, MERRILL D.....	PROTEIN SAA IN NEOPLASTIC DISEASE.....	5R01 CA22141-03	20,963
BESCH, HENRY R, JR.....	EXPERIMENTAL STUDIES OF GLUCAGON.....	5R01 AM18958-03	51,215
BIXLER, DAVID.....	ORAL-FACIAL VARIATIONS IN RELATIVES OF CLEFT PROBANDS.....	5R01 DE03707-06	38,695
BOCKRATH, RICHARD C.....	RADIATION INDUCED CELLULAR MUTAGENESIS AND DNA REPAIR.....	5R01 GM21788-05	36,074
BOHLEN, HAROLD G.....	MICROVASCULAR RESPONSES DURING INTESTINAL ABSORPTION.....	5R01 HL20605-03	25,167
BRANDT, KENNETH D.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20582-03	150,362
CLARK, CHARLES M, JR.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20542-03	621,983
DAVIS, ELDRED J.....	REGULATORY MECHANISMS IN ENERGY METABOLISM.....	5R01 AM13939-09	69,779
EDENBERG, HOWARD J.....	ENZYMOLGY OF SV40 DNA REPLICATION: IN VITRO STUDIES.....	5R01 GM25681-02	52,352
EHRLICH, CLARENCE E.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA21720-02	36,897
FELTEN, DAVID L.....	LOCAL ORGANIZATION OF MONOAMINERGIC DENDRITE BUNDLES.....	1R01 NS15677-01	46,358
FINEBERG, S EDWIN.....	DECREASED INSULIN SENSITIVITY IN DIABETES MELLITUS.....	5R01 AM21353-03	90,012
FISCH, CHARLES.....	MECHANISMS AND THERAPY OF CIRCULATORY DISEASE.....	5P01 HL06308-19	676,605
FRIEDMAN, JULIUS J.....	DYNAMICS OF MICROCIRCULATORY FUNCTION.....	2R01 HL16094-07	71,676
FRIEDMAN, JULIUS J.....	ELECTROLYTE PERMEABILITY OF SINGLE CAPILLARIES.....	5R01 HL19674-03	27,687
GIBSON, DAVID M.....	INSULIN INDUCTION OF LIPOGENIC ENZYMES IN HEPATOCYTES.....	5R01 AM19299-04	72,684
GIBSON, DAVID M.....	INTERCONVERTIBILITY OF LIVER HMG COA REDUCTASE IN VITRO.....	5R01 AM21278-02	37,332
GRIM, CLARENCE E.....	HYPERTENSION: PSYCHOPHYSIOLOGIC & GENETIC PRECURSORS.....	5R01 HL20034-04	113,670
HAMILTON, JEAN A.....	STRUCTURAL STUDIES OF COMPLEXES BY X-RAY DIFFRACTION.....	1R01 GM24623-01A1	31,581
HARRIS, ROBERT A.....	REGULATION OF LEUCINE OXIDATION.....	5R01 AM19259-04	53,199
HARRIS, ROBERT A.....	HORMONAL CONTROL OF HEPATIC GLUCOSE AND FAT SYNTHESIS.....	5R01 AM21178-03	52,256
HARRIS, ROBERT A.....	HYPOGLYCEMIC ACTION OF 2-CHLOROPROPIONATE.....	1R01 AM25334-01	52,956
JACKSON, ROBERT C.....	EXPERIMENTAL CHEMOTHERAPY OF HEPATOMAS BY ANTIFOLATES.....	2R01 CA18129-04	75,195
JOHNSTON, C CONRAD, JR.....	SKELETAL METABOLIC ABNORMALITIES IN DIABETES MELLITUS.....	1R01 AM22189-01	58,334
JOHNSTON, C CONRAD, JR.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00750-07	408,204
JONES, LARRY R.....	RYANODINE: MECHANISM OF ACTION IN CARDIAC TISSUES.....	1R01 HL23704-01	36,390
KAPLAN, JEROME I.....	NUCLEAR MAGNETIC RESONANCE AND MYOCARDIAL ISCHEMIA.....	5R01 HL21706-03	74,747
KARN, ROBERT C.....	STUDIES OF PROTEIN GLYCOSYLATION IN DIABETES MELLITUS.....	5R01 AM21177-02	41,493
LEMONS, JAMES A.....	COMPOSITION OF BREAST MILK.....	1R01 HD12467-01	60,234
LLOYD, THOMAS C, JR.....	PULMONARY FACTORS IN CIRCULATORY REGULATION.....	5R01 HL15694-07	44,947
MEISS, RICHARD A.....	SMOOTH MUSCLE STIFFNESS AND CONTRACTILE MECHANISMS.....	5R01 HD10898-03	17,764
OCHS, SIDNEY.....	ANALYSIS OF AXOPLASMIC TRANSPORT.....	1R01 NS08706-11	93,944
OPPENHEIM, BERNARD E.....	RADIONUCLIDE SCREENING IN RENOVASCULAR HYPERTENSION.....	1R01 HL24774-01	70,863
PHILLIPS, RALPH W.....	CREEP AND EVALUATION TECHNIQS OF AMALGAM FAILURE.....	5R01 DE04367-04	28,559

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
PHILLIPS, RALPH W.....	F DISTRIBUTION IN TEETH USING SILICATE CEMENT MODEL.....	5R01 DE04904-02	61,140
QUEENER, SHERRY I.....	MEMBRANE ENZYME FUNCTION IN DIABETIC KIDNEY.....	5R01 AM21289-03	39,277
RHOADES, RODNEY A.....	NUTRITION & HORMONAL INTERACTION IN LUNG DEVELOPMENT.....	2R01 HD10670-04	61,196
RHOADES, RODNEY A.....	LACTATE METABOLISM IN THE LUNG.....	5R01 HL20566-03	47,319
ROESKE, ROGER W.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	1R01 HD12776-01	74,412
ROSENTHAL, RAOUL S.....	ROLE OF GONOCOCCAL PEPTIDOGLYCAN IN INFLAMMATION.....	5R01 AI14826-02	90,916
ROTHE, CARL F.....	REFLEX CONTROL OF VASCULAR CAPACITANCE IN SHOCK.....	5R01 HL07723-16	29,966
SCHLAEGEL, T F, JR.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02551-01	41,250
SIAKOTOS, ARISTOTLE N.....	OCULAR LYSOSOMES IN HEREDIATRY RETINAL DEGENERATIONS.....	3R01 EY01806-02S1	8,674
SIAKOTOS, ARISTOTLE N.....	OCULAR LYSOSOMES IN HEREDIATRY RETINAL DEGENERATIONS.....	5R01 EY01806-03	98,213
SNODGRASS, PHILIP J.....	INDUCTION AND SUPPRESSION OF UREA CYCLE ENZYMES.....	5R01 AM17299-07	59,504
TANNER, GEORGE A.....	NEPHRON RESPONSE TO TUBULAR OBSTRUCTION OR DAMAGE.....	2R01 HL13929-07A1	37,312
VINICOR, FRANK.....	MATERNAL HYPERGLYCEMIA AND NEONATAL HEPATIC FUNCTION.....	5R01 AM21235-03	29,459
WATANABE, AUGUST M.....	MECHANISMS OF ADRENERGIC-CHOLINERGIC ANTAGONISM.....	5R01 HL18795-05	62,639
WEBER, GEORGE.....	METABOLIC PATTERNS AND CHEMOTHERAPY OF NEOPLASIA.....	2R01 CA05034-19	156,551
WEBER, GEORGE.....	CORRELATED STUDY OF METABOLIC REGULATION IN NEOPLASIA.....	5P01 CA13526-08	568,208
WEINBERGER, MYRON H.....	SPECIALIZED CENTER OF RESEARCH IN HYPERTENSION.....	5P50 HL14159-09	899,587
WEYMAN, ARTHUR E.....	QUANTITATION OF INFARCT SIZE BY CROSS-SECTIONAL ECHO.....	1R01 HL23413-01	139,255
ORGANIZATION TOTAL	61 6,743,235		
INDIANAPOLIS CENTER FOR ADVANCED RESEARCH ZIP CODE 46202			
FRANKLIN, THOMAS D, JR.....	MICROVASCULAR RESPONSES TO ULTRASOUND.....	5R01 HL20869-02	77,166
FRY, FRANCIS J.....	TRANSKULL FOCAL BRAIN LESIONS.....	5R01 NS14087-02	75,462
FRY, FRANCIS J.....	DIAGNOSIS OF INTRACRANIAL DISEASE.....	5R01 NS14201-02	154,526
FRY, FRANCIS J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05781-02	30,997
KAPLAN, JEROME I.....	THE DEVELOPMENT OF A DENTAL X-RAY AIMING DEVICE.....	5R01 DE04783-03	18,119
ORGANIZATION TOTAL	5 356,270		
NOTRE DAME			
UNIVERSITY OF NOTRE DAME ZIP CODE 46556			
ALDOUS, JOAN.....	FAMILY SIZE AND LATER KIN CONTACTS: A PILOT STUDY.....	1R01 AG02279-01	53,516
ASANO, TOMOAKI.....	PHYSIOLOGICAL ASPECTS OF SENSENCE IN GERMFREE ANIMALS.....	1R01 AG00900-01	47,198
BASU, SUBHASH C.....	GLYCOLIPID METABOLISM IN TUMOR AND TRANSFORMED CELLS.....	2R01 CA14764-04A1	68,915
BASU, SUBHASH C.....	METABOLISM OF GLYCOSPHINGOLIPIDS IN CELLS.....	5R01 NS09541-09	55,760
CASTELLINO, FRANCIS J.....	STRUCTURE-FUNCTION STUDIES ON PLASMINOGEN AND PLASMIN.....	5R01 HL13423-09	58,359
CASTELLINO, FRANCIS J.....	BLOOD COAGULATION PROTEIN-METAL ION-LIPID INTERACTIONS.....	5R01 HL19982-03	73,126
CRAIG, GEORGE B, JR.....	FACTORS AFFECTING VECTOR COMPETENCE IN AEDES TRISERIATUS.....	2R01 AI02753-20	170,834
FUCHS, MORTON S.....	REPRODUCTIVE PHYSIOLOGY OF AEDES MOSQUITOES.....	5R01 AI10707-08	105,002
GORDON, ROBERT E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07033-14	77,445
HAYES, ROBERT G.....	CORE ABSORPTION SPECTROSCOPY OF METALLOPORPHYRINS.....	5R01 GM25453-02	38,476
HAYES, ROBERT G.....	X-RAY PHOTOELECTRON SPECTROSCOPY OF HEME COMPOUNDS.....	5R01 HL13651-08	59,043
KLINE, DONALD W.....	STIMULUS PERSISTENCE AND AGE: A PROSPECTIVE ANALYSIS.....	1R23 AG01072-01	32,438
MILLER, MARVIN J.....	SYNTHESIS OF FERRICHRONES AND RELATED IRON CHELATORS.....	1R01 GM25845-01	56,652
MILLER, MARVIN J.....	SYNTHESIS OF BETA-LACTAMS FROM HYDROXAMIC ACIDS.....	1R01 GM26867-01	56,124
NOWAK, THOMAS.....	NMR STUDIES OF METALS IN KINASES AND RELATED ENZYMES.....	2R01 AM17049-07	72,613
POLLARD, MORRIS.....	COLORRECTAL CARCINOGENESIS IN GERMFREE RATS.....	3R26 CA15957-05S1	2,065
POLLARD, MORRIS.....	INTESTINAL CARCINOGENESIS IN CONVENTIONAL/GERMFREE RATS.....	2R26 CA15957-06	69,407
POLLARD, MORRIS.....	PROSTATE ADENOCARCINOMAS IN RATS.....	5R26 CA17559-05	74,558
POLLARD, MORRIS.....	DEVELOPMENT AND MAINTENANCE OF GERMFREE ANIMAL COLONIES.....	5P40 RR00294-14	147,635
SAZ, HOWARD J.....	INTERMEDIARY METABOLISM OF HELMINTHS.....	5R01 AI09483-10	93,799
SAZ, HOWARD J.....	CHEMOTHERAPY AND METABOLISM OF FILARIDS.....	5R22 AI10512-09	23,545
SCHEIDT, W ROBERT.....	X-RAY AND CHEMICAL STUDIES OF METALLOPORPHYRINS.....	3R01 HL15627-06S1	2,121
SCHEIDT, W ROBERT.....	X-RAY AND CHEMICAL STUDIES OF METALLOPORPHYRINS.....	2R01 HL15627-07	70,894
WEINSTEIN, PAUL P.....	DEVELOPMENT OF PARASITIC HELMINTHS IN VITRO.....	5R01 AI09625-10	101,506
WOSTMANN, BERNARD S.....	CHARACTERIZATION OF NUTRITIONALLY DEFINED GNOTOBIOTE.....	2P40 RR00640-07	89,976
ORGANIZATION TOTAL	25 1,701,007		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
TERRE HAUTE			
INDIANA STATE UNIVERSITY	ZIP CODE 47809		
BOZARTH, ROBERT F	TOXIN PRODUCING DSRNA VIRUSES IN USTILAGO MAYDIS	1R01 AI15537-01	57,655
DUSANIC, DONALD G.	BIOLOGY AND IMMUNOLOGY OF T. CRUZI METACYCLIC FORMS	5R01 AI14642-02	40,328
ORGANIZATION TOTAL	2	97,983	
WEST LAFAYETTE			
PURDUE UNIVERSITY	ZIP CODE 47907		
ALTMAN, JOSEPH	COMPREHENSIVE STUDY OF BRAIN DEVELOPMENT	1R01 NS14815-01	113,215
ANDERSON, JOHN N.	CONFORMATION OF ALPHA-FETOPROTEIN GENE IN CHROMATIN	1R01 CA25799-01	41,582
ANDERSON, JOHN N.	HORMONAL CONTROL OF ALPHA-FETOPROTEIN	1R01 HD11960-01	33,883
ANDREWS, FREDERICK N.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07032-14	194,924
ARNOTT, STRUTHER	MOLECULAR GEOMETRIES OF NUCLEIC ACIDS	5R01 GM17371-08	77,328
ARNOTT, STRUTHER	STRUCTURE OF EXTRACELLULAR MATRIX POLYSACCHARIDES	5R01 GM20682-06	61,781
ARONSON, ARTHUR I.	MORPHOGENETIC PROCESSES IN BACTERIAL SPOULATION	5R01 GM20606-06	98,913
AUNON, JORGE I.	QUANTIFICATION OF SINGLE EVOKED POTENTIALS	1R01 NS15347-01	75,362
BOURLAND, JOE D.	CATHETER VENTRICULAR DEFIBRILLATION STUDIES	2R01 HL20629-03	69,984
BOURLAND, JOE D.	CARDIAC OUTPUT FROM THE PNEUMOCARDIOGRAM	5R01 HL22321-02	49,739
BRENCHLEY, JEAN E.	CHARACTERIZATION OF T RNA MATURATION MUTANTS	2R01 GM25251-03	60,221
BROWN, HERBERT C.	STEREOSPECIFIC SYNTHESSES VIA HYDROBORATION	5R01 GM10937-17	95,702
BURNS, EDWARD M.	PITCH ANOMALIES AND THE CODING OF PITCH	1R01 NS15405-01	37,867
BYRN, STEPHEN R.	STRUCTURAL STUDIES OF PHYSIOLOGICALLY ACTIVE AGENTS	5R01 ES00929-06	67,002
BYRN, STEPHEN R.	SOLID STATE REACTIONS IN MEDICINAL CHEMISTRY	5R01 GM21174-04	65,622
CAPALDI, EGIDIO J.	SEQUENTIAL PROCESSES IN INSTRUMENTAL LEARNING	5R01 HD04379-11	53,737
CARLSON, DON M.	GLYCOPROTEINS AND PROLINE-RICH PROTEINS	5R01 AM19175-05	82,520
CARLSON, DON M.	PULMONARY SECRETIONS	1R01 HL25225-01	59,397
CARLSON, GARY P.	ARRHYTHMIGENIC CHLORINATED COMPOUNDS	1R01 GM23402-01A1	29,624
CHANG, CHING-JER	INTERACTIONS OF ALKYLATING AGENTS AND NUCLEIC ACIDS	5R01 CA22987-02	104,091
CRAMER, WILLIAM A.	THE MECHANISM OF ACTION OF COLICIN	2R01 GM18457-09	79,119
CRANE, FREDERICK L.	HORMONE CONTROL OF PLASMA MEMBRANE REDOX FUNCTION	5R01 AM25235-02	58,335
CUSHMAN, MARK S.	NEW ALKALOID SYNTHESSES	2R01 CA19204-04	64,925
DAS, GOPAL D.	TRANSPLANTATION OF NEURAL TISSUES AND NEUROGENESIS	5R01 NS08817-09	70,491
DILLEY, RICHARD A.	PROTON-MEMBRANE INTERACTIONS IN BIOENERGETICS	5R01 GM19595-07	56,442
DIXON, JACK E.	THE MECHANISM OF INSULIN DEGRADATION	2R01 AM18024-04	53,930
DIXON, JACK E.	THYROTROPIN RELEASING HORMONE: SYNTHESIS, DEGRADATION	2R01 AM18849-04	49,320
DYKHUIZEN, DANIEL E.	EXPERIMENTAL TEST OF ALLOZYME NEUTRALITY	5R01 GM24886-02	62,248
FETH, LAWRENCE L.	FREQUENCY DISCRIMINATION AND PITCH OF COMPLEX TONES	5R01 NS12235-05	32,334
FLOSS, HEINZ G.	STUDY OF BIOLOGICALLY ACTIVE MICROBIAL METABOLITES	5R01 AI11728-06	132,904
FLOSS, HEINZ G.	BIOSYNTHESIS OF ERGOT ALKALOIDS	5R01 CA17482-11	89,346
FLOSS, HEINZ G.	STEREOCHEMISTRY OF ENZYME REACTIONS	5R01 GM18852-09	88,602
FUCHS, PHILIP L.	TOTAL SYNTHESIS OF CYTOCHALASIN C	1R01 AI13073-01A3	41,573
FUCHS, PHILIP L.	SYNTHESIS OF QUASSINOIDAL ANTILEUKEMIA AGENTS	5R01 CA21840-02	64,725
GEDDES, LESLIE A.	FUNDAMENTAL STUDIES IN ELECTROSURGERY	5R01 GM23103-02	133,762
GEDDES, LESLIE A.	INDIRECT MEAN BLOOD PRESSURE	2R01 HL18947-03	50,127
GILHAM, PETER T.	FINE STRUCTURE OF NUCLEIC ACIDS	2R01 GM11518-15	61,705
GILHAM, PETER T.	METHODS FOR THE SEQUENCE ANALYSIS OF DNA	5R01 GM18533-08	53,369
GILHAM, PETER T.	SYNTHESIS OF POLYRIBONUCLEOTIDES OF DEFINED SEQUENCE	5R01 GM19395-08	70,449
GOLUB, EDWARD S.	INDUCTION OF IMMUNOLOGICAL TOLERANCE	2R01 AI08800-10	100,339
GOLUB, EDWARD S.	BRAIN ASSOCIATED HEMATOPOIETIC ANTIGENS	5R01 CA18641-05	74,218
GRAHAM, DALE E.	THE EUKARYOTE GENOME: EVOLVING STRUCTURE AND FUNCTION	5R01 GM21954-05	92,371
HARTL, DANIEL L.	FINAL EXPRESSION OF BETA-GLUCURONIDASE IN DROSOPHILA	1R01 AG02052-01	38,649
HARTL, DANIEL L.	MEASURES OF POPULATION FITNESS	1R01 GM26634-01	42,486
HERMODSON, MARK A.	AMINO ACID SEQUENCES OF BINDING PROTEINS	5R01 GM24602-02	78,612
HERRMANN, KLAUS M.	BIOCHEMICAL AND GENETIC STUDIES OF DAHP-SYNTHEASE	5R01 GM17678-08	48,602
HORII, YOSHIYUKI	AGING EFFECTS ON VOICE FUNDAMENTAL FREQUENCIES	1R01 AG01590-01	35,257
HORNEMANN, ULFERT	INTERACTION OF MITOMYCIN C WITH NUCLEOPHILES	1R01 CA25685-01	77,768
HUI, CHIU S.	CONTRACTILE ACTIVATION IN STRIATED MUSCLE	1R01 NS15375-01	39,032

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
JAFFE, LIONEL F.....	ELECTRICAL CONTROLS OF NERVE REGENERATION.....	5R01 NS11545-05	58,943
KAK, A C.....	DIGITAL RAY TRACING IN ULTRASONIC TOMOGRAPHY.....	1R01 GM26487-01	65,007
KAK, A C.....	ULTRASONIC SCATTERING BY BIOLOGICAL TISSUES.....	1R01 GM26942-01	56,419
KEENAN, THOMAS W.....	ENDOMEMBRANE INTERCONVERSION IN MILK FORMATION.....	5R01 GM23889-03	76,761
KENT, CLAUDIA M.....	ANALYSIS OF SURFACE MEMBRANES OF DEVELOPING MUSCLE CELLS.....	5R01 HD10580-03	47,528
KIM, KI-HAN.....	INSULIN CONTROL OF KEY ENZYMES FOR GLUCOSE HOMEOSTASIS.....	5R01 AM12865-11	61,229
KIRKSEY, AVANELLE.....	LONG ORAL CONTRACEPTIVE USE/VITAMIN B-6 PREGNANCY NEEDS.....	5R01 HD11996-02	50,955
KIRKSEY, AVANELLE.....	VITAMIN B6 IN DEVELOPMENT OF CENTRAL NERVOUS SYSTEM.....	5R01 NS14005-02	48,032
KISSINGER, PETER T.....	ANALYSIS OF TYROSINE METABOLITES IN BODY FLUIDS.....	5R01 GM22713-04	51,914
KISSINGER, PETER T.....	N-ACETYL-P-QUINONEIMINE IN ACETAMINOPHEN TOXICITY.....	1R01 GM26283-01	62,620
KOHLHAW, GUNTER B.....	REGULATION OF LEUCINE BIOSYNTHESIS.....	5R01 GM15102-12	73,466
KOIVO, ANTTI J.....	THE USE OF MICROPROCESSORS IN MEDICAL APPLICATIONS.....	5R01 HL22417-02	33,354
LASKOWSKI, MICHAEL, JR.....	PROTEIN PROTEINASE INHIBITORS.....	5R01 GM10831-21	201,684
LIGHT, ALBERT.....	BOVINE ENTEROKINASE STRUCTURE AND FUNCTION.....	2R01 GM22261-05	91,050
LIGHT, ALBERT.....	MECHANISM OF FOLDING OF SERINE PROTEINASES.....	5R01 GM23628-02	56,777
LOVETT, JAMES S.....	SYNTHESIS AND SECRETION OF EXTRACELLULAR GLYCOPROTEIN.....	1R01 AI15437-01	80,874
LOW, PHILIP S.....	ANION EXCHANGE ACROSS ERYTHROCYTE MEMBRANES.....	5R01 GM24417-03	39,203
LYTLE, FRED E.....	NEW TECHNIQUES IN RAMAN SPECTROSCOPY OF BIO-MOLECULES.....	1R01 GM26123-01	98,838
MARGERUM, DALE W.....	METAL ION TRANSFER AND CATALYSIS IN PEPTIDE COMPLEXES.....	5R01 GM12152-15	80,406
MARGERUM, DALE W.....	ACTIVATION OF MOLECULAR OXYGEN BY METAL PEPTIDES.....	5R01 GM19775-08	49,481
MARKLEY, JOHN L.....	NMR SPECTROSCOPY IN PROTEIN CHEMISTRY.....	2R01 GM19907-07	80,841
MARKLEY, JOHN L.....	A REGIONAL NMR RESOURCE FOR BIOMOLECULAR RESEARCH.....	5P41 RR01077-03	119,631
MC MILLIN, DAVID R.....	CHEMICAL AND PHYSICAL STUDIES OF COPPER PROTEINS.....	2R01 GM22764-04	78,941
MORRE, D JAMES.....	GLYCOSPHINGOLIPID METABOLISM AND TUMORIGENESIS.....	5R01 CA18801-02	83,732
MORRE, D JAMES.....	CANCER DETECTION BY SERUM ANALYSIS OF HETEROGLYCANS.....	5R01 CA21958-03	35,873
MORRE, D JAMES.....	CANCER CENTER SUPPORT (CORE).....	5P30 CA23168-02	205,128
MORRE, D JAMES.....	DICTYOSOME-LIKE STRUCTURES IN REPRODUCTIVE DEVELOPMENT.....	5R01 HD11508-02	36,985
MORRISON, HARRY A.....	SKIN PHOTOBIOLOGY-PHOTOCHEMISTRY OF UROCANIC ACID.....	5R01 CA18267-02	44,778
MORTENSON, LEONARD E.....	MICROBIAL ENZYMES INVOLVED IN NITROGEN METABOLISM.....	5R01 AI04865-18	96,151
NAKAJIMA, SHIGEHRO.....	CELLULAR BIOPHYSICS OF NEUROMUSCULAR FUNCTION.....	2R01 NS08601-10	80,843
NAKAJIMA, YASUKO.....	ULTRASTRUCTURE AND FUNCTION OF NERVE AND MUSCLE.....	5R01 NS10457-07	51,355
NICHOLS, DAVID E.....	2-AMINO-3,4-DIHYDROQUINAZOLINES AS DOPAMINE AGONISTS.....	1R01 HL23609-01	35,691
OSTROY, SANFORD E.....	RELATED MOLECULAR AND PHYSIOLOGICAL EVENTS IN VISION.....	5R01 EY00413-11	74,404
PAK, WILLIAM L.....	SENSORY EXCITATION AND INFORMATION FLOW IN THE RETINA.....	5R01 EY00033-10	91,266
PARDUE, HARRY L.....	INSTRUMENTATION FOR FAST CLINICAL ANALYSES.....	2R01 GM13326-12	95,318
PEPPERBERG, DAVID R.....	VISUAL PIGMENT AND PHOTO-RECEPTOR ADAPTATION.....	5R01 EY02103-03	42,410
PINTO, LAWRENCE H.....	INTERMEDIATE PROCESSES IN PHOTORECEPTORS.....	5R01 EY01221-06	50,389
PINTO, LAWRENCE H.....	MAMMALIAN VISUAL MUTANTS.....	5R01 EY02336-02	44,070
PROHOFKY, EARL W.....	CONFORMATIONAL INSTABILITY OF NUCLEOTIDE SEQUENCES.....	5R01 GM24443-02	55,111
RAY, WILLIAM J, JR.....	MECHANISM OF THE GROUP TRANSFER PROCESS.....	5R01 GM08963-17	114,592
REGNIER, FRED E.....	HIGH SPEED LIQUID CHROMATOGRAPHY OF PROTEINS.....	5R01 GM25431-02	53,024
ROSSMANN, MICHAEL G.....	STRUCTURE OF A SMALL SPHERICAL VIRUS.....	5R01 AI1219-07	93,414
ROSSMANN, MICHAEL G.....	STRUCTURAL STUDIES OF PROTEIN SUBUNITS.....	5R01 GM10704-17	125,074
ROSSMANN, MICHAEL G.....	REPLACEMENT OF A ROTATING DRUM FILM SCANNER.....	1P41 GM27517-01	51,847
SMITH, L DENNIS.....	CYTOPLASMIC REGULATION IN EARLY CELL DIFFERENTIATION.....	5R01 HD04229-11	150,038
SOMERVILLE, RONALD L.....	REGULATORY MECHANISMS IN TRYPTOPHAN BIOSYNTHESIS.....	5R01 GM22131-05	74,863
TACKER, WILLIS A, JR.....	DEFIBRILLATION ELECTRODE STUDIES.....	5R01 HL22699-02	38,202
TACKER, WILLIS A, JR.....	REGIONAL MYOCARDIAL BLOOD FLOW DURING HYPOTHERMIA.....	5R01 HL22759-02	43,000
TESSMAN, ETHEL S.....	REGULATORY MECHANISMS IN SMALL DNA PHAGES.....	5R01 AI11853-06	83,306
TESSMAN, IRWIN.....	REPAIR AND MUTAGENESIS OF DNA.....	5R01 CA22239-03	78,949
TOBIAS, R STUART.....	EFFECTS OF ELECTROPHILIC ATTACK ON POLYNUCLEOTIDES.....	5R01 AM16101-08	72,477
TSAI, CHIA-YIN.....	REGULATION OF ZEIN SYNTHESIS IN MAIZE ENDOSPERM.....	5R01 GM25045-02	72,197
TSAI, MING-DAW.....	STEREOCHEMISTRY OF ADENYLYL TRANSFER REACTIONS.....	1R01 GM26839-01	51,247
TYLER, VARRO E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05586-12	54,167
UMBARGER, H EDWIN.....	ENZYMIC MECHANISMS IN BIOSYNTHETIC PATHWAYS.....	5R01 GM12522-15	196,106
VAN ETEN, ROBERT L.....	THE ACTIVE SITES OF ACID PHOSPHATASES.....	9R01 GM27003-10	92,712
WEINBERG, BERND.....	LINGUISTIC ASPECTS OF SPEECH AFTER LARYNGECTOMY.....	1R01 NS15371-01	34,012
WEINTRAUB, HERSCHEL J.....	CONFORMATIONAL ANALYSIS OF BIOLOGICAL MOLECULES.....	1R01 GM25142-01	54,327
WEITH, H LEE.....	SEQUENCING OF RSV DNA INTEGRATION SITES.....	5R01 CA23332-02	46,773
WIEBERS, JOYCE L.....	IDENTITY AND LOCALE OF ALKYLATED NUCLEOSIDES IN DNA.....	5R01 CA23859-02	41,238

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
WILLIAMS, LUTHER S	REGULATION OF AMINOACYL-TRNA SYNTHETASE FORMATION.....	5R01 GM21878-06	75,218
ZALKIN, HOWARD	SYNTHESIS OF EXTRACELLULAR PROTEINS IN BACTERIA.....	1R01 AI15929-01	59,908
ZALKIN, HOWARD	REGULATORY ENZYMES IN TRYPTOPHAN SYNTHESIS	5R01 GM24658-09	70,238
ORGANIZATION TOTAL	112 8,027,921		
STATE TOTAL	258 20,124,103		
IOWA			
AMES			
IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY ZIP CODE 50010			
APPLEQUIST, JON B.....	THEORY OF MOLECULAR OPTICAL PROPERTIES.....	5R01 GM13684-13	29,901
COX, GEORGE S.....	MECHANISM OF ECTOPIC HORMONE SYNTHESIS BY TUMOR CELLS	5R01 CA21534-03	38,530
DELLMANN, H DIETER.....	HERRING BODY AND PITUITARY IN NEUROSECRETION.....	5R01 NS14062-02	40,868
DUPONT, JACQUELINE.....	DIETARY FAT, CHOLESTEROL AND BILE ACID TURNOVER.....	5R01 HL23598-02	62,073
FRENCH, DEXTER.....	MECHANISM OF AMYLASE ACTION.....	5R01 GM08822-18	79,351
FROMM, HERBERT J.....	REGULATION OF BRAIN AND TUMOR PHOSPHOTRANSFERASE.....	5R01 NS10546-14	44,736
GOUGH, PATRICIA M.....	ORAL TRANSMISSION OF RABIES VIRUS IN WILDLIFE.....	5R22 AI14132-03	45,187
GRAVES, DONALD J.....	ENZYMIC INTERCONVERSION AND REGULATION.....	5R01 GM09587-18	66,836
HOROWITZ, JACK.....	STRUCTURAL BASIS OF RIBONUCLEIC ACID SPECIFICITY.....	2R01 GM09042-17	78,832
KRAUS, GEORGE A.....	SYNTHESIS OF TRICHOETECENE LACTONES.....	5R01 CA23663-02	49,905
KRAUS, GEORGE A.....	ANNELATIONS WITH BUTENOLIDES.....	5R01 GM24474-02	49,212
KRAUS, GEORGE A.....	NIGMS SHARED INSTRUMENTATION PROGRAM—200 MHZ NMR.....	1P41 GM27433-01	165,000
LAROCK, RICHARD C.....	SYNTHESIS OF PROSTAGLANDIN ANALOGUES AND ANTAGONISTS.....	5R01 AM21795-02	37,577
LAROCK, RICHARD C.....	SYNTHESIS OF BIOLOGICALLY ACTIVE LACTONES AND LACTAMS.....	5R01 GM24254-03	51,726
MASON, MILDRED.....	READING DISABILITY AND THE ENCODING OF VISUAL STIMULI.....	2R01 EY01813-04	31,423
MAYFIELD, JOHN E.....	DROSOPHILA HMG PROTEINS.....	1R01 AG01927-01	31,178
METZLER, DAVID E.....	THE ACTION OF B VITAMINS IN ENZYMIC CATALYSIS.....	5R01 AM01549-23	102,321
NORDSKOG, ARNE W.....	HISTOCOMPATIBILITY IMMUNE RESPONSE GENES IN CHICKENS.....	2R01 AI12746-04A1	85,666
PATTEE, PETER A.....	GENETICS OF BIOSYNTHESIS IN STAPHYLOCOCCUS AUREUS.....	2R01 AI06647-12A1	56,091
POLLAK, EDWARD.....	RESEARCH IN MATHEMATICAL AND STATISTICAL GENETICS.....	5R01 GM13827-13	54,565
ROBYT, JOHN F.....	BIOSYNTHETIC STUDY OF DENTAL PLAQUE POLYSACCHARIDES.....	5R01 DE03578-08	52,461
STADLER, JOAN K.....	MUTANTS OF MEMBRANE FUNCTION IN LYMPHOCYTIC CELLS.....	5R01 GM25728-02	47,328
THOMAS, JAMES A.....	CONTROL OF GLYCOGEN SYNTHESIS IN HEART.....	5R01 HL13630-09	54,925
ZAFFARANO, DANIEL J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07034-14	65,489
ORGANIZATION TOTAL	24 1,421,181		
IOWA CITY			
UNIVERSITY OF IOWA ZIP CODE 52242			
ABBOUD, FRANCOIS M.....	REGULATION OF THE CIRCULATION IN PATHOLOGICAL STATES.....	5P01 HL14388-08	1,537,862
ANURAS, SINN.....	CONTROL MECHANISMS OF COLONIC MOTILITY.....	5R01 AM20448-03	62,871
ANURAS, SINN.....	STUDIES OF FAMILIAL VISCERAL MYOPATHY.....	1R01 AM25965-01	87,969
ARNONE, ARTHUR.....	X-RAY STUDIES OF HEMOGLOBIN AND OTHER PROTEINS.....	5R01 AM17563-06	81,748
BAR, ROBERT S.....	INSULIN RECEPTORS AND INSULIN-MODULATED IMMUNE FUNCTION.....	5R01 AM21250-02	44,912
BAR, ROBERT S.....	ACTION OF INSULIN AND GROWTH PEPTIDES ON ENDOTHELIUM.....	1R01 AM25421-01	39,100
BEAM, KURT G, JR.....	REGULATION OF MEMBRANE EXCITABILITY.....	1R01 NS14901-01	47,308
BENTON, ARTHUR L.....	PERFORMANCE TESTS IN CEREBRAL DISEASE.....	2R01 NS00616-26	58,346
BHALLA, RAMESH C.....	CALCIUM/IONS & C-AMP ROLE IN CAUSATION OF HYPERTENSION.....	2R01 HL19027-04	76,728
BHATNAGAR, RAMBIR K.....	EFFECTS OF DRUGS ON NEUROCHEMICAL MATURATION OF BRAIN.....	5R01 NS12121-05	59,434
BLACK, ASA C, JR.....	CNS EPINEPHRINE AND HYPERTENSION.....	1R23 HL24351-01	38,795
BLAKLEY, RAYMOND L.....	STRUCTURAL STUDIES ON DIHYDROFOLATE REDUCTASE.....	3R01 CA13840-07S1	20,400
BLAKLEY, RAYMOND L.....	STRUCTURAL STUDIES ON DIHYDROFOLATE REDUCTASE.....	5R01 CA13840-08	104,002
BLAKLEY, RAYMOND L.....	INHIBITORS OF HUMAN RIBONUCLEOTIDE REDUCTASE.....	5R01 CA16254-05	27,833
BLAKLEY, RAYMOND L.....	METHOTREXATE TOXICITY AND RESCUE.....	1R01 CA25693-01	71,713
BLAKLEY, RAYMOND L.....	ALLOSTERIC REGULATION OF MONOMERIC ENZYMES.....	9R01 GM26538-11	84,403
BLAKLEY, RAYMOND L.....	EQUIPMENT FOR SEQUENCING FACILITY.....	1P41 GM27441-01	150,326

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
BRAND, RICHARD A	BIOMECHANICS OF HIP AND KNEE	2R01 AM14486-08A1	101,950
BURMEISTER, LEON F	FARMING AS AN OCCUPATIONAL RISK FOR CANCER	5R01 CA24302-02	158,438
BURNS, CHARLES P	LIPID METABOLISM OF LEUKOCYTES	5R01 CA17283-05	60,432
BURTON, THOMAS C	MACULAR PHOTOCOAGULATION STUDY	1R10 EY02553-01	49,985
CAMPBELL, DONALD T	MOLECULAR BASIS OF MEMBRANE EXCITABILITY	1R01 NS15400-01	34,646
CAPLAN, RICHARD M	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18017-05	165,210
CHALKLEY, ROGER G	AGING OF THE MAMMALIAN CHROMOSOME	5R01 AG00753-03	73,630
CHALKLEY, ROGER G	STRUCTURE AND FUNCTION OF CHROMOSOMAL NUCLEOHISTONE	5R01 CA10871-12	112,212
CHALKLEY, ROGER G	ESTROGENS AND BREAST CANCER	5R01 CA20509-03	71,975
CHRISTENSEN, JAMES	STUDIES OF THE SMALL INTESTINAL SLOW WAVE	5R01 AM08901-14	95,775
CHRISTENSEN, JAMES	REGULATION OF THE LOWER ESOPHAGEAL SPHINCTER	5R01 AM11242-13	91,539
CLARKSON, BRIAN H	ANTI-CARIES MECHANISMS OF FLUORIDE COMPLEXES: IN VITRO	1R01 DE04835-01A1	56,075
COFFMAN, ROBERT E	SPIN-SPIN MAGNETIC GEOMETRY-DYNAMIC EXCHANGE COUPLING	1R01 GM24480-01	65,711
CONWAY, THOMAS W	PROTEIN SYNTHESIS IN T4 BACTERIOPHAGE-INFECTED CELLS	2R01 AI11301-07	67,154
COOPER, GEORGE, IV	THE MECHANICAL BASIS OF MYOCARDIAL ENERGETICS	5R01 HL21570-02	65,628
COUCOUVANIS, DIMITRI	IRON AND MOLYBDENUM COMPLEXES: ENZYME ACTIVE SITES	1R01 GM26671-01	74,062
COX, CHARLES D, JR	IN VIVO GROWTH OF PSEUDOMONAS AERUGINOSA	5R01 AI13120-03	33,122
CRAWFORD, IRVING P	MUTATIONAL PERTURBATION OF SUBUNIT INTERACTIONS	2R01 GM25735-02	80,614
CRAWFORD, ROY D	INFLUENCE OF WRIST PATHOMECHANICS ON HAND FUNCTION	5R01 AM14659-08	90,167
CULP, DAVID A	EVALUATION AND TREATMENT OF PATIENTS WITH BLADDER CANCER	5R26 CA15933-06	116,895
DAVIS, LEODIS	SERINE AND THREONINE METABOLISM	5R01 AM16950-06	61,877
DAWSON, DAVID C	ION TRANSPORT BY THE COLON AND HORMONAL CONTROL	2R01 AM18776-04	47,526
DE GOWIN, RICHARD L	HEMOPHETIC CONTROL MECHANISMS	5R01 CA11472-07	105,642
DENBURG, JEFFREY L	BIOCHEMISTRY OF CELL RECOGNITION IN NERVOUS SYSTEMS	5R01 NS14295-02	48,793
DI BONA, GERALD F	THE NEURAL CONTROL OF RENAL FUNCTION	2R01 AM15843-07	59,056
DONELSON, JOHN E	SEQUENCE ANALYSIS & EXPRESSION OF YEAST & DROSOPHILA DNA	2R01 GM21696-04	68,610
DONTA, SAM T	CHOLERA TOXIN AND ADRENAL CELLS IN TISSUE CULTURE	5R22 AI11416-07	55,597
DONTA, SAM T	E. COLI ENTEROTOXINS AND DIARRHEAL DISEASE	5R22 AI11794-05	49,595
ECKSTEIN, JOHN W	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00059-18	812,006
ECKSTEIN, JOHN W	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05372-18	201,413
FALSETTI, HERMAN L	FLUID MECHANICS OF HEART VALVE PROSTHESES	5R01 HL20829-03	43,915
FEISS, MICHAEL G	VIRUS CHROMOSOME STRUCTURE: ROLE IN DEVELOPMENT	3R01 AI12851-03S1	14,230
FEISS, MICHAEL G	VIRUS CHROMOSOME STRUCTURE: ROLE IN DEVELOPMENT	2R01 AI12851-04	77,923
FELDBUSH, THOMAS L	EVALUATE TUMOR PATIENT CELL MEDIATED IMMUNITY-IN VITRO	1R26 CA26662-01	34,395
FELLOWS, ROBERT E, JR	REGULATION OF BRAIN DEVELOPMENT	5R01 HD11184-03	57,848
FELLOWS, ROBERT E, JR	STRUCTURE AND FUNCTION OF PLACENTAL LACTOGEN	1R01 HD13154-01	56,011
FELLOWS, ROBERT E, JR	ROLE OF CNS ANGIOTENSION II IN HYPERTENSION	1R01 HL24402-01	91,883
FISCHER, LAWRENCE J	AGE-RELATED CHANGES IN DRUG CONJUGATION	1R01 GM26811-01	67,185
FITZ, ANNETTE E	THE RENIN-ANGIOTENSIN SYSTEM AND KALKIKREIN-KININ	1R01 HL23429-01	56,728
FOLKINS, JOHN W	STUDIES OF SPEECH ARTICULATION	5R01 NS07555-12	70,917
FOMON, SAMUEL J	GROWTH AND NUTRITION OF NORMAL INFANTS	2P01 HD07578-05	517,208
FORKE, EDSON L	MECHANISMS OF BILE FORMATION	2R01 AM09892-14	109,704
FRANKEL, JOSEPH	MUTATIONAL STUDY OF CILIATE DEVELOPMENT	5R01 HD08485-06	77,526
GEBHART, GERALD F	NEUROPHYSIOLOGY/PHARMACOLOGY OF CENTRAL NOCICEPTORS	2R01 GM22026-04A1	60,240
GEBHART, GERALD F	NEUROPHARMACOLOGY OF INTRACRANIALY-INDUCED ANALGESIA	5R01 NS12114-04	48,510
GINSBERG, BARRY H	RADIOIMMUNOASSAY OF THE SOMATOMEDINS IN DIABETES	5R01 AM21084-03	50,003
GINSBERG, BARRY H	INSULIN RECEPTORS DURING IN VITRO DIFFERENTIATION	5R01 AM21128-02	39,323
GRANNER, DARYL K	INSULIN RECEPTORS AND MECHANISM OF INSULIN ACTION	5R01 AM20858-02	59,461
GRANNER, DARYL K	HORMONAL REGULATION OF GLUCONEOGENIC ENZYME SYNTHESIS	5R01 AM24037-02	55,204
GRANNER, DARYL K	CORE CENTER: DIABETES AND ENDOCRINOLOGY	1P30 AM25295-01	515,965
GRISSEM, FELIX E	LACTOGEN RECEPTOR IN UTERUS AND OVARY DURING PREGNANCY	1R01 HD13230-01	64,556
HALMI, NICHOLAS S	INVESTIGATION OF THE THYROID AND PITUITARY	5R01 AM02463-21	61,320
HARRIS, RICHARD R	FACTORS ASSOCIATED WITH HYPERPLASIA OF ORAL MUCOSA	1R23 DE05393-01	29,402
HART, MICHAEL N	MORPHOLOGIC EXAMINATION OF BRAIN PARENCHYMAL VESSELS	5R01 HL22149-02	30,363
HAYREH, SOHAN S	OCULAR VASCULAR OCCLUSIVE DISORDERS—CLINICAL	5R01 EY01151-05	117,861
HAYREH, SOHAN S	OCULAR VASCULAR OCCLUSIVE DISORDERS	5R01 EY01576-05	144,906
HEATH, EDWARD C	CHEMISTRY AND METABOLISM OF POLYSACCHARIDES	5R01 AM19850-04	140,538
HEIDGER, PAUL M, JR	VASECTOMY—MORPHOLOGICAL EFFECTS IN RHESUS MONKEYS	5R01 HD10571-02	40,479
HEISTAD, DONALD D	NEUROGENIC CONTROL OF THE CIRCULATION	5R01 HL16066-06	50,188
HERMSMEYER, R KENT	MEMBRANE ELECTRICAL PROPERTIES OF VASCULAR MUSCLE	5R01 HL16328-07	35,623

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
HOAK, JOHN C.	FACTORS INFLUENCING ENDOTHELIAL FUNCTION	1R01 HL22408-01A1	82,720
HUBEL, KENNETH A.	WATER AND ELECTROLYTE TRANSPORT BY THE INTESTINE	2R01 AM18769-04	69,586
HUG, DANIEL H.	PHOTOACTIVATION OF URONICANASE IN PSEUDOMONAS PUTIDA	1R01 GM26241-01	72,467
HUNSICKER, LAWRENCE G.	MECHANISMS OF INJURY IN IMMUNE COMPLEX NEPHRITIS	1R01 AM26125-01	57,874
JENNINGS, MICHAEL L.	BIOCHEMICAL STUDIES OF ERYTHROCYTE ANION TRANSPORT	1R01 GM26861-01	54,153
JEW, JEAN Y.	DEVELOPMENT SUBSEQUENT TO JAUNDICE OF THE NEWBORN	5R01 HD11800-02	46,000
JEW, JEAN Y.	STUDIES OF VASOMOTOR CONTROL	5R23 HL21914-02	34,677
OCHIMSEN, PETER R.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA12036-08	35,348
JOHNSON, ALAN K.	THE PATHOGENESIS OF STRESS-INDUCED HYPERTENSION	1R01 HL24102-01	100,672
JOHNSON, WILLIAM	RIBOSOMAL VACCINES	2R01 AI10449-07A1	52,239
JOHNSON, WILLIAM	STUDIES OF THE LEGIONNAIRES' DISEASE BACTERIUM	1R01 AI15807-01	71,906
JOYNER, RONALD W.	MECHANISM OF CARDIAC ACTION POTENTIAL PROPAGATION	3R01 HL22562-02S1	8,322
KAEHLER, WILLIAM W.	EXPERIMENTAL INVESTIGATION OF PAIN	2R01 GM23336-04	70,066
KALNITSKY, GEORGE	PROTEASES IN NORMAL AND IMMUNOLOGICALLY INJURED LUNG	5R01 HL16920-03	51,578
KAPLAN, JACK H.	SODIUM PUMP PARTIAL REACTIONS IN HUMAN ERYTHROCYTES	1R01 HL24309-01	76,448
KATER, STANLEY B.	INTEGRATION OF INTERCELLULAR COMMUNICATION	5R01 AM19858-03	58,208
KATER, STANLEY B.	NEURAL CONTROL OF DISCRETE BEHAVIORAL PROCESSES	5R01 NS09696-08	44,216
KISKER, C. THOMAS	BLOOD COAGULATION IN THE FETUS: A FETAL LAMB MODEL	1R01 HD12574-01	89,246
KLASSEN, LYNELL W.	PATHOGENETIC ROLE OF SUPPRESSOR CELLS IN AUTOIMMUNITY	1R01 AI15518-01	45,672
KOLLROS, JERRY J.	GENERATION OF NEURONAL FORM AND FUNCTION	1P01 NS15350-01	394,266
LACHENBRUCH, PETER A.	ESTIMATION OF PROGNOSIS USING SEER DATA	5R01 CA24089-02	146,706
LAKE, RODERIC S.	EXPERIMENTAL STUDY OF ASYMMETRIC ELASTICITY IN BONE	1R01 AM25863-01	38,671
LAUER, RONALD M.	SMOKING IN SCHOOL AGE CHILDREN: THE MUSCATINE STUDY	1R01 HD13374-01	115,850
LAUER, RONALD M.	CORONARY RISK FACTORS IN CHILDREN	5R01 HL20124-03	56,971
LIFSHTIZ, SAMUEL	GYNCOLOGIC ONCOLOGY GROUP	5R10 CA19502-03	104,289
LIU, YOUNG K.	THE TRAUMATOLOGY OF THE HEAD AND SPINE	1R01 GM26608-01	128,038
LOENING, STEFAN A.	CHEMOTHERAPY OF ADVANCED PROSTATIC CANCER	3R26 CA15108-05S1	20,561
LOENING, STEFAN A.	METABOLISM OF ADVANCED PROSTATIC CANCER	2R26 CA15108-06	83,344
LONG, JOHN P.	STRUCTURE ACTIVITY STUDIES OF PHARMACOLOGIC AGENTS	5P01 GM22365-04	216,897
LONG, JOHN P.	AUTONOMIC TRANSMISSION	5R01 NS04431-17	31,758
LONGO, FRANK J.	EFFECTS OF AGING ON OVULATED EGGS AND FERTILIZATION	5R01 HD12174-02	78,603
LUBAROFF, DAVID M.	IMMUNOLOGIC ASPECTS OF PROSTATIC CANCER	5R26 CA18014-05	43,668
LUND, DONALD D.	REGENERATION OF CARDIAC PARASYMPATHETIC INNERVATION	1R23 HL24246-01	39,690
LUTWICK, LARRY I.	HEPATITIS B VIRUS AND HEPATOCELLULAR CARCINOMA	1R01 CA25811-01	58,270
MACINDOE, JOHN H.	METABOLISM IN ESTROGEN AND ANDROGEN BREAST CANCER CELLS	1R01 CA24687-01	46,849
MACKENZIE, IAN C.	FACTORS DETERMINING VARIATION IN ADULT ORAL MUCOSA	1R01 DE05190-01	87,175
MACKENZIE, IAN C.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05313-18	93,030
MARCUS, MELVIN L.	EFFECTS OF HYPERTROPHY ON THE CORONARY CIRCULATION	5R01 HL20827-03	49,816
MARCUS, MELVIN L.	STUDIES OF THE ESCAPE PHENOMENON IN CEREBRAL VESSELS	1R01 HL23731-01	57,858
MARKOVETZ, ALLEN J.	INTESTINAL ANAEROBIC MICROFLORA OF AN INVERTEBRATE	5R01 AI13990-03	90,597
MARKOVETZ, ALLEN J.	MICROBIAL AND INSECT METABOLISM OF ALIPHATIC COMPOUNDS	5R01 GM19809-08	77,486
MAURER, RICHARD A.	REGULATION OF PROLACTIN SYNTHESIS	5R01 AM21803-02	42,242
MONTGOMERY, REX	STRUCTURES OF CARBOHYDRATE PROSTHETIC GROUPS	5R01 GM14013-09	86,474
MORRIS, HUGHLETT L.	DIAGNOSTIC AND PROGNOSTIC TECHNIQUES IN CLEFT PALATE	5P01 DE00853-22	434,283
MYERS, MARTIN G.	ACUTE RESPIRATORY ILLNESSES IN SURVIVORS OF INFANT RDS	5R01 HD10598-02	122,820
NEWLON, CAROL S.	DNA REPLICATION IN SACCCHAROMYCES CEREVISIAE	5R01 GM21510-05	61,412
OSBORNE, JAMES W.	CONTROL OF CELL PROLIFERATION IN THE INTESTINE	5R01 AM15758-06	38,887
OSBORNE, JAMES W.	ENZYMOLOGY OF RADIATION-INDUCED INTESTINAL CARCINOMA	3R01 CA18327-03S1	9,180
OWEN, WHYTE G.	BIOCHEMISTRY OF PROTHROMBIN QUICK	5R01 HL22471-02	21,726
PAMPEL, FRED C.	A CROSS-NATIONAL DYNAMIC STUDY OF RETIREMENT LEVELS	1R01 AG01568-01	41,877
PEDRINI, VITTORIO A.	PROTEOLYCATS OF ANIMAL LUNG PARENCHYMA	5R01 HL21626-02	45,390
PESANTI, EDWARD L.	INTERACTION OF ALVEOLAR MACROPHAGES WITH PNEUMOCYSTIS	5R01 AI15223-02	48,326
PIETRZYK, DONALD J.	SEPARATION AND DETERMINATION OF CARCINOGENS	5R01 CA18555-05	39,303
RAIZADA, MOHAN K.	REGULATION OF INSULIN AND GLUCAGON RECEPTORS	5R01 AM21018-02	56,287
RICHERSON, HAL B.	PULMONARY RESPONSES TO INHALED ANTIGEN	2R01 HL19873-04	91,180
RICHERSON, HAL B.	PATHOGENESIS IN EXPERIMENTAL INTERSTITIAL PNEUMONITIS	5R01 HL22676-02	61,106
RILEY, EDGAR F.	ASSAY OF TUMOR INDUCTION BY X-RAY AND DRUG MODALITIES	1R01 CA26511-01	65,569
ROBILLARD, JEAN E.	MATURATION OF THE FETAL KIDNEY	5R01 HD11466-03	58,741
ROSAZZA, JOHN P.	MICROBIAL TRANSFORMATIONS—NATURAL ANTITUMOR AGENTS	5R01 CA13786-06	37,038
ROSKOSKI, ROBERT, JR.	NEUROTRANSMITTER BIOSYNTHESIS	5R01 NS11310-06	7,128

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
RUBENSTEIN, PETER A.....	CONTRACTILE PROTEINS FROM SMOOTH MUSCLE CELLS.....	5R01 GM24702-02	50,356
RUSHTON, GERARD.....	RETIREMENT DECISION-MAKING: DETERMINANTS OF MIGRATION.....	5R21 AG01182-02	56,075
SALU, YEHUDA.....	MEASURING AND USING TORSO EFFECTS IN ELECTROCARDIOGRAPHY.....	1R23 HL22795-01A1	46,787
SANDQUIST, DEAN S.....	DIFFERENTIATION IN A MALIGNANT NEURAL TUMOR.....	5R23 CA24241-02	29,278
SATO, KENZO.....	MECHANISM OF ECCRINE SWEAT GLAND FUNCTION.....	5R01 AM25339-02	73,918
SCHEDL, HAROLD P.....	INTESTINAL TRANSPORT MECHANISMS AND THEIR REGULATION.....	5R01 AM02534-22	155,624
SCHMID, PHILIP G.....	MECHANISMS OF CIRCULATORY REGULATION IN HEART FAILURE.....	5R01 HL20768-03	43,782
SILVERSTONE, LEON M.....	REMINERALIZATION OF ENAMEL CARIES IN VITRO.....	5R01 DE04819-03	101,716
SINGH, DIWAN.....	CYCLOC AMP DEPENDENT PROTEIN KINASES IN HYPERTENSION.....	5R23 HL22984-02	41,020
SIX, ERICH W.....	GENETIC STUDIES OF PHAGE-PROPHAGE INTERACTIONS.....	2R01 AI04043-18	93,634
SODERBERG, GARY H.....	ANALYSIS OF MOTOR UNIT DISCHARGE IN ELDERLY MAN.....	1R01 AG01280-01	40,561
SOLL, DAVID R.....	THE REGULATION OF DIMORPHISM IN CANDIDA ALBICANS.....	1R01 AI15743-01	45,556
SOLL, DAVID R.....	THE REGULATION OF TIMING IN DEVELOPING SYSTEMS.....	1R01 GM25832-01	50,318
SOLURSH, MICHAEL.....	CONTROL OF EXTRACELLULAR MATRIX SYNTHESIS.....	5R01 HD05505-07	68,536
SPECTOR, ARTHUR A.....	A/S SCOR-LIPIDS, ATHEROSCLEROSIS AND THROMBOSIS.....	5P50 HL14230-08	986,294
SPECTOR, ARTHUR A.....	LIPID DEPOSITION IN MAMMALIAN CELLS.....	5R01 HL14781-09	117,812
SPECTOR, REYNOLD.....	DRUG, VITAMIN, AND HORMONE TRANSPORT IN SPINAL FLUID.....	3R01 NS15073-01S1	11,550
SPECTOR, REYNOLD.....	DRUG, VITAMIN, AND HORMONE TRANSPORT IN SPINAL FLUID.....	5R01 NS15073-02	69,780
SPECTOR, REYNOLD.....	PTERIDINES IN BRAIN: HOMEOSTASIS AND FUNCTION.....	5R01 NS15074-02	63,738
SPRIESTERSBACH, DUANE C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07035-14	59,967
STAUFFER, GEORGE V.....	REGULATION OF ONE CARBON METABOLISM.....	1R01 GM26878-01	66,313
STAY, BARBARA A.....	CONTROL OF JUVENILE HORMONE SYNTHESIS.....	1R01 AI15230-01A1	51,347
STEINMETZ, PHILIP R.....	REGULATION OF URINARY ACIDIFICATION IN VITRO.....	5R01 AM17568-06	81,569
STEINMETZ, PHILIP R.....	CONTROL OF POTASSIUM TRANSPORT IN BLADDER.....	1R01 AM24022-01	71,560
STELLWAGEN, EARLE C.....	STRUCTURE-FUNCTION STUDIES OF CYTOCHROME C.....	5R01 GM13215-14	69,569
STELLWAGEN, EARLE C.....	AFFINITY CHROMATOGRAPHY FOR THE DINUCLEOTIDE FOLD.....	5R01 GM22109-05	70,559
STINSKI, MARK F.....	CYTOMEGALOVIRUS TRANSCRIPTION AND TRANSLATION.....	2R01 AI13562-04	77,745
STOKES, JOHN B. III.....	PROSTAGLANDINS AND ION TRANSPORT ACROSS RENAL TUBULES.....	5R01 AM25231-02	66,996
STOLTZFUS, CONRAD M.....	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNAS.....	7R01 CA28051-01	65,151
STRAUSS, JOHN S.....	EVALUATION OF PATHOGENIC FACTORS IN ACNE VULGARIS.....	5R01 AM22083-02	143,402
STRAUSS, RONALD G.....	NEUTROPHIL FUNCTIONS IN THE NEONATE.....	5R01 HD11964-02	27,606
TEPHLY, THOMAS R.....	BIOCHEMICAL TOXICOLOGY AND PHARMACOLOGY.....	2P50 GM12675-15	767,101
TEPHLY, THOMAS R.....	METHANOL POISONING.....	5R01 GM19420-08	100,891
TEPHLY, THOMAS R.....	MORPHINE AND ESTROGEN GLUCURONYLTRANSFERASE ACTIVITIES.....	1R01 GM26221-01	55,251
THAMES, MARC D.....	CARDIAC RECEPTORS WITH VAGAL C-FIBER AFFERENTS.....	5R01 HL21158-03	29,155
TIPTON, CHARLES M.....	INFLUENCE OF CHRONIC EXERCISE ON HYPERTENSIVES.....	5R01 HL21245-03	81,213
TITZE, INGO R.....	CLINICAL TECHNIQUES FOR EVALUATION OF PHONATORY CONTROL.....	7R01 NS16320-01	85,196
TOMANEK, ROBERT J.....	INFLUENCE OF AGING AND HYPERTENSION ON THE MYOCARDIUM.....	5R01 HL18629-05	43,722
VAN HOESSEN, GARY W.....	MESOCORTICAL ANATOMY AND PLASTICITY.....	1R01 NS14944-01	52,851
VAN ORDEN, DIANNA E.....	BIOGENIC AMINES AND PROSTAGLANDINS IN UTERINE FUNCTION.....	2R01 HD06380-07A1	130,345
WALLACE, ROBERT B.....	OVULATION AND THE EPIDEMIOLOGY OF BREAST CANCER.....	5R01 CA15104-06	74,808
WATZKE, ROBERT C.....	TOXOCARA CANIS INFECTION OF THE PRIMATE EYE.....	5R01 EY02280-02	38,970
WAZIRI, RAFIQ.....	APLYSIA NEUROPHYSIOL.—PRESYNAPTIC ELECTROTONIC COUPLING.....	5R01 NS14052-02	42,401
WEFEL, JAMES S.....	KINETICS AND MECHANISMS OF ACTION OF FLUORIDES.....	5R01 DE04486-02	53,391
WHITE, CARL W.....	EFFECT OF CONTINUING EDUCATION ON PHYSICIAN BEHAVIOR.....	1R25 HL23517-01A1	67,548
WILLIAMS, NORMAN E.....	MEMBRANE BIOGENESIS DURING REGENERATION OF CILIA.....	1R01 GM25769-01	52,105
WILLIAMS, TERENCE H.....	NEUROPLASTICITY, AND PROMOTING CENTRAL REGENERATION.....	5R01 NS11650-07	69,170
ORGANIZATION TOTAL	184 17,881,497		

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CORNELL COLLEGE ZIP CODE 52314

JORDAN, TRUMAN H.....	SMF2 REACTION WITH APATITE AND OTHER CA/P04 SYSTEMS.....	5R01 DE04192-05	41,748
JORDAN, TRUMAN H.....	REACTIONS OF TITANIUM FLUORIDE WITH HYDROXYAPATITE.....	1R01 DE04705-01A1	25,316
ORGANIZATION TOTAL	2 67,064		

STATE TOTAL 210 19,369,742

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS	ZIP CODE 66103		
ANDERSON, HARRISON C.....	MINERALIZATION STUDIES RELATED TO ORAL BIOLOGY.....	5R01 DE05262-02	52,090
ARNOLD, WILFRED N.....	CELL ENVELOPES OF PATHOGENIC YEASTS.....	2R01 AI13177-04	55,026
ARYANTAKIS, CONSTANTINE.....	INTERACTION OF PANCREAS WITH INTESTINAL BRUSH-BORDER.....	1R01 AM22135-01	51,294
ATKINS, FLOYD L.....	CATECHOLAMINE METABOLISM AND THE HEART.....	5R23 HL21973-02	22,202
BAILIE, MICHAEL D.....	RELEASE AND METABOLISM OF ACTIVE AND INACTIVE RENIN.....	7R01 HL25441-01	36,691
BAST, JOSEPH D.....	NEUROENDOCRINE REGULATION OF REPRODUCTION IN THE RAT.....	5R01 HD11103-03	44,894
BELMONT, JOHN M.....	DEVELOPMENT OF CHILDREN'S SELF-CONTROLLED COGNITION.....	2R01 HD08911-04A1	57,570
BUNAG, RUBEN D.....	HYPERTENSION PRODUCED BY SYMPATHETIC DYSFUNCTION.....	2R01 HL14560-08	75,321
BUNAG, RUBEN D.....	CONTRACEPTIVE STEROIDS AND EXPERIMENTAL HYPERTENSION.....	3R01 HL19144-03S1	5,796
BUNAG, RUBEN D.....	NON-INVASIVE BLOOD PRESSURE MEASUREMENT.....	5R01 HL22854-02	31,648
CHENG, CHIA C.....	NATIONAL CANCER RESEARCH AND DEMONSTRATION CENTER.....	2P30 CA15080-06	346,380
CHONKO, ARNOLD M.....	MECHANISM OF URIC ACID TRANSPORT IN THE NEPHRON.....	5R01 AM19624-03	44,557
CLANCY, JOHN, JR.....	GVHD: ROLE OF FC, C3 RECEPTORS AND LYMPHOCYTE HOMING.....	5R01 AI13029-03	31,836
CLANCY, RICHARD L.....	EFFECT OF HYPOXIA ON CELLULAR ACID BASE REGULATION.....	1R01 HL21889-01A1	32,702
COHN, DAVID V.....	PARATHYROID AND PARATHYROID HORMONE.....	5R01 AM18323-05	70,021
COHN, DAVID V.....	METABOLIC PATHWAYS IN BONE.....	5R01 DE05209-02	89,826
COOKE, ALLAN R.....	MECHANISMS REGULATING GASTRIC EMPTYING AND MOTILITY.....	5R01 AM19924-04	50,622
DE, SUDHANU K.....	ROLE OF HISTAMINE IN EARLY PREGNANCY.....	1R01 HD12304-01	47,062
EBNER, KURT E.....	MECHANISM OF LACTOSE SYNTHESIZING ENZYMES.....	2R01 AM18257-06	68,339
EBNER, KURT E.....	MAMMARY AND LIVER PROLACTIN RECEPTORS.....	5R01 CA17478-05	37,912
FERNANDEZ, HUGO L.....	NEUROTROPHIC SUBSTANCES AFFECTING MUSCLES.....	1R01 NS15509-01	34,428
FISHER, HARVEY F.....	STRUCTURE AND MECHANISMS OF ACTION OF ENZYMES.....	5R01 GM15188-13	77,057
FRENKEL, JACOB K.....	TOXOPLASMOSIS: ITS TRANSMISSION AND PREVENTION.....	2R01 AI07489-13	89,835
FRENKEL, JACOB K.....	IMMUNITY OF NONLYMPHOID CELLS TO INTRACELLULAR INFECTION.....	5R01 AI14056-03	57,344
GRANTHAM, JARED J.....	MECHANISMS OF TRANSPORT IN ISOLATED KIDNEY TUBULES.....	5R01 AM13476-10	80,480
GREENWALD, GILBERT S.....	FOLLICULAR AND LUTEAL REGULATION IN THE MAMMALIAN OVARY.....	5R01 HD00596-17	89,014
HALSEY, JOHN F.....	EFFECTS OF COLOSTRUM ON IMMUNE RESPONSIVENESS.....	1R01 HD12416-01	56,932
HELMKAMP, GEORGE M, JR.....	MEMBRANE-PHOSPHOLIPID EXCHANGE PROTEIN INTERACTIONS.....	5R01 GM24035-03	37,578
HOOGSTRATEN, BARTH.....	SOUTHWEST ONCOLOGY GROUP—OPERATIONS OFFICE.....	5R10 CA16943-05	582,972
HUDSON, BILLY G.....	STRUCTURE OF BASEMENT MEMBRANES.....	5R01 AM18381-06	77,935
HUDSON, BILLY G.....	PATHOGENESIS OF HUMAN DIABETIC NEPHROPATHY.....	5R01 AM21169-02	42,050
HUDSON, BILLY G.....	STUDIES OF POLYCYSTIC RENAL DISEASE.....	1R01 AM26178-01	62,552
HUNG, KUEN-SHAN.....	DEVELOPMENT OF PULMONARY INNERVATION.....	5R01 HD10139-04	28,063
HUNT, LAWRENCE A.....	STRUCTURE AND FUNCTION OF VIRAL GLYCOPROTEINS.....	5R01 AI14757-02	43,316
HURWITZ, ARYEH.....	FACTORS AFFECTING THE RESPONSES TO DRUGS.....	3P50 GM15956-11S1	47,264
HURWITZ, ARYEH.....	FACTORS AFFECTING THE RESPONSES TO DRUGS.....	5P50 GM15956-12	442,445
JEWELL, WILLIAM R.....	CANCER EDUCATION PROGRAM—MID-AMERICA CANCER CENTER.....	5R25 CA17959-05	99,425
JOHNSON, DONALD C.....	AGING EFFECTS ON OVARIAN TUMORIGENESIS.....	5R01 AG00665-03	71,518
KEELE, BERNARD B, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05373-18	166,325
KIMMEL, JOE R.....	STRUCTURE-FUNCTION RELATIONSHIPS IN PROTEINS.....	5R01 AM09072-15	78,090
KINSEY, JOHN A.....	GENETIC STUDIES OF GLUTAMATE DEHYDROGENASE MUTANTS.....	5R01 GM23967-02	42,585
KIRCHNER, FERNANDO R.....	RADIOISOTOPE SCANNING OF THE MIDDLE EARS AND SINUSES.....	5R01 NS12521-05	19,685
KLAASSEN, CURTIS D.....	HEPATIC UPTAKE AND BILIARY EXCRETION IN TOXICOLOGY.....	5R01 AM14513-10	65,054
KLAASSEN, CURTIS D.....	CADMIUM TOXICOLOGY.....	5R01 ES01142-05	50,790
KLEIN, ROBERT M.....	A CELL CYCLE STUDY OF DEVELOPING RAT SALIVARY GLANDS.....	5R23 DE04557-02	13,036
LEUNG, CHRISTOPHER C.....	EMBRYOTIC PLACENTA ANTISERUM.....	1R01 HD11805-01A1	12,930
LINDSEY, HERBERT B.....	TISSUE INJURY IN AFRICAN TRYPANOSOMIASIS.....	5R01 AI15880-01	59,501
LINSHAW, MICHAEL A.....	FLUID TRANSPORT PHYSIOLOGY IN DEVELOPING RENAL TUBULE.....	1R01 AM25748-01	64,579
LOWMAN, JAMES T.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00828-06	337,604
MELNYKOVICH, GEORGE.....	STEROID INDUCED CHANGES IN CULTURED MALIGNANT CELLS.....	5R01 CA08315-15	60,366
MOORE, WAYNE V.....	ROLE OF AGGREGATED AND MONOMERIC GROWTH HORMONE.....	5R01 AM19544-02	51,474
MORANTZ, ROBERT A.....	IMMUNOTHERAPY OF EXPERIMENTAL BRAIN TUMORS.....	5R01 CA19318-03	39,982
NELSON, STANLEY R.....	MECHANISMS OF BRAIN DEHYDRATION WITH OSMOTIC DIURETICS.....	5R01 NS14390-02	21,770
PARK, CHAN H.....	CHEMOTHERAPY OF NORMAL AND LEUKEMIC MARROW IN VITRO.....	5R01 CA20717-03	53,752
PARMELY, MICHAEL J.....	THE CELLULAR BASIS OF COLOSTRAL IMMUNITY.....	5R01 HD11787-02	56,377
POISNER, ALAN M.....	CELLULAR MECHANISMS OF RENIN SECRETION.....	5R01 HL20278-03	42,912

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS—Continued			
RAWITCH, ALLEN B.....	THE ROLE OF THYROGLOBULIN IN THYROXINE BIOSYNTHESIS.....	2R01 AM18896-03A1	78,477
REISSMANN, KURT R.....	STUDIES ON ERYTHROPOIETIN.....	5R01 AM07239-16	52,797
REISSMANN, KURT R.....	SELECTIVE MYELOTOXIC EFFECT OF ANTITUMOR DRUGS.....	5R01 CA08736-14	48,361
ROWE, VERNON D.....	PINEAL GLAND EFFECTS ON GROWTH AND DEVELOPMENT.....	1R01 HD12904-01	48,499
SAVIN, VIRGINIA J.....	ULTRAFILTRATION CHARACTERISTICS OF ISOLATED GLOMERULI.....	5R01 AM22040-02	52,833
SCHLOERB, PAUL R.....	KINETICS OF WATER AND ELECTROLYTES IN SHOCK.....	3R01 HL02363-20S1	1,968
SILVERSTEIN, RICHARD.....	PEP CARBOXYKINASE IN SUDDEN INFANT DEATH SYNDROME.....	5R01 HD10562-03	27,684
STECHSCHULTE, DANIEL J.....	IMMUNOLOGIC MECHANISMS IN RESPIRATORY DISEASE AND SLE.....	1P50 AI15360-01	142,600
STEPHENS, RONALD L.....	SOUTHWEST ONCOLOGY GROUP STUDIES.....	5R10 CA12644-08	410,774
SUZUKI, TSUNEO.....	STUDIES OF ANTIGEN RECEPTOR ON HUMAN B LYMPHOCYTES.....	5R01 AI14876-02	63,729
SVOBODA, DONALD J.....	HEPATOCELLULAR RESPONSES TO DRUGS AND CARCINOGENS.....	5R01 CA05680-18	61,162
TARR, CHARLES M.....	CONTRACTILE ACTIVITY OF SINGLE CARDIAC CELLS.....	2R01 HL18943-04	41,994
TERRANOVA, PAUL F.....	AGED ANTRAL FOLLICLES AND ATRESIA.....	1R01 HD12754-01	36,100
UYEKI, EDWIN M.....	TERATOGENIC EFFECTS OF CHOLINERGIC INSECTICIDES.....	1R01 ES02046-01	131,049
VOOGT, JAMES L.....	PITUITARY HORMONES AND BRAIN AMINES DURING REPRODUCTION.....	5R01 HD11922-03	59,232
WELLING, LARRY W.....	ANALYTIC FORMULATION OF TRANSPORT IN SINGLE NEPHRONS.....	5R01 AM16968-07	74,170
WONG, GLENDA L.....	HORMONE RESPONSES IN ISOLATED BONE CELLS.....	1R01 AM23062-01	73,041
WONG, KIN-PING.....	RIBOSOMAL PROTEINS, PROTEIN-RNA INTERACTION & FUNCTION.....	2R01 GM22962-03A1	62,452
WONG, KIN-PING.....	ACQUISITION OF NATIVE CONFORMATION OF PROTEIN.....	5R01 HL18905-05	31,685
YARBROUGH, LYNWOOD R.....	MOLECULAR MECHANISMS OF TUBULIN-LIGAND INTERACTIONS.....	5R01 GM24599-02	51,663
ORGANIZATION TOTAL	76 6,059,088		
LAWRENCE			
UNIVERSITY OF KANSAS	ZIP CODE 66045		
ADAMS, RALPH N.....	ELECTROCHEMISTRY-EPR OF BIOLOGICAL ELECTRON TRANSFER.....	5R01 NS08740-14	57,822
AKAGI, JAMES M.....	STUDIES ON SULFATE-REDUCING BACTERIA.....	9R01 GM25118-14A1	27,680
BEARSE, ROBERT C.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S07 RR07037-14	118,567
BELL, WILLIAM J.....	CYBERNETIC INVESTIGATIONS OF CHEMO-ORIENTATION.....	5R01 NS13798-02	31,376
BORCHARDT, RONALD T.....	CNS ADRENERGIC NEURONS AND HYPERTENSION.....	1R01 HL24093-01	51,068
BORCHARDT, RONALD T.....	STRUCTURAL ANALOGS OF S-ADENOSYLMETHIONINE.....	5R01 NS10198-06	60,885
BORCHARDT, RONALD T.....	INHIBITION OF CATECHOL-O-METHYLTRANSFERASE.....	5R01 NS10918-06	38,257
BORCHARDT, RONALD T.....	MECHANISM OF ACTION OF NEUROCYTOTOXINS.....	1R01 NS15692-01	78,018
BROWN, JOHN C.....	FUNCTIONAL ASPECTS OF ANTIGEN-ANTIBODY INTERACTION.....	1R01 AI16220-01	47,903
BURCHILL, BROWER R.....	ROLE OF THE CILIATE CORTEX IN METABOLIC REGULATION.....	1R01 GM24878-01	28,625
BURTON, PAUL R.....	EM STUDIES OF SPERM AND NERVE: FOCUS ON MICROTUBULES.....	5R01 GM24992-15	39,402
BUTTERFIELD, EARL C.....	GENERALIZED LANGUAGE & THOUGHT IN THE MENTALLY RETARDED.....	1R01 HD13029-01	131,854
COBB, E BENTON.....	STATISTICAL METHODS FOR SMALL-SAMPLE BIOASSAY.....	5R01 GM23192-03	15,207
CRAWFORD, MICHAEL H.....	AGING AMONG THE MENNONITES OF KANSAS AND NEBRASKA.....	1P01 AG01646-01	181,897
DAVIS, JOHN C.....	STUDIES OF MAMMALIAN TESTIS CELLS IN CULTURE.....	2R01 HD10953-04	71,961
DENTLER, WILLIAM L, JR.....	THE ROLE OF MICROTUBULES IN ORGANELLE MOTILITY.....	5R01 AM21672-03	32,278
DIXON, LOIS S.....	CONDITIONAL STIMULUS CONTROL OVER CHOICE RESPONDING.....	5R01 HD11194-03	38,942
GIVENS, RICHARD S.....	EXPLORATORY AND SYNTHETIC PHOTOCHEMISTRY.....	2R01 GM16611-10	52,127
GRUNEWALD, GARY L.....	CONFORMATIONALLY DEFINED ADRENERGIC AMINES.....	2R01 GM22988-04	67,455
GRUNEWALD, GARY L.....	DESIGN OF INHIBITORS OF EPINEPHRINE BIOSYNTHESIS.....	1R01 HL21887-01A1	42,218
HANZLIK, ROBERT P.....	METABOLISM AND TOXICITY OF ORGANOMETALLIC AGENTS.....	5R01 ES01375-03	52,517
HANZLIK, ROBERT P.....	THE ROLE OF EPOXIDES IN METABOLISM AND DRUG TOXICITY.....	5R01 GM21784-05	65,361
HANZLIK, ROBERT P.....	GC/MS/COM RESEARCH-SERVICE FACILITY.....	1P41 GM27430-01	154,940
HEFFNER, HENRY E.....	BEHAVIORAL ANALYSIS OF THE ROLE OF AUDITORY CORTEX.....	2R01 NS12992-03A1	56,623
HIMES, RICHARD H.....	PROTEIN STRUCTURE AND FUNCTION.....	2R01 AM07140-15	58,290
HIMES, RICHARD H.....	PROPERTIES OF MICROTUBULAR PROTEIN.....	5R01 NS11360-04	39,704
HOROWITZ, FRANCES D.....	INFANTS-INDIVIDUAL DIFFERENCES AND ENVIRONMENTS.....	5R01 HD10608-03	86,000
HOUSTON, L LUGENE.....	RICIN: A PLANT AGGLUTININ WITH ANTITUMOR PROPERTIES.....	5R01 CA16206-05	50,889
HOUSTON, L LUGENE.....	CYTOSKELETON-MEMBRANE INTERACTION IN EUKARYOTIC CELLS.....	5R01 GM24583-02	56,307
KOVACH, ILDIKO M.....	ACYL TRANSFER IN APROTIC SOLVENTS.....	1R01 GM26006-01	25,625
LEE, BYUNGKOOK.....	CRYSTALLOGRAPHIC STUDIES ON THE ENZYME L-ASPARAGINASE.....	5R01 CA16237-06	51,863
LICHTWARDT, ROBERT W.....	GENETIC VARIATION IN SOIL POPULATIONS OF HISTOPLASMA.....	1R01 AI14936-01A1	47,140
LILLYWHITE, HARVEY B.....	ARTERIAL BLOOD PRESSURE REGULATION.....	1R01 HL24640-01	49,388
LINDERBAUM, SIEGFRIED.....	THERMODYNAMIC STUDIES OF BILE ACID MICELLAR SOLUTIONS.....	2R01 AM18084-06	58,279

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS—Continued			
MERTES, MATHIAS P.....	COFACTOR INHIBITION OF THYMIDYLATE SYNTHETASE.....	5R01 CA07522-15	74,907
MERTES, MATHIAS P.....	CENTER FOR DRUG DESIGN.....	5P01 GM22357-04	371,069
MERTES, MATHIAS P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05606-13	68,317
MIKKELSON, THOMAS J.....	QUANTITATION OF DRUG UPTAKE BY CORNEAL EPITHELIUM.....	5R01 EY02328-02	31,829
MITSCHER, LESTER A.....	NEW ANTIBIOTICS—ISOLATION, SYNTHESIS, AND EVALUATION.....	5R01 AI13155-05	78,440
MITSCHER, LESTER A.....	VERSATILE SYNTHESIS OF OPTICALLY PURE PROSTAGLANDINS.....	1R01 GM26553-01	58,592
MULDER, JOHN B.....	ANIMAL RESOURCE PROGRAM IMPROVEMENT.....	1P40 RR01200-01	20,000
PATTON, THOMAS F.....	AGE-RELATED DOSAGE MODIFICATIONS FOR OPHTHALMIC DRUGS.....	5R01 EY01945-02	42,434
REPTA, ARNOLD J.....	EVALUATION OF ANTINEOPLASTIC NOBLE METAL COMPLEXES.....	1R01 CA24834-01A1	62,483
ROBERTSON, DONALD C.....	PATHOGENICITY OF ENTEROTOXIGENIC ESCHERICHIA COLI.....	5R22 AI12357-05	55,937
RUTLEDGE, CHARLES O.....	DRUG EFFECTS ON RELEASE OF BIOGENIC AMINES & BEHAVIOR.....	2R01 NS12760-05	80,044
SCHIEFELBUSCH, RICHARD L.....	PROGRAM FOR A RESEARCH CENTER IN MENTAL RETARDATION.....	5P30 HD02528-13	545,815
SCHIEFELBUSCH, RICHARD L.....	DEVELOPMENT OF CHILDREN FROM DEPRIVING ENVIRONMENTS.....	5P01 HD03144-12	413,664
SCHOWEN, RICHARD L.....	ENZYME EFFECTOR DESIGN.....	2R01 GM20198-06	81,975
SCHOWEN, RICHARD L.....	BIOLOGICAL TRANSMETHYLATION.....	2R01 GM20199-04	47,302
SPRADLIN, JOSEPH E.....	COMMUNICATIONS RESEARCH WITH RETARDED CHILDREN.....	5P01 HD00870-16	539,012
WEAVER, ROBERT F.....	TRANSCRIPTION CONTROL IN NUCLEAR POLYHEDROSIS VIRUS.....	2R01 GM22127-04A1	59,120
WENZEL, DUANE G.....	OZONE-LUNG MACROPHAGE-FIBROBLAST INTERACTIONS.....	5R01 ES01315-03	55,191
WILEY, ROBERT A.....	FURAN LUNG TOXINS: ORGAN SPECIFICITY AND METABOLISM.....	1R01 GM26366-01	51,894
ZIMBRICK, JOHN D.....	EPR STUDIES ON DETECTION AND TREATMENT OF CANCER.....	5R01 CA14335-05	59,316
ZIMBRICK, JOHN D.....	STUDIES ON DNA BASE DAMAGE INDUCED BY GAMMA RADIATION.....	5R01 GM18927-08	47,694
ORGANIZATION TOTAL	55	4,911,503	

MANHATTAN

KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE ZIP CODE 66506

BODE, VERNON C.....	BIOCHEMICAL STUDIES ON THE REGULATION OF DNA FUNCTION.....	5R01 GM18182-08	64,167
CONRAD, GARY W.....	FIBROBLAST DIFFERENTIATION DURING EYE DEVELOPMENT.....	5R01 EY00952-08	68,367
CONRAD, GARY W.....	MOLLUSCAN POLAR LOBES: ROLE IN EMBRYONIC DEVELOPMENT.....	5R01 HD07193-06	38,926
CONSIGLI, RICHARD A.....	STUDIES IN POLYOMA TRANSFORMED CELLS—VIRION PROTEINS.....	2R01 CA07139-16	92,388
CONSIGLI, RICHARD A.....	CHARACTERIZATION OF GRANULOSIS VIRUS COMPONENTS.....	1R01 ES02036-01	76,723
CORBEIL, LYNETTE B.....	IMMUNITY IN EXPERIMENTAL GONORRHEA.....	1R01 AI15599-01	50,039
COX, DAVID J.....	SELF-ASSOCIATION REACTIONS OF MACROMOLECULES.....	5R01 GM22243-05	43,119
DAVIS, LAWRENCE C.....	DIRECT SCANNING GEL FILTRATION ON INTERACTING SYSTEMS.....	5R01 GM23039-04	32,661
FORTNER, G WILLIAM.....	ULTRAVIOLET CARCINOGENESIS AND IMMUNITY.....	1R01 CA24196-01A1	56,773
HEDGCOTH, CHARLIE, JR.....	EFFECT OF VIRUS-INDUCED TRANSFORMATION ON TRNA.....	5R01 CA12741-08	43,722
KRUH, R F.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S07 RR07036-14	60,377
MANNEY, THOMAS R.....	GENE FUNCTIONS ASSOCIATED WITH MATING IN YEAST.....	5R01 GM19175-08	71,545
REECK, GERALD R.....	TUMOR-ENRICHED NONHISTONE CHROMATIN PROTEINS.....	5R01 CA17782-05	49,431
ROCHE, THOMAS E.....	REGULATION OF MAMMALIAN PYRUVATE DEHYDROGENASE.....	5R01 AM18320-05	39,362
SHANTEAU, JAMES C.....	HEALTH CARE DECISIONS MADE BY EXPECTANT COUPLES.....	5R01 HD11857-02	18,022
SMITH, JOSEPH E.....	GLUTATHIONE DEFICIENCY IN RED CELLS.....	5R01 HL12972-10	40,426
TAKEMOTO, LARRY J.....	LENS MEMBRANE IN RELATION TO CATARACTOGENESIS.....	1R01 EY02932-01	71,071
WESTFALL, JANE A.....	ELECTRON MICROSCOPY OF NEURONS, AXONS AND SYNAPSES.....	5R01 NS10264-07	39,118
ORGANIZATION TOTAL	18	956,237	

TOPEKA

MENNINGER FOUNDATION ZIP CODE 66601

KOVACH, JOSEPH K.....	DEVELOPMENT OF A BEHAVIORAL PHENOTYPE.....	5R01 HD06770-07	73,449
ORGANIZATION TOTAL	1	73,449	

WICHITA

WICHITA STATE UNIVERSITY ZIP CODE 67208

CHAN, FRANK Y.....	LENS REGENERATION IN ADULT NEWTS.....	5R01 EY02663-02	14,341
ORGANIZATION TOTAL	1	14,341	
STATE TOTAL	151	12,014,618	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
KENTUCKY			
FRANKFORT			
KENTUCKY STATE UNIVERSITY ZIP CODE 40601			
RIDGEL, GERTRUDE C.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES	2S06 RR08124-06	144,640
ORGANIZATION TOTAL	1	144,640	
LEXINGTON			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 40507			
ANDERSON, JAMES W.....	HIGH CARBOHYDRATE & HIGH FIBER DIETS FOR DIABETICS	5R01 AM20889-03	52,691
ORGANIZATION TOTAL	1	52,691	
UNIVERSITY OF KENTUCKY ZIP CODE 40506			
BARKLEY, MARY D.....	PHYSICAL STUDIES OF PROTEIN-DNA INTERACTIONS.....	2R01 GM22873-05	54,053
BASS, NORMAN H.....	MICROCHEMICAL PATHOLOGY OF DEVELOPING HIPPOCAMPUS.....	1R01 NS16009-01	93,452
BLUES, ANN G.....	CANCER CENTER SUPPORT CORE GRANT.....	5P30 CA23154-02	144,314
BONNER, PHILIP H.....	MYOBLAST LINEAGES AND INNERVATION IN EARLY MYOGENESIS.....	2R01 HD10307-04	46,972
BULLOCK, WARD E.....	IN VIVO STUDIES OF DELAYED HYPERSENSITIVITY IN LEPROSY.....	5R22 AI10094-09	83,976
BULLOCK, WARD E.....	IMMUNOREGULATION IN DISSEMINATED HISTOPLASMOIS.....	1R01 AI15889-01	103,282
BUTTERFIELD, D ALLAN.....	MEMBRANE ALTERATIONS IN HUNTINGTON'S DISEASE.....	5R01 NS13791-02	50,989
CHAN, SHUNG K.....	ALPHA-1-ANTITRYPSIN STRUCTURE IN RELATION TO EMPHYSEMA.....	5R01 HL16166-06	82,809
CLARK, JIMMY D.....	GENETIC ANALYSIS OF AGING IN THE TRUE SLIME MOLDS.....	5R23 AG00809-02	39,361
CLAWSON, D KAY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05374-18	122,606
COLEMAN, MARY S.....	TERMINAL TRANSFERASE IN MAMMALIAN HEMOPOIETIC TISSUE.....	2R01 CA19492-04	69,927
COLEMAN, MARY S.....	MOLECULAR PATHOLOGY OF LEUKEMIA AND LYMPHOMA.....	1R01 CA26391-01	97,008
CONTI, SAMUEL F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07114-11	32,708
CRANDALL, MARJORIE A.....	GENETIC CONTROL OF MATING IN HANSENUA WINGEI.....	5R01 GM21889-04	50,102
DE SIMONE, PHILIP A.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18107-04	96,721
DE SIMONE, PHILIP A.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA20255-03	80,387
DICKSON, ROBERT C.....	EUCARYOTIC ENZYME INDUCTION—YEAST BETA-GALACTOSIDASE.....	3R01 GM22749-03S1	23,382
DICKSON, ROBERT C.....	EUCARYOTIC ENZYME INDUCTION—YEAST BETA-GALACTOSIDASE.....	2R01 GM22749-04	81,271
DIEDRICH, DONALD F.....	PHLORIZIN INHIBITION OF SUGAR TRANSPORT.....	5R01 AM06878-17	57,981
GALLA, JOHN H.....	STEROID-INDUCED HYPERLIPIDEMIA AND HYPERTENSION.....	5R01 HL18923-03	60,341
GOLDENBERG, DAVID M.....	A MODEL FOR COLONIC CANCER-ASSOCIATED ANTIGENS.....	5R26 CA15799-05	114,997
GOLDENBERG, DAVID M.....	ROLE OF IN VIVO CELL FUSION IN NEOPLASIA.....	5R01 CA17198-05	72,461
GOLDENBERG, DAVID M.....	RADIOLOGICAL LOCALIZATION OF HUMAN TUMORS.....	5R01 CA17742-05	98,058
GOLDENBERG, DAVID M.....	SELECTIVE RADIOIMMUNOTHERAPY OF COLON CANCER.....	5R26 CA24204-02	87,855
GOLDENBERG, DAVID M.....	CLINICAL CEA-TUMOR RADIOIMMUNODETECTION.....	1R01 CA25584-01	168,669
GUTHRIE, GORDON P, JR.....	ADRENAL STEROIDS IN ADOLESCENT AND ADULT HYPERTENSION.....	5R23 HL21917-02	36,259
HURLEY, LAURENCE H.....	PYRROLO(1,4)BENZODIAZEPINE ANTITUMOR ANTIBIOTICS.....	5R01 CA17047-05	100,743
HURLEY, LAURENCE H.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09166-01	102,142
HUTTON, JOHN J.....	NUCLEOTIDE METABOLISM IN CHILDHOOD IMMUNODEFICIENCY.....	1R01 HD12799-01	57,307
KORNET, MILTON J.....	DIAZACYCLOALKANE ANTICONVULSANTS.....	1R01 NS15709-01	26,832
KOTCHEN, JANE M.....	HIGH BLOOD PRESSURE IN THE YOUNG.....	2R01 HL19956-04	103,420
KOTCHEN, JANE M.....	HIGH BLOOD PRESSURE CONTROL IN RURAL COMMUNITY.....	1R01 HL23999-01	229,683
KOTCHEN, THEODORE A.....	RENIN KINETICS IN HYPERTENSIVE AND UREMIC PLASMA.....	5R01 HL15528-06	56,047
KOTCHEN, THEODORE A.....	EFFECT OF CHLORIDE ON RENIN.....	5R01 HL22390-02	52,149
LAINE, ROGER A.....	CHEMICAL STRUCTURE OF GLYCOPETIDES FROM ERYTHROCYTES.....	1R01 AM25101-01A1	40,162
LAINE, ROGER A.....	CHEMISTRY OF CELL-SURFACE AND RELEASED GLYCOPROTEINS.....	5R01 GM23902-03	47,072
LESNAW, JUDITH A.....	REPLICATION OF NEGATIVE STRAND RNA VIRUSES.....	5R01 AI13574-04	68,569
LESTER, ROBERT L.....	THE BIOCHEMISTRY OF INOSITOL PHOSPHOLIPIDS IN FUNGI.....	5R01 AI12299-05	90,105
LUKE, ROBERT G.....	STUDIES OF RENAL CHLORIDE TRANSPORT.....	5R01 AM13859-09	495
MARKESBERY, WILLIAM R.....	BRAIN TRACE ELEMENT ANALYSIS IN ALZHEIMER'S AND AGING.....	5R01 NS14221-02	48,693
MARUYAMA, YOSH.....	STUDY OF TUMOR RADIOBIOLOGY.....	5R01 CA13849-06	35,034
MARUYAMA, YOSH.....	RADIATION THERAPY ONCOLOGY PROGRAM.....	5P01 CA17786-05	285,487
MILLER, RALPH E.....	NEURAL REGULATION OF INSULIN SECRETION RATE.....	5R01 AM17082-06	62,094
OTT, COBERN E.....	RENAL REGULATION OF SALT AND WATER BALANCE.....	5R01 AM19693-03	46,131
PACHCIARZ, JUDITH A.....	DEVELOPMENTAL AND MATERNOFETAL CELLULAR IMMUNITY.....	1R01 HD11907-01	32,258
PAPKA, RAYMOND E.....	AUTONOMIC NERVOUS ELEMENTS IN THE DEVELOPING HEART.....	5R01 HL22226-02	43,225

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
KENTUCKY—Continued			
PERDUE, MICHAEL L.....	PROCESSING OF AVIAN ONCORNAVIRUS MESSENGER RNA.....	1R01 CA26170-01	81,546
PRIMUS, F JAMES.....	IMMUNOLOGICAL HETEROGENEITY OF CEA.....	5R01 CA24376-02	56,442
RANDALL, DAVID C.....	BEHAVIORAL INFLUENCES ON CARDIAC CONTRACTILITY.....	5R01 HL19343-04	66,578
RHOADS, ROBERT E.....	REGULATION OF OVALBUMIN SYNTHESIS IN CHICK OVIDUCT.....	3R01 GM20818-05S1	6,000
RHOADS, ROBERT E.....	REGULATION OF OVALBUMIN SYNTHESIS IN CHICK OVIDUCT.....	5R01 GM20818-06	83,458
ROSZMAN, THOMAS L.....	IMMUNOBIOLOGY OF ASV INDUCED PRIMARY BRAIN TUMORS.....	1R01 CA23891-01A1	55,008
SABES, WILLIAM R.....	CLINICAL CANCER EDUCATION PROGRAM (DENTAL).....	2R25 CA17992-04	29,566
STEINER, MARION R.....	MEMBRANE PROTEINS AND LIPIDS IN MAMMARY CARCINOMA.....	5R01 CA25730-02	63,375
STEINER, SHELDON M.....	CARCINOGEN SCREENING IN EPITHELIAL CELLS.....	5R01 CA25431-02	54,077
SURAWICZ, BORYS.....	DISPERSION OF REFRACTORINESS, LONG QTC, AND ARRHYTHMIAS.....	1R01 HL21929-01A1	69,000
SWIM, H EARLE.....	STUDIES OF RIBOSOMES FROM HISTOPLASMA CAPSULATUM.....	5R01 AI13360-02	32,823
VAN WILLIGEN, JOHN G.....	AGING AMONG THE SCOTS-IRISH OF NORTHEASTERN KENTUCKY.....	1P01 AG01358-01	257,624
VORE, MARY E.....	HEPATIC DRUG ELIMINATION IN PREGNANCY.....	1R01 HD13250-01	49,444
WISEMAN, RALPH F.....	PRODUCTION OF IMPROVED GERMFREE ANIMALS.....	3R24 RR01042-03S1	5,276
YOUNG, ALFRED B.....	POST-TRAUMATIC EPILEPSY PROPHYLAXIS.....	5R01 NS13454-03	86,084
ZECHMAN, FRED W.....	PERCEPTION OF RESPIRATORY LOADS.....	1R01 HL24412-01	115,334
ZIMMER, STEPHEN G.....	MOLECULAR PATHOLOGY OF DNA ONCOGENIC VIRUSES.....	5R01 CA21339-03	52,544
ZIMMER, STEPHEN G.....	EARLY GENE TRANSCRIPTION IN ADENOVIRUS 2 INFECTED CELLS.....	5R01 CA21807-03	43,094
ORGANIZATION TOTAL	64	4,784,862	
LOUISVILLE			
UNIVERSITY OF LOUISVILLE ZIP CODE 40208			
BARROWS, GEORGE H.....	STERIOD UPTAKE IN HORMONALLY DEPENDENT CANCERS.....	5R01 CA23848-02	33,091
BENZ, FREDERICK W.....	UNFOLDING OF PANCREATIC RIBONUCLEASE AND DERIVATIVES.....	5R01 GM26529-02	54,968
BURZYNSKI, NORBERT J.....	CLINICAL CANCER EDUCATION PROGRAM (DENTAL).....	5R25 CA18006-05	62,871
COBBS, GARY A.....	INVESTIGATION OF SENSITIVITY OF GEL ELECTROPHORESIS.....	1R01 GM25108-02	37,752
DE ROSA, GUGLIELMO.....	DIETARY MODIFICATIONS, EXERCISE AND TUMOR GROWTH.....	5R01 CA25602-01	79,800
DOYLE, RONALD J.....	POTENTIAL ANTICARCINOGENS.....	5R01 DE05102-02	56,861
DUPRE, DONALD B.....	VISCOELASTIC PROPERTIES OF POLYMER LIQUID CRYSTALS.....	1R01 HL24364-01	58,940
EIFERMAN, RICHARD A.....	COMPARATIVE INHIBITION OF TISSUE COLLAGENASES.....	1R01 EY02538-01	44,471
FLOWERS, NANCY C.....	RECORDING AND ANALYSIS OF LOW LEVEL CARDIAC SIGNALS.....	5R01 HL19768-03	51,519
FONDA, MARGARET L.....	REGULATION OF MAMMALIAN PYRIDOXAL PHOSPHATE METABOLISM.....	5R01 AM19507-02	39,955
GAMEL, JOHN W.....	MALIGNANT POTENTIAL OF UVEAL MELANOMAS.....	1R01 EY03148-01	52,234
GRAY, ROBERT D.....	COVALENT CONTROL OF CORNEA-DAMAGING COLLAGENASE.....	5R01 EY00969-08	90,775
GRAY, ROBERT D.....	CO BINDING TO CYTOCHROMES P-450 AND P-448.....	1R01 GM25738-01A1	68,978
HILTON, MARY A.....	NUTRITIONAL INTERVENTION IN CANCER CHEMOTHERAPY.....	1R01 CA24108-01A1	42,779
HOFFMAN, JERALD L.....	METHIONINE ADENOSYLTRANSFERASE AND NEOPLASIA.....	5R01 CA22166-03	60,839
HORAN, LEO G.....	MULTIPOLAR LINKAGE BETWEEN HEART GEOMETRY AND SURFACE.....	5R01 HL16901-06	82,113
HUANG, KEE C.....	METHOTREXATE-INDUCED NEPHROTOXICITY AND DRUG DEVELOPMENT.....	1R01 CA25252-01	44,165
KALSOW, CAROLYN M.....	OCULAR AUTOIMMUNITY INVOLVING RETINA OR UVEA.....	5R01 EY01516-05	49,739
KEENEY, ARTHUR H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05375-18	66,635
LAVERY, J PATRICK.....	THE RHEOLOGY OF HUMAN CHORIOAMNIOTIC MEMBRANES.....	5R01 HD11237-02	53,280
MANSFIELD, JOHN M.....	IMMUNOSUPPRESSION IN EXPERIMENTAL TRYPAANOSOMIASIS.....	1R01 AI15378-01	66,773
MILLER, LOUISE B.....	FOUR PRESCHOOL PROGRAMS: 7TH THROUGH 10TH GRADE EFFECTS.....	1R01 HD12039-01	51,868
MOORE, CONDUCT.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17985-05	130,935
NERLAND, DONALD E.....	INTERMEDIATE METABOLITES INVOLVED IN BENZENE TOXICITY.....	1R01 ES01901-01A1	37,335
POTTS, ALBERT M.....	PATHOPHYSIOLOGICAL STUDIES ON OPTIC NERVE.....	5R01 EY01704-05	97,960
POTTS, ALBERT M.....	AN EXPERIMENTAL STUDY OF ANTI-GLAUCOMA SURGERY.....	5R01 EY01941-02	56,388
REHM, WARREN S.....	FLUID AND ELECTROLYTE TRANSPORT IN THE CORNEA.....	7R01 EY03161-01	56,674
STREMEL, RICHARD W.....	VENTILATORY CONTROL MECHANISMS RELATED TO "CO2 FLOW".....	1R23 HL23546-01	39,094
SUDDICK, RICHARD P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05315-14	14,817
SWARTZ, FRANK J.....	POLYPLOIDIZATION OF NORMAL AND DIABETIC ISLETS.....	5R01 AM21120-03	28,185
TAYLOR, JOHN F.....	FACTORS MODIFYING THE REACTION PROPERTIES OF HB S.....	5R01 HL22780-02	35,043
TAYLOR, K GRANT.....	RADICAL REACTIONS OF MUTAGENS AND CARCINOGENS.....	1R01 CA22365-01A2	61,737
WACKER, WALDON B.....	EXPERIMENTAL STUDIES OF AUTOIMMUNE UVEITIS.....	2R01 EY00254-12A1	58,855
WESTPHAL, ULRICH F.....	STERIOD-PROTEIN INTERACTIONS.....	2R01 AM06369-18A1	108,952
WILLIAMS, DONALD E.....	DERIVATION OF NONBONDED POTENTIAL PARAMETERS.....	2R01 GM16260-11	48,500
WONG, JOHN L.....	MOLECULAR MECHANISMS OF CHEMICAL CARCINOGENESIS.....	5R01 CA16182-05	47,950

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title		Grant number	Dollars
KENTUCKY—Continued				
WUN, KAI-LAM W.....	INITIATION OF LIGHT-INDUCED LESIONS OF THE RETINA.....		1R23 EY02713-01	10,000
ORGANIZATION TOTAL	37	2,082,831		
STATE TOTAL	103	7,065,024		
LOUISIANA				
BATON ROUGE				
LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE AT BATON ROUGE			ZIP CODE 70803	
BLACKBURN, MICHAEL N.....	PLASMA INHIBITORS IN COAGULATION AND THROMBOSIS.....		1R01 HL24846-01	48,455
CAPRIO, JOHN T.....	OLFACTION AND TASTE.....		1R01 NS14819-01	31,465
CULLEY, DUDLEY D, JR.....	LABORATORY MANAGEMENT OF RANA CATESBEIANA.....		5P40 RR00635-08	66,728
HALES, BRIAN J.....	ORIENTATION OF MOLECULES IN MEMBRANES.....		5R01 GM25049-02	38,409
HOUK, KENDALL N.....	APPLICATIONS OF NEW CYCLOADDITIONS TO DRUG SYNTHESIS.....		5R01 GM17652-05	50,948
KERR, KIRKLYN M.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....		5S08 RR09087-02	91,986
NEWKOME, GEORGE R.....	SYNTHETIC MACROCYCLES AS ENZYMATIC REDOX MIMICS.....		1R01 GM24053-01A1	32,060
PRYOR, WILLIAM A.....	BIO-ORGANIC CHEMISTRY OF OZONE, NO2 AND TOBACCO SMOKE.....		5R01 HL16029-06	103,086
RIOPELLE, ARTHUR J.....	PRE- & POSTNATAL UNDERNUTRITION & ADAPTIVE CAPACITY.....		5R22 HD07479-05	110,949
TRAYNHAM, JAMES G.....	BIOMEDICAL SCIENCES SUPPORT GRANT.....		5S07 RR07039-08	44,919
WEIDNER, EARL H.....	GLUGEA-INDUCED XENOMA (GIX) CELLS STUDIES.....		1R01 AI15829-01	51,105
YOUNATHAN, EZZAT S.....	PHOSPHOFRUCTOKINASE IN NORMAL AND DIABETIC STATES.....		5R01 AM21307-02	54,426
ORGANIZATION TOTAL	12	724,536		
SOUTHERN UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE BATON ROUGE			ZIP CODE 70813	
CHRISTIAN, FRED A.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....		5S06 RR08025-09	215,497
ORGANIZATION TOTAL	1	215,497		
COVINGTON				
TULANE UNIVERSITY			ZIP CODE 70433	
HARRISON, RICHARD M.....	PATHOPHYSIOLOGY OF VARICOCELE.....		1R01 HD12939-01	87,895
LI, YU-TEH.....	GLYCOSIDASES AS RELATED TO SPHINGOLIPIDOSES.....		2R01 NS09626-09	98,584
ORIHIEL, THOMAS C.....	STUDY OF FILARIAE OF MAN IN PRIMATES.....		5R22 AI10269-08	71,320
ROBERTS, JAMES A.....	HOST-PARASITE INTERACTION IN PYELONEPHRITIS.....		3R01 AM14681-09S1	1,000
ROBERTS, JAMES A.....	HOST-PARASITE INTERACTION IN PYELONEPHRITIS.....		5R01 AM14681-10	155,028
WALSH, JOHN J.....	SUPPORT FOR REGIONAL PRIMATE RESEARCH CENTER.....		5P40 RR00164-18	1,144,991
ORGANIZATION TOTAL	6	1,558,818		
GRAMBLING				
GRAMBLING STATE UNIVERSITY			ZIP CODE 71245	
HILL, FRANKLIN D.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....		5S06 RR08054-08	80,675
ORGANIZATION TOTAL	1	80,675		
NEW ORLEANS				
ALTON OCHSNER MEDICAL FOUNDATION			ZIP CODE 70121	
BOWEN, JOHN C.....	GASTRIC MUCOSAL INTEGRITY: INTRACELLULAR HYPOXIA.....		5R01 AM19897-03	53,194
FROHLICH, EDWARD D.....	HEMODYNAMICS OF THE CLINICAL HYPERTENSIONS.....		5R01 HL22506-02	81,992
FROHLICH, EDWARD D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....		5S07 RR05518-17	15,219
PEGRAM, BARBARA L.....	REGIONAL HEMODYNAMICS IN SPONTANEOUS HYPERTENSION.....		2R01 HL20542-04	51,584
TRIPPODO, NICK C.....	COMPLIANCE OF FLUID SPACES IN ADVANCING HYPERTENSION.....		5R01 HL22261-02	34,696
ORGANIZATION TOTAL	5	236,685		
DILLARD UNIVERSITY			ZIP CODE 70122	
VERRETT, JOYCE M.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....		5S06 RR08064-09	149,620

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
ORGANIZATION TOTAL	1	149,620	
GULF SOUTH RESEARCH INSTITUTE ZIP CODE 70146			
EHRLICH, KENNETH C.	BIOCHEMISTRY OF LUNG PROTEOGLYCANs	5R01 HL21617-03	62,565
ORGANIZATION TOTAL	1	62,565	
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70119			
BAGBY, GREGORY J.	HORMONE-SUBSTRATE INTERACTION IN DIABETIC MYOCYTE	5R01 HL22101-03	48,605
BAGBY, GREGORY J.	LIPOPROTEIN LIPASE IN HEART MYOCYTES	1R01 HL23329-01	24,431
BEAZLEY, ROBERT M.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17916-02	43,720
BERENSON, GERALD S.	BIOCHEMISTRY OF CARDIOVASCULAR CONNECTIVE TISSUE	5R01 HL02942-23	127,641
BERENSON, GERALD S.	A/S SCOR-EARLY NATURAL HISTORY OF ARTERIOSCLEROSIS	5P50 HL15103-08	1,132,094
BERLIN, CHARLES I.	PERIPHERAL AND CENTRAL AUDITORY MECHANISMS	5P50 NS11647-05	492,516
BIUNDO, JOSEPH J. JR.	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM21147-03	172,655
BOCKMAN, EMMA L.	BLOOD FLOW REGULATION IN MUSCLE	5R01 HL17932-05	24,980
BURNS, ALASTAIR H.	METABOLIC CHARACTERIZATION OF THE HYPERTROPHIED HEART	1R23 HL22904-01A1	25,280
CAMPOS, EMILIO C.	ASPECTS OF BINOCULAR VISION IN STRABISMUS	1R01 EY03107-01	42,020
CENTIFANTO, YSOLINA M.	HSV STRAIN SPECIFICITY AND OCULAR DISEASE	1R01 EY02389-01A1	70,764
CLAYCOMB, WILLIAM C.	CELL PROLIFERATION IN THE HEART DURING DEVELOPMENT	5R01 HL21065-02	47,060
COHN, ISIDORE, JR.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA12031-07	31,173
COHN, ISIDORE, JR.	ADMINISTRATION OF NATIONAL PANCREATIC CANCER PROJECT	5R26 CA17500-05	100,164
DAVIS, ROGER A.	THE REGULATION OF LIPOPROTEIN SYNTHESIS AND SECRETION	1R01 HL23895-01	59,872
FRANKLIN, RUDOLPH M.	SECRETORY IMMUNE SYSTEM-RELATIONSHIP TO OCULAR DISEASE	5R01 EY03028-02	68,739
GEBHARDT, BRYAN M.	SUPPRESSION OF CORNEA ALLOGRAFT REJECTION	1R01 EY03150-01	73,139
HARTMAN, ARTHUR D.	ADIPOCYTE METABOLISM AS RELATED TO CELL SIZE	5R01 AM19995-03	41,982
HOSSLER, FRED E.	THE SITE AND MECHANISM OF PLASMA MEMBRANE RENEWAL	5R01 GM24953-02	20,046
HOWE, CALDERON	IMMUNOCHEMICAL STUDY OF VIRUS RECEPTORS & INFECTED CELLS	5R01 AI10945-08	79,601
KAUFMAN, HERBERT E.	PHARMACOLOGY AND EXTERNAL OCULAR DISEASES	1P30 EY02377-01A1	259,597
KAUFMAN, HERBERT E.	CORNEAL PRESERVATION AND KERATOPLASTY	5R01 EY02580-02	122,858
KAUFMAN, HERBERT E.	OCULAR HERPES SIMPLEX	5R01 EY02672-02	138,940
KLYCE, STEPHEN D.	TRANSPORT PROCESSES ACROSS THE CORNEAL EPITHELIUM	7R01 EY03311-01	85,352
KRAZ, KENNETH E.	VISUAL RESTRICTION AND DEVELOPMENT OF X- AND Y-CELLS	1R01 NS15473-01	77,478
LARSON, PAUL F.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05376-18	143,509
LEECH, STEPHEN H.	INDUCTION OF GENETICALLY TAILORED IMMUNE IMBALANCE	1R23 CA25668-01	29,910
LEVITZKY, MICHAEL G.	VENTILATION, PERFUSION, AND SYSTEMIC ARTERIAL REFLEXES	5R01 HL22641-02	32,859
LILES, SAMUEL L.	PUTAMEN AND CORTICOSTRIATAL NEURONS IN MOTOR FUNCTION	1R01 NS15485-01	52,219
LOPEZ, ALFREDO	LUNG CANCER AND VITAMIN A	5R01 CA23205-02	92,598
MATTHEWS, MURRAY A.	PHARMACOLOGIC MODIFICATION OF AFFERENT INPUT	5R01 NS14699-02	30,844
MIDGETT, RONALD J.	EFFECT OF UREMIC SERA ON VITAMIN D METABOLISM IN VITRO	1R01 AM25437-01	36,700
MURRAY, MICHAEL L.	MEDIATION OF NITROUS ACID MUTAGENESIS BY POLYAMINES	1R01 CA26355-01	44,034
NANCE, FRANCIS C.	SURGICAL PATHOPHYSIOLOGY IN GNOTOBIOTIC ANIMALS	5R01 AI10095-08	96,731
NARAYANAN, C H.	TRIGEMINAL NECK REFLEX-DEVELOPMENT AND CONTROL	5R01 HD12064-02	49,500
RADHAKRISHNAMURTHY, B.	BIOCHEMISTRY OF LUNG PROTEOGLYCANs	5R01 HL21649-02	56,749
RAWLS, HENRY R.	F-RELEASING AND ACID BARRIER-POLYMER CRIES THERAPIES	5R01 DE04749-03	10,583
RAYSON, JACK H.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05704-09	17,891
REEVES, RICHARD E.	BIOCHEMISTRY OF ENTERIC AMOEBA AND RELATED ORGANISMS	5R01 AI02951-18	43,091
REEVES, RICHARD E.	GROWTH REQUIREMENTS FOR AXENIC AMEBAE	5R01 AI10590-02	28,238
ROHEIM, PAUL S.	HYPERLIPOPROTEINEMIA	5R01 HL20954-03	98,688
ROSOSKI, ROBERT, JR.	NEUROTRANSMITTER BIOSYNTHESIS	7R01 NS15994-01	49,143
SARKAR, NIKHIL K.	CREEP AND CORROSION OF DENTAL AMALGAMS	5R01 DE05126-02	44,791
SMITH, DIANE E.	POSTNATAL DEVELOPMENT OF THE SPINOCEREBELLAR SYSTEM	2R01 NS13155-03A1	38,020
SMITH, JERRY W.	VIRAL ANTIGENS IN HERPETIC EYE DISEASE	1R01 EY02984-01	74,780
SPITZER, JOHN J.	HORMONE INTERACTION WITH CARDIAC MYOCYTES IN ISCHEMIA	1R01 HL23157-01A1	96,076
STRONG, JACK P.	NATURAL AND EXPERIMENTAL ATHEROSCLEROSIS	5P01 HL08974-15	536,802
UPDYKE, BRUCE V.	VISUAL AND ASSOCIATION CONNECTIONS OF PULVINAR	5R01 EY01925-03	24,561
VILLAREJOS, VICTOR M.	EPIDEMIOLOGY OF HEPATITIS B ANTIGEN AND VIRAL HEPATITIS	3R01 AI12910-03S1	59,538
VILLAREJOS, VICTOR M.	EPIDEMIOLOGY OF HEPATITIS B ANTIGEN AND VIRAL HEPATITIS	2R01 AI12910-04	175,725
WECKER, LYNN	NEUROMUSCULAR EFFECTS OF CHRONIC INSECTICIDE EXPOSURE	1R23 ES02278-01	29,175
WILBER, JOHN F.	THYROTROPIN RELEASING FACTOR SECRETION AND ACTIONS	5R01 AM25482-02	93,570
ZIMMERMAN, THOMAS J.	TIMOLOL: A NEW DRUG FOR THE TREATMENT OF GLAUCOMA	3R01 EY02376-01S1	73,590

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
ORGANIZATION TOTAL	53	5,570,622	
LOUISIANA STATE UNIVERSITY OF NEW ORLEANS ZIP CODE 70122			
BRYAN, SARA E.....	METALLOTHIONEIN INDUCTION BY CADMIUM, COPPER, MERCURY.....	5R01 ES00802-08	110,986
GITHENS, SHERWOOD, III.....	CARCINOGENESIS OF PANCREATIC DUCTAL TISSUE IN VITRO.....	3R26 CA19177-03S1	3,676
GITHENS, SHERWOOD, III.....	CARCINOGENESIS OF PANCREATIC DUCTAL TISSUE IN VITRO.....	2R26 CA19177-04	63,030
GRIFFIN, GARY W.....	SYNTHESIS, PHOTO AND THERMOCHEMISTRY OF ARENE OXIDES.....	3R01 CA18346-03S1	4,717
LASETER, JOHN L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07169-03	15,488
ORGANIZATION TOTAL	5	197,897	
TOURO INFIRMARY ZIP CODE 70115			
GITTER, KURT A.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02564-01	30,000
HYMAN, EDWARD S.....	A SEARCH FOR PHOSPHOLIPID CHANNELS IN NA-K-ATP-ASE.....	5R01 AM12718-09	30,321
ORGANIZATION TOTAL	2	60,321	
TULANE UNIVERSITY ZIP CODE 70118			
AGRAWAL, KRISHNA C.....	DEVELOPMENT OF ANTITUMOR AND RADIOSENSITIZING AGENTS.....	2R01 CA21050-04	75,466
ALWORTH, WILLIAM L.....	MODIFICATION OF MAMMALIAN EPOXIDE HYDRASE ACTIVITY.....	1R01 CA23014-01A1	66,163
ANDERSON, MARY L.....	RELAXIN: RECEPTOR SITES AND HORMONAL CONTROL.....	1R01 HD13408-01	59,397
ARIMURA, AKIRA.....	PHYSIOLOGY OF HYPOTHALAMIC NEUROHORMONES.....	5R01 AM09094-14	85,755
AYALA, STEPHEN C.....	MALARIA PARASITES IN REPTILE POPULATIONS.....	2R01 AI12511-04	21,875
BANTA, JAMES E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05444-18	49,979
BERNOFSKY, CARL.....	PYRIDINE NUCLEOTIDES AND ISCHEMIC HEART DISEASE.....	1R01 HL24192-01	48,674
BOWERS, CYRIL Y.....	STUDIES ON HYPOTHALAMIC THYROTROPIN-RELEASING FACTOR.....	2R01 AM06164-17	127,551
BYERS, LARRY D.....	LIGAND INDUCED CHANGES IN MULTI-SUBUNIT ENZYMES.....	1R01 GM24765-01	62,246
CHAPNICK, BARRY M.....	PROSTAGLANDIN PRECURSORS AND INTESTINAL VASCULATURE.....	2R01 HL19997-03	47,850
COWIN, STEPHEN C.....	BONE REMODELING OF THE FEMUR.....	5R01 AM20240-02	46,938
COY, DAVID H.....	SYNTHESIS AND BIOLOGY OF ANALOGUES OF SOMATOSTATIN.....	5R01 AM18370-05	45,831
DEKERNION, JEAN B.....	CHEMOTHERAPY OF PROSTATIC CANCER.....	3R26 CA22387-01S1	4,571
DEKERNION, JEAN B.....	CHEMOTHERAPY OF PROSTATIC CANCER.....	5R26 CA22387-02	72,828
DI LUZIO, NICHOLAS R.....	DEVELOPMENTAL THERAPEUTICS: GLUCAN.....	3R01 CA24326-01S1	59,357
DOMER, JUDITH E.....	HOST RESPONSES IN EXPERIMENTAL CANDIDIASIS.....	5R01 AI12806-05	73,588
EHRLICH, MELANIE.....	5-METHYLCYTOSINE-RICH DNA: CANCER AND DEVELOPMENT.....	5R01 CA19942-03	33,647
EHRLICH, MELANIE.....	MUTAGENESIS AT 5-METHYLCYTOSINE RESIDUES IN DNA.....	1R01 GM26986-01	49,561
EVANICH, MYRON J.....	BIO-TELEMETRY IN THE STUDY OF VENTILATORY CONTROL.....	5R01 HL21743-02	54,431
FISHER, JAMES W.....	KIDNEY CONTROL OF ERYTHROPOIETIN PRODUCTION.....	5R01 AM13211-10	49,436
FISHER, JAMES W.....	PURIFICATION OF ERYTHROPOIETIN.....	5R01 HL21701-03	59,297
FRIEDMAN, LORRAINE.....	EXPERIMENTAL CRYPTOCOCCOSIS.....	1R01 AI15050-01A1	36,601
GEORGE, WILLIAM J.....	MECHANISM OF ACTION OF ERYTHROPOIETIN.....	1R01 AM20386-01A1	47,037
GOTTLIEB, A ARTHUR.....	INHIBITOR OF DNA POLYMERASE PRODUCED BY TUMOR CELLS.....	1R01 CA25023-01	52,149
HAMLIN, JAMES T, III.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05377-18	106,921
HYMAN, ALBERT L.....	CARDIOVASCULAR SURGICAL RESEARCH.....	5R01 HL11802-11	144,153
IGNARRO, LOUIS J.....	BIOREGULATION OF HUMAN NEUTROPHIL FUNCTION.....	5R01 AM17692-05	47,342
JOHNSON, MARY K.....	ROLE OF MICROBIAL CYTOLYSINS IN OCULAR INFECTIONS.....	3R01 EY00424-10S1	1,200
JOHNSON, MARY K.....	ROLE OF MICROBIAL CYTOLYSINS IN OCULAR INFECTIONS.....	5R01 EY00424-11	69,408
KADOWITZ, PHILIP J.....	HUMORAL CONTROL OF PULMONARY AND SYSTEMIC CIRCULATION.....	2R01 HL15580-07	84,141
KADOWITZ, PHILIP J.....	REGULATION OF INTRAPULMONARY AIRWAYS AND VESSELS.....	5R01 HL18070-05	30,110
KASTIN, ABBA J.....	CONTROL OF MSH RELEASE AND ROLE OF MIF AND MSH.....	5R01 NS07664-11	69,533
KING, JOAN C.....	GONADOTROPIN RELEASING HORMONE DYNAMICS AND BEHAVIOR.....	5R01 HD10505-02	21,755
KLAWITTER, JEROME J.....	COMPARISON OF ALUMINUM OXIDE & CARBON DENTAL IMPLANTS.....	5R01 DE04653-03	51,871
KLAWITTER, JEROME J.....	BIOLOGICAL PROSTHETIC ATTACHMENT.....	1R01 DE05292-01	84,038
KREMENTZ, EDWARD T.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18007-04A1	111,724
KRISHNAMURTY, V S.....	REGULATORY ROLE OF CAD0 & MG00 IN VASCULAR SMOOTH MUSCLE.....	1R23 HL25818-01	44,862
LEHRER, SAMUEL B.....	HUMORAL AND CELLULAR IGE SYNTHESIS IN THE MOUSE.....	5R23 AI14891-02	42,262
MEYERS, CHESTER A.....	BIOLOGICAL STUDIES ON PANCREATIC POLYPEPTIDES.....	5R01 AM22156-02	39,187
MOSER, STEPHEN A.....	IMMUNE RESPONSES IN MURINE CRYPTOCOCCOSIS.....	1R01 AI15461-01	70,999
ORIEL, THOMAS C.....	SUPPORT FOR INTERNATIONAL CENTER FOR MEDICAL RESEARCH.....	5R07 AI10050-19	695,580
SALVAGGIO, JOHN E.....	ENVIRONMENTAL-OCCUPATIONAL CHEST DISEASES.....	5P50 AI13401-05	130,632
SCHALLY, ANDREW V.....	NEUROCHEMISTRY OF THE DIENCEPHALON.....	5R01 AM07467-16	135,975
SPANNHAKE, ERNST W.....	PROSTAGLANDIN TRANSFORMATIONS AND LUNG FUNCTION.....	1R01 HL22945-01A1	50,863

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
SPRINGGATE, CLARK F.....	HUMAN LIVER APURINIC DNA ENDONUCLEASE.....	1R23 ES02159-01	39,635
STUCKEY, WALTER J.....	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY.....	5R10 CA03389-21	96,027
WADE, LESTER A.....	BRAIN CAPILLARY TRANSPORT OF PEPTIDES AND AMINO ACIDS.....	5R01 NS13914-02	40,565
WEILL, HANS.....	IMMUNE & FIBROTIC RESPONSES TO OCCUPATIONAL ENVIRONMENT.....	5P50 HL15092-08	730,241
WEINSTEIN, ALLAN M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07040-12	59,261
ORGANIZATION TOTAL	49 4,328,513		
XAVIER UNIVERSITY OF LOUISIANA ZIP CODE 70125			
ASHMAN, PORTIA U.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08008-09	353,038
ORGANIZATION TOTAL	1 353,038		
RUSTON			
LOUISIANA TECHNOLOGICAL UNIVERSITY ZIP CODE 71270			
SCHUBERT, ROY W.....	PHYSIOLOGICAL & MATHEMATICAL STUDY OF HEART FUNCTION.....	1R01 HL22864-01A1	52,640
ORGANIZATION TOTAL	1 52,640		
SHREVEPORT			
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT SHREVEPORT ZIP CODE 71101			
ALBRIGHT, JAMES A.....	OSTEOGENESIS IMPERFECTA TREATED WITH ELECTRIC FIELD.....	1R01 AM26020-01	50,400
BERG, RODNEY D.....	EFFECT OF ANTAGONISM AND S-IGA INDIGENOUS ANAEROBES.....	5R01 AI14235-02	42,052
BERG, RODNEY D.....	MECHANISMS CONFINING INDIGENOUS BACTERIA TO GI TRACTS.....	1R01 AI15826-01	42,705
BURK, RAYMOND F, JR.....	NUTRITIONAL AND METABOLIC SIGNIFICANCE OF SELENIUM.....	5R01 ES01992-02	70,839
DIANA, JOHN N.....	CAPILLARY PERMEABILITY IN HEART FAILURE AND HYPERTROPHY.....	1R01 HL23196-01	55,416
LEUNG, CHRISTOPHER C.....	EMBRYOTOXIC PLACENTA ANTISERUM.....	7R01 HD13939-01	14,147
LEUNG, CHRISTOPHER C.....	STUDIES OF ABNORMAL EMBRYONIC DEVELOPMENT.....	7R01 HD13940-01	48,153
MC DONALD, JOHN C.....	A HETEROPHILE SYSTEM IN HUMAN RENAL TRANSPLANTATION.....	2R01 AM21346-03	64,796
PICKERING, JERRY W.....	IMMUNOBIOLOGY OF HUMAN MALIGNANT MELANOMA.....	1R01 CA27134-01	27,092
SAHA, SUBRATA.....	A NEW METHOD TO MEASURE THE RATE OF FRACTURE HEALING.....	7R01 AM26732-01	72,761
STEWART, JOHN J.....	CENTRAL ACTIONS OF DRUGS ON SMALL INTESTINE.....	5R01 GM25324-02	26,639
WELBOURNE, TOM C.....	RENAL CONTROL OF UREA AND GLUTAMINE FORMATION.....	5R01 AM21026-02	42,741
WILLIAMS, DARRYL M.....	MITOCHONDRIAL IRON UPTAKE AND HEME SYNTHESIS.....	1R01 AM23004-01A1	47,357
WOLCOTT, R MICHAEL.....	CONTROL OF CELL DIVISION IN LEUKEMIA CELLS.....	1R01 CA24914-01	61,791
WOLF, ROBERT E.....	DEVELOPMENT OF A MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20612-03	94,482
ORGANIZATION TOTAL	15 761,371		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 71130			
GRIMES, SIDNEY R.....	BASIC SPERMATIDAL PROTEIN MRNA IN RAT TESTIS.....	5R01 HD11796-02	39,127
ORGANIZATION TOTAL	1 39,127		
STATE TOTAL	154 14,391,925		
MAINE			
BAR HARBOR			
JACKSON LABORATORY ZIP CODE 04609			
BAILEY, DONALD W.....	HON-H-2 HISTOCOMPATIBILITY ANTIGENS.....	5R01 AI13130-04	251,513
BAILEY, DONALD W.....	GENETIC STABILITY OF MOUSE ZYGOTES IN FROZEN STORAGE.....	5R01 GM22878-04	87,045
BEAMER, WESLEY G.....	INHERITED GROWTH DISORDERS OF ENDOCRINE SYSTEMS.....	5R01 AM17947-06	94,628
BERNSTEIN, SELDON E.....	PHYSIOLOGICAL GENETICS OF THE MOUSE.....	9R01 AM25305-29	144,450
BERNSTEIN, SELDON E.....	ANALYSES AND THERAPY OF NEONATAL BLOOD DISORDERS.....	5R01 HD00254-19	50,273
CHAI, CHEN K.....	AGE-DEPENDENT AMYLOID DEGENERATION IN MICE.....	1R01 AG02122-01	71,987
CHEN, HARRY W.....	CHOLESTEROL IN MEMBRANE FUNCTION AND CELL TRANSFORMATION.....	2R01 GM22900-04	100,671
CHEN, HARRY W.....	FLUORESCENCE-ACTIVATED CELL SORTER.....	1P41 GM27477-01	103,243
COLEMAN, DOUGLAS L.....	HEREDITARY DIABETES IN THE MOUSE.....	5R01 AM14461-10	70,734

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MAINE—Continued			
COLEMAN, DOUGLAS L.....	BIOCHEMISTRY OF PIGMENTATION AND INHERITED DISORDERS.....	5R01 AM20725-18	53,163
COLLINS, ROBERT L.....	LATERALIZATION OF FUNCTION: BEHAVIOR GENETIC ANALYSIS.....	5R01 GM23618-03	55,425
EICHER, EVA M.....	CYTOGENETICS OF THE MOUSE.....	5R01 GM20919-06	112,082
EICHER, EVA M.....	A MOUSE MUTANT GENE RESOURCE.....	5P40 RR01183-02	68,022
FOX, RICHARD R.....	PATHOGENESIS OF GLAUCOMA-LIKE CHANGES IN BUPHTHALMOS.....	1R01 EY03115-01	99,383
HARRISON, DAVID E.....	DECLINE OF IMMUNE RESPONSE WITH AGE.....	5R01 AG00594-06	74,821
HARRISON, DAVID E.....	SPLEEN AND MARROW ALLOGRAFTS IN HEREDITARY ANEMIA.....	5R01 HL16119-06	53,467
HEINIGER, HANS-JORG.....	CHOLESTEROL IN NORMAL AND MALIGNANT LYMPHOCYTES.....	5R01 CA19305-03	74,554
HOPPE, PETER C.....	DEVELOPMENT OF PARTHENOGENETIC ACTIVATED MOUSE EGGS.....	5R01 HD10381-02	11,480
JOHNSON, DAVID A.....	RELATIONSHIP OF LEUKEMOGENESIS AND IMMUNE RESPONSIVENESS.....	1R23 CA25944-01	33,684
KANDUTSCH, ANDREW A.....	STEROID METABOLISM IN TUMORS AND NORMAL TISSUES.....	5R01 CA02758-24	179,857
KOZAK, LESLIE P.....	REGULATION OF ENZYME LEVELS IN BRAIN.....	5R01 HD06712-08	56,496
KOZAK, LESLIE P.....	BIOCHEMICAL GENETICS OF OVARIAN AND TESTICULAR TERATOMAS.....	5R01 HD08431-06	53,229
MEIER, HANS.....	PATHOGENESIS OF HEREDITARY NEUROLOGICAL DISORDERS.....	5R01 NS06448-13	34,834
MURPHY, EDWIN D.....	GENE MECHANISMS IN LYMPHOMA AND LYMPHOPROLIFERATION.....	5R01 CA22948-02	106,906
OUTZEN, HENRY C.....	IMMUNOMODULATION OF ONCOGENESIS.....	1R01 CA24901-01	109,653
PREHN, RICHMOND T.....	MECHANISMS OF CARCINOGENESIS.....	2R01 CA20920-03	303,585
PREHN, RICHMOND T.....	ANATOMICAL GRADIENT IN SUSCEPTIBILITY TO ONCOGENESIS.....	1R01 CA26775-01	33,095
PREHN, RICHMOND T.....	SUPPORT FOR INBRED AND MUTANT ANIMALS RESOURCE.....	5P40 RR00251-14	115,100
PREHN, RICHMOND T.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05545-17	125,567
RODERICK, THOMAS H.....	STUDY OF MAMMALIAN CHROMOSOMAL INVERSIONS.....	5R01 GM19656-08	60,284
SHULTZ, LEONARD D.....	IMMUNODEFICIENCY AND TUMORIGENESIS.....	5R01 CA20408-03	69,663
SPROTT, RICHARD L.....	ANALYSIS OF GENETIC EFFECTS ON AGING.....	5P01 AG00250-09	287,295
STEVENS, LEROY C.....	INVESTIGATIONS ON TERATOCARCINOGENESIS.....	5R01 CA02662-25	139,038
TAYLOR, BENJAMIN A.....	GENETIC ANALYSIS OF COMPLEX INFIRMITIES.....	5R01 GM18684-08	59,246
WAYMOUTH, CHARITY.....	HORMONE AND CARCINOGEN EFFECTS ON PROSTATE IN VITRO.....	5R26 CA20226-04	31,109
ORGANIZATION TOTAL	35 3,375,582		

BRUNSWICK

BOWDOIN COLLEGE ZIP CODE 04011

KERTZER, DAVID I.....	HOUSEHOLD DYNAMICS IN LONGITUDINAL PERSPECTIVE.....	1R01 HD13415-01	70,920
STEINHART, WILLIAM L.....	MEMBRANE FUNCTION IN HERPESVIRUS INFECTION.....	1R01 AI15820-01	42,094
ORGANIZATION TOTAL	2 113,014		

ORONO

UNIVERSITY OF MAINE AT ORONO ZIP CODE 04473

LERNER, JOSEPH.....	GENETIC ASPECTS OF AMINO ACID TRANSPORT SYSTEMS.....	5R01 AM19445-03	36,329
NICHOLSON, BRUCE L.....	PISCINE ERYTHROCYTIC NECROSIS IN THE ATLANTIC COD.....	5R01 HL19164-04	43,333
ROBERTS, FRANKLIN L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07161-04	21,289
TYLER, MARY.....	TISSUE INTERACTIONS IN THE CRANIOFACIAL REGION.....	5R23 DE04859-02	26,449
ORGANIZATION TOTAL	4 127,400		

PORTLAND

MAINE MEDICAL CENTER ZIP CODE 04102

RAND, PETER W.....	ERYTHROCYTE FUNCTION IN DIABETES MELLITUS.....	5R01 AM20829-02	73,633
RAND, PETER W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05805-01	16,597
ORGANIZATION TOTAL	2 90,230		

UNIVERSITY OF MAINE AT UNIVERSITY OF SOUTHERN MAINE ZIP CODE 04103

HODGKIN, BRIAN C.....	DIPOLE MOMENT MEASUREMENT OF CARDIAC MASS.....	3R01 HL19486-03S1	10,918
ORGANIZATION TOTAL	1 10,918		

SALSBURY COVE

MOUNT DESERT ISLAND BIOLOGICAL LABORATORY ZIP CODE 04672

MILLER, DAVID S.....	MEMBRANE TOXICITY THEORY AND ENVIRONMENTAL POLLUTANTS.....	5R01 ES00920-07	74,326
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MAINE—Continued			
MILLER, DAVID S.....	ENVIRONMENTAL POLLUTANTS AND MEMBRANE TRANSPORT.....	5R01 ES01678-02	55,995
RAPPAPORT, RAYMOND.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05764-05	16,567
SCHMIDT-NIELSEN, BODIL M.....	BIOLOGY OF EXCRETORY AND OSMOREGULATORY MECHANISMS.....	2R01 AM15972-08	112,125
SCHMIDT-NIELSEN, BODIL M.....	PHYSIOLOGY AND MORPHOLOGY OF CELL TRANSPORT.....	5R01 AM15973-08	77,445
ORGANIZATION TOTAL	5 336,458		
WEST BOOTHBAY HARBOR			
NORTHEASTERN RESEARCH FOUNDATION ZIP CODE 04575			
YENTSCH, CLARICE M.....	ASSESSMENT OF HEALTH HAZARDS FROM TOXIC RED TIDE CYSTS.....	5R01 ES01329-03	49,471
ORGANIZATION TOTAL	1 49,471		
STATE TOTAL	50 4,103,073		
MARYLAND			
BALTIMORE			
BALTIMORE CITY HOSPITALS ZIP CODE 21224			
LIEBSON, IRA A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05556-17	37,553
ORGANIZATION TOTAL	1 37,553		
CARNEGIE INSTITUTION OF WASHINGTON, D. C. ZIP CODE 21210			
BROWN, DONALD D.....	THE SOMATIC AND OOCYTE 5S RNA GENES IN XENOPUS.....	3R01 GM22395-04S1	20,500
BROWN, DONALD D.....	THE SOMATIC AND OOCYTE 5S RNA GENES IN XENOPUS.....	5R01 GM22395-05	100,253
BROWN, DONALD D.....	REGULATORY MECHANISMS OF SILK FIBROIN GENES.....	5R01 GM23469-03	85,954
BROWN, DONALD D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05799-02	17,647
GEARHART, PATRICIA J.....	B CELL EXPRESSION OF IMMUNOGLOBULIN V AND C REGIONS.....	5R01 CA25507-02	69,070
MULLER, KENNETH J.....	REGENERATION OF PARTICULAR SYNAPSES.....	1R01 NS15014-01	57,689
PAGANO, RICHARD E.....	CELL SURFACE LIPIDS: ORGANIZATION; DYNAMICS; METABOLISM.....	2R01 GM22942-04	89,832
WARD, SAMUEL.....	GENETIC SPECIFICATION OF CELL MORPHOLOGY.....	2R01 GM25243-02	97,058
WARD, SAMUEL.....	CARNEGIE ELECTRON MICROSCOPE FACILITY.....	1P41 GM27349-01	85,500
ORGANIZATION TOTAL	9 623,503		
JOHN F. KENNEDY INSTITUTE ZIP CODE 21205			
CATALDO, MICHAEL F.....	A BEHAVIORAL MEDICINE APPROACH TO KINETICS DISORDERS.....	5R01 NS14634-02	76,456
CATALDO, MICHAEL F.....	BEHAVIORAL MEDICINE ASSESSMENT OF MOVEMENT DISORDERS.....	1R01 NS15679-01	85,085
CATALDO, MICHAEL F.....	BEHAVIORAL MEDICINE APPLIED TO NEUROLOGICAL DISORDERS.....	1R13 NS15695-01	13,110
FREEMAN, JOHN M.....	EFFECTS OF ANTICONVULSANTS ON LEARNING AND BEHAVIOR.....	1R01 NS15564-01	130,836
KISHIMOTO, YASUO.....	SPHINGOLIPID METABOLISM AND BRAIN DEVELOPMENT.....	5R01 NS13559-04	51,337
KISHIMOTO, YASUO.....	BRAIN 2-HYDROXY FATTY ACID METABOLISM AND MYELINATION.....	5R01 NS13569-04	78,781
MOSER, HUGO W.....	GENETIC AND TOXIC CAUSES OF MENTAL RETARDATION.....	5P01 HD10981-02	318,762
MOSER, HUGO W.....	BRAIN LIPIDS IN DIFFUSE DEMYELINATIVE DISEASES.....	5R01 NS13513-03	79,029
MOSER, HUGO W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05808-01	52,798
SEITZ, RACHEL E.....	PRECURSORS OF LANGUAGE IN NORMAL CHILDREN.....	1R01 HD11970-01	63,536
ORGANIZATION TOTAL	10 949,730		
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218			
ACKERS, GARY K.....	MOLECULAR SIEVE CHROMATOGRAPHY OF INTERACTING PROTEINS.....	5R01 GM24486-03	120,100
ACKERS, GARY K.....	SUBUNIT INTERACTIONS IN SICKLE CELL HEMOGLOBIN.....	1R01 HL23766-01	48,534
ADKINSON, N FRANKLIN, JR.....	STUDY OF ALLERGIC REACTIONS TO DRUGS.....	5R01 AI11936-06	73,648
ADKINSON, N FRANKLIN, JR.....	VALUE OF SKIN TESTING FOR PENICILLIN ALLERGY.....	1R01 AI15525-01	121,508
AMZEL, LEON M.....	3-DIMENSIONAL STRUCTURE OF PROTON TRANSLOCATING ATPASES.....	5R01 GM25432-02	63,659
AMZEL, LEON M.....	FILM SCANNING FACILITY FOR DATA COLLECTION OR DISPLAY.....	1P41 GM27420-01	96,785
ANDERSON, DAVID E.....	VASCULAR EFFECTS OF INHIBITORY BEHAVIORAL ADAPTATIONS.....	3R01 HL17970-04S1	11,630
ANDERSON, DAVID E.....	VASCULAR EFFECTS OF INHIBITORY BEHAVIORAL ADAPTATIONS.....	2R01 HL17970-05A1	97,703
ANDERSON, NORMAN D.....	LYMPHOCYTE CHEMOTAXIS.....	1R01 AI16072-01	93,794
ANDERSON, NORMAN D.....	TUMOR INDUCED CHANGES IN LYMPHATIC TISSUES.....	1R01 CA24728-01	90,349

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
ANNAU, ZOLTAN	TOXICITY OF PRENATAL CARBON MONOXIDE EXPOSURE	5R01 ES01589-03	81,177
AUGUST, J THOMAS	GENETIC EXPRESSION OF CELLULAR ONCONAVIRUSES	5R01 CA19471-03	138,615
AURELIAN, LAURE	CM1 TO HSV-2 ANTIGENS IN GENITAL HERPES INFECTIONS	5R01 AI14341-02	79,884
BACHORIK, PAUL S	INTERACTION OF LIVER CELL MEMBRANES AND LIPOPROTEINS	1R01 HL23438-01	80,864
BANG, FREDERIK B	UPPER RESPIRATORY ANTIVIRAL DEFENSE IN MALNUTRITION	5R01 AI12458-05	64,030
BANG, FREDERIK B	REGULATION OF SUSCEPTIBILITY TO MHV IN CONGENIC MICE	1R01 AI16036-01	85,421
BANG, FREDERIK B	INTRAMASAL HOMEOSTASIS VIRUSES & POLLUTANT GASES	5R01 ES01477-03	59,652
BAYLIN, STEPHEN B	HISTAMINASE AND AMINES IN NEURAL CREST TUMORS	5R01 CA18404-05	71,628
BECKER, LEWIS C	VASODILATORS IN EXPERIMENTAL MYOCARDIAL INFARCTION	5R01 HL19937-03	55,650
BENBOW, ROBERT M	CONTROL OF DNA REPLICATION IN XENOPUS LAEVIS	1R01 GM25970-01	62,665
BESSMAN, MAURICE J	ENZYMATIC SYNTHESIS OF NUCLEOTIDES AND DNA	5R01 GM18649-21	82,792
BIAS, WILMA B	GENETICS OF RHEUMATIC DISEASE IN ISOLATED POPULATIONS	1R01 AM20656-01	79,500
BLASS, ELLIOTT M	THE ONTOGENY OF INGESTIVE BEHAVIOR	5R01 AM18560-05	64,364
BODIAN, DAVID	STRUCTURE AND SYNAPTIC RELATIONS OF ORGAN OF CORTI	5R01 NS12641-05	82,147
BRAND, LUDWIG	FLUORESCENCE PROBES IN STUDIES OF PROTEINS AND MEMBRANES	5R01 GM11632-17	134,241
BRUSILOV, SAUL W	UREA CYCLE ENZYMOPATHIES: GENETICS, METABOLISM & THERAPY	5R01 HD11134-03	117,041
BUEIDING, ERNEST	PROTECTION AGAINST MUTAGENIC EFFECTS OF DRUGS	2R01 CA18251-04	83,666
BURKE, PHILIP J	EXPERIMENTAL THERAPY OF MYELOID LEUKEMIA IN REMISSION	5R01 CA23973-02	75,620
CALKINS, JOSEPH L	HOLOGRAPHIC STRESS-TESTING OF THE SURGICAL CORNEA	5R01 EY01312-05	72,016
CAMERON, JOHN L	ACUTE PANCREATITIS: PATHOPHYSIOLOGY AND TREATMENT	2R01 AM19646-03	89,964
CAMPBELL, JAMES N	NEUROPHYSIOLOGICAL AND PSYCHOPHYSICAL STUDIES OF PAIN	5R01 NS14447-02	71,895
CARAMAZZA, ALFONSO	COMPREHENSION DEFICITS IN THE APHASICS	5R01 NS14099-02	61,332
CARLSON, FRANCIS D	THE STRUCTURAL BASIS OF CELLULAR FUNCTION	5R01 AM12803-21	113,795
CEBRA, JOHN J	CELLULAR & HUMORAL BASES OF MUCOSAL IMMUNE RESPONSES	2R01 AI09652-10	163,429
CHANG, THOMAS S	SULFHYDRYL OXIDASE FROM THE MALE REPRODUCTIVE TRACT	1R01 HD12762-01	51,936
CHEN, CHUNG-HO	BIOCHEMICAL STUDIES OF PROLIFERATIVE RETINOPATHIES	5R01 EY01399-05	105,659
CHEN, LI-TSUN	MICROCIRCULATION OF HEMATOPOIETIC TISSUE	5R01 AM19535-02	64,625
CHILDS, BARTON	STUDIES IN HUMAN GENETICS	3R01 HD00486-23S1	35,577
CHILDS, BARTON	STUDIES IN HUMAN GENETICS	2R01 HD00486-24	135,900
CHOW, LIEN P	EPIDEMIOLOGICAL STUDY ON ORAL CONTRACEPTIVE AND STROKE	5R01 HD11536-02	86,463
COATES, THOMAS J	BEHAVIORAL MEDICINE FOR ADOLESCENT HYPERTENSION	1R23 HL24297-01	47,700
COFFEY, DONALD S	PROGRAMMATICAL STUDIES ON BENIGN PROSTATIC HYPERPLASIA	5P01 AM19300-04	471,013
COFFEY, DONALD S	REGULATION OF PROSTATIC GROWTH BY ANDROGENS	5R01 AM22000-08	95,673
COFFEY, DONALD S	CHEMOTHERAPEUTIC AGENTS AND PROSTATIC DNA SYNTHESIS	3R26 CA15416-05S1	8,947
COFFEY, DONALD S	CHEMOTHERAPEUTIC AGENTS AND PROSTATIC DNA SYNTHESIS	2R26 CA15416-06	127,305
COHEN, ALAN M	DIFFERENTIATION OF ADRENERGIC NEUROBLASTS IN VITRO	5R01 HD07389-05	67,213
COHEN, STEVEN R	IMMUNOCHEMICAL STUDY OF MYELINATION AND DEMYELINATION	5R01 NS14167-02	49,878
COLE, GERALD A	IMMUNOSUPPRESSION AND EXPERIMENTAL VIRAL INFECTION	2R01 NS11286-09	139,920
COLVIN, MICHAEL O	PHARMACOLOGY OF CYCLOPHOSPHAMIDE AND NITROSOUREAS	5R01 CA16783-06	105,271
COLVIN, MICHAEL O	SYNTHESIS OF METABOLICALLY ACTIVATED NITROSOUREAS	5R01 CA22691-02	84,574
COMSTOCK, GEORGE W	CANCER STUDIES IN WASHINGTON COUNTY, MD	1R01 CA24758-01	131,894
COMSTOCK, GEORGE W	RESPIRATORY EFFECTS OF HOUSEHOLD EXPOSURES	1R01 ES02157-01	26,418
CONE, RICHARD A	VISUAL EXCITATION ROLE OF VISUAL PIGMENT	3R01 EY00520-10S1	34,168
COYLE, JOSEPH T	HUNTINGTON'S CHOREA MODEL: STRIATAL LESION BY KAINATE	5R01 NS13584-03	36,638
CRAIG, SUSAN W	CELL SURFACE CONTROL OF LYMPHOCYTE PHYSIOLOGY	5R01 AI13700-03	52,539
CUTILLETIA, ANTHONY F	A STUDY OF THE REGULATION OF MYOCARDIAL HYPERTROPHY	5R01 HL23626-02	50,795
DE LONG, MAHLON R	MOTOR FUNCTIONS OF THE BASAL GANGLIA	1R01 NS15417-01	170,050
DE VOE, ROBERT D	ANALYSIS OF FLICKER RETINAL ACTION POTENTIALS	5R01 EY00008-17	65,924
DINTZIS, HOWARD M	REGULATION OF IMMUNITY AT THE MOLECULAR LEVEL	5R01 CA25043-02	106,404
DRACHMAN, DANIEL B	NERVE-MUSCLE INTERACTIONS IN DEVELOPMENT	5R01 HD04817-10	103,795
DROLLER, MICHAEL J	CELLULAR IMMUNE RESPONSE MECHANISMS IN BLADDER CANCER	5R26 CA24592-02	89,768
DURAND, RALPH E	SIMULATED TUMOR THERAPY WITH AN IN VITRO MODEL	2R01 CA23511-03	103,508
EDIDIN, MICHAEL A	CHEMISTRY & DEVELOPMENT OF TRANSPLANTATION ANTIGENS	5R01 AI14584-13	83,411
EDIDIN, MICHAEL A	GENETICS OF CELL ADHESION AND CLEFT PALATE FORMATION	5R01 DE04481-02	51,571
ENGLUND, PAUL T	STRUCTURE AND MECHANISM OF ACTION OF DNA POLYMERASE	5R01 CA13602-11	110,003
ENTWISLE, DORIS R	CAESAREAN SECTIONS: SOCIAL AND PSYCHOLOGICAL FACTORS	1R01 HD13103-01	39,564
EPSTEIN, MELVIN H	DEVELOPMENT OF A TOTALLY IMPLANTABLE PRESSURE TRANSDUCER	1R01 NS13610-01A1	66,807
EWING, LARRY L	REGULATION OF ANDROGEN SECRETION IN MAMMALIAN TESTES	5R01 HD07204-07	89,936
FARRELL, RICHARD A	LIGHT SCATTERING STUDIES OF OCULAR TISSUES	2R01 EY01019-07	88,947
FENSELAU, ALLAN H	CONTROL OF TUMOR-INDUCED VASCULARIZATION	5R01 CA15381-05	98,014

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
FENSELAU, CATHERINE C.....	NEW APPLICATIONS OF MASS SPECTROMETRY IN PHARMACOLOGY.....	5R01 GM21248-05	112,601
FINE, STUART L.....	SENILE MACULA-NATURAL COURSE; CLINICAL TRIAL (LASER).....	3R01 EY01900-01S3	82,659
FINE, STUART L.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02546-01	192,217
FINE, STUART L.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02556-01	90,674
FINKELSTEIN, DANIEL.....	STUDIES OF RETINITIS PIGMENTOSA.....	2R01 EY01791-04	95,860
FINKELSTEIN, DANIEL.....	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY: COORD. CTR.....	5R10 EY02466-02	230,844
FINKELSTEIN, DANIEL.....	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY.....	5R10 EY02469-02	132,185
FLOWER, ROBERT W.....	PROTAGLANDINS IN PREMATURE INFANT VASCULAR PHYSIOLOGY.....	5R01 EY02482-02	101,808
FREED, JOHN H.....	STRUCTURAL STUDIES OF THE PRODUCTS OF THE H-2 COMPLEX.....	2R01 CA20820-04	164,635
FREEDBERG, IRWIN M.....	STUDIES OF EPIDERMAL MACROMOLECULAR METABOLISM.....	5R01 AM21358-03	199,495
FRIEDMAN, MORTON H.....	CORRELATION OF ARTERIAL HEMODYNAMICS AND MORPHOLOGY.....	5R01 HL21270-02	97,799
GADACZ, THOMAS R.....	BILE COMPOSITION IN POST-OPERATIVE REFLUX GASTRITIS.....	1R01 AM21835-01	77,203
GAFFNEY, BETTY J.....	SPIN-LABELING RECEPTORS ON NORMAL AND MALIGNANT CELLS.....	5R01 CA15997-06	49,225
GANN, DONALD S.....	HORMONAL AND CARDIOVASCULAR RESPONSE TO TRAUMA.....	5R01 GM23145-03	150,300
GIBSON, D WADE.....	HERPES VIRUS PROTEIN SYNTHESIS AND VIRION ASSEMBLY.....	5R01 AI13718-03	71,500
GOPALAKRISHNAN, T V.....	CYTOPLASMIC CONTROL OF DIFFERENTIATED FUNCTIONS.....	1R01 HD13316-01	96,581
GORDIS, LEON.....	EPIDEMIOLOGY OF CONGENITAL DIGESTIVE DEFECTS: MEGACOLON.....	5R01 AM18407-03	76,964
GORDIS, LEON.....	ENVIRONMENTAL EPIDEMIOLOGIC STUDY OF PANCREATIC CANCER.....	5R26 CA21642-03	24,897
GOTT, VINCENT L.....	PROTECTION OF THE MYOCARDIUM DURING CARDIAC SURGERY.....	2R01 HL19414-04	214,933
GRAHAM, GEORGE G.....	ROLE OF STAPLE FOODS IN INFANT NUTRITION.....	2R22 HD10111-04	126,198
GRAVES, IRVING L.....	INFLUENZA IN WILD SWANS AND GEESE.....	5R01 AI13048-03	73,789
GRIFFIN, JOHN W.....	AXONAL TRANSPORT IN MODELS OF NEUROFILAMENTOUS PATHOLOGY.....	5R01 NS14784-02	32,690
GROSSMAN, LAWRENCE.....	ENZYMATIC EXCISION AND REPAIR MECHANISM STUDIES.....	2R01 GM22846-05	108,489
HANKS, JOHN H.....	ENERGETICS AND CULTIVATION OF M. LEPRAE.....	5R22 AI14442-03	128,029
HARRINGTON, WILLIAM F.....	BIOPHYSICAL CHEMICAL STUDIES OF MUSCLE PROTEINS.....	5R01 AM04349-20	227,557
HARRIS, ALAN H.....	CIRCULATORY EFFECTS OF OPERANT CARDIOVASCULAR CONTROL.....	5R01 HL17958-05	83,422
HARTMAN, PHILIP E.....	DETECTION SYSTEM FOR MUTAGENS & CARCINOGENS.....	1R01 CA26328-01	98,588
HAYWARD, GARY S.....	STRUCTURAL ORGANIZATION OF HERPES VIRUS DNA MOLECULES.....	5R01 CA22130-03	84,189
HELSEING, KNUD J.....	FACTORS ASSOCIATED WITH MORTALITY AFTER WIDOWHOOD.....	5R01 AG00940-02	54,911
HELTNE, PAUL G.....	LONG TERM CAPTIVE REPRODUCTION OF AOTUS TRIRGATUS.....	5P40 RR01172-02	69,811
HENDERSON, D A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S57 RR05445-18	201,413
HEPTINSTALL, ROBERT H.....	EXPERIMENTAL HYPERTENSION AND RENAL CIRCULATION.....	5R01 HL07835-18	173,346
HEPTINSTALL, ROBERT H.....	GENESIS OF ATHEROSCLEROTIC LESIONS.....	5R01 HL18473-05	66,658
HERRIOTT, ROGER M.....	PYROLYTIC PRODUCTS OF PROTEINOUS FOODS AS MUTAGENS.....	1R01 CA25167-01	44,319
HILLIS, ARGYE.....	MACULAR PHOTOCOAGULATION STUDY COORDINATING CENTER.....	1R10 EY02547-01	131,940
HIRST, LAWRENCE W.....	ASSESSMENT OF CORNEAL ENDOTHELIUM IN VIVO.....	5R01 EY02476-02	79,656
HOCHHEIMER, BERNARD F.....	STUDIES OF ANGIOGRAPHIC DYES.....	5R01 EY01763-03	59,990
HOLLIS, DONALD P.....	NMR STUDY OF ENZYME-SUBSTRATE INTERACTIONS.....	2R01 GM17172-11	87,646
HOLLIS, DONALD P.....	PHOSPHORUS NUCLEAR MAGNETIC RESONANCE ON CARDIAC TISSUE.....	5R01 HL22080-02	67,351
HUANG, P C.....	GENETIC STUDIES OF HUMAN CHROMOSOMAL DISEASES.....	5R01 ES01596-03	112,732
HUANG, RU-CHIH C.....	CONTROL OF MYELOMA TUMOR GROWTH.....	5R01 CA13953-07	151,562
HUGHES, WALTER T.....	HABITAT & TRANSMISSION OF PNEUMOCYSTIS CARINI.....	5R01 AI14769-02	75,186
HUMPHREY, RICHARD L.....	614C ARGININE PULSE LABELING OF PLASMA CELL NEOPLASMS.....	1R01 CA24698-01	81,939
HUNGERFORD, DAVID S.....	ISCHEMIC NECROSIS OF BONE: CLINICAL-LABORATORY STUDY.....	5R01 AM20798-02	175,204
HUNT, RICHARD K.....	CELLULAR MECHANISMS IN NEURONAL SPECIFICITY & PLASTICITY.....	5R01 NS14807-02	78,371
HUTCHINS, GROVER M.....	SYMBOLIC LOGIC ANALYSIS OF CONGENITAL HEART DISEASE.....	5R01 HL22963-02	26,047
ISHIZAKA, KIMISHIGE.....	RELATION OF GAMMA GLOBULIN STRUCTURE TO HYPERSENSITIVITY.....	2R01 AI10060-10	155,735
ISHIZAKA, KIMISHIGE.....	REGULATION OF REAGINIC ANTIBODY RESPONSE.....	5R01 AI11202-07	145,546
ISHIZAKA, KIMISHIGE.....	ONTOGENY AND DIFFERENTIATION OF IGE-B LYMPHOCYTES.....	5R01 AI14784-02	71,820
JACOBUS, WILLIAM E.....	MYOCARDIAL ENERGY TRANSPORT-CREATINE KINASE.....	5R01 HL20658-02	59,515
JAKAB, GEORGE J.....	BRONCHOPULMONARY RESISTANCE TO BACTERIAL INFECTION.....	5R01 HL22029-03	54,604
JOHNS, RICHARD J.....	A NEUROSENSORY INTERDISCIPLINARY RESEARCH PROGRAM.....	5P01 NS07226-10	259,749
KANTNER, JOHN F.....	POPULATION STUDIES.....	5P30 HD06268-07	273,945
KAZAZIAN, HAIG H, JR.....	THE GENETIC CONTROL OF HEMOGLOBIN SYNTHESIS.....	5R01 AM13983-10	159,512
KETNER, GARY W.....	TRANSFORMATION AND GENE REGULATION BY ADENOVIRUSES.....	5R01 CA21309-03	52,683
KIDD, LANGFORD.....	BEHAVIORAL APPROACHES TO ADOLESCENT HYPERTENSION.....	5R01 HL22934-02	166,695
KING, WILLIAM M.....	THE OCULOMOTOR SYSTEM: NEURAL STRUCTURE AND FUNCTION.....	1R01 EY02717-01	120,197
KOWARSKI, AVINOAM.....	PRODUCTION RATE AND CONCENTRATION OF HORMONES.....	5R01 HD06284-08	74,025
KRAG, SHARON S.....	MUTANTS ALTERED IN GLYCOSYLATION OF MEMBRANE PROTEINS.....	5R01 CA20421-03	64,119
LANE, M DANIEL.....	CARBOXYLASE ACTIVATION AND CONTROL OF LIPID SYNTHESIS.....	5R01 AM14574-10	81,898

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
LANE, M DANIEL.....	MECHANISMS OF ACTIONS OF REGULATORY ENZYMES.....	5R01 AM14575-11	133,598
LANGHAM, MAURICE E.....	ADRENERGIC PHYSIOLOGY OF THE EYE.....	3R01 EY01352-05S1	48,867
LATTMAN, EATON E.....	X-RAY DIFFRACTION STUDIES OF POLYOMA AND SV-40 VIRUS.....	1R01 AI14820-01A1	56,057
LEE, YUAN C.....	CHEMISTRY AND BIOCHEMISTRY OF GLYCOCONJUGATES.....	5R01 AM09970-14	98,196
LEHNINGER, ALBERT L.....	RESPIRATION-COUPLED TRANSPORT PROCESSES IN TUMOR CELLS.....	1R01 CA25360-01	215,126
LEHNINGER, ALBERT L.....	ENERGY-COUPLED PROCESSES IN MITOCHONDRIA.....	2R01 GM05919-21	240,885
LENHARD, RAYMOND E, JR.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA16116-06	60,501
LENHARD, RAYMOND E, JR.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA17970-04A1	198,816
LENHARD, RAYMOND E, JR.....	EXPLORATORY STUDIES OF CANCER PATIENT DATA CONTROL.....	5R10 CA21188-03	124,853
LENNARZ, WILLIAM J.....	LIPID CARRIERS IN MEMBRANE GLYCOPROTEIN SYNTHESIS.....	5R01 GM21451-05	66,854
LENNARZ, WILLIAM J.....	ENZYMATIC CONVERSION OF PROTEINS TO GLYCOPROTEINS.....	5R01 GM24821-02	83,866
LENNARZ, WILLIAM J.....	PLASMA MEMBRANE CHANGES IN FERTILIZATION AND DEVELOPMENT.....	5R01 HD08357-05	104,773
LENNARZ, WILLIAM J.....	GLYCOPROTEIN SYNTHESIS DURING EMBRYONIC DEVELOPMENT.....	1R01 HD12718-01	96,099
LEVENTHAL, BRIGID G.....	CANCER AND LEUKEMIA GROUP B.....	3R10 CA21971-02S1	44,379
LEVIN, JACK.....	BLOOD COAGULATION AND HEMORRHAGIC DISEASE.....	5R01 HL01601-31	136,045
LEVIN, LESLIE S.....	HETEROGENEITY IN OSTEOGENESIS IMPERFECTA.....	1R01 AM25869-01	64,671
LICHTENSTEIN, LAWRENCE M.....	IN VITRO STUDIES OF HUMAN ANAPHYLAXIS.....	5R01 AI07290-14	147,313
LICHTENSTEIN, LAWRENCE M.....	AN IN VITRO APPROACH TO PROBLEMS OF CLINICAL ALLERGY.....	5R01 AI08270-12	200,850
LICHTENSTEIN, LAWRENCE M.....	PHARMACOLOGIC CONTROL OF HYPERSENSITIVITY PHENOMENA.....	5R01 HL23586-07	130,530
LIETMAN, PAUL S.....	ANTIBIOTIC TOXICITY: BIOCHEMICAL & CLINICAL PHARMACOLOGY.....	1R01 GM26902-01	161,398
LILJENFELD, ABRAHAM M.....	FAMILIAL AGGREGATION OF INFLAMMATORY BOWEL DISEASE.....	5R01 AM20467-02	325,672
LIN, DIANE C.....	THE ROLE OF CONTRACTILE PROTEINS IN ERYTHROCYTE AGING.....	5R23 AG00993-02	45,300
LIN, SHIN.....	MOLECULAR BASIS OF ACTION OF CYTOCHALASIN B.....	5R01 GM22289-05	73,732
LITTLEFIELD, JOHN W.....	HYBRIDIZATION, DNA FUNCTION, MUTATION IN CELL CULTURE.....	5R01 CA16754-06	241,619
LOVE, WARNER E.....	X-RAY STRUCTURE ANALYSIS OF BIOLOGICAL MOLECULES.....	5R01 AM02528-21	75,079
LOVE, WARNER E.....	X-RAY CRYSTAL STRUCTURE OF HB S AND OTHER MUTANT HB'S.....	2R01 AM16446-07	120,558
MACLEAN, WILLIAM C, JR.....	LACTOSE DIGESTION IN INFANTS AND CHILDREN.....	5R01 HD11172-02	54,014
MALONEY, PETER C.....	ION GRADIENTS AND ENERGY COUPLING IN BACTERIA.....	5R01 GM24195-03	62,821
MARGOLIS, SIMEON.....	ACUTE EFFECTS OF DIETARY FAT AND CHOLESTEROL ON HDL.....	1R01 HL24715-01	63,441
MARSH, DAVID G.....	GENETICS OF IMMUNE RESPONSE IN MAN.....	3P01 AI13370-03S1	122,983
MARZILLI, LUIGI G.....	STRUCTURE OF NUCLEIC ACID AND NUCLEOTIDE METAL SPECIES.....	5R01 GM20544-05	104,473
MARZILLI, LUIGI G.....	METAL COMPLEXES AS MULTIFUNCTIONAL CATALYSTS.....	1R01 GM25906-01	59,464
MASSOF, ROBERT W.....	STUDIES OF VISUAL FUNCTION IN THE PERIPHERAL RETINA.....	1R01 EY02952-01	46,025
MAUMENEE, IRENE H.....	GENETICS IN OPHTHALMOLOGY.....	5R01 EY01773-04	125,470
MAYER, MANFRED M.....	MECHANISM OF CYTOLYSIS BY COMPLEMENT.....	5R01 AI02566-21	154,650
MAYER, MANFRED M.....	BIOCHEMICAL STUDIES OF LYMPHOKINES AND RELATED AGENTS.....	5R01 CA24441-05	105,991
MC HUGH, PAUL R.....	HYPOTHALAMUS IN FEEDING BEHAVIOR.....	5R01 AM19302-05	78,451
MC INTYRE, PATRICIA A.....	STUDIES OF PLATELET KINETICS IN MAN USING INDIUM-113.....	5R01 AM20812-02	64,319
MC KHANN, GUY M.....	DEVELOPMENT AND REGENERATION IN THE NERVOUS SYSTEM.....	5P01 NS10920-07	854,432
MC MACKEN, ROGER L.....	ENZYMOLGY OF THE REPLICATION OF LAMBDA DNA IN VITRO.....	5R01 GM24282-02	70,245
MENKES, HAROLD A.....	LUNG CENTER SUPPORT—CHRONIC DISEASES OF AIRWAYS.....	5P50 HL14153-08	1,041,615
MIGEON, BARBARA R.....	GENETIC STUDIES OF HUMAN SOMATIC CELLS.....	5R01 HD05465-09	165,487
MIGEON, CLAUDE J.....	RELATION OF HORMONES TO GROWTH AND DEVELOPMENT.....	5R01 AM00180-28	123,311
MILLER, NEIL R.....	CLINICAL INVESTIGATIONS IN OCULAR MOTILITY DISORDERS.....	5R01 EY02272-02	51,680
MILLER, PAUL S.....	NUCLEIC ACID ANALOGS AS SUBSTRATES FOR DNA SYNTHESIS.....	1R01 GM25795-01	47,210
MILMAN, GREGORY.....	BIOCHEMISTRY OF MUTATION IN HUMAN CELLS.....	5R01 CA21650-04	113,229
MILNOR, WILLIAM R.....	DYNAMICS OF PULSATILE BLOOD FLOW.....	5R01 HL12607-11	72,500
MOLLIVER, MARK E.....	ONTOGENESIS OF MONAMINE PROJECTIONS TO CORTEX.....	2R01 NS08153-07A3	81,616
MOLLIVER, MARK E.....	ORGANIZATION OF NEOCORTICAL NORADRENERGIC INNERVATION.....	1R01 NS15199-01	105,889
MONEY, JOHN.....	LONGITUDINAL AND RELATED PSYCHOHORMONAL STUDIES.....	3R01 HD00325-22S1	9,880
MONEY, JOHN.....	LONGITUDINAL AND RELATED PSYCHOHORMONAL STUDIES.....	2R01 HD00325-23	203,570
MONJAN, ANDREW A.....	STRESS, IMMUNITY AND DISEASE.....	1R01 AI15626-01	117,055
MORROW, JOHN F.....	EUKARYOTIC GENE ISOLATION AND EXPRESSION.....	5R01 GM26557-02	115,429
MOUDRIANAKIS, EVANGELOS N.....	ENZYMOLGY OF MITOCHONDRIAL ATP SYNTHESIS.....	1R01 GM25683-01	96,369
MOUNTCASTLE, VERNON B.....	THE NEOCORTIX AND HIGHER CEREBRAL FUNCTIONS.....	1R01 EY03167-01	218,599
MOXON, E RICHARD.....	THE STUDY OF HEMOPHILUS INFLUENZAE-INDUCED CNS INJURY.....	5R01 NS12554-05	66,387
MURPHY, DOUGLAS B.....	THE MOLECULAR MECHANISM OF INTRACELLULAR MOTILITY.....	5R01 GM26155-02	60,626
MURPHY, EDMOND A.....	GENETIC FACTORS IN LENGTH OF LIFE.....	1R01 AG01334-01	67,986
MURPHY, EDMOND A.....	INVESTIGATIONS OF THE MARFAN SYNDROME.....	1R01 AM23066-01	69,178
MURPHY, EDMOND A.....	THEORETICAL ASPECTS OF CLINICAL GENETICS.....	5R01 GM24736-02	86,328

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
MURPHY, PATRICK A.....	CHEMISTRY AND PHYSIOLOGY OF LEUKOCYTE PYROGEN.....	5R01 AI03772-19	96,984
NAGER, GEORGE T.....	A HISTOPATHOLOGIC STUDY OF HUMAN TEMPORAL BONES.....	5R01 NS02182-20	77,492
NARAYAN, OPENDRA.....	PATHOGENESIS OF VISNA, A SLOW DEMYELINATING DISEASE.....	5R01 NS12127-05	109,901
NATHANS, DANIEL.....	MOLECULAR BIOLOGY OF VIRAL TUMORIGENESIS.....	5P01 CA16519-05	785,327
NATHANSON, CONSTANCE A.....	ORGANIZATION AND PRACTICE OF ABORTION IN MARYLAND.....	5R01 HD09269-05	79,551
NICKON, ALEX.....	DOMED FUNCTIONAL GROUPS.....	2R01 GM06304-17A1	105,380
NORMAN, PHILIP S.....	A STUDY OF ALLERGY TO RAGWEED POLLEN.....	5R01 AI04866-17	91,301
NORMAN, PHILIP S.....	CLINICAL CENTER FOR ALLERGIC DISEASES.....	3P50 AI10304-08S1	28,835
NORMAN, PHILIP S.....	CLINICAL CENTER FOR ALLERGIC DISEASES.....	5P50 AI10304-09	228,104
OLIVE, PEGGY L.....	ACTIVATION AND REACTIVITY OF NITROHETEROCYCLES.....	5R01 CA24519-02	42,910
ORDER, STANLEY E.....	AN EXPERIMENTAL MULTIMODALITY PROGRAM IN OVARIAN CANCER.....	1P01 CA25905-01	136,300
OWENS, ALBERT H, JR.....	REGIONAL ONCOLOGY RESEARCH CENTER.....	3P30 CA06973-16S1	669,288
OWENS, ALBERT H, JR.....	REGIONAL ONCOLOGY RESEARCH CENTER.....	5P30 CA06973-17	2,079,369
PATZ, ARNALL.....	DEVELOPMENT OF MICROANGIOPATHY IN JUVENILE DIABETES.....	5R01 HL10342-18	159,684
PATZ, ARNALL.....	RETINA AND RETINAL VESSELS.....	5R01 EY00205-19	155,737
PATZ, ARNALL.....	CORE CENTER GRANT: WILMER OPHTHALMOLOGICAL INSTITUTE.....	2P30 EY01765-04	419,451
PATZ, ARNALL.....	DIABETIC RETINOPATHY: INHIBITION OF NEOVASCULARIZATION.....	5R01 EY02603-02	126,758
PATZ, ARNALL.....	ROLE OF SYSTEMIC HYPERTENSION ON DIABETIC RETINOPATHY.....	2R01 HL20455-04	227,801
PEDERSEN, PETER L.....	CONTROL OF ENZYMIC PHOSPHATE TRANSFER IN MITOCHONDRIA.....	2R01 CA10951-12	77,138
PERMUTT, SOLBERT.....	THE INTEGRATED FUNCTION OF RESPIRATION AND CIRCULATION.....	5P01 HL10342-14	677,178
PIERCE, NATHANIEL F.....	STUDIES OF INFECTIOUS DIARRHEAL DISEASES.....	5P01 AI14480-02	355,100
PIGIET, VINCENT P, JR.....	BASIS FOR REGULATION OF RIBONUCLEOTIDE REDUCTASE.....	2R01 GM20122-07	84,798
PIGIET, VINCENT P, JR.....	IN VITRO RECONSTITUTION OF POLYOMA DNA REPLICATION.....	5R01 GM23813-02	58,981
PITHA, PAULA M.....	HUMAN INTERFERON—MECHANISM OF INDUCTION AND ACTION.....	5R01 AI10944-07	92,630
PITHA, PAULA M.....	ANTITUMOR EFFECT OF INTERFERON.....	2R01 CA19061-04	67,269
PLAUT, MARSHALL.....	HISTAMINE IN MODULATION OF CELL-MEDIATED IMMUNITY.....	5R01 AI12810-05	46,579
POGGIO, GIAN F.....	BINOCULAR VISION AND DEPTH PERCEPTION.....	1R01 EY02966-01	140,882
POLIAK, ROBERTO J.....	STRUCTURE OF IMMUNOGLOBULINS.....	5R01 AI08202-12	201,207
POLLARD, THOMAS D.....	ACTOMYOSIN-MICROTUBULE INTERACTIONS IN CELL DIVISION.....	5R01 GM26132-02	84,924
POLLARD, THOMAS D.....	THE MOLECULAR MECHANISM OF CELLULAR MOTILITY.....	5R01 GM26338-02	105,003
PRICE, DONALD L.....	DISEASES OF MOTOR NEURONS.....	2R01 NS10580-05	92,127
PROCTOR, LEONARD R.....	CLINICAL APPLICATION OF NEUTRAL CALORIC TEST.....	5R01 NS13780-03	63,900
PROVOST, THOMAS T.....	IMMUNOLOGIC STUDIES IN CUTANEOUS LUPUS.....	3R01 AM25650-01S1	33,863
PROVOST, THOMAS T.....	IMMUNOLOGIC STUDIES IN CUTANEOUS LUPUS.....	5R01 AM25650-02	63,554
QUIGLEY, HARRY A.....	THE PATHOGENESIS OF GLAUCOMATOUS OPTIC NERVE DAMAGE.....	5R01 EY02120-03	70,472
RICHARDS, JAMES M, JR.....	EARLY FERTILITY, FAMILY FORMATION, EDUCATION, & WORK.....	1R01 HD13471-01	97,580
ROBINSON, CECIL H.....	STERIODS WITH CYTOTOXIC EFFECTS ON THE PROSTATE.....	5R26 CA16418-06	72,824
ROBINSON, CECIL H.....	SELECTIVE INHIBITORS OF PLACENTAL STEROID AROMATASE.....	5R01 HD11840-02	53,855
ROBINSON, DAVID A.....	STUDY OF OCULOMOTOR CONTROL SYSTEM.....	2R01 EY00598-11	121,659
ROGERS, MARK C.....	SYMPATHETIC CONTROL OF HYPERGLYCEMIA AFTER HEMORRHAGE.....	1R23 GM25790-01	45,300
ROSEMAN, SAUL.....	STUDIES OF NORMAL AND MALIGNANT CELL MEMBRANES.....	5P01 CA21901-03	638,919
ROSS, RICHARD S.....	GENERAL CLINICAL RESEARCH CENTER SUPPORT.....	5M01 RR00035-19	1,158,565
ROSS, RICHARD S.....	GENERAL CLINICAL RESEARCH CENTER SUPPORT.....	5M01 RR00052-18	567,264
ROSS, RICHARD S.....	GENERAL CLINICAL RESEARCH CENTER SUPPORT.....	5M01 RR00722-07	242,902
ROSS, RICHARD S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05378-18	201,413
ROTH, STEPHEN A.....	SURFACE ENZYMES ON MALIGNANT AND NONMALIGNANT CELLS.....	3R01 CA10827-03S1	7,837
ROTH, STEPHEN A.....	MORPHOGENESIS IN EMBRYONIC AND PATHOLOGICAL SYSTEMS.....	2R01 HD05297-09	91,339
RUBIN, ROBERT J.....	CHEMICAL AND BIOLOGICAL DETERMINANTS OF TOXICITY.....	2P01 ES00454-11	1,036,073
SACHS, MURRAY B.....	STIMULUS ENCODING IN THE AUDITORY SYSTEM.....	5R01 NS12112-05	143,536
SACK, GEORGE H, JR.....	GENETICS OF SV40 VIRAL TRANSFORMATION OF HUMAN CELLS.....	5R01 CA20619-03	88,720
SACK, R BRADLEY.....	SUPPORT FOR INTERNATIONAL CENTER FOR MEDICAL RESEARCH.....	5R07 AI10048-19	413,723
SAFFRAN, ELEANOR M.....	READING MECHANISMS IN PHONEMIC DYSLIXICS AND NORMALS.....	5R01 NS13992-03	48,601
SAGAWA, KIICHI.....	SYSTEMS ANALYSIS OF BARORECEPTOR REFLEX.....	2R01 HL14529-08	73,489
SAGAWA, KIICHI.....	A NEW INDEX OF CARDIAC CONTRACTILITY.....	3R01 HL14903-07S1	12,763
SAGAWA, KIICHI.....	MECHANICS OF CARDIAC CHAMBER CONTRACTION.....	2R01 HL14903-08	154,621
SAGAWA, KIICHI.....	MECHANICS OF HEART MUSCLE CONTRACTION.....	5R01 HL18912-04	49,154
SAGAWA, KIICHI.....	MULTIPLE MARKER BIPLANE CINEVENTRICULOGRAMMETRY.....	1R01 HL24357-01	104,221
SANNES, PHILIP L.....	INFLUENCES ON THE DEVELOPMENT OF LUNG EPITHELIUM.....	1R01 HL24748-01	37,943
SANTOS, GEORGE W.....	BONE MARROW TRANSPLANTATION IN HUMAN DISEASE.....	2P01 CA15396-07	1,151,369
SASTRE, ANTONIO.....	NEURAL CONTROL OF THE HEART: AN IN VITRO MODEL.....	1R01 HL22675-01A1	89,656

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
SCHRAMM, LAWRENCE P.	ANALYSIS OF INTERACTION BETWEEN CNS VASOMOTOR SYSTEMS	5R01 HL16315-06	78,532
SCHUETZ, ALLEN W.	OOCYTE GROWTH, MATURATION AND ACTIVATION	5R01 HD07041-04	71,010
SCHWARTZ, MYRNA F.	SEMANTIC MEMORY LOSS IN DEMENTIA	5R01 AG01152-02	29,413
SCOTT, WILLIAM W.	CHEMOTHERAPY OF PROSTATIC CANCER	3R26 CA15407-05S1	21,936
SCOTT, WILLIAM W.	CHEMOTHERAPY OF PROSTATIC CANCER	2R26 CA15407-06	65,810
SENSENBRENNER, LYLE L.	THYMIC MODIFICATION OF LEUKEMOGENESIS	5R01 CA22735-02	84,555
SENSENBRENNER, LYLE L.	INFLUENCE OF NUTRITION AFTER CANCER THERAPY	1R01 CA26606-01	90,463
SHAH, KEERTI V.	INVESTIGATION OF SV40-RELATED INFECTIONS OF MAN	5R01 CA13478-08	134,390
SHANE, BARRY	REGULATION OF FOLATE POLY-Y GLUTAMATE SYNTHESIS	5R01 CA22717-02	55,540
SHEARN, ALLEN D.	MUTATIONAL DISSECTION OF IMAGINAL DISC DEVELOPMENT	1R01 AG01822-01	71,254
SHEARN, ALLEN D.	DETERMINATION AND TRANSDETERMINATION IN DROSOPHILA	5R01 GM20429-06	92,198
SHIN, HYUN S.	TUMOR DEFENSE BY PLATELETS AND MACROPHAGES	5R01 CA14113-07	131,484
SHOUKAS, ARTIN A.	CIRCULATION STUDIES BY ONE VERSUS TWO CIRCUIT MODEL	3R01 HL19039-03S1	4,965
SILVERSTEIN, ARTHUR M.	PATHOGENESIS OF UVEITIS	5R01 EY00212-06	70,082
SILVERSTEIN, ARTHUR M.	THE PATHOBIOLOGY OF THE CORNEA	5R01 EY02650-02	146,906
SMITH, KIRBY D.	QUANTITATIVE GENETIC CONTROL OF PROTEIN SYNTHESIS	5R01 HL15026-13	62,143
SOFER, WILLIAM H.	ENVIRONMENTAL MUTAGENS: THEIR MECHANISMS OF ACTION	5R01 ES01527-03	62,584
SOFER, WILLIAM H.	A SYSTEM FOR ANALYSIS OF GENE CONTROL IN DROSOPHILA	5R01 GM18254-08	104,663
SOUTHWICK, CHARLES H.	PRIMATE POPULATION STUDIES	5R24 RR00910-06	4,099
SPIVAK, JERRY L.	ROLE OF ERYTHROPOIETIN IN TRANSCRIPTIONAL CONTROL	2R01 AM16702-07	87,775
SPIVAK, JERRY L.	PURIFICATION OF ERYTHROPOIETIN	5R01 HL21692-03	14,429
SQUIRE, ROBERT A.	INHIBITION OF BLADDER CARCINOGENESIS BY RETINOIC ACID	1R26 CA23789-01A1	136,235
STAAL, STEPHEN P.	LEUKEMOGENESIS IN AKR MICE	1R01 CA26089-01	82,451
STARK, WALTER J.	HISTOCOMPATIBILITY (HLA) ANTIGENS IN KERATOPLASTY	3R01 EY01302-04S1	151,452
STARK, WILLIAM S.	NORMAL AND ANOMALOUS VISUAL RECEPTOR FUNCTION	1R01 EY02487-01A1	35,276
STEVENS, MARY B.	MULTIPURPOSE ARTHRITIS CENTER SUPPORT	5P60 AM20558-03	183,026
STRANDBERG, JOHN D.	ANIMAL RESOURCE FOR BIOMEDICAL RESEARCH	5P40 RR00130-16	222,358
SUN, TUNG-TIEN	CELLULAR AND MOLECULAR BASIS OF EPIDERMAL DISEASE	1R01 AM25140-01	74,058
SUN, TUNG-TIEN	STUDIES OF CORNEAL EPITHELIAL DIFFERENTIATION	3R01 EY02472-01S1	6,007
SUN, TUNG-TIEN	STUDIES OF CORNEAL EPITHELIAL DIFFERENTIATION	5R01 EY02472-02	88,200
SUSKIND, SIGMUND R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07041-14	151,686
SWIFT, DAVID L.	RESPIRATORY TRACT DEPOSITION OF HYGROSCOPIC AEROSOLS	5R01 HL19715-03	108,016
SZKLO, MOYSES	EPIDEMIOLOGY OF APLASTIC ANEMIA IN BALTIMORE	1R01 CA24757-01	193,179
SZKLO, MOYSES	EPIDEMIOLOGIC AND HLA STUDY OF LEUKEMIA	1R01 CA26500-01	220,072
TALALAY, PAUL	BIOCHEMICAL PHARMACOLOGY OF STEROID HORMONES	5R01 AM07422-16	115,418
TALALAY, PAUL	DESIGN OF CHEMOTHERAPEUTIC AGENTS	5P01 GM16492-11	378,990
TALAMO, BARBARA R.	NEURONAL MODULATION OF DIFFERENTIATION AND FUNCTION	2R01 NS12839-04	89,361
TALAMO, RICHARD C.	CYSTIC FIBROSIS AND BRONCHIOLITIS	5P50 HL19157-03	366,583
TENNEKON, GIHAN	CEREBROSIDE SULFOTRANSFERASE: ROLE IN MYELINATION	5R01 NS14670-02	85,241
THOMAS, CAROLINE B.	PERSONAL PATTERNS PREDICTIVE OF DISEASE OR DEATH	1R01 AG01760-01	59,574
TORGERSOHN, WARREN S.	STRUCTURE OF PERCEIVED PAIN AND PAIN PATIENT TYPOLOGY	5R01 GM24398-03	49,836
TOWNSEND, CRAIG A.	BIOSYNTHESIS OF B-LACTAM ANTIBIOTICS	5R01 AI14937-02	42,409
TOWNSEND, CRAIG A.	BIOSYNTHESIS OF AFLATOXIN	5R01 ES01670-02	48,343
TRIPS, MILAN	GENETICS OF FILARIAL INFECTION IN MOSQUITOES	5R22 AI14520-02	56,328
TS'O, PAUL O.	INTERRELATIONSHIP BETWEEN AGING AND CARCINOGENESIS	1R01 AG01998-01	120,402
TS'O, PAUL O.	BIOMEDICAL RISKS CAUSED BY NUCLEIC ACID PERTURBATION	2P01 CA16043-04	293,225
TS'O, PAUL O.	ESR STUDY ON HYDROCARBON RADICALS AND CARCINOGENESIS	5R01 ES01659-07	82,747
TS'O, PAUL O.	NUCLEIC ACID CHEMISTRY AND ITS BIOMEDICAL APPLICATION	5R01 GM16066-12	184,400
TS'O, PAUL O.	NMR BIOMEDICAL RESEARCH CENTER	1P41 GM27512-01	170,551
TSAN, MIN-FU	STUDY OF NEUTROPHIL METABOLISM AND FUNCTION	2R01 AI13004-04	63,044
TSAN, MIN-FU	STUDY OF GALLIUM ACCUMULATION IN INFLAMMATORY LESIONS	1R01 AI15431-01	41,001
TSONG, TIAN Y.	CALORIMETRIC STUDY OF PROTEIN SELF-ASSEMBLING	1R01 GM24077-01A1	47,234
TSONG, TIAN Y.	DYNAMICS OF SYNTHETIC AND BIOLOGICAL MEMBRANES	5R01 HL18048-05	89,174
TUCKER, ROBERT W.	CENTROSOME IN NEOPLASTIC AND NONNEOPLASTIC CELLS	1R01 GM27938-01	87,335
VALENTINE, MARTIN D.	TREATMENT OF INSECT STING ALLERGY IN CHILDREN	1R01 AI15443-01	106,737
VALLE, DAVID L.	MAMMALIAN PROLINE METABOLISM	5R01 AM20328-03	33,063
VALLE, DAVID L.	GYRATE ATROPHY: TREATMENT AND PATHOPHYSIOLOGY	1R01 EY02948-01	128,194
WAGNER, HENRY N, JR.	NUCLEAR INSTRUMENTATION AND CHEMISTRY IN MEDICINE	5P01 GM10548-17	270,125
WAGNER, HENRY N, JR.	EVALUATION OF CARDIAC FUNCTION WITH RADIOACTIVE TRACERS	5R01 HL20674-03	92,982
WAGNER, HENRY N, JR.	PROGRAM FOR STUDY OF NEURORECEPTOR BINDING IN MAN	1P01 NS15080-01	1,426,339

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
WALKER, DONALD G.	STUDIES OF OSTEOPETROSIS AND ISOLATED OSTEOCLASTS	5R01 AM12491-11	111,929
WALKER, W. GORDON	FACTORS REGULATING ELECTROLYTE EXCRETION BY THE KIDNEY	2R01 HL03303-22A1	125,454
WALSER, MACKENZIE	AMINO ACID ANALOGUES IN NUTRITION	5P01 AM18020-06	335,511
WALSH, PATRICK C.	STUDIES OF STEROID RECEPTORS IN PROSTATIC CARCINOMA	5R26 CA16924-06	95,878
WALSH, PATRICK C.	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER	1R26 CA25881-01	37,658
WANG, SHIH Y.	CHEMICAL ANALYSIS OF NON-DIMERIC UV DAMAGE IN DNA	5R01 GM24238-02	59,869
WARR, GLENN A.	PHAGOCYTIC AND IMMUNE DEFENSE MECHANISMS OF THE LUNG	5R23 HL22823-02	45,757
WEILAND, ANDREW J.	CANCER INFLUENCING SURVIVAL OF VASCULARIZED BONE GRAFT	1R01 AM25791-01	137,010
WEISFELD, MYRON L.	STUDY OF ISCHEMIC HEART DISEASE	5P50 HL17655-05	1,291,776
WEISS, JAMES L.	ECHO CHANGES IN WALL MOTION WITH MYOCARDIAL ISCHEMIA	2R01 HL19232-04	180,845
WHITE, EMIL H.	CANCER AND ANTICANCER ACTIVITY OF NITROSO	5R01 CA18387-03	29,315
WHITE, EMIL H.	CHEMI- & BIOLUMINESCENCE	5R01 GM19488-22	74,507
WHITE, EMIL H.	ENZYME ACTIVE SITE MAPPING UTILIZING CARBONIUM IONS	2R01 GM21450-04A1	68,933
WHITE, ROBERT I., JR.	NON-OCCLUSIVE MESENTERIC ISCHEMIA	1R01 AM20185-01A1	110,113
WIGGINS, JAMES W.	ELECTRON MICROSCOPE TECHNIQUES FOR MEMBRANE STRUCTURE	5R01 GM24237-02	97,454
WILLIAMSON, JOHN W.	CONSENSUAL VALIDITY IN HEALTH CARE—A CRITICAL REVIEW	5R01 LM03060-02	16,939
WILLOUGHBY, WILLIAM F.	MITOGEN INDUCED INTERSTITIAL PNEUMONITIS	2R01 HL19819-04	91,762
WINCHURCH, RICHARD A.	TRAUMA-INDUCED SUPPRESSION OF IMMUNITY	1R01 GM23535-01	60,937
WINKELSTEIN, JERRY A.	THE ROLE OF COMPLEMENT IN ANTIBACTERIAL IMMUNITY	5R01 AI11637-06	45,625
WOLINSKY, JERRY S.	NEUROVIRULENCE AND PERSISTENCE OF MUMPS VIRUS	1R01 AI15721-01	48,956
YOUNG, ERIC D.	PROPERTIES OF INFERIOR COLLICULUS AND COCHLEAR NUCLEUS	5R01 NS12524-05	17,061
ZEE, DAVID S.	OCULOMOTOR DISORDERS: CLINICAL AND EXPERIMENTAL STUDY	2R01 EY01849-04	56,859
ZELNIK, MELVIN	USE AND NON-USE OF CONTRACEPTION AMONG ADOLESCENTS	5R01 HD11107-02	214,098
ORGANIZATION TOTAL	333 46,674,955		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201			
ADAMS, ELIJAH	METABOLISM OF CERTAIN AMINO ACIDS	5R01 GM11105-17	180,607
ALBRECHT, EUGENE D.	OVARIAN STEROID BIOSYNTHESIS IN AGED PREGNANT RATS	1R23 AG01336-01	43,240
ALBUQUERQUE, EDSON X.	MUSCLE REINNERVATION AND NEUROTROPHIC INFLUENCE	2R01 NS12063-06	136,332
BARRACLOUGH, CHARLES A.	CENTRAL NERVOUS SYSTEM REGULATION OF REPRODUCTION	5R01 HD02138-18	127,927
BLACK, LINDSAY W.	PHAGE T4 HEAD ASSEMBLY AND INITIATION OF INFECTION	5R01 AI11676-05	70,701
BLAUSTEIN, MORDECAI P.	THE PHYSIOLOGY OF PRESYNAPTIC NERVE TERMINALS	7R01 NS16106-01	47,025
BOYNE, ALAN F.	THE MECHANISM OF CHOLINERGIC NEUROSECRETION	7R01 NS16167-01	31,585
BRINLEY, FLOYD J., JR.	ELECTRICAL AND BIOCHEMICAL PROPERTIES OF EXCITABLE CELLS	5P01 NS14800-02	443,322
BRODIE, ANGELA M.	AROMATASE INHIBITORS FOR CONTROL OF BREAST CANCER	7R01 CA27440-01	87,906
BUCCI, CLARA F.	STUDY OF FOLDING OF POLYPEPTIDE CHAINS IN HEMOGLOBIN	5R01 HL16891-06	75,972
BUCCI, ENRICO	INTERACTION OF ALPHA & BETA CHAINS OF HUMAN HEMOGLOBIN	5R01 HL13164-08	69,563
BURNETT, JOSEPH W.	A TOXICOLOGICAL & CHEMICAL STUDY OF SEA NETTLE VENOM	5R01 ES01474-03	78,821
CALLERY, PATRICK S.	POTENTIAL PRECURSORS OF GAMMA-AMINOBUTYRIC ACID	1R01 NS14017-01A2	56,279
CANNER, PAUL L.	COOPERATIVE STUDY OF DRUGS AND CORONARY HEART DISEASE	2R01 HL08888-13	144,613
CHANNING, CORNELIA P.	THE MECHANISM OF LUTEINIZATION IN VITRO AND IN VIVO	5R01 HD08834-06	73,507
CHANNING, CORNELIA P.	HUMAN OVARIAN INHIBIN AND ITS SECRETION	1R01 HD12003-01	66,204
CHEUNG, AUGUSTINE Y.	MICROWAVE HYPERTHERMIA SYSTEMS FOR CANCER TREATMENT	5R01 CA22577-02	40,233
DENNIS, JOHN M.	SUPPORT FOR INTERNATIONAL CENTER FOR MEDICAL RESEARCH	5R07 AI10049-20	653,841
DENNIS, JOHN M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05379-18	176,768
ELDEFRAWI, AMIRA T.	TOXICOLOGICAL STUDIES OF INSECT ACH-RECEPTORS	5R01 AI13640-04	62,211
ELDEFRAWI, AMIRA T.	TOXICOLOGY OF THE IONIC CHANNEL OF THE ACH-RECEPTOR	1R01 NS15261-01	44,170
ELIAS, E. GEORGE	PRIMARY CANCER THERAPY GROUP (NSABP)	3R10 CA20196-01A2S1	5,121
GEARHART, JOHN D.	EXPERIMENTAL EMBRYOLOGY OF MAMMALIAN CHIMERAS	1R01 HD12685-01	64,085
GONZALEZ-SERRATOS, HUGO	ION FLUXES IN NERVE AND MUSCLE	5R01 NS13420-04	48,570
GREISMAN, SHELTON E.	BACTERIAL ENDOTOXINS IN INFECTION	5R01 AI07052-17	7,000
GUTH, LLOYD	REGENERATION IN THE SPINAL CORD	2R01 NS12847-04	109,393
HALL-CRAGGS, ERNEST C.	SKELETAL MUSCLE REGENERATION IN ADULTS	5R01 NS13296-03	54,370
HORN, LYLE W.	TRANSPORT OF ANIONIC AMINO ACIDS IN GIANT AXONS	5R01 NS14569-02	45,207
HUANG, SHIH-WEN	ETIOLOGY OF DIABETES MELLITUS IN INFANCY AND CHILDHOOD	5R01 AM19256-03	73,105
JONES, RAYMOND T.	IN VITRO PANCREATIC CARCINOGENESIS	2R26 CA19197-04	60,730
KAUFFMAN, FREDERICK C.	PHARMACOLOGY OF CARCINOGEN ACTIVATION IN INTACT CELLS	5R01 CA20807-03	49,716
KAUFFMAN, FREDERICK C.	METABOLISM IN INJURED AND REGENERATING NEURAL TISSUE	5R01 NS14728-02	58,811
KESSLER, IRVING I.	A PROSPECTIVE STUDY OF CANCER RISK IN TUBERCULOSIS	5R01 CA25018-02	59,167
KESSLER, IRVING I.	A PROSPECTIVE STUDY OF LYMPHOID TISSUES IN NEOPLASIA	5R01 CA25020-02	31,750

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
KIRTLEY, MARY E.....	STUDY OF GLYCOLYTIC ENZYMES BOUND TO MEMBRANES.....	2R01 GM19394-07	87,184
KIRTLEY, MARY E.....	DEHYDROGENASE STRUCTURE AND FUNCTION.....	5R01 GM20294-06	28,623
KNATTERUD, GENELL L.....	THE RELATION OF TREATMENT TO DIABETIC COMPLICATIONS.....	5R01 AM06876-17	81,997
LOBERG, MICHAEL D.....	PREPARATION OF RADIOPHARMACEUTICALS FROM DRUG ANALOGS.....	5R01 HL18744-04	59,816
MACKLER, BRUCE F.....	HUMAN PERIODONTIA CELLULAR INFILTRATE CHARACTERIZATION.....	7R01 DE05612-01	42,673
MC DOWELL, ELIZABETH M.....	GENESIS OF MUCOUS CELLS IN RESPIRATORY EPITHELIUM.....	1R01 HL24722-01	70,459
MC WILLIAMS, ROGER W.....	ROLE OF THE REGIONAL LYMPH NODE IN ORAL NEOPLASIA.....	5R23 DE04774-02	13,870
MERGNER, WOLFGANG J.....	MICROPROBE ANALYSIS/METABOLITE LEVELS OF I. MYOCARDIUM.....	5R01 HL22281-02	32,935
MINAH, GLENN E.....	DEVELOPMENT OF FISSURAL DENTAL PLAQUE.....	5R23 DE04795-03	31,829
MULLINS, LORIN J.....	THE ION SELECTIVITY OF THE EXCITABLE MEMBRANE.....	5R01 NS05846-13	24,500
NELSON, ERLAND R.....	CEREBROVASCULAR CLINICAL RESEARCH CENTER.....	5P50 NS06779-11	610,171
NELSON, ERLAND R.....	ELEVENTH PRINCETON CONFERENCE ON CEREBROVASCULAR DISEASE.....	3R13 NS13647-02S1	1,500
OH, TAE H.....	NERVE-MUSCLE INTERACTIONS AND NEUROTROPHIC AGENTS.....	1R01 NS15013-01	45,053
PADMANABHAN, RADHAKRISHNAN.....	DNA SEQUENCE ANALYSIS ON HUMAN ADENOVIRUS GENOMES.....	3R01 CA20369-02S1	20,017
PINTER, GABRIEL G.....	VASCULAR DISEASE IN EXPERIMENTAL DIABETES.....	5R01 AM17093-06	106,093
POLAKIS, S EFTHIMIOS.....	DIFFERENTIATION OF 3T3-L1 FIBROBLASTS TO ADIPOCYTES.....	2R01 GM23057-04	75,724
PUMPLIN, DAVID W.....	FREEZE-FRACTURE OF DEVELOPING MYOTUBES AND SYNAPSES.....	1R01 NS15513-01	62,587
REGGIARDO, ZULEMA R.....	MECHANISM OF TUMOR ABRIGATION BY GLYCOLIPID A1.....	5R01 CA21367-02	80,111
REIER, PAUL J.....	NEURON-GLIAL DYNAMICS DURING REGENERATION.....	5R01 NS13836-03	39,283
RICHARDS, RICHARD D.....	HISTO-/BIO-CHEMICAL CHANGES IN EXPERIMENTAL CATARACTS.....	5R01 EY01292-05	44,897
ROBINSON, J EUGENE.....	X-RAY AND MICROWAVE HYPERTHERMIA FOR CANCER TREATMENT.....	5R01 CA22617-02	54,078
ROSEN, BARRY P.....	BIOENERGETICS OF MICROBIAL MEMBRANE FUNCTIONS.....	5R01 GM21648-05	68,278
RUCKKIN, DANIEL S.....	EMITTED POTENTIALS AND COGNITIVE ACTIVITY.....	2R01 NS11199-05	49,735
SAMARAS, GEORGE M.....	FOCAL MICROWAVE RADIATION THERAPY:PRECLINICAL EVALUATION.....	1R01 NS16316-01	115,231
SELMANOFF, MICHAEL K.....	TUBEROINFUNDIBULAR DOPAMINE NEURONS AND PROLACTIN.....	5R01 NS14611-02	40,062
SEXTON, MARY.....	MATERNAL SMOKING AND INFANT BIRTH WEIGHT.....	5R01 HD10659-02	192,569
SHEAR, CHARLES R.....	POSTEMBRYONIC STRIATED MUSCLE GROWTH.....	5R01 AM20131-04	43,796
SHIN, MOON L.....	MECHANISM OF DEMYELINATION IN MULTIPLE SCLEROSIS.....	1R01 NS15662-01	64,995
SJODIN, RAYMOND A.....	TRACER FLUXES AND NET FLUXES ACROSS CELL MEMBRANES.....	2R01 NS07626-16A1	68,511
STEINSCHNEIDER, ALFRED.....	BIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF SIDS.....	3P50 HD10982-02S1	56,831
STEINSCHNEIDER, ALFRED.....	BIOLOGICAL AND PSYCHOLOGICAL ASPECTS OF SIDS.....	5P50 HD10982-03	1,348,990
STRUM, JUDY M.....	NEOPLASTIC MAMMARY GLAND: STRUCTURE/FUNCTION.....	2R01 CA20764-04	41,398
TILDON, J TYSON.....	KETONE METABOLISM IN DEVELOPMENTAL HOMEOSTASIS.....	2R01 HD06291-07A1	71,340
TRAUB, ROBERT.....	STUDIES OF CERTAIN IMPORTANT GENERA OF SIPHONAPTERA.....	5R01 A104242-18	133,684
VARMA, SHAMBU D.....	ALDOSE REDUCTASE IN OCULAR PATHOLOGY.....	5R01 EY02160-02	63,037
WAECHTER, CHARLES J.....	THE ROLE OF POLYPRENOLS IN BRAIN GLYCOPROTEIN ASSEMBLY.....	5R01 NS12296-05	63,792
WILSON, P DAVID.....	HETEROGENEITY OF KINETICS OF LEG BLOOD FLOW.....	1R01 HL24068-01	19,336
ZIELKE, H RONALD.....	GLUTAMINE METABOLISM IN HUMAN CULTURED FIBROBLASTS.....	5R01 GM23827-02	46,586
ORGANIZATION TOTAL	72 7,479,423		

BETHESDA

ENDOCRINE SOCIETY ZIP CODE 20014

CHRISTY, NICHOLAS P.....	SUPPORT OF 6TH INTERNATIONAL CONGRESS OF ENDOCRINOLOGY.....	1R13 AM26058-01	20,000
ORGANIZATION TOTAL	1 20,000		

FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY ZIP CODE 20014

ALTMAN, PHILIP L.....	INBRED AND GENETICALLY DEFINED STRAINS OF LAB ANIMALS.....	1R01 CA26665-01	38,370
SCHER, ALLEN M.....	SYMPOSIUM ON BARORECEPTORS AND HYPERTENSION.....	1R13 HL24219-01	21,050
ORGANIZATION TOTAL	2 59,420		

MID-ATLANTIC RESEARCH INSTITUTE ZIP CODE 20014

ZON, GERALD.....	SYNTHESIS OF POTENTIAL CNS ANTITUMOR PRODRUGS.....	2R01 CA18366-03	49,921
ORGANIZATION TOTAL	1 49,921		

NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS ZIP CODE 20014

NEY, W ROGER.....	RADIATION PROTECTION AND MEASUREMENTS.....	5R01 CA18001-14	74,455
ORGANIZATION TOTAL	1 74,455		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
RADIATION RESEARCH SOCIETY ZIP CODE 20014			
ELKIND, MORTIMER M.....	VI INT. CONGR. OF RADIATION RESEARCH, TOKYO, MAY 1979.....	3R13 CA23872-01S1	10,000
ORGANIZATION TOTAL	1	10,000	
U.S. DEPARTMENT OF DEFENSE-UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES ZIP CODE 20014			
BOLLUM, FREDERICK J.....	DNA POLYMERASES IN NORMAL AND LEUKEMIC LYMPHOID CELLS.....	5R01 CA23262-03	78,342
CARPENTER, MALCOLM B.....	VESTIBULAR SYSTEM.....	5R01 NS14802-02	47,365
CHANG, LUCY M.....	FUNCTION OF DNA POLYMERASES IN NORMAL AND CANCER CELLS.....	5R01 CA23365-03	26,152
HADDY, FRANCIS J.....	EFFECT OF CATIONS, ANIONS, AND WATER UPON BLOOD VESSELS.....	5R01 HL21525-03	62,024
KRANTZ, DAVID S.....	CORONARY ARTERY DISEASE AND CORONARY-PRONE BEHAVIOR.....	5R23 HL23674-02	12,185
ORGANIZATION TOTAL	5	226,068	
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY ZIP CODE 20014			
FISHBEIN, WILLIAM N.....	UREASE AND DEAMINASES IN CHEMISTRY AND MEDICINE.....	5R01 AM10960-13	62,550
HILL, ROLLA B.....	WORKSHOP IN TEACHING OF ENVIRONMENTAL PATHOLOGY.....	1R13 CA26660-01	15,000
HILL, ROLLA B.....	WORKSHOP IN TEACHING OF ENVIRONMENTAL PATHOLOGY.....	1R13 ES02268-01	15,000
TRUMP, BENJAMIN F.....	HISTOPATHOLOGICAL GRADING OF CARCINOMA OF PROSTATE.....	3R26 CA15798-05S1	7,564
TRUMP, BENJAMIN F.....	HISTOPATHOLOGY AND CARCINOGENESIS OF HUMAN PROSTATE.....	2R26 CA15798-06	83,203
WISSLER, ROBERT W.....	SUPPORT OF THE REGISTRY OF COMPARATIVE PATHOLOGY.....	2P40 RR00301-14	201,382
ZIMMERMAN, LORENZ E.....	IMPROVED DIAGNOSIS AND THERAPY IN OPHTHALMOLOGY.....	5R01 EY01386-04	66,578
ORGANIZATION TOTAL	7	451,277	
CATONSVILLE			
FRIENDS MEDICAL SCIENCE RESEARCH CENTER ZIP CODE 21228			
BLACK, PERRY.....	EXPERIMENTAL STUDIES ON SPINAL CORD TRAUMA.....	5R01 NS13327-03	25,519
BLACK, PERRY.....	'SPONTANEOUS' SEIZURES AND CEREBELLAR STIMULATION.....	5R01 NS13499-03	32,693
SALACH, JAMES I, JR.....	MONOAMINE OXIDASE IN THE CNS AND OTHER TISSUES.....	5R01 NS14222-02	55,318
SAVAGE, CHARLES.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05546-17	24,081
ORGANIZATION TOTAL	4	137,611	
UNIVERSITY OF MARYLAND SYSTEM-UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS ZIP CODE 21228			
CREIGHTON, DONALD J.....	CATALYTIC MECHANISM OF SULFHYDRYL PROTEASES.....	1R01 GM24807-01	47,428
GETHMANN, RICHARD C.....	GENETIC CONTROL OF THE MEIOTIC PROCESS.....	5R01 GM22050-05	35,800
HAYS, JOHN B.....	DNA STRUCTURES WHICH STIMULATE GENETIC RECOMBINATION.....	2R01 GM22586-04	112,502
KARPEL, RICHARD L.....	PHYSIOLOGICAL ROLES OF RNA UNWINDING PROTEINS.....	5R01 CA21374-03	46,873
LOVETT, PAUL S.....	PLASMIDS, PHAGES, AND BACTERIAL SPORULATION.....	5R01 AI10331-07	20,657
LOVETT, PAUL S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07159-04	27,061
POLLACK, RALPH M.....	STEREOELECTRONIC ACCELERATION OF ENZYMIC REACTIONS.....	1R01 GM25391-01	41,594
PONARAS, ANTHONY A.....	A NEW VERSION OF THE CLAISEN REARRANGEMENT.....	1R01 AI16261-01	45,366
PONARAS, ANTHONY A.....	ELECTROSTATIC FORCES IN POLYISOPRENOID BIOSYNTHESIS.....	1R01 GM25700-01	29,102
PROVINE, ROBERT R.....	ONTOGENY OF WING FLAPPING.....	1R01 HD11973-01	44,363
ROSENBERG, SUZANNE O.....	ONCOFETAL ANTIGENS IN EMBRYOGENESIS AND TUMOR GROWTH.....	1R01 CA24910-01	61,316
ROTH, THOMAS F.....	SELECTIVE PROTEIN UPTAKE IN DEVELOPING OOCYTES.....	5R01 HD09549-05	71,067
ROTH, THOMAS F.....	CELLULAR ASPECTS OF MATERNAL-FETAL IGG TRANSPORT.....	5R01 HD11519-02	84,903
SOKOLOVE, PHILLIP G.....	PHOTOSTIMULATED NEUROSECRETION AND SEXUAL MATURATION.....	1R01 AI16259-01	50,347
STEINER, ROBERT F.....	CONFORMATIONAL TRANSITIONS OF ALLOSTERIC PROTEINS.....	2R01 AM16688-07	71,048
WAN, THOMAS T.....	EFFECTS OF RETIREMENT AND LIFE CHANGES ON HEALTH.....	1R01 AG01680-01	38,536
WHALEN, DALE L.....	KINETIC STUDIES OF ARYL EPOXIDE REACTIONS.....	2R01 CA17278-04A1	41,618
WHALEN, DALE L.....	KINETICS OF ALKYLATION OF RNA COMPONENTS BY EPOXIDES.....	1R01 CA26086-01	72,925
ORGANIZATION TOTAL	18	942,506	
COLLEGE PARK			
UNIVERSITY OF MARYLAND SYSTEM-UNIVERSITY COLLEGE ZIP CODE 20742			
GREENE, REBECCA S.....	WORLD WAR II & EMERGENCE OF MODERN AMERICAN PSYCHIATRY.....	5R01 LM03169-02	8,110
ORGANIZATION TOTAL	1	8,110	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742			
BRAUTH, STEVEN E.....	COMPARATIVE NEUROBIOLOGY OF THE BASAL GANGLIA.....	2R01 NS13018-04	41,205
BRINKLEY, HOWARD J.....	FUNCTIONING OF CORPORA LUTEA.....	3R01 HD00739-13S1	31,017
BRINKLEY, HOWARD J.....	FUNCTIONING OF CORPORA LUTEA.....	2R01 HD00739-14	74,186
CAMPAGNONI, ANTHONY T.....	NMR STUDIES ON MYELIN BASIC PROTEIN/LIPID INTERACTIONS.....	5R01 NS13934-03	52,263
CAMPAGNONI, ANTHONY T.....	SYNTHESIS AND ASSEMBLY OF BASIC PROTEINS INTO MYELIN.....	1R01 NS15469-01	69,187
COLWELL, RITA R.....	ECOLOGY OF PATHOGENIC VIBRIOS.....	5R22 AI14242-03	48,603
GOKEL, GEORGE W.....	DIAZONIUM ION CHEMISTRY IN NONPOLAR SOLUTION.....	1R01 GM26990-01	23,059
GORMALLY, JAMES F.....	PREDICTING OUTCOME IN BEHAVIORAL OBESITY TREATMENT.....	5R01 HD11666-02	43,084
GRAMBS, JEAN D.....	ANDROGyny, SUCCESSFUL AGING, AND DRUG USE.....	1R01 AG02107-01	91,753
HAMLET, SANDRA L.....	PHYSIOLOGICAL STUDY OF SPEECH ADAPTATION.....	5R01 DE03631-06	49,414
HENERY-LOGAN, KENNETH R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07042-14	82,074
HODOS, WILLIAM.....	A BEHAVIORAL ANALYSIS OF VISUAL SYSTEM EVOLUTION.....	5R01 EY00735-09	107,810
HOWARD, LAWRENCE V, JR.....	GROWTH OF OUTER PROTEIN LAYER OF BACILLUS SPHAERICUS.....	1R01 AI15946-01	25,570
JARVIS, BRUCE B.....	NEW AND POTENT ANTICANCER AGENTS.....	1R01 CA25967-01	83,048
KELLOGG, R BRUCE.....	MATHEMATICAL PROBLEMS IN KIDNEY MODELING.....	5R01 AM20373-02	16,589
LEVINSON, JOHN Z.....	SPATIAL AND TEMPORAL PROPERTIES OF HUMAN VISION.....	3R01 EY01640-03S1	3,241
LEVINSON, JOHN Z.....	SPATIAL AND TEMPORAL PROPERTIES OF VISION.....	2R01 EY01640-04	110,255
MARIANO, PATRICK S.....	SYNTHESIS OF MITOMYCIN AND ITS ANALOGS.....	7R01 CA27486-01	48,430
MARTIN, JAMES G.....	PERCEPTION AND PRODUCTION OF CONNECTED SPEECH.....	5R01 NS13645-02	67,799
MC ARDLE, JAMES V.....	KINETIC AND STRUCTURAL INVESTIGATION OF SIDEROPHORES.....	1R01 AI15750-01	72,997
NELSON, JUDD O.....	DINITROANILINE HERBICIDE METABOLISM & TOXICOLOGY.....	5R23 ES01646-02	38,542
PIERCE, SIDNEY K.....	CELLULAR WATER BALANCE: THE INVERTEBRATE MECHANISM.....	5R01 GM23731-03	50,946
SISLER, HUGH D.....	MODE OF TOXIC AND ANTIPATHOGENIC ACTION OF FUNGICIDES.....	5R01 AI00225-27	48,152
VIJAY, INDER K.....	BIOSYNTHESIS OF MAMMARY GLYCOPROTEINS.....	5R01 AM19682-02	50,937
YORKE, JAMES A.....	MODELING THE EPIDEMIOLOGY AND CONTROL OF GONORRHEA.....	5R01 AI13233-03	29,014
ZAJAC, FELIX E, III.....	EXPERIMENTAL AND ANALYTICAL STUDY OF MOVEMENT.....	5R01 NS11971-05	73,938
ORGANIZATION TOTAL	26 1,433,113		
GAITHERSBURG			
U.S. DEPARTMENT OF COMMERCE—NATIONAL BUREAU OF STANDARDS ZIP CODE 20760			
CASWELL, RANDALL S.....	DOSIMETRY STANDARDS FOR NEUTRON RADIATION THERAPY.....	1R01 CA26313-01	81,822
ORGANIZATION TOTAL	1 81,822		
LAUREL			
JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY ZIP CODE 20810			
KIM, BORIS F.....	HIGH RESOLUTION SPECTROSCOPY OF PORPHYRINS.....	5R01 GM21897-05	81,662
O'BRIEN, VIVIAN.....	STENOSIS HEMODYNAMICS AND ENDOTHELIAL RESPONSE.....	1R01 HL23291-01	47,964
ORGANIZATION TOTAL	2 129,626		
PRINCESS ANNE			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND EASTERN SHORE ZIP CODE 21853			
WUTOH, JOSEPH G.....	MARINE AND ESTUARINE PHARMACOLOGY.....	5S06 RR08079-06	244,442
ORGANIZATION TOTAL	1 244,442		
ROCKVILLE			
AMERICAN FOUNDATION FOR BIOLOGICAL RESEARCH—BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 20852			
LEWIS, FREDDIE A.....	IMMUNITY IN A SCHISTOSOMA MANSONI ABORTIVE INFECTION.....	1R22 AI16006-01	48,050
ORGANIZATION TOTAL	1 48,050		
AMERICAN TYPE CULTURE COLLECTION ZIP CODE 20852			
HAMBURGER, ANNE W.....	CULTURE OF DRUG RESISTANT HUMAN TUMOR CELLS.....	1R01 CA26008-01	55,760
HAY, ROBERT J.....	DEVELOPMENT OF A CELL BANK FOR BOWEL CANCER RESEARCH.....	1R26 CA25635-01	98,907
WILLIAMS, CAROLYN D.....	TRACHEOBRONCHIAL MUCUS-PRODUCING CELLS IN VITRO.....	1R01 HL24695-01	75,755

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
MARYLAND—Continued				
ORGANIZATION TOTAL	3	230,422		
TISSUE CULTURE ASSOCIATION ZIP CODE 20852				
MC GARRITY, GERARD J.....		GENE TRANSFER, DIFFERENTIATION AND NEOPLASIA.....	1R13 CA26748-01	5,812
ORGANIZATION TOTAL	1	5,812		
SAINT MARYS CITY				
ST. MARY'S COLLEGE OF MARYLAND ZIP CODE 20686				
GLIDDEN, LARAIN E.....		LEARNING/MEMORY STRATEGIES IN RETARDED PERSONS.....	1R01 HD13187-01	35,125
ORGANIZATION TOTAL	1	35,125		
SILVER SPRING				
INSTITUTE FOR BEHAVIORAL RESEARCH ZIP CODE 20910				
RIOCH, DAVID M.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05636-13	32,652
TAUB, EDWARD.....		RAYNAUD'S DISEASE AND TEMPERATURE SELF-REGULATION.....	5R01 HL21323-03	99,619
ORGANIZATION TOTAL	2	132,271		
STATE TOTAL	504	60,085,215		
MASSACHUSETTS				
AMHERST				
AMHERST COLLEGE ZIP CODE 01002				
GEORGE, STEPHEN A.....		VISION IN TRIPLOID ANIMALS.....	5R01 EY01662-05	37,674
GIBBS, JULIAN H.....		STATISTICAL MECHANICS OF BIOLOGICAL MACROMOLECULES.....	1R01 GM27951-01	62,459
KIDDER, GEORGE W.....		METABOLIC STUDIES OF ANIMAL MICROORGANISMS.....	5R01 AM01005-27	42,712
KROFF, ALLEN.....		PHOTOCHEMISTRY OF THE VISUAL PIGMENTS.....	2R01 EY00201-18	52,359
POCCIA, DOMINIC L.....		ACTIVATION OF SPERM NUCLEUS AT FERTILIZATION.....	5R01 HD12982-02	65,666
WAGGONER, ALAN S.....		EARLY MOLECULAR EVENTS IN VISUAL EXCITATION.....	5R01 EY00930-08	32,468
WAGGONER, ALAN S.....		OPTICAL PROBES OF MEMBRANE ENERGETICS AND STRUCTURE.....	1R01 NS15265-01	67,556
ZIMMERMAN, WILLIAM F.....		RETINAL PIGMENT EPITHELIUM, SUBCELLULAR BIOCHEMISTRY.....	5R01 EY00675-08	38,337
ZIMMERMAN, WILLIAM F.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07110-12	26,267
ORGANIZATION TOTAL	9	425,498		
UNIVERSITY OF MASSACHUSETTS AT AMHERST ZIP CODE 01002				
ARBIB, MICHAEL A.....		NETWORKS: DEVELOPMENTAL STUDIES, VISUOMOTOR ACTIVITY.....	1R01 NS14971-01	70,512
BLACK, DONALD L.....		HORMONAL CONTROL OF OVUM TRANSPORT.....	5R01 HD11252-03	47,118
BRANDTS, JOHN F.....		FREE ENERGY OF FOLDING OF GLOBULAR PROTEINS.....	5R01 GM11071-17	79,709
BRANDTS, JOHN F.....		STRUCTURAL STUDIES OF THE HUMAN ERYTHROCYTE MEMBRANE.....	5R01 HL17878-05	81,165
CANALE-PAROLA, ERCOLE.....		SPIROCHETES INDIGENOUS TO HUMANS.....	5R01 AI12482-05	60,964
CARPINO, LOUIS A.....		NEW AMINO-PROTECTING GROUPS.....	2R01 GM09706-14	57,130
CLIFTON, RACHEL K.....		AUDITORY COMPETENCE AND LEARNING IN HUMAN INFANTS.....	5R01 HD06753-06	48,135
COX, C D.....		CULTIVATION OF VIRULENT TREPONEMA PALLIDUM.....	2R01 AI10982-07	80,695
EDMAN, JOHN D.....		BITING FLY-VERTEBRATE HOST INTERRELATIONSHIPS.....	5R01 AI13981-02	52,618
FOURNIER, MAURILLE J, JR.....		BIOSYNTHESIS OF TRANSFER RIBONUCLEIC ACID.....	5R01 GM19351-08	81,368
FRIEDMAN, MARK I.....		ENERGY METABOLISM, HUNGER, AND FEEDING.....	5R01 AM20022-03	27,831
HEPLER, PETER K.....		CALCIUM FLUCTUATION AND LOCALIZATION DURING MITOSIS.....	5R01 GM25120-03	80,627
HOLMES, ROBERT R.....		PHOSPHATE MODEL FOR RIBONUCLEASE ACTION.....	5R01 GM21466-05	58,749
HOLT, STANLEY C.....		CHARACTERISTICS OF DISEASE-RELATED CAPNOBACTERIA.....	5R01 DE05123-02	63,712
HONIGBERG, BRONISLAW M.....		PATHOGENICITY AND IMMUNOLOGY OF TRYPANOSOMATIDS.....	2R01 AI00742-24	180,029
JACOBSON, BRUCE S.....		PLASMA MEMBRANES INVERTED ON BEADS-ACTIN BINDING.....	5R01 GM25461-02	62,136
KARASZ, FRANK E.....		EFFECT OF PRESSURE ON CONFORMATIONAL TRANSITIONS.....	1R01 GM24260-01A1	76,241
LESSIE, THOMAS G.....		PSEUDOMONAS CEPACIA AND ITS UNUSUAL PHAGE, CP1.....	5R01 GM21198-11	45,706
LEVIN, BRUCE R.....		PROTEIN VARIATION AND SELECTION MECHANISMS IN E. COLI.....	5R01 GM19848-06	66,389

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
MACDONALD, A BRUCE	OCULAR IMMUNOLOGY AND PATHOGENESIS OF TRACHOMA	1R01 EY03094-01	85,056
NORKIN, LEONARD C	DEFECTIVE VIRUS FROM SIMIAN VIRUS 40 CARRIER CULTURES	5R01 AI14049-03	49,665
PIEDMONT, EUGENE B	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07048-14	103,598
RAYNER, KEITH	FOVEAL AND PARAFOVEAL CUES IN READING	5R01 HD12727-02	52,363
SCHWARTZ, IRA S	RIBOSOME BINDING SITES FOR PROTEIN SYNTHESIS FACTORS	1R01 GM25989-01	80,716
SLAKEY, LINDA L	ENZYME REGULATION IN CULTURED ARTERIAL CELLS	5R01 HL22486-02	52,955
SLAKEY, LINDA L	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	1R01 HL24660-01	57,386
SMYTH, J ROBERT, JR	A GENETIC EYE DEFECT AND AMELANOSIS IN THE CHICKEN	5R01 EY02575-02	71,248
STOFFOLANO, JOHN G, JR	FEEDING BEHAVIOR OF HEMATOPHAGOUS TABANIDS	1R01 AI15039-01A1	43,068
WADE, GEORGE N	SEX HORMONES AND BEHAVIOR: EFFECTS OF DIABETES	5R01 AM20785-03	54,830
WADE, GEORGE N	HORMONES, BRAIN FUNCTION AND BEHAVIOR	2R01 NS10873-07	61,000
WESTHEAD, EDWARD W, JR	DIVALENT CATIONS IN ENOLASE AND OTHER BIOLOGICAL SYSTEMS	5R01 GM14945-13	83,201
WESTHEAD, EDWARD W, JR	STRUCTURE OF THE CHROMAFFIN GRANULE MEMBRANE	5R01 GM24197-02	57,710
WILDER, MARTIN S	PINOCYTOSIS AND ANTIBACTERIAL ACTIVITIES OF MACROPHAGES	1R01 AI15853-01	54,640
WOODCOCK, CHRISTOPHER L	STRUCTURE OF NATIVE AND RECONSTITUTED CHROMATIN	5R01 GM25305-02	58,497
ZIMMERMANN, ROBERT A	PHOTOCHEMICAL PROBES OF RIBOSOME ARCHITECTURE	2R01 GM22807-04	76,018
ORGANIZATION TOTAL	35	2,362,785	
BELMONT			
MASSACHUSETTS GENERAL HOSPITAL—MCLEAN HOSPITAL DIVISION ZIP CODE 02178			
DE MARNEFFE, FRANCIS	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05484-17	96,445
HAUSER, GEORGE	BIOCHEMISTRY OF INOSITOL AND PHOSPHOINOSITIDES	2R01 NS06399-10A1	109,003
MILLER, ALEXANDER L	CO ₂ AND INTERMEDIARY METABOLISM IN DEVELOPING BRAIN	1R01 HD11659-01	42,245
NIXON, RALPH A	PROTEOLYSIS IN AXONAL DEGENERATION AND MYELINOLYSENIS	1R01 NS15494-01	44,916
SELKOE, DENNIS J	AGING IN THE BRAIN: ROLE OF THE FIBROUS PROTEINS	5R01 AG01307-02	38,166
SHASHOUA, VICTOR E	BRAIN METABOLISM AND THE BIOCHEMISTRY OF LEARNING	5R01 NS09407-06	90,615
SHASHOUA, VICTOR E	BIOCHEMICAL CORRELATES OF NEURAL REGENERATION	1R01 NS14674-01	63,641
YOUNG, JAMES D	BIOLOGICAL ACTIVITY OF MYELIN BASIC PROTEIN	7R01 NS16018-01	77,579
ORGANIZATION TOTAL	8	562,610	
BOSTON			
AFFILIATED HOSPITALS CENTER—BOSTON HOSPITAL FOR WOMEN ZIP CODE 02115			
GIANNOPOULOS, GEORGE	HORMONE DEPENDENCE IN ENDOMETRIAL AND BREAST CANCER	5R01 CA22342-03	86,312
GIANNOPOULOS, GEORGE	HORMONAL CONTROL OF THE INITIATION OF PARTURITION	5R01 HD12202-02	44,797
KITZMILLER, JOHN L	FETAL HYPOXIA-STREPTOZOTOCIN TREATED RHESUS PREGNANCY	5R01 HD12138-02	38,677
RYAN, KENNETH J	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05481-09	16,135
STARK, ANN R	RESPIRATORY MUSCLES IN REGULATION OF INFANT BREATHING	5R23 HL21405-02	42,418
ORGANIZATION TOTAL	5	228,339	
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115			
ABBAS, ABUL K	REGULATION OF ANTIBODY SYNTHESIS AND SECRETION	5R23 AI14478-02	38,484
ABRAMS, HERBERT L	CINEANGIOGRAPHIC STUDIES OF THE CARDIOVASCULAR SYSTEM	5R01 HL20895-04	217,805
ADAMS, DOUGLASS F	COMPUTED CARDIAC TOMOGRAPHY IN INFARCT SIZING	5R01 HL21719-02	95,084
ALEXANDER, ROBERT W	CHARACTERIZATION OF PLATELET ALPHA-ADRENERGIC RECEPTOR	1R01 HL23088-01A1	36,733
BARRY, WILLIAM H	EFFECTS OF HYPOXIA ON CARDIAC CONTRACTION & RELAXATION	1R01 HL23893-01	71,664
BRAUNWALD, EUGENE	DETERMINANTS OF IRREVERSIBLE ISCHEMIC INJURY IN HEART	5R01 HL23140-02	112,835
BRAUNWALD, EUGENE	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00888-05	682,087
BRENNER, BARRY M	CONTROL OF FLUID EXCHANGES IN THE MAMMALIAN KIDNEY	2R01 AM19467-04	230,327
BROWN, EDWARD M	REGULATION OF NORMAL AND ABNORMAL PARATHYROID TISSUE	1R01 AM25910-01	45,272
BUNN, H FRANKLIN	HEMOGLOBIN ALC IN PATIENTS WITH DIABETES MELLITUS	5R01 AM18223-05	73,741
BUNN, H FRANKLIN	STRUCTURE AND FUNCTION OF NORMAL AND ABNORMAL HEMOGLOBIN	5R01 HL16927-06	89,973
BUNN, H FRANKLIN	THE ACETYLTATION OF FETAL HEMOGLOBIN	5R01 HL20925-02	35,807
BUSCH, GEORGE J	INJURY TO VASCULAR ENDOTHELIUM AND SMOOTH MUSCLE	1R01 HL24528-01	84,212
CAREY, MARTIN C	ALIMENTARY TRACT LIPIDS IN HEALTH AND DISEASE	5R01 AM18559-05	110,017
FALCHUK, Z MYRON	PATHOGENESIS OF SPRUE & INFLAMMATORY BOWEL DISEASE	5R01 AM17684-06	67,694
FLESHER, ALAN R	IMMUNOCHEMICAL STUDY OF LEGIONNAIRES' DISEASE AGENT	1R01 AI15837-01	63,225
GALPER, JONAS B	MUSCARINIC RECEPTORS IN THE DEVELOPING HEART	5R23 HL22775-02	38,410

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
GREENES, ROBERT A.....	INVESTIGATIONS IN CLINICAL DECISION MAKING.....	1P01 LM03401-01	278,093
GRIFFISS, JOHN M.....	THE ROLE OF IGA IN BACTERIAL DISEASE.....	1R01 AI15241-01	85,922
GROSSMAN, WILLIAM.....	DIASTOLIC PROPERTIES OF THE HUMAN LEFT VENTRICLE.....	2R01 HL19089-04	39,061
HANDIN, ROBERT I.....	ROLE OF PF-4 IN DETECTING AND PROMOTING THROMBOSIS.....	5R01 HL17513-05	56,333
HASSAN, WILLIAM E, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05489-17	157,676
HESEL, SAMUEL J.....	THE PERCEPTUAL PROCESS IN THE DIAGNOSIS OF LUNG DISEASE.....	5R01 GM23891-02	35,510
HOLLENBERG, NORMAN K.....	RENAL VASCULAR REACTIVITY IN THE HYPERTENSIVE PATIENT.....	5R01 HL14944-08	73,013
INGRAM, ROLAND H, JR.....	LOCALIZATION OF AIRWAYS OBSTRUCTION AND RESPONSES.....	5R01 HL16463-06	58,656
INGWALL, JOANNE S.....	CARDIAC ENERGY METABOLISM AND PROTEIN SYNTHESIS.....	5R01 HL22290-02	53,407
KASS, EDWARD H.....	CHRONIC INFECTIONS AND THE ORIGINS OF CHRONIC DISEASE.....	3P01 HD11924-02S1	74,475
KASS, EDWARD H.....	ORIGINS OF HYPERTENSION.....	5R01 HL22298-03	257,270
LAMONT, JOHN T.....	STRUCTURE AND FUNCTION OF COLONIC GLYCOPROTEINS.....	5R01 AM21892-02	45,439
LARSEN, PHILIP R.....	THE PHYSIOLOGICAL ROLE OF THYROXINE BINDING PROTEINS.....	5R01 AM18616-05	91,352
MANNICK, JOHN A.....	TRANSFER OF TUMOR IMMUNITY WITH IMMUNE-RNA.....	1R01 CA23865-01A1	78,685
MANNICK, JOHN A.....	IMMUNOLOGIC STUDIES OF PATIENTS AFTER TRAUMATIC INJURY.....	1R01 GM26016-01	114,781
MAROKO, PETER R.....	DRUG-INDUCED ALTERATIONS IN INFARCT SIZE IN THE RAT.....	5R01 HL20199-03	67,129
MATHEWS-ROTH, MICHELINE M.....	CAROTENOIDS AS ANTITUMOR AGENTS FOR SKIN TUMORS.....	5R01 CA23053-03	40,341
MC FADDEN, EDWARD R, JR.....	PATHOPHYSIOLOGY OF EXERCISE-INDUCED ASTHMA.....	5R01 HL17873-05	33,328
MIRSKY, ISRAEL.....	A MATHEMATICAL APPROACH TO CARDIOVASCULAR MECHANICS.....	2R01 HL12711-10	71,623
MITCH, WILLIAM E.....	PROTEIN NUTRITION IN EXPERIMENTAL UREMIA.....	1R01 AM26903-01	58,372
NEER, EVA J.....	ADENYLATE CYCLASE AND THE PLASMA MEMBRANE.....	2R01 AM19277-04	92,537
PENNINGTON, JAMES E.....	PSEUDOMONAS VACCINES FOR RESPIRATORY IMMUNITY.....	1R01 AI15411-01A1	49,951
PENNINGTON, JAMES E.....	PULMONARY IMMUNOPATHOLOGY IN THE COMPROMISED HOST.....	5R23 HL21997-02	38,150
PFEFFER, MARC A.....	MYOCARDIAL INFARCT SIZE AND VENTRICULAR FUNCTION.....	1R01 HL23878-01	59,833
PIER, GERALD B.....	A POLYSACCHARIDE VACCINE TO PSEUDOMONAS AERUGINOSA.....	1R01 AI15835-01	73,379
SMITH, THOMAS W.....	DIGITALIS: MECHANISM AND REVERSAL STUDIES.....	2R01 HL18003-06	143,252
SOMBERG, JOHN C.....	CARDIOTOXICITY OF DIGITALIS.....	1R23 HL24464-01	38,484
SOMIS, STEPHEN T.....	CELL-MEDIATED IMMUNITY IN PERIODONTAL DISEASE.....	5R01 DE04677-03	65,447
SPEIZER, FRANK E.....	A PROSPECTIVE COHORT FOR RISKS IN BREAST CANCER.....	5R01 CA23645-03	355,729
SPEIZER, FRANK E.....	PROSPECTIVE STUDY OF DIET AND CANCER IN WOMEN.....	1R01 CA26560-01	125,592
STROM, TERRY B.....	INSULIN RECEPTOR LYMPHOCYTES: NATURE & SIGNIFICANCE.....	5R01 AM21094-03	71,003
SZABO, SANDOR.....	CHARACTERIZATION OF BIOLOGIC ACTIONS OF ACRYLONITRILE.....	5R01 ES01876-02	79,409
TAEGTMEYER, HEINRICH.....	AMINO ACID METABOLISM IN NORMAL AND HYPOXIC MYOCARDIUM.....	5R01 HL21381-03	38,888
TAGER, IRA B.....	EARLY RISK PREDICTORS FOR CHRONIC PULMONARY DISEASE.....	5R01 HL22528-03	105,939
TISHLER, PETER V.....	GONOSOMAL ANEUPLOIDY IN CITY HOSPITAL POPULATIONS.....	5R01 GM26373-03	27,405
TRIER, JERRY S.....	FUNCTIONAL MORPHOLOGY OF THE ALIMENTARY TRACT.....	5R01 AM17537-07	158,785
VATNER, STEPHEN F.....	CARDIOVASCULAR CONTROL IN NORMAL AND DISEASE STATES.....	5R01 HL15416-07	217,534
VATNER, STEPHEN F.....	MYOCARDIAL ISCHEMIA.....	2R01 HL17459-04	118,263
VATNER, STEPHEN F.....	MYOCARDIAL HYPERTROPHY & FAILURE IN CONSCIOUS ANIMALS.....	1R01 HL23724-01	96,400
WILLIAMS, GORDON H.....	ANGIOTENSIN RECEPTORS ON ADRENAL AND RENAL TISSUE.....	2R01 HL16821-04A1	108,126
WILLIAMS, GORDON H.....	HORMONES IN HYPERTENSION.....	5R01 HL18882-03	106,486
WYNNE, JOSHUA.....	QUANTITATIVE REGIONAL RADIOVENTRICULOGRAPHY.....	1R23 HL24241-01	34,813
ZIMMERMAN, ROBERT E.....	LOW DOSE, HIGH RESOLUTION, HIGH SPEED NUCLEAR CARDIOLOGY.....	1R01 HL24496-01	56,533
ORGANIZATION TOTAL	60	6,125,774	
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120			
AUSTEN, K FRANK.....	IN VITRO STUDIES OF THE MECHANISM OF ANAPHYLAXIS.....	5R01 AI07722-13	211,221
AUSTEN, K FRANK.....	IMMUNOLOGIC RELEASE OF CHEMICAL MEDIATORS IN MAN.....	5P50 AI10356-09	221,941
AUSTEN, K FRANK.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20580-03	184,357
AUSTEN, K FRANK.....	CHEMICAL MEDIATORS OF ACUTE PULMONARY DISORDERS.....	2P01 HL17382-06	252,523
AUSTEN, K FRANK.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05669-12	106,105
CAULFIELD, JOHN P.....	PATHOLOGY OF BASEMENT MEMBRANE-LIKE COLLAGEN.....	1R01 AM25960-01	97,202
DAVID, JOHN R.....	STUDIES OF CELLULAR HYPERSENSITIVITY.....	5R01 AI07685-14	214,981
DAVID, JOHN R.....	MACROPHAGE ACTIVATION AND CELLULAR IMMUNITY.....	5R22 AI10921-08	70,798
GOETZL, EDWARD J.....	REGULATION OF HYPERSENSITIVITY REACTIONS IN THE LUNG.....	2R01 HL19777-04	96,000
LEWIS, ROBERT A.....	LOCALIZATION OF MEDIATORS IN DISPERSED LUNG CELLS.....	5R23 HL21089-03	44,736
LIU, DAVID Y.....	GLYCOLIPIDS: CELL RECEPTORS FOR LYMPHOCYTE MEDIATORS.....	1R23 AI16021-01	42,882
SCHUR, PETER H.....	RHEUMATIC DISEASES—HUMAN DISEASE IMMUNE COMPLEXES.....	2P30 AM05577-18	204,792
SCHUR, PETER H.....	RHEUMATIC DISEASES: IMMUNE COMPLEXES & IMMUNOGENETICS.....	5R01 AM11414-13	126,151
SHER, F ALAN.....	MECHANISMS OF HOST REACTION TO SCHISTOSOMULA.....	5R22 AI14185-03	90,134

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SLEDGE, CLEMENT B.....	THE DEVELOPMENT OF RADIATION SYNOVECTOMY IN ARTHRITIS.....	1R01 AM23063-01	128,647
SOTER, NICHOLAS A.....	MEDIATORS OF INFLAMMATION IN DERMATOLOGIC DISEASES.....	5R23 AI14292-03	42,881
SPRAGG, JOCELYN.....	HUMAN KININ & FIBRINOLYTIC SYSTEMS AND RENAL DISEASE.....	5R01 HL22939-02	77,586
STEINBERG, JAMES.....	CHONDROCYTE-MATRIX INTERACTIONS IN ARTHRITIC DISEASE.....	2R01 AM18268-04	107,603
TAUBER, ALFRED I.....	MODULATION OF GRANULOCYTE MIGRATION AND CYTOTOXICITY.....	5R23 AI15116-02	42,882
TRENTHAM, DAVID E.....	IMMUNOLOGIC PROPERTIES OF COLLAGEN.....	5R01 AM21490-02	71,804
ORGANIZATION TOTAL	20	2,435,226	
BETH ISRAEL HOSPITAL ZIP CODE 02215			
ALS, ANN V.....	RADIOGRAPHIC CONTRAST TOXICITY IN THE ISCHEMIC HEART.....	5R01 HL21589-02	51,589
ASCH, BONNIE B.....	MAMMARY NEOPLASTIC PROGRESSION IN VITRO.....	1R23 CA26406-01	31,800
BENSON, HERBERT.....	CARDIOVASCULAR BEHAVIOR AND THE RELAXATION RESPONSE.....	1R01 HL22727-01	131,639
BING, OSCAR H.....	COMPUTER FEEDBACK STUDY OF CARDIAC MUSCLE MECHANICS.....	3R01 HL18338-04S1	1,928
BLEICH, HOWARD L.....	BIBLIOGRAPHIC RETRIEVAL FOR THE HOSPITAL LIBRARY.....	5R01 LM03123-02	89,007
EPSTEIN, FRANKLIN H.....	WATER AND ELECTROLYTES IN HEALTH AND DISEASE.....	3R01 AM18078-07S1	26,477
EPSTEIN, FRANKLIN H.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR1032-04	589,713
GESCHWIND, NORMAN.....	CYTOARCHITECTONIC MAPPING OF CORTICAL ASYMMETRIES.....	1R01 NS14018-01A1	60,970
GOLDMAN, PETER.....	CARCINOGEN METABOLISM BY HOST INTESTINAL BACTERIA.....	5R01 CA15260-06	61,992
HAYES, WILSON C.....	MECHANICS OF NORMAL, ARTHRITIC AND PROSTHETIC KNEES.....	7R01 AM26740-01	48,743
INGBAR, SIDNEY H.....	NORMAL AND DISORDERED THYROID HORMONE ECONOMY.....	5R01 AM18416-05	256,205
LANDSBERG, LEWIS.....	CATECHOL METABOLISM AND TRANSPORT IN GUT MUCOSA.....	5R01 AM20062-03	33,569
LANDSBERG, LEWIS.....	CARBOHYDRATE METABOLISM AND CATECHOLAMINES.....	5R01 AM20378-03	79,613
LANDSBERG, LEWIS.....	CALORIES, CATECHOLAMINES AND HYPERTENSION.....	1R01 HL24084-01	94,865
MESULAM, MAREK-MARSEL.....	NEUROHISTOCHEMISTRY FOR CEREBRAL CONNECTIONS.....	1R01 NS14625-01A1	54,526
PANDYA, DEEPAK N.....	CONNECTIONS OF THE CEREBRAL CORTEX.....	5R01 NS09211-09	74,609
RABKIN, MITCHELL T.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05479-17	130,864
ROBINSON, STEPHEN H.....	ORIGIN AND FATE OF BILE PIGMENTS.....	5R01 AM09834-15	70,369
ROBINSON, STEPHEN H.....	FACTORS REGULATING HEMOPOIETIC CELL DIFFERENTIATION.....	5R01 AM17148-05	85,867
ROWE, JOHN W.....	PROGRAM PROJECT IN BIOMEDICAL ASPECTS OF AGING.....	3P01 AG00599-02S2	5,500
ROWE, JOHN W.....	PROGRAM PROJECT IN BIOMEDICAL ASPECTS OF AGING.....	5P01 AG00599-03	200,988
SALZMAN, EDWIN W.....	PROGRAM PROJECT IN THROMBOSIS AND ATHEROSCLEROSIS.....	3P01 HL11414-11S1	22,700
SALZMAN, EDWIN W.....	POSTOPERATIVE THROMBOEMBOLISM IN SURGICAL PATIENTS.....	5R01 HL13754-09	143,662
SEGAL, JOSEPH.....	LYMPHOID TISSUE RESPONSES TO THYROID HORMONE IN AGING.....	1R23 AG01436-01	37,160
SILEN, WILLIAM.....	G. I. MUCOSAL BARRIER IN HEALTH AND SURGICAL DISEASE.....	5R01 AM15681-08	120,662
SIMON, MORRIS.....	DEVELOPMENT OF MEMORY-ALLOY-FILTERS FOR VENOUS EMBOLI.....	5R01 HL20554-03	76,859
SKILLMAN, JOHN J.....	ALBUMIN SYNTHESIS: EFFECT OF FEEDING SURGICAL PATIENTS.....	5R01 AM19794-03	61,029
SLACK, WARNER V.....	PATIENT COUNSELING BY COMPUTER.....	1R01 LM03393-01	127,148
STEER, MICHAEL L.....	PATHOPHYSIOLOGY OF ACUTE PANCREATITIS.....	5R01 AM20302-03	41,378
STEER, MICHAEL L.....	EARLY EVENTS FOLLOWING STIMULATION OF HUMAN PLATELETS.....	5R01 HL20956-03	56,042
STOFF, JEFFREY S.....	PROTAGLANDINS AND THE KIDNEY.....	1R01 AM26155-01	58,241
WEINTRAUB, RONALD M.....	MYOCARDIAL PROTECTION DURING CARDIOPULMONARY BYPASS.....	5R01 HL20720-03	67,281
ORGANIZATION TOTAL	32	2,992,995	
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114			
DAVISON, PETER F.....	PROTEIN CATABOLISM AND ERROR THEORIES OF AGING.....	5R01 AG00584-03	86,921
DAVISON, PETER F.....	THE COLLAGENS IN LAMELLAR TISSUES OF THE EYE.....	1R01 EY02213-01A1	131,227
FISHER, ROBERT J.....	MAMMALIAN MITOCHONDRIAL BIOGENESIS.....	5R01 GM23422-03	99,591
FUJIMORI, EIJI.....	AGE-RELATED CHANGES IN COLLAGEN AND HYALURONIC ACID.....	5R01 AG00296-02	80,078
GERGELY, JOHN.....	BIOCHEMISTRY OF MUSCLE CONTRACTION.....	5R01 HL05949-19	221,262
GERGELY, JOHN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05711-09	109,355
HIDALGO, CECILIA.....	LIPIDS ROLE IN SARCOPLASMIC RETICULUM CATIONS TRANSPLANT.....	1R01 HL23007-01A1	72,204
IKEMOTO, NORIAKI.....	STRUCTURE AND FUNCTION OF SARCOPLASMIC RETICULUM.....	5R01 AM16922-07	130,854
JACOBSON, BERNARD J.....	CLEFT PALATE: TERATOGENIC ROLE OF CORTISONE.....	5R01 DE04507-02	74,860
JACOBSON, BERNARD J.....	ROLE OF HYALOCYTES IN THE VITREOUS.....	5R01 EY00810-06	94,675
JULIAN, FRED J.....	CONTRACTILITY IN HEART AND OTHER STRIATED MUSCLES.....	5R01 HL16606-12	212,420
KILICK, KATHLEEN A.....	MECHANISMS OF ENZYME LATENCY DURING CELLULAR AGING.....	5R01 AG00922-02	47,282
KILICK, KATHLEEN A.....	METABOLIC COMPARTMENTATION DURING DEVELOPMENT.....	1R01 GM25534-01	81,615
LEAVIS, PAUL C.....	REGULATION OF CARDIAC AND SKELETAL MUSCLE CONTRACTION.....	5R01 HL20464-02	40,480
LEHRER, SHERWIN S.....	INTRACELLULAR MUSCLE-BIOCHEMICAL STUDIES.....	5R01 EY02464-02	45,533
LEHRER, SHERWIN S.....	CARDIAC TROPOMYOSIN AND TROPOMYOSIN-ACTION INTERACTIONS.....	5R01 HL22461-02	90,160

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
LU, RENNE C.	STRUCTURE-FUNCTION STUDIES ON BRAIN TUBULIN AND ACTIN	5R01 GM24666-02	30,792
MITCHELL, DAVID H.	A GENETIC ANALYSIS OF AGING	5R01 AG00952-02	96,380
NUSSBAUM, ALEXANDER L.	CHEMICAL SYNTHESIS OF BIOLOGICALLY SIGNIFICANT DNA	5R01 GM24369-02	134,486
PAULUS, HENRY	EFFECT OF CELLULAR AGING ON ENZYME REGULATION	5R01 AG00804-02	79,805
PAULUS, HENRY	PEPTIDE ANTIBIOTICS AND BACTERIAL SPOREULATION	5R01 GM23149-03	124,911
SANADI, D. RAO	Oxidative phosphorylation in heart mitochondria	5R01 GM13641-13	143,374
SANADI, D. RAO	HO-TRANSLOCATION IN VESICLES AND PLANAR BILAYERS	1R01 GM26764-01	75,602
SARKAR, NILIMA	INVOLVEMENT OF RNA IN DNA SYNTHESIS	5R01 GM25022-02	55,099
SARKAR, NILIMA	FUNCTION OF POLYADENYLATE SEQUENCES IN BACTERIAL RNA	1R01 GM26517-01	63,715
SARKAR, SATYAPRIYA	BIOSYNTHESIS OF CARDIAC AND SKELETAL MUSCLE PROTEINS	5R01 AM13238-11	115,930
SEIDEL, JOHN C.	EPR STUDIES ON ROTATIONAL MOTION OF MYOSIN AND ACTIN	5R01 HL15391-08	130,653
SEIDEL, JOHN C.	ACTIN-MYOSIN INTERACTION IN PULMONARY SMOOTH MUSCLE	5R01 HL23249-02	67,126
STAFFORD, WALTER F. III	MYOSIN-LINKED REGULATION IN VERTEBRATE SMOOTH MUSCLE	7R23 HL25397-01	33,856
TAO, TERENCE C.	PROXIMITY RELATIONSHIPS AMONG MUSCLE PROTEINS	2R01 AM21673-03	91,538
THOMAS, DAVID A.	HEXOSE METABOLISM AS A FUNCTION OF AGING IN SLIME MOLDS	5R23 AG00649-03	51,339
WOHLRAB, HARTMUT	THE DEVELOPMENT-AGING TRANSITION IN MUSCLE TISSUES	5R01 AG00100-03	110,222
WRIGHT, BARBARA E.	DIFFERENTIATION, AGING AND DEATH IN DICTYOSTELIUM	2R01 AG00260-12	124,340
WRIGHT, BARBARA E.	COMPUTER ANALYSIS OF DIFFERENTIATION	5R01 AG00433-10	67,236
ORGANIZATION TOTAL	34	3,214,921	
BOSTON HEALTH AND HOSPITALS DEPARTMENT—BOSTON CITY HOSPITAL ZIP CODE 02118			
CHRISTENSEN, THOMAS G.	THE ABSORPTIVE FUNCTION OF CONDUCTING AIRWAYS	1R01 HL23495-01A1	53,326
HAUDENSCHILD, CHRISTIAN C.	VASCULAR ENDOTHELIUM: ADHESION, MOTILITY, COLLAGEN	1R01 HL23567-01	71,059
LEVIN, ROBERT M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5507 RR05569-15	98,506
MC CABE, WILLIAM R.	DEFENSE MECHANISM IN GRAM-NEGATIVE BACTEREMIA	2R01 AI14719-02A1	88,390
MC CABE, WILLIAM R.	BIOLOGY AND IMMUNOLOGY OF GRAM-NEGATIVE BACILLI	2R01 AI14789-03	144,488
MC MAHON, LILLIAN	A COMPREHENSIVE CENTER FOR SICKLE CELL DISEASE	5P60 HL15157-08	716,199
PALMER, KENNETH C.	ACUTE LUNG INJURY: PATHOLOGY OF DRUG MODIFIED REPAIR	1R23 HL23459-01	34,161
RICE, PETER A.	IMMUNOLOGY OF INFECTION WITH NEISSERIA GONORRHOEA	1R01 AI15633-01	53,670
SARAVIS, CALVIN A.	ASSAY OF HUMAN TUMOR OR ORGAN-ASSOCIATED ANTIGENS	1R01 CA26246-01	168,783
VAITUKAITIS, JUDITH L.	MECHANISMS MEDIATING GONADOTROPIN ACTION	3R01 HD09358-03S1	33,724
VAITUKAITIS, JUDITH L.	MECHANISMS MEDIATING GONADOTROPIN ACTION	2R01 HD09358-04	46,508
ZAMCHECK, NORMAN	PATHOLOGY OF THE DIGESTIVE TRACT MUCOUS MEMBRANE	5P01 CA04486-20	315,706
ORGANIZATION TOTAL	12	1,824,520	
BOSTON UNIVERSITY ZIP CODE 02215			
ALBERT, MARTIN L.	LANGUAGE AND COMMUNICATION IN THE ELDERLY: A CONFERENCE	1R13 AG01474-01	13,124
ALBRIGHT, JOHN T.	THE ANTIOXIDANT SYSTEM OF GAS-FILLED ORGANS	1R01 HL23338-01	56,608
ALEXANDER, EDWARD A.	EFFECT OF AGING ON RENAL FUNCTION	5R01 AG00028-02	85,343
ALEXANDER, EDWARD A.	RENAL CONTROL OF SODIUM EXCRETION	5R01 HL17458-05	141,464
APSTEIN, CARL S.	BASIC MECHANISMS OF ISCHEMIC MYOCARDIAL INJURY	1R01 HL23406-01	57,772
BADGER, ALISON	A SERUM IMMUNOSUPPRESSIVE FACTOR IN CANCER	2R01 CA15129-04A2	124,321
BENNETT, MICHAEL	IMMUNOBIOLOGY OF VIRAL LEUKEMIA AND ITS TREATMENT	5R01 CA15369-06	56,563
BENNETT, MICHAEL	CARDIAC ALLOGRAFTS IN AUTOLOGOUS RADIATION CHIMERAS	5R01 HL18186-05	65,661
BENNETT, MICHAEL	H-2 COMPATIBLE ALLOGENEIC GRAFT-VERSUS-HOST DISEASE	1R01 HL24204-01	72,904
BROITMAN, SELWYN A.	DIET, FLORA AND COLON TUMORIGENESIS	5R26 CA16750-05	99,342
CENTER, DAVID M.	RELATIONSHIP OF INFLAMMATION TO PULMONARY FIBROSIS	1R23 HL24483-01	48,643
CERMAK, LAIRD S.	HUMAN MEMORY AND AMNESIA CONFERENCE	1R13 HD13002-01	15,000
CHATTORAJ, SATI C.	ROLE OF CATECHOL ESTROGENS IN MAMMALIAN REPRODUCTION	5R01 HD11223-02	58,989
CHOBANIAN, ARAM V.	ARTERIAL METABOLISM, DIABETES AND ATHEROGENESIS	5R01 HL12869-10	104,373
CHOBANIAN, ARAM V.	PATHOGENESIS AND COMPLICATIONS OF HYPERTENSION	5P50 HL18318-04	1,380,643
CHRISTOPHER, CHARLES W.	REGULATION OF NUTRIENT TRANSPORT BY ANIMAL CELLS	1R01 GM27905-01	87,388
CLARKE, RICHARD H.	CARCINOGEN-DNA COMPLEXES: STRUCTURE AND INTERACTIONS	3R01 CA17922-03S1	8,211
COHEN, ALAN S.	SYNOVIAL MEMBRANE AND RELATED CONNECTIVE TISSUES	5R01 AM04599-19	225,972
COHEN, ALAN S.	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20613-03	219,671
CORWIN, LAURENCE M.	VITAMIN E FATTY ACIDS AND MEMBRANE FUNCTION	5R01 AM21618-02	57,370
CORWIN, LAURENCE M.	EFFECT OF VITAMIN E AND LIPIDS ON TUMORIGENICITY	1R01 CA26604-01	83,903
COUSER, WILLIAM G.	IMMUNOLOGIC MECHANISMS OF GLOMERULAR INJURY	5R01 AM17722-06	85,961
DEYKIN, DANIEL	ROLE OF PLATELET LIPIDS IN HEMOSTASIS AND THROMBOSIS	3R01 HL18586-03S1	7,051
ECKNER, ROBERT J.	BIOLOGICAL AND PHYSICAL PROPERTIES OF FRIEND VIRUS	2R01 CA19562-04	97,712

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
EGDAHL, RICHARD H.....	ENDOCRINE AND METABOLIC RESPONSE TO SHOCK AND TRAUMA.....	5R01 GM23870-04	178,882
ESSIG, ALVIN.....	PATHWAYS OF TRANSEPIHELIAL WATER FLOW.....	1R01 AM25535-01	121,406
FELDMAN, MARTIN L.....	DEGENERATION WITH ADVANCING AGE IN RAT VISUAL CORTEX.....	1R01 AG02123-01	53,830
FINE, RICHARD E.....	ACTIN AND OTHER FILAMENTS IN THE GROWING NEURON.....	2R01 NS10582-07	114,323
FRANZBLAU, CARL.....	RESPONSE OF THE LUNG TO INJURY.....	5P01 HL19717-03	1,051,706
FRANZBLAU, CARL.....	PULMONARY VASCULAR SMOOTH MUSCLE CELL DYNAMICS.....	5R01 HL23542-02	77,265
GOLDMAN, HENRY M.....	CLINICAL CANCER EDUCATION PROGRAM—ORAL ONCOLOGY.....	5R25 CA22980-02	56,590
GOODGLASS, HAROLD.....	APHASIA RESEARCH CENTER SUPPORT.....	5P50 NS06209-14	192,804
GORMAN, ANTHONY L.....	VISUAL RESPONSES TO LIGHT DECREMENT.....	5R01 EY01157-06	80,937
GORMAN, ANTHONY L.....	INTRACELLULAR CALCIUM EFFECTS ON MEMBRANE PERMEABILITY.....	5R01 NS11429-06	93,478
GUTERMAN, SONIA K.....	BACTERIAL MUTANTS WITH DEFECTIVE RNA POLYMERASE.....	5R01 GM24461-03	58,141
HAWIGER, JACK J.....	PATHOBIOLOGY OF THROMBOEMBOLIC DISORDERS.....	7R01 HL24119-01	78,013
HINDS, JAMES W.....	SERIAL SECTION ANALYSIS OF DEVELOPING MOUSE RETINA.....	5R01 EY01398-05	54,513
HOLLANDER, WILLIAM.....	ROLE OF THE ARTERIAL WALL IN ATHEROSCLEROSIS.....	5P01 HL13262-08	998,201
HOOD, WILLIAM B, JR.....	PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	5R01 HL14646-06	76,917
HOYT, RICHARD F, JR.....	CHARACTERIZATION OF SMALL-GRANULE CELLS IN THE LUNG.....	5R01 HL19379-04	65,156
HUMES, ARTHUR G.....	DEVELOPMENT OF NEURAL CONNECTIONS IN AN EMBRYO.....	5R01 NS14383-02	35,975
JACKSON, BENJAMIN T.....	BASIC FACTORS IN SURGERY: DEVELOPMENT OF HEMOPOIESIS.....	5R01 HD11471-02	81,211
JACKSON, BENJAMIN T.....	ROLE OF CATECHOLAMINES IN FETAL HOMEOSTASIS.....	5R01 HD12194-02	113,427
JENKINS, C DAVID.....	RECOVERY AFTER HEART SURGERY: BIO-BEHAVIORAL FACTORS.....	5R01 HL20637-03	318,425
JICK, HERSHEL.....	ACUTE AND LONG-TERM CLINICAL TOXICITY OF DRUGS.....	5R01 GM23430-03	336,256
KAMINER, BENJAMIN.....	REGULATORY PROTEINS IN VERTEBRATE SMOOTH MUSCLE.....	2R01 AM18207-03	78,605
KELMAN, ASHER D.....	MOLECULAR MECHANISMS OF PLATINUM AND RUTHENIUM DRUGS.....	3R01 CA18522-03S1	21,008
KUMAR, VINAY.....	STUDIES OF ISOLATED MARROW-DEPENDENT M CELLS.....	5R01 CA21401-03	66,075
LAING, RONALD A.....	STUDIES OF THE CORNEAL ENDOTHELIUM OF THE EYE.....	3R01 EY01227-04S1	147,966
LAING, RONALD A.....	OBJECTIVE FOCUSING FUNDUS CAMERA.....	5R01 EY01636-02	24,013
LAING, RONALD A.....	METABOLIC STUDIES OF CORNEAL TISSUES.....	5R01 EY01990-02	115,141
LANG, MICHAEL A.....	CELL VOLUME REGULATION DURING OSMOTIC STRESS.....	3R01 AM20403-02S1	1,636
LANG, MICHAEL A.....	CELL VOLUME REGULATION DURING OSMOTIC STRESS.....	5R01 AM20403-03	47,314
LAURSEN, RICHARD A.....	STRUCTURE AND FUNCTION OF HUMAN PLASMIN.....	3R01 HL15535-06S1	9,342
LEHMAN, WILLIAM J.....	REGULATION OF MUSCULAR CONTRACTION: A COMPARATIVE STUDY.....	5R01 AM17062-05	68,137
LEIBOWITZ, HOWARD M.....	STUDIES IN CORNEAL TRANSPLANTATION.....	5R01 EY00544-10	160,288
LEIBOWITZ, HOWARD M.....	DEVELOPMENT OF FUNCTIONAL BIOPOLYMERS FOR THE EYE.....	1R01 EY02978-01	92,961
LESLIE, CRYSTAL A.....	ADRENERGIC RECEPTOR-CYCLASE SYSTEM IN SENSITIZED LUNG.....	5R23 HL22011-02	41,754
LESSELL, SIMMONS.....	EXPERIMENTAL OPTIC NEUROPATHIES.....	3R01 EY00013-12S1	18,973
LIANG, CHANG-SENG.....	CONDITIONING EFFECTS OF CATECHOLAMINE INFUSIONS.....	1R01 HL24214-01	58,339
LOGERFO, FRANK W.....	APPLIED PULSATILE HEMODYNAMICS IN VASCULAR SURGERY.....	5R01 HL21796-02	87,888
MAKARSKI, JOSEPH S.....	REGULATION OF PULMONARY ENDOTHELIAL CELL ACTIVITIES.....	5R23 HL21189-02	41,734
MANDEL, RICHARD.....	ADDITIVE AND SYNERGISTIC EFFECTS OF MUTAGENS.....	1R01 CA27324-01	32,028
MATHE, ALEKSANDER A.....	AUTONOMIC NERVOUS SYSTEM FUNCTION IN BRONCHIAL ASTHMA.....	5R01 HL15677-07	18,936
MATOLTSY, ALEXANDER G.....	CHEMISTRY OF KERATINS AND THEIR PRECURSORS.....	5R01 AM05924-17	123,975
MONETTE, FRANCIS C.....	AN IMMUNOLOGICAL STUDY OF PLURIPOTENT STEM CELLS.....	2R01 AM17735-04A1	52,639
MOOLTEN, FREDERICK L.....	PROTECTIVE IMMUNITY TO CHEMICAL CARCINOGENS.....	1R01 CA23534-01A1	70,430
MOZDEN, PETER J.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18019-05	206,859
NILES, RICHARD M.....	BIOCHEMICAL FACTORS INVOLVED IN TUMOR CELL METASTASIS.....	3R01 CA18913-03S1	7,320
NILES, RICHARD M.....	CYCIC AMP METABOLISM IN CULTURED EPITHELIAL CELLS.....	1R01 CA25473-01	61,297
NIMBERG, RICHARD B.....	OSTEOCLAST ACTIVATING FACTOR IN METASTATIC CANCER.....	5R01 CA22062-03	80,828
O'BRYAN, PAUL M, JR.....	EARLY RECEPTOR POTENTIALS IN SINGLE VERTEBRATE CONES.....	3R01 EY01812-03S1	9,231
OBLER, LORRAINE K.....	LANGUAGE IN THE AGING BRAIN.....	1R23 AG01243-01	35,149
PETERS, ALAN.....	STRUCTURE AND ORGANIZATION OF THE CEREBRAL CORTEX.....	5R01 NS07016-13	85,332
POLGAR, PETER R.....	PROSTAGLANDINS, CYCLIC NUCLEOTIDES AND CELLULAR AGING.....	5R01 AG00455-05	82,715
RAVIOLA, GIUSEPPINA E.....	FUNCTIONAL ANATOMY OF THE ANTERIOR SEGMENT OF THE EYE.....	2R01 EY01349-05	116,652
RITTENHOUSE-SIMMONS, SUSAN.....	ROLE OF PHOSPHOINOSITIDES IN HUMAN PLATELET SECRETION.....	5R01 HL22502-02	31,022
ROSENBERG, ISADORE N.....	IODINE METABOLISM OF THE THYROID GLAND.....	5R01 AM02585-22	171,011
ROTHSCHILD, KENNETH J.....	BIOPHYSICAL STUDY OF ORIENTED PHOTORECEPTOR MEMBRANE.....	5R01 EY01242-03	67,717
RYSER, HUGUES J.....	PENETRATION OF MACROMOLECULES INTO MAMMALIAN CELLS.....	2R01 CA14551-07	107,483
SAIDE, JUDITH D.....	PROPERTIES AND ASSEMBLY OF Z-DISC PROTEINS.....	5R01 HL22985-02	55,276
SANDSON, JOHN I.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00533-11	581,943
SANDSON, JOHN I.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05380-18	201,413
SCHMID, KARL.....	CHEMISTRY OF HUMAN PROTEINS AND GLYCOPROTEINS.....	5R01 GM10374-17	126,176

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SCHMID, KARL.....	THE STRUCTURES OF HUMAN PULMONARY GLYCOPROTEINS.....	1R01 HL25011-01	78,853
SCHWARTZ, JOHN H.....	ENERGETICS OF URINARY ACIDIFICATION: THE PENTOSE SHUNT.....	5R01 AM20611-02	93,002
SHAPIRO, JEROLD M.....	GLAUCOMA RISK FROM TREATMENT OF SYSTEMIC HYPERTENSION.....	5R01 EY01788-04	114,370
SHEPRO, DAVID.....	ENDOTHELIAL CELL COMMUNICATION IN HOMEOSTASIS.....	5R01 HL16714-06	127,680
SIMONS, ELIZABETH R.....	THE NATURE OF THE COLLAGEN-PLATELET INTERACTION.....	3R01 HL15335-06S1	10,884
SIMONS, ELIZABETH R.....	BLOOD PLATELET INTERACTIONS WITH AGGREGATES.....	2R01 HL15335-07	67,503
SIMONS, ELIZABETH R.....	INVESTIGATIONS OF HEMOGLOBIN S PROPERTIES.....	5R01 HL16375-05	42,520
SINEX, F MAROTT.....	AGING IN CONNECTIVE TISSUE, BRAIN AND AUDITORY SYSTEM.....	3P01 AG00001-07S1	17,974
SINEX, F MAROTT.....	AGING IN CONNECTIVE TISSUE, BRAIN AND AUDITORY SYSTEM.....	5P01 AG00001-08	305,690
SIRKOY, MIKE B.....	MICROTRANSDUCER ANALYSIS OF URETHRAL FLOW.....	1R01 AM25781-01	22,306
SMALL, DONALD M.....	PHYSICAL CHEMISTRY OF BIOLOGICALLY ACTIVE LIPIDS.....	5R01 HL18623-13	371,350
SMALL, DONALD M.....	EFFECT OF DIETARY LECITHIN ON HDL AND OTHER LIPOPROTEINS.....	1R01 HL24739-01	93,159
SMITH, BARBARA D.....	COLLAGEN AND ITS RELATIONSHIP TO TUMORS.....	5R01 CA23540-02	37,565
SONENSHEIN, GAIL E.....	REGULATORY MECHANISMS IMMUNOGLOBULIN SYNTHESIS.....	1R01 AI16051-01	54,804
STANLEY, H EUGENE.....	RAMAN FTIR STUDIES OF MEMBRANE LIPID FLEXIBILITY.....	5R01 EY01996-03	109,592
STEEL, R KNIGHT.....	A PROPOSAL TO INITIATE INNOVATIVE RESEARCH IN AGING.....	5R21 AG01178-02	32,686
TAMARIN, ROBERT H.....	EXPERIMENTAL MANIPULATION OF POPULATIONS.....	5R01 HD11682-02	30,341
TAMARIN, ROBERT H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07043-14	49,811
TROXLER, ROBERT F.....	SYNTHESIS OF BILE PIGMENTS IN PLANTS.....	2R01 GM22822-04	60,420
ULLRICK, WILLIAM C.....	STUDIES ON THE Z-LINES OF TENOTOMIZED MUSCLE.....	5R01 NS14033-03	81,034
WALSH, CAROL T.....	NEONATAL G.I. ABSORPTION OF LEAD, CADMIUM AND MERCURY.....	5R23 ES01708-02	24,574
WEINSTEIN, MARK J.....	PURIFICATION, STRUCTURE AND FUNCTION OF FACTOR VIII.....	5R01 HL22355-02	18,262
WHITE, EDWARD L.....	SYNAPTIC CONNECTIVITY IN CEREBRAL CORTEX.....	1R01 NS14838-01	58,169
WILLIAMS, LESTER F, JR.....	ROLE OF THE GALL BLADDER IN PATHOGENESIS OF GALLSTONES.....	5R01 AM15304-08	137,101
YOUNG, DELANO V.....	TRANSFORMED CELL GROWTH: SERUM PEPTIDE, LIPID FACTORS.....	3R01 CA20040-03S1	10,839
ZOLLER, LAWRENCE C.....	STRUCTURE AND FUNCTION OF SPECIALIZED GRANULOSA CELLS.....	5R01 HD12684-02	43,861
ZURIF, EDGAR B.....	COMMUNICATION IN APHASIA: MECHANISMS AND REHABILITATION.....	2R01 NS11408-07	98,678
ORGANIZATION TOTAL	111 13,091,079		
CENTER FOR BLOOD RESEARCH ZIP CODE 02115			
ALPER, CHESTER A.....	INVESTIGATIONS OF HUMAN COMPLEMENT.....	5R01 AI14157-10	127,580
ALPER, CHESTER A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05626-13	44,959
ANDREWS, JUDITH A.....	ACTIVATION OF THE FIRST COMPONENT OF BOVINE COMPLEMENT.....	5R23 AI14779-02	45,324
ANTONIADES, HARRY N.....	CHARACTERIZATION OF SERUM FACTORS INDUCING MITOSIS.....	5R01 CA15388-06	130,805
BING, DAVID H.....	SPECIFICITY OF PROTEASES CLR, CLS, PLASMIN AND THROMBIN.....	5R01 AM17351-07	76,774
BING, DAVID H.....	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS.....	1R01 HL24856-01	186,337
DAVIS, ALVIN E, III.....	INTERACTION OF THE COMPLEMENT AND COAGULATION SYSTEMS.....	5R23 HL22799-02	48,900
KENNEY, DIANNE M.....	PLATELET FUNCTION—MICROTUBULES, STRUCTURAL PROTEINS.....	1R23 HL24311-01	44,825
REMOLD-O'DONNELL, EILEEN.....	MACROPHAGE ACTIVATION BY LYMPHOCYTE MEDIATORS.....	3R01 CA21225-03S1	6,273
REMOLD-O'DONNELL, EILEEN.....	MACROPHAGE ACTIVATION BY LYMPHOCYTE MEDIATORS.....	2R01 CA21225-04	97,169
SHAEFFER, JOSEPH R.....	HEMOGLOBIN SYNTHESIS IN SICKLE CELL TRAIT INDIVIDUALS.....	5R01 HL24021-03	82,248
ORGANIZATION TOTAL	11 891,194		
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
ANAST, CONSTANTINE S.....	CALCITONIN AND PARATHYROID HORMONE IN CHILDREN.....	7R01 HD13864-01	95,133
AUSPRUNK, DIANNA H.....	STRUCTURE AND DEVELOPMENT OF REGENERATING CAPILLARIES.....	5R01 HL21994-02	58,602
AVERY, MARY E.....	GENERAL CLINICAL RESEARCH CENTER SUPPORT.....	2M01 RR00128-15	712,427
BARLOW, CHARLES F.....	MENTAL RETARDATION RESEARCH PROGRAM.....	5P30 HD06276-08	442,719
BERNHARD, WILLIAM F.....	LEFT VENTRICULAR-AORTIC BYPASS AND COMPOSITE PROSTHESIS.....	5R01 HL20037-03	29,179
BOREL, YVES R.....	IMMUNOLOGIC TOLERANCE TO DNA IN MURINE LUPUS NEPHRITIS.....	5R01 AI13867-04	98,831
BOROW, KENNETH M.....	CARDIAC FUNCTION IN REPAIRED CONGENITAL HEART DISEASE.....	1R23 HL24356-01	44,409
BRAZELTON, T BERRY.....	DEVELOPMENT OF PRE- AND FULL-TERM INFANTS.....	5R01 HD10889-03	120,835
BRESLOW, JAN L.....	CYSTIC FIBROSIS: A CELL CULTURE APPROACH.....	5R01 AM20010-03	100,128
BRESLOW, JAN L.....	IN VITRO STUDY OF LIPOPROTEINS IN VASCULAR DISEASE.....	5R01 HL15895-06	65,935
BROSEGHINI, ALBERT L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05482-17	201,413
BURCHFIELD, JAMES L.....	SYNAPTIC MECHANISMS IN HIPPOCAMPAL EPITHEPTOGENESIS.....	1R01 NS15266-01	72,291
CARLSON, MARY L.....	CONSEQUENCES OF PARIETAL LESIONS.....	2R01 NS14261-02A1	97,322
COHEN, HARVEY J.....	MYELOID DEVELOPMENT IN AN INDUCED LEUKEMIC CELL LINE.....	1R01 CA26506-01	37,156
COLTEN, HARVEY R.....	HUMAN SERUM COMPLEMENT GENETICS.....	5P01 AI15033-02	256,682
COLTEN, HARVEY R.....	LUNG CELL METABOLISM IN VITRO.....	5R01 HL22487-02	65,775

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
DAVIDSON, RICHARD L.	BUDR DEPENDENCE, MALIGNANCY, AND DIFFERENTIATION.....	5R01 CA16751-06	78,943
DAVIDSON, RICHARD L.	CHEMICAL MUTAGENESIS MECHANISMS IN MAMMALIAN CELLS.....	1R01 CA26195-01	91,572
DAVIS, MICHAEL A.	AN IONIC G8GA GENERATOR FOR USE IN NUCLEAR MEDICINE.....	1R01 GM26780-01	69,546
DE LUCA, CARLO J.	FORCE-EMG SIGNAL RELATION FOR ISOMETRIC CONTRACTIONS.....	5R01 AM19665-03	69,222
DICHTER, MARC A.	CNS CELL CULTURE PHYSIOLOGY & MECHANISMS OF EPILEPSY.....	7R01 NS15362-01	53,872
DUFFY, FRANK H.	THE ROLE OF INHIBITION IN EXPERIMENTAL AMBLYOPIA.....	3R01 EY01901-03S1	39,927
DUFFY, FRANK H.	AUTOMATED NONINVASIVE DIAGNOSIS OF BRAIN DYSFUNCTION.....	1R01 NS14767-01A1	114,370
EDELSON, PAUL J.	MECHANISMS OF MACROPHAGE ANTITUMOR ACTIVATION.....	5R01 CA23503-03	39,670
ELLISON, ROBERT C.	CHILDHOOD DETERMINANTS OF BLOOD PRESSURE.....	3R01 HL19922-03S1	25,577
FOLKMAN, MOSES J.	TUMOR ANGIOGENESIS: A CONTROL POINT IN TUMOR GROWTH.....	5R01 CA14019-06	216,160
FOX, THOMAS O.	STEROID RECEPTOR MECHANISMS IN DEVELOPING MOUSE BRAIN.....	5R01 HD10818-03	50,690
GABBAY, KENNETH H.	NEUROPATHY IN DIABETES: ROLE OF SORBITOL PATHWAY.....	5R01 AM15019-09	80,158
GABBAY, KENNETH H.	BLOOD GLUCOSE, HGB A1C, AND DIABETIC VASCULAR DISEASE.....	3R01 HL20764-03	53,863
GABBAY, KENNETH H.	BLOOD GLUCOSE, HGB A1C, AND DIABETIC VASCULAR DISEASE.....	5R01 HL20539-04	355,849
GALLOP, PAUL M.	AGING CELLS AND TISSUES.....	5P01 AG00376-05	341,903
GALLOP, PAUL M.	ELASTIN & CALCIFICATION IN PULMONARY & VASCULAR DISEASE.....	5R01 HL20764-03	86,319
GERALD, PARK S.	GENETIC AND CYTOGENETIC STUDY OF MENTAL RETARDATION.....	5P01 HD04807-11	438,352
GERALD, PARK S.	GENETIC STUDIES OF LYSOSOMAL DISORDERS.....	5R01 HD06285-08	73,839
GILLES, FLOYD H.	CHILDHOOD BRAIN TUMOR CONSORTIUM.....	2R01 CA20462-03	399,314
GLIMCHER, MELVIN J.	THE BIOLOGY OF SKELETAL AND MINERALIZED TISSUES.....	5P01 AM15671-09	623,672
GRAND, RICHARD J.	DEVELOPMENT AND CONTROL OF SYNTHESIS AND SECRETION.....	2R01 AM14523-10	91,855
HOLTROP, MARIJE E.	ULTRASTRUCTURAL ANALYSIS OF BONE CELL METABOLISM.....	5R01 AM17834-05	112,667
HUANG, ALICE S.	REPLICATION OF VESICULAR STOMATITIS VIRUS.....	1R01 AI16625-01	123,178
KIRSCHNER, DANIEL A.	MYELIN MEMBRANE STRUCTURE: STABILITY AND PATHOLOGY.....	5R01 NS14326-02	69,852
KLASGRUN, MICHAEL	GROWTH CONTROL BY A MITOGEN PURIFIED FROM CARTILAGE.....	5R01 CA21763-03	73,787
LATT, SAMUEL A.	PROTEIN-DNA INTERACTIONS IN HUMAN CHROMOSOMES.....	2R01 GM21121-06	132,932
LEVITON, ALAN	CLASSIFICATION AND ETIOLOGY OF CHILDHOOD BRAIN TUMORS.....	5R01 CA21819-03	140,227
LEVY, ROBERT J.	CARBOXYGLUTAMIC ACID IN CARDIOVASCULAR DISEASE.....	1R23 HL24463-01	46,538
LEW, KENNETH K.	GENETIC AND HORMONAL FACTORS IN GONADAL AGING.....	5R01 AG00971-02	81,606
LIAN, JANE B.	ROLE OF GAMMA-CARBOXYGLUTAMIC ACID IN BONE & ENAMEL.....	5R23 DE04641-03	30,909
LIAN, JANE B.	BLOOD-MATERIAL INTERACTIONS.....	1R01 HL24029-01	186,256
LUX, SAMUEL E, IV	PATHOPHYSIOLOGY OF RED CELL MEMBRANE DISEASES.....	5R01 AM21836-02	114,797
MANSOUR, JOSEPH M.	DEVELOPMENT OF A CLINICALLY APPLICABLE MODEL OF GAIT.....	1R01 AM22165-01	59,910
MITCHELL, ALLEN A.	INTENSIVE DRUG SURVEILLANCE IN HOSPITALIZED CHILDREN.....	5R01 GM24781-02	218,616
MULLEN, RICHARD J.	DEVELOPMENT GENETICS OF THE CENTRAL NERVOUS SYSTEM.....	5R01 NS13877-02	55,050
NADAS, ALEXANDER S.	MANAGEMENT OF PATENT DUCTUS IN PREMATURE INFANTS.....	5R10 HL23121-02	1,079,905
NATHAN, DAVID G.	LYSIS OF RED CELLS BY HEMOGLOBIN AND MEMBRANE DISEASE.....	5R01 AM15322-14	148,266
NATHAN, DAVID G.	WHITE BLOOD CELL FUNCTION IN HEMATOLOGIC DISORDERS.....	1R01 CA26033-01	44,183
NATHAN, DAVID G.	IRON OVERLOAD IN HOMOZYGOUS BETA THALASSEMIA.....	3R01 HL20000-03S1	5,635
NATHAN, DAVID G.	IRON OVERLOAD IN HOMOZYGOUS BETA THALASSEMIA.....	2R01 HL20000-04	62,939
NEEDLEMAN, HERBERT L.	DEVELOPMENTAL EFFECTS OF LOW LEVEL LEAD EXPOSURE.....	2P01 HD08945-04A1	430,176
NORWOOD, WILLIAM I.	HYPOTHERMIC CIRCULATORY ARREST—CEREBRAL VASCULAR CHANGE.....	5R01 HL20143-03	75,346
ORKIN, STUART H.	MOLECULAR ANALYSIS OF NORMAL AND THALASSEMIC DNA.....	1R01 HL23689-01	46,490
RABINOVITCH, MARLENE	PULMONARY VASCULAR GROWTH IN CONGENITAL HEART DEFECTS.....	1R01 HL24418-01	53,405
REID, LYNNE M.	TYPES AND MECHANISMS OF PULMONARY HYPERTENSION.....	5R01 HL19225-03	131,753
REID, LYNNE M.	BRONCHIAL MUCUS PRODUCTION IN ORGAN CULTURE.....	5R01 HL22444-02	95,142
REID, LYNNE M.	EFFECT OF HYPOXIA ON PVSM AND ITS PRECURSOR CELLS.....	5R01 HL23232-02	68,613
ROFFLER-TARLOV, SUZANNE K.	EFFECTS OF PURKINJE CELL LOSS ON THE DEEP NUCLEI.....	1R01 NS14937-01	59,733
ROSEN, FRED S.	REACTIONS AND METABOLISM OF IMMUNE PROTEINS AND CELLS.....	5P01 AI05877-16	314,312
ROSEN, FRED S.	IMMUNOLOGIC MECHANISMS IN RENAL DISEASES IN CHILDHOOD.....	5P01 AM16392-07	244,997
SCHNEEBERGER, EVELINE E.	PERMEABILITY OF THE LUNG TO WATER-SOLUBLE SOLUTES.....	1R01 HL23290-01	71,090
SIDMAN, RICHARD L.	OPTIC NERVE AXON GROWTH IN MOUSE PIGMENTATION MUTANTS.....	1R01 EY03225-01	99,703
SIDMAN, RICHARD L.	BRAIN DEVELOPMENT IN NORMALS AND MUTANTS.....	2R01 NS11237-07A1	138,184
SIDMAN, RICHARD L.	SYNTHETIC GUIDANCE SYSTEM FOR NERVE FIBER GROWTH.....	5R01 NS14768-02	259,143
SNODGRASS, S. ROBERT	ABNORMAL MOVEMENTS AND PHARMACOLOGY OF THE FOREBRAIN.....	5R01 NS12368-05	23,095
SNODGRASS, S. ROBERT	DEVELOPMENTAL PHARMACOLOGY OF CNS SYNAPSES IN CULTURE.....	5R01 NS14454-02	21,630
SYTKOWSKI, ARTHUR J.	HUMAN RENAL CANCER AND HEMATOPOIESIS.....	1R01 CA26105-01	96,394
WEINER, HOWARD L.	MOLECULAR PATHOGENESIS OF REOVIRUS INDUCED DISEASE.....	7R01 NS15735-01	37,568
ORGANIZATION TOTAL	74	10,947,537	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION ZIP CODE 02114			
ADLER, ALICE J.....	BIOCHEMICAL ASPECTS OF RETINAL ADHESION.....	1R01 EY03101-01	65,049
ADOLPH, ALAN R.....	RETINAL SYNAPTIC MECHANISMS AND VISUAL FUNCTION.....	5R01 EY01703-03	70,118
ALLANSMITH, MATHEA R.....	OCULAR ANAPHYLAXIS.....	5R01 EY02099-03	81,591
ALLANSMITH, MATHEA R.....	THE SECRETORY IGA SYSTEM OF THE EYE.....	1R01 EY02882-01	84,619
BERMAN, MICHAEL B.....	CELLULAR AND BIOCHEMICAL BASES OF CORNEAL ULCERATION.....	2R01 EY01246-06	139,663
CHAKRABARTI, BIRESWAR.....	ROLE OF HYALURONIC ACID IN THE VITREOUS STRUCTURE.....	3R01 EY01760-03S2	13,510
CINTRON, CHARLES.....	CORNEAL WOUND HEALING.....	5R01 EY01199-06	99,687
DELORI, FRANCOIS C.....	TRICHROMATIC OXIMETRY OF RETINAL VESSELS.....	5R01 EY02094-02	83,388
DOANE, MARSHALL G.....	THE INTERACTION OF LIDS & TEARS IN CORNEAL WETTING.....	2R01 EY01846-03	83,001
FEKE, GILBERT T.....	HUMAN RETINAL BLOOD FLOW AND LASER VELOCIMETRY.....	5R01 EY01303-05	71,881
FOSTER, CHARLES S.....	IMMUNOPATHOLOGY IN ULCERATIVE KERATITIS.....	1R01 EY03063-01	115,036
GIPSON, ILENE K.....	CELL MOTILITY AND ADHESION IN CORNEAL WOUND HEALING.....	7R01 EY03306-01	82,210
HARTLINE, PETER H.....	PHOTORESPONSE KINETIC: EFFECTS OF ADAPTATION.....	5R01 EY02491-03	51,629
HIROSE, TATSUO.....	SIMULTANEOUS MACULA VER AND ERG IN FUNDUS DISEASES.....	2R01 EY01259-04A1	38,346
HULTSCH, ERWIN.....	CHEMISTRY & MORPHOLOGY OF VITREOUS REGENERATION.....	5R01 EY02427-02	105,285
HULTSCH, ERWIN.....	PATHOPHYSIOLOGY OF VITREOUS.....	1R01 EY02895-01	71,104
LIU, HSIAO-SU.....	SUSTAINED-RELEASE CHEMOTHERAPY FOR OCULAR MALIGNANCY.....	5R01 EY02917-02	102,624
MC MEEL, J WALLACE.....	STUDY OF RETINAL CIRCULATION IN DIABETES.....	5R01 EY02164-02	75,544
MUKAI, NORITSUGU.....	PATHOGENESIS OF DIABETIC RETINOPATHY.....	5R01 EY02062-02	82,624
MUKAI, NORITSUGU.....	RETINAL TUMOR CELLS LINES IN TWO ANIMAL MODELS.....	1R01 EY03171-01	83,499
NEUFELD, ARTHUR H.....	TROPIC INFLUENCES ON THE CORNEAL EPITHELIUM.....	5R01 EY02360-03	39,020
NEUFELD, ARTHUR H.....	MEDIATORS THAT REGULATE AQUEOUS HUMOR DYNAMICS.....	5R01 EY02367-03	111,295
PECZON, BENIGNO D.....	OCULAR BASEMENT MEMBRANES IN DIABETIC RETINOPATHY.....	3R01 EY01564-04S1	1,879
PECZON, BENIGNO D.....	OCULAR BASEMENT MEMBRANES IN DIABETIC RETINOPATHY.....	5R01 EY01564-05	74,324
POMERANTZEFF, OLEG.....	OPTICS APPLIED TO DIAGNOSIS AND TREATMENT OF EYE DISEASE.....	5R01 EY01975-03	145,189
POMERANTZEFF, OLEG.....	HIGH RESOLUTION, WIDE-ANGLE TV OPHTHALMOSCOPE.....	5R01 EY02521-02	103,351
POMERANTZEFF, OLEG.....	EVALUATE KRYPTON LASER IN PHOTOCOAGULATION THERAPY.....	5R01 EY02725-02	91,764
REFOJO, MIGUEL F.....	SYNTHETIC HYDROPHILIC POLYMERS FOR EYE SURGERY.....	5R01 EY00327-13	107,145
REIF-LEHRER, LIANE.....	BIOCHEMICAL CONTROL IN NORMAL AND DISEASED RETINAS.....	2R01 EY02171-03	142,853
SCHEPENS, CHARLES L.....	EYE RESEARCH CORE SERVICES SUPPORT.....	5P30 EY01784-04	380,130
SCHEPENS, CHARLES L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05527-17	104,284
SNODDERLY, D MAX, JR.....	FUNCTIONAL DESCRIPTION OF VISUAL MECHANISMS.....	2R01 EY01520-04A1	66,064
THOFT, RICHARD A.....	METABOLISM OF OCULAR SURFACE EPITHELIUM.....	5R01 EY01830-03	70,798
THOFT, RICHARD A.....	EFFECTS OF DIABETES MELLITUS ON OCULAR SURFACE.....	1R01 EY03061-01	33,588
TREMPE, CLEMENT L.....	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY.....	5R10 EY02470-02	110,083
ORGANIZATION TOTAL	35 3,182,175		
FAULKNER HOSPITAL ZIP CODE 02130			
MURPHY, RAYMOND L, JR.....	RESEARCH ON LUNG SOUNDS.....	1R01 HL23318-01	102,083
ORGANIZATION TOTAL	1 102,083		
FORSYTH DENTAL CENTER ZIP CODE 02115			
BRUDEVOLD, FINN.....	MEASUREMENTS OF ENAMEL PERMEABILITY AS RELATED TO CARIES.....	1R01 DE05253-01	107,235
GIBBONS, RONALD J.....	MICROBIAL ECOLOGY AND ITS RELATION TO DENTAL DISEASE.....	5P01 DE02847-11	518,138
GRON, POUL.....	INTERACTION OF TOPICAL FLUORIDE WITH HUMAN ENAMEL.....	5R01 EY05067-02	77,396
HAY, DONALD I.....	TOOTH-SALIVA INTERFACE PHENOMENA AND DENTAL CARIES.....	5R01 DE03915-06	109,130
HEELLEY, JOHN D.....	ADAPTIVE GROWTH POTENTIAL OF EMBRYONIC CARTILAGE.....	5R01 DE04236-03	58,086
HEIN, JOHN W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05483-17	107,496
KASHKET, SHELBY.....	FLUORIDE AND THE METABOLISM OF PLAQUE BACTERIA.....	5R01 DE03917-05	46,206
MOORREES, COENRAAD F.....	FACIAL AND DENTAL GROWTH IN PRE- AND POST-ADOLESCENTS.....	3R01 DE02873-11S1	73,913
MOORREES, COENRAAD F.....	FACIAL AND DENTAL GROWTH IN PRE- AND POST-ADOLESCENTS.....	5R01 DE02873-12	158,665
MORENO, EDGARD C.....	TRANSPORT IN ENAMEL & SOLUBILITY OF FLUORIDATED APATITE.....	5R01 DE03187-08	184,002
SKOBE, ZIEDONIS.....	COMPARATIVE ULTRASTRUCTURE OF MAMMALIAN AMELOGENESIS.....	5R01 DE04230-05	49,705
SOCRANSKY, SIGMUND S.....	MICROBIAL COMPOSITION OF DEVELOPING DENTAL PLAQUE.....	5R01 DE03488-08	90,705
SOCRANSKY, SIGMUND S.....	CENTER FOR CLINICAL RESEARCH IN PERIODONTAL DISEASES.....	5P50 DE04881-03	616,874
TAUBMAN, MARTIN A.....	IMMUNE PHENOMENA IN EXPERIMENTAL PERIODONTAL DISEASE.....	2R01 DE03420-07	90,007
TAUBMAN, MARTIN A.....	SECRETORY IMMUNE RESPONSE AND S. MUTANS ENZYME ANTIGENS.....	5R01 DE04733-03	116,327
WETHERELL, JOHN R.....	IMMUNOPATHOGENICITY OF HUMAN PERIODONTOSIS BACTERIA.....	5R23 DE04427-02	13,722

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ORGANIZATION TOTAL	16	2,417,607	
HARVARD UNIVERSITY ZIP CODE 02115			
ABRAMS, HERBERT L.....	DIAGNOSTIC RADIOLOGY RESEARCH CENTER.....	5P50 GM18674-08	695,150
ADELSTEIN, S JAMES.....	CYTOCHEMICAL AND MACROMOLECULAR RADIATION EFFECTS.....	5R01 AM04219-20	107,279
ADELSTEIN, S JAMES.....	THERAPEUTIC/TOXIC ACTION OF ELECTRON-EMITTING NUCLIDES.....	5R01 CA15523-06	83,909
ADELSTEIN, S JAMES.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05381-18	201,413
ALBERTINI, DAVID F.....	MEMBRANE DIFFERENTIATION DURING FOLLICULOGENESIS.....	5R01 HD11769-02	77,112
AMOS, HAROLD.....	SUGARS, GLYCOPROTEINS: NORMAL AND MALIGNANT CELLS.....	5R01 CA19015-04	113,502
ANDERSON, EVERETT.....	COMPARATIVE CYTOLOGY STUDIES.....	5R01 HD06822-08	96,011
AULD, DAVID S.....	TRANSIENT INTERMEDIATES IN ENZYME CATALYSIS.....	5R01 GM24968-02	73,143
BAKKER, VERONICA M.....	CONDYLECTOMY AND ANTERIOR POSITIONING OF THE MANDIBLE.....	1R23 DE05540-01	12,150
BARBER, FRANK E.....	SCANNING ACOUSTIC MICROPROBE FOR CANCER DIAGNOSIS.....	1R01 CA25938-01	185,683
BARGER, A CLIFFORD.....	KIDNEY FUNCTION IN EXPERIMENTAL HEART FAILURE.....	3R01 HL02493-22S1	35,068
BARGER, A CLIFFORD.....	REGULATION OF BLOOD PRESSURE.....	2R01 HL19467-04	139,206
BECKWITH, JONATHAN R.....	REGULATION OF TRANSCRIPTION INITIATION AND TERMINATION.....	5R01 GM13017-15	52,081
BEEUWKES, REINIER, III.....	ELECTRON PROBE STUDIES OF THE RENAL MEDULLA.....	5R01 AM18249-05	74,533
BELLI, JAMES A.....	RADIATION AND DRUG EFFECTS IN MAMMALIAN CELLS.....	1R01 CA25333-01	165,469
BELLYE, ANTHONY R.....	MAMMALIAN SPERMIOGENESIS: ANALYSIS OF NUCLEAR PROTEIN.....	5R01 HD08270-06	131,057
BELLYE, ANTHONY R.....	SERTOLI CELL FUNCTION IN MAMMALIAN SPERMATOGENESIS.....	1R01 HD12600-01	99,287
BENACERRAF, BARUJ.....	LYMPHOCYTE BIOLOGY PROGRAMS.....	5P01 AI14732-02	1,004,166
BENACERRAF, BARUJ.....	STUDY OF EXPERIMENTAL CANCER IMMUNOLOGY.....	5P01 CA14723-07	1,138,462
BENJAMIN, THOMAS L.....	MECHANISM OF CELL TRANSFORMATION BY POLYOMA VIRUS.....	5R01 CA19567-03	186,470
BENJAMIN, THOMAS L.....	EFFECTS OF HR-T MUTATIONS ON POLYOMA GENE EXPRESSION.....	1R01 CA25390-01	67,914
BENOS, DALE J.....	SODIUM ENTRY INTO AMILORIDE-SENSITIVE EPITHELIA.....	1R01 AM25886-01	71,217
BERSON, ELIOT L.....	ELECTROPHYSIOLOGICAL STUDIES OF RETINAL DEGENERATIONS.....	2R01 EY00169-09	162,310
BERSON, ELIOT L.....	STUDIES OF RETINITIS PIGMENTOSA AND ALLIED DISEASES.....	2P50 EY02014-03	243,399
BIGGERS, JOHN D.....	PREIMPLANTATION SWELLING OF THE BLASTOCYST.....	1R01 HD12353-01	92,849
BIGNAMI, AMICO.....	BRAIN SPECIFIC PROTEIN (GFA PROTEIN) IN ASTROCYTES.....	2R01 NS13034-05	80,150
BLOUT, ELKAN R.....	PEPTIDES AND PROTEINS.....	3R01 AM07300-17S1	20,000
BLOUT, ELKAN R.....	PEPTIDES AND PROTEINS.....	5R01 AM07300-18	149,738
BLOUT, ELKAN R.....	SYNTHESIS OF OLIGOPEPTIDES AND CYCLIC PEPTIDES.....	5R01 AM10794-13	98,278
BLOUT, ELKAN R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05446-18	196,628
BLUMBERG, PETER M.....	MECHANISM OF ACTION OF PHORBOL DIESTERS IN VITRO.....	5R01 CA22895-02	74,113
BRAIN, JOSEPH D.....	FACTORS INFLUENCING DEPOSITION OF INHALED PARTICLES.....	5R01 ES01016-05	51,671
BRAIN, JOSEPH D.....	PULMONARY SCOR—CHRONIC DISEASES OF THE AIRWAYS.....	5P50 HL19170-03	503,346
BRAUNWALD, EUGENE.....	THE DEVELOPMENT AND REGRESSION OF CARDIAC HYPERTROPHY.....	5P01 HL20552-03	532,356
CANICK, JACOB A.....	REGULATION OF AROMATIZATION IN HYPOTHALAMIC CULTURES.....	1R01 HD12337-01	46,169
CARRAWAY, ROBERT E.....	BIOCHEMISTRY OF BRAIN AND INTESTINAL NEUROTENSIN(S).....	2R01 AM19428-04	104,001
CARRAWAY, ROBERT E.....	STRUCTURE AND ROLE(S) OF GASTRIC AND THYMIC PEPTIDES.....	5R01 MD21271-02	63,925
CERNY, JAN.....	REGULATORY MECHANISMS OF NEOPLASIA.....	3R01 CA14922-06S1	41,467
CHAN-PALAY, VICTORIA L.....	SEROTONIN LOCALIZATION IN CEREBELLUM AND BRAIN STEM.....	1R01 NS14740-01A1	93,477
CHYLACK, LEO T, JR.....	LENS METABOLISM AND CATARACT FORMATION.....	5R01 EY01276-06	224,932
COHEN, JONATHAN B.....	NEUROCHEMICAL BASIS OF CHOLINERGIC EXCITABILITY.....	5R01 NS12408-05	59,010
COHN, LAWRENCE H.....	LONG-TERM EFFECTS OF MYOCARDIAL PROTECTION.....	5R01 HL21786-02	71,875
COLE, PHILIP.....	BREAST PARENCHYMAL PATTERNS AND BREAST CANCER RISK.....	1R01 CA24797-01	105,794
COTRAN, RAMZI S.....	PATHOPHYSIOLOGY OF THE ENDOTHELIUM.....	5P01 HL22602-02	508,717
DAVIES, PETER F.....	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS.....	1R01 HL24612-01	103,417
DAVIS, BERNARD D.....	MEMBRANE-ASSOCIATED RIBOSOMES AND PROTEIN SECRETION.....	2R01 GM16835-11	138,746
DAVIS, MICHAEL A.....	CHEMISTRY OF TECHNETIUM RELATED TO NUCLEAR MEDICINE.....	5R01 GM23270-03	120,274
DAWIDOWICZ, ELIEZAR A.....	PHYSICAL STUDY OF LIPID MOTION IN RED CELL MEMBRANES.....	5R01 GM22175-04	78,322
DE PAMPHILIS, MELVIN L.....	TUMOR VIRUS DNA REPLICATION: A PROBE INTO ONCOGENESIS.....	5R01 CA15579-06	106,755
DIAMANDOPOULOS, GEORGE T.....	VIRAL CARCINOGENESIS WITH SPECIAL REFERENCE TO SV40.....	5R01 CA08731-14	152,976
DICE, JAMES F, JR.....	PROTEIN DEGRADATION IN DIABETES AND STARVATION.....	5R01 AM25307-02	94,278
DRAGER, URSULA C.....	DEVELOPMENTAL DEFECTS IN VISUAL SYSTEM OF MICE.....	5R01 EY01938-03	65,686
DYM, MARTIN.....	THE ROLE OF THE SERTOLI CELL IN SPERMATOGENESIS.....	5R01 HD06969-06	69,438
DYM, MARTIN.....	MONKEY REPRODUCTIVE TRACT AFTER VASECTOMY.....	5R01 HD11606-02	65,359
EDWARDS, ROSS B.....	STUDIES OF PIGMENT EPITHELIUM IN VITRO: PHAGOCYTOSIS.....	3R01 EY02028-02S1	3,861
EDWARDS, ROSS B.....	STUDIES OF PIGMENT EPITHELIUM IN VITRO: PHAGOCYTOSIS.....	5R01 EY02028-03	99,876
EFSTRATIADIS, ARGIRIS.....	STRUCTURE AND TRANSCRIPTION OF INSULIN GENES.....	1R01 AM25779-01	146,721

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
EISENSTADT, ERIC	MUTAGENIC SPECIFICITY OF ENVIRONMENTAL CARCINOGENS	1R01 CA26135-01	111,199
EISENSTADT, ERIC	MUTAGENICITY AND METABOLISM OF CYCLOPENTA(C,D)PYRENE	1R01 ES02021-01	85,600
ESSEX, MYRON E	ONCORNAVIRUS-ASSOCIATED CELL MEMBRANE ANTIGENS	5R01 CA13885-05	72,200
EVANS, CARLA A	THE PERIOSTEAL INTERFACE IN CRANIOFACIAL DEVELOPMENT	5R01 DE04684-03	48,239
FALK, LAWRENCE A, JR	STUDY OF HUMAN AND SIMIAN LYMPHOTROPIC HERPES VIRUSES	1R01 CA27225-01	110,004
FELDMAN, HENRY A	MATHEMATICAL MODELS OF BRANCHING IN THE HUMAN LUNG	5R23 HL21855-02	25,406
FELDMAN, ROY S	BONE IN VITRO: ULTRASTRUCTURE AND AUTORADIOGRAPHY	1R23 DE05332-01	17,150
FERRIS, BENJAMIN G, JR	EFFECTS OF SO2 AND RESPIRABLE PARTICULATES ON HEALTH	5R01 ES01108-05	453,784
FERRIS, BENJAMIN G, JR	EFFECTS OF SO2 AND RESPIRABLE PARTICULATES ON HEALTH	2R01 ES01108-06	1,309,677
FIELDS, BERNARD N	GENETICS OF REOVIRUS	5R01 AI13178-04	113,871
FISCHBACH, GERALD D	SYNAPSE FORMATION IN CELL CULTURE	2R01 NS11160-07	151,947
FOSSEL, ERIC T	DYNAMICS OF ENERGY METABOLISM IN THE MYOCARDIUM	1R01 HL22542-01A2	117,271
FRAENKEL, DAN G	ENZYMOLGY OF GLYCOLYTIC MUTANTS	5R01 GM21098-06	89,463
FRANK, ERIC	DEVELOPMENT AND PLASTICITY OF SENSORY-MOTOR SYNAPSES	5R01 NS14451-02	18,853
FUJIWARA, KEIGI	MOLECULAR BASIS FOR CLEAVAGE	5R01 GM25637-02	97,568
FURSHPAN, EDWIN J	NEUROPHYSIOLOGICAL AND NEUROCHEMICAL STUDIES	5P01 NS02253-20	407,167
FURSHPAN, EDWIN J	CELL INTERCONNECTIONS	5R01 NS03273-19	88,682
GARFIELD, JOSEPH M	BEHAVIORAL MODEL FOR ASSESSMENT OF ANESTHETIC ACTION	5R01 GM23794-03	16,160
GEYER, ROBERT P	SPECIFIC FATTY ACIDS AND CHOLESTEROL METABOLISM	5R01 HL12399-14	76,042
GEYER, ROBERT P	TOTAL BLOOD REPLACEMENT BY FLUOROCARBONS AND POLYOLS	5R01 HL15520-07	84,120
GEYER, ROBERT P	ARTIFICIAL BLOOD SUBSTITUTES: O2-BINDING IRON CHELATES	5R01 HL17844-05	105,433
GIMBRONE, MICHAEL A, JR	CULTURED BLOOD VESSEL CELLS: PATHOPHYSIOLOGY	5R01 HL20054-03	127,830
GITTES, RUBEN F	HORMONAL DEPENDENCE OF PROSTATE CANCER	5R26 CA19213-04	136,701
GOLDBERG, ALFRED L	MECHANISMS OF GROWTH AND ATROPHY OF SKELETAL MUSCLE	2R01 NS10571-08	221,498
GOLDBERG, IRVING H	MOLECULAR PHARMACOLOGY OF ANTICANCER DRUGS	5R01 GM12573-15	147,274
GOLDHABER, PAUL	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05318-18	80,495
GOLDIN, STANLEY M	RECONSTITUTION/ISOLATION OF MEMBRANE TRANSPORT SYSTEMS	1R01 NS15236-01	86,436
GOLDMAN, PETER	DETECTION OF ULTIMATE CARCINOGENS IN THE COLON	3R26 CA21681-02S1	19,070
GOODENOUGH, DANIEL A	LENS METABOLIC COOPERATION, GAP JUNCTIONS & CATARACT	5R01 EY02430-02	42,561
GOODENOUGH, DANIEL A	STRUCTURE & FUNCTION OF LIVER & HEART GAP JUNCTIONS	5R01 GM18974-08	80,698
HARTLEY, LOREN H	EVALUATION OF EXERCISE CARDIAC REHABILITATION PROGRAM	5R01 HL20187-02	85,746
HAY, ELIZABETH D	ROLE OF EXTRACELLULAR MATRIX IN MORPHOGENESIS	5R01 HD00143-20	126,359
HAYES, KENNETH C	LIPID METABOLISM AND ATHEROSCLEROSIS IN PRIMATES	3R01 HL15797-05S1	7,000
HECHTMAN, HERBERT B	CARDIOPULMONARY FAILURE FOLLOWING SHOCK AND TRAUMA	2R01 GM24891-03	185,818
HEGSTED, DAVID M	NUTRITIVE VALUE OF PROTEINS	5R01 AM09520-14	90,340
HELLMAN, SAMUEL	PROLIFERATION AND DIFFERENTIATION OF STEM CELLS	5R01 CA10941-12	149,883
HELLMAN, SAMUEL	CANCER RESEARCH CENTER	5P01 CA12662-08	901,379
HENNEMAN, ELWOOD	ORGANIZATION OF THE MOTONEURON POOL AND ITS INPUTS	5R01 NS10857-06	52,427
HERRERA, M GUILLERMO	MALNUTRITION AND PSYCHOLOGIC DEVELOPMENT	2R22 HD06774-05A1	141,791
HERZFELD, JUDITH	KINETIC COOPERATIVITY AND HALF-SITE REACTIVITY	5R01 AM21077-02	36,770
HERZFELD, JUDITH	NMR STUDIES OF BIOLOGICAL MEMBRANES	5R01 GM23316-04	56,061
HILDEBRAND, JOHN G	CENTRAL MECHANISMS OF ANTENNAL SENSES IN INSECTS	1R01 AI16150-01	120,177
HOLMAN, B LEONARD	ACUTE MYOCARDIAL INFARCT SCINTIGRAPHY	5R01 HL17739-05	86,131
HUBEL, DAVID H	ORGANIZATION OF THE VISUAL SYSTEM	5R01 EY00605-20	243,666
HUTCHISON, GEORGE B	COOPERATIVE STUDY OF HODGKIN'S DISEASE	5R10 CA13607-08	58,304
HUTCHISON, GEORGE B	SECOND CANCERS IN PATIENTS WITH HODGKIN'S DISEASE	5R01 CA22849-02	64,328
HUTCHISON, GEORGE B	AN EPIDEMIOLOGIC STUDY OF CANCER OF THE OVARY	3R01 CA24209-01S1	42,313
ITO, SUSUMU	STUDY OF ISOLATED AND SEPARATED GASTRIC CELL TYPES	2R01 AM17255-07	62,335
ITO, SUSUMU	MECHANISM OF GASTRIC MUCUS SECRETION AND SYNTHESIS	1R01 AM26151-01	63,917
JOHNS, PAMELA A	NEUROGENESIS AND SYNAPTOGENESIS OF RETINAL PHOTORECEPTOR	1R01 EY03301-01	76,594
KARNOVSKY, MANFRED L	BIOCHEMICAL BASIS OF PHAGOCYTOSIS	5R01 AI03260-20	75,843
KARNOVSKY, MORRIS J	ULTRASTRUCTURAL IMMUNOCYTOCHEMISTRY OF CELL SURFACES	2R01 AI10677-08	92,670
KARNOVSKY, MORRIS J	THE ULTRASTRUCTURAL BASIS OF GLOMERULAR PERMEABILITY	5R01 AM13132-10	99,376
KARNOVSKY, MORRIS J	ULTRASTRUCTURAL CYTOCHEMISTRY	5R01 HL09125-15	110,278
KARNOVSKY, MORRIS J	ENDOTHELIAL INJURY AND REGENERATION	2R01 HL17747-05	152,881
KENNEDY, ANN R	RADIATION AND CHEMICAL IN VITRO MALIGNANT TRANSFORMATION	5R01 CA22704-02	154,408
KENNEDY, EUGENE P	METABOLISM AND FUNCTION OF COMPLEX LIPIDS	5R01 GM19822-20	84,629
KENNEDY, EUGENE P	BIOGENESIS AND FUNCTION OF MEMBRANES	5R01 GM22057-05	113,176
KITZ, RICHARD J	ANESTHESIOLOGY CENTER FOR RESEARCH AND TEACHING	5P50 GM15904-12	906,867
KLEINFELD, ALAN M	A FLUORESCENT PROBE STUDY OF BAND 3 VESICLES	1R01 GM26350-01	96,209

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
KNIPE, DAVID M.....	GENETICS OF HERPES VIRUS TRANSFORMATION.....	1R01 CA26345-01	120,036
KRAVITZ, EDWARD A.....	STUDIES OF SYNAPTIC CHEMISTRY IN THE NERVOUS SYSTEM.....	5R01 NS07848-12	97,761
KUFFLER, STEPHEN W.....	MICROPHYSIOLOGY OF SYNAPTIC TRANSMISSION.....	5R01 NS13288-03	137,476
KUNDISIN, RUTH B.....	UREAPLASMA UREALYTICUM—THREAT TO PERINATAL SURVIVAL.....	5R01 HD10984-02	136,160
KUSHMERICK, MARTIN J.....	MUSCLE ENERGY METABOLISM.....	5R01 AM14485-08	82,166
LANDIS, STORY C.....	STUDIES OF SYNAPSE FORMATION.....	1R01 NS15549-01	106,038
LE VAY, SIMON.....	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM.....	5R01 EY01960-03	54,352
LECHENE, CLAUDE P.....	ELECTRONPROBE MICROANALYSIS OF NEPHRON FUNCTION.....	3R01 AM16898-06S1	19,733
LECHENE, CLAUDE P.....	ELECTRONPROBE MICROANALYSIS OF RED BLOOD CELLS.....	2R01 AM19449-04	43,593
LECHENE, CLAUDE P.....	BIOTECHNOLOGY RESOURCE IN ELECTRONPROBE MICROANALYSIS.....	5P41 RR00679-08	438,797
LEEMAN, SUSAN E.....	PURIFICATION AND FUNCTION OF HYPOTHALAMIC PEPTIDES.....	5R01 AM16510-08	144,820
LIN, EDMUND C.....	REGULATION OF GLYCEROL TRANSPORT & METABOLISM.....	5R01 GM11983-16	76,096
LINCK, RICHARD W.....	MOLECULAR MECHANISM OF CILIARY AND FLAGELLAR MOTILITY.....	5R01 GM21527-05	107,028
LITTLE, JOHN B.....	EFFECTS OF RADIATION ON STATIONARY CELLS.....	3R01 CA11751-09S1	20,428
LITTLE, JOHN B.....	EFFECTS OF RADIATION ON STATIONARY CELLS.....	2R01 CA11751-10	180,269
LIU, ALICE Y.....	PROTEIN SYNTHESIS REGULATION BY CYCLIC AMP AND STEROID.....	3R01 AM20274-02S1	12,497
LIU, ALICE Y.....	PROTEIN SYNTHESIS REGULATION BY CYCLIC AMP AND STEROID.....	5R01 AM20274-03	86,173
LORING, STEPHEN H.....	DYNAMIC AIRWAY BEHAVIOR.....	5R23 HL22920-02	43,756
LOWN, BERNARD.....	SUDDEN DEATH AND CARDIAC ARRHYTHMIAS.....	5R01 HL07776-16	144,665
LOWN, BERNARD.....	VPBS ELECTRICAL INSTABILITY & ANTIARRHYTHMIC MEASURE.....	5R01 HL18783-05	73,269
LOWN, BERNARD.....	DIGITALIS DRUGS FOR CONTROL OF VENTRICULAR ARRHYTHMIAS.....	1R01 HL24456-01	79,506
MACMAHON, BRIAN.....	CANCER EPIDEMIOLOGY AND PREVENTION RESEARCH CENTER.....	2P01 CA06373-18	582,697
MACMAHON, BRIAN.....	CHILDHOOD ENVIRONMENT AND HODGKIN'S DISEASE.....	5R01 CA19619-03	64,412
MC ALISTER, ALFRED L.....	FIELD STUDY OF YOUTH HEALTH PROMOTION PROCESS.....	1R01 HD12813-01	272,972
MC ALISTER, ALFRED L.....	EXPERIMENTAL SYSTEMS TO IMPROVE YOUTH HEALTH BEHAVIOR.....	5R23 HL22947-02	27,713
MEAD, JERE.....	PROGRAM PROJECT IN RESPIRATORY MECHANICS.....	5P01 HL14580-08	499,518
MILLETTE, CLARKE F.....	MAMMALIAN SPERMATOGENESIS: CELL MEMBRANE BIOCHEMISTRY.....	5R01 HD11267-03	78,985
MOORE-EDE, MARTIN C.....	NEURAL CONTROL OF CIRCADIAN BEHAVIOR AND PHYSIOLOGY.....	5R01 NS13921-03	88,350
MOORE, FRANCIS D.....	SURGICAL CARE: METABOLISM AND BIORHYTHMS.....	5P01 GM22085-22	282,241
MORRISON, ALAN S.....	INTERNATIONAL CASE-CONTROL STUDY OF BLADDER CANCER.....	5R26 CA18660-04	103,982
MORRISON, ALAN S.....	MORTALITY IN THE RENAISSANCE.....	1R01 LM03205-01	16,988
MURPHY, JOHN R.....	VIRULENCE FACTORS OF CORYNEBACTERIUM DIPHTHERIAE.....	5R01 AI12500-05	76,610
MURPHY, JOHN R.....	VIBRIO CHOLERAE: DEVELOPMENT OF A LIVE ORAL VACCINE.....	5R22 AI13938-03	96,948
MURPHY, RICHARD A.....	NERVE GROWTH FACTOR IN THE CENTRAL NERVOUS SYSTEM.....	5R01 NS14865-02	35,509
NELSON, MARGARET C.....	MECHANISMS OF SOUND COMMUNICATION IN A SIMPLE SYSTEM.....	1R01 NS14988-01	23,710
NEUTRA, MARIAN R.....	MUCUS SECRETION IN CYSTIC FIBROSIS & NORMAL INTESTINE.....	5R01 AM21505-02	49,864
NICOLOSI, ROBERT J.....	DIETARY CONTROL OF HIGH DENSITY LIPOPROTEINS.....	1R01 HL23792-01	76,752
OFNER, PETER.....	ANDROGENS IN PROSTATIC AND EPIDIDYMAL CULTURE.....	3R01 CA13417-05S1	6,413
PALAY, SANFORD L.....	THE FINE STRUCTURE OF THE NERVOUS SYSTEM.....	2R01 NS03659-18	116,895
PATHAK, MADHUKAR A.....	SKIN REACTION TO LIGHT—NORMAL, PHOTSENSITIVITY, CANCER.....	5R01 CA05003-21	162,255
PATTERSON, PAUL H.....	ENVIRONMENTAL DETERMINATION OF TRANSMITTER FUNCTIONS.....	2R01 NS11027-07	150,330
PERLMAN, ROBERT L.....	ADRENAL CATECHOLAMINE SECRETION.....	5R01 HL18148-05	87,568
POTTER, DAVID D.....	DEVELOPMENT OF SYMPATHETIC JUNCTIONS IN CULTURE.....	2R01 NS11576-06	59,777
RANDO, ROBERT R.....	THE NEUROPHARMACOLOGY OF SPECIFIC ENZYME INACTIVATORS.....	5R01 NS11550-05	115,801
RAVIOLA, ELIO.....	FREEZE-FRACTURE STUDIES OF THE RETINA.....	5R01 EY01344-05	81,916
RAVIOLA, ELIO.....	CELL COMMUNICATION IN RETINA AND LENS.....	1R01 EY03011-01	99,800
REINHOLD, VERNON N.....	GLYCOCONJUGATE STRUCTURAL STUDIES/PROGRAM PROJECT.....	1P01 GM26625-01	528,383
RICHARDSON, CHARLES C.....	STRUCTURE AND SYNTHESIS OF DNA.....	5R01 AI06045-16	190,816
RICHARDSON, U INGRID.....	ACTH SECRETION BY PITUITARY TUMOR CELLS IN CULTURE.....	1R01 CA24050-01	56,147
RICHIE, JEROME P.....	ANTI-REFLUX SURGERY FOR LONG-TERM URINARY DIVERSION.....	1R01 AM25580-01	74,922
RIRDAN, JAMES F.....	METALLOENZYMES AND DISEASE.....	5R01 HL22387-02	128,252
RUDERMAN, JOAN V.....	RNA SYNTHESIS AND UTILIZATION IN SEA URCHIN OOGENESIS.....	5R01 HD10994-03	69,973
RYAN, KENNETH J.....	PATTERNS OF STEROID METABOLISM IN CANCER.....	5R01 CA01393-29	91,351
RYAN, KENNETH J.....	CENTER FOR POPULATION RESEARCH.....	5P30 HD06645-08	443,285
RYAN, KENNETH J.....	STEROID HORMONE METABOLISM.....	3R01 HD07923-06S1	20,446
RYAN, KENNETH J.....	STEROID HORMONE METABOLISM.....	2R01 HD07923-07	99,971
SAKAMOTO, SEIZABURO.....	REGULATION OF COLLAGENASE AND BONE RESORPTION.....	1R01 DE05255-01	79,586
SALHANICK, HILTON A.....	MODE OF ACTION & SYNTHESIS OF PROGESTATIONAL HORMONES.....	5R01 AM10081-14	96,894
SALZMAN, EDWIN W.....	A PROGRAM IN THROMBOSIS AND ATHEROSCLEROSIS.....	7P01 HL25066-01	516,791
SANDOR, TAMAS.....	RECOGNITION OF VERY SMALL TUMORS.....	5R01 CA23246-02	80,474

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SCHMIDT, SUSAN Y.....	BIOCHEMICAL STUDIES OF RETINA AND PIGMENT EPITHELIUM.....	2R01 EY01687-04	91,879
SCHNITMAN, PAUL A.....	CONFERENCE-DENTAL IMPLANTS: BENEFIT OR RISK.....	3R13 DE04860-01S1	10,433
SCHONBRUNN, AGNES.....	MODULATION OF SOMATOSTATIN AND INSULIN RECEPTORS.....	1R23 AM25961-01	40,600
SHKLAR, GERALD.....	ORAL CARCINOGENESIS, VITAMIN A AND RETINOIDS.....	5R01 CA23524-02	82,730
SHKLAR, GERALD.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA26182-01	66,576
SILHAVY, THOMAS J.....	OUTER MEMBRANE PROTEIN LOCALIZATION IN E. COLI.....	5R01 GM25524-02	69,793
SILVERSTEIN, JACOB B.....	DIFFUSION OF PREVENTIVE HEALTH MEASURES TO SCHOOLS.....	5R01 DE05115-02	216,817
SOLOMON, ARTHUR K.....	STUDIES OF RED CELL ION TRANSPORT AND LIPID BILAYERS.....	5R01 GM15692-12	121,818
SOLOMON, ARTHUR K.....	FACTORS AFFECTING PHYSIOLOGY OF BIOLOGICAL MEMBRANES.....	5R01 HL14820-08	122,377
SOROKIN, SERGEI P.....	RESPONSE OF ALVEOLAR MACROPHAGES TO INHALED PARTICLES.....	5R01 ES00583-09	117,403
SPELMAN, ANDREW.....	DEVELOPMENT OF BABESIA MICROTI IN THE TICK VECTOR.....	1R01 AI15886-01	87,724
SZABO, GEORGE.....	ULTRASTRUCTURE AND PHYSIOLOGY OF ORAL MUCOSA.....	5R01 AM20669-17	135,257
SZAMIER, ROBERT B.....	MORPHOLOGICAL STUDIES OF RETINAL DEGENERATIONS.....	1R01 EY02988-01	111,904
TAI, PHANG-CHENG.....	THE FUNCTIONS OF RIBOSOME RELEASE FACTOR.....	2R01 GM22030-04A1	69,282
TASHJIAN, ARMEN H, JR.....	HORMONES AFFECTING MINERAL METABOLISM.....	2R01 AM10206-14	150,345
TASHJIAN, ARMEN H, JR.....	DIFFERENTIATED FUNCTION IN DISPERSED CELL CULTURES.....	5R01 AM11011-14	190,578
THENEN, SHIRLEY W.....	METABOLIC ASPECTS OF OBESITY.....	5R01 AM02911-21	115,202
TILNEY, NICHOLAS L.....	ALLOGRAFT REJECTION AND ENHANCEMENT.....	5R01 CA23024-06	128,496
TOSTESON, DANIEL C.....	ION TRANSPORT ACROSS LIPID BILAYER MEMBRANES.....	5R01 GM25277-02	158,255
TOSTESON, DANIEL C.....	MEMBRANES IN HYPERTENSION AND OTHER SYNDROMES.....	5R01 GM25686-02	125,697
TOSTESON, DANIEL C.....	NEW ENGLAND REGIONAL PRIMATE RESEARCH CENTER.....	5P40 RR00168-18	2,151,573
VALLEE, BERT L.....	THE BIOLOGICAL FUNCTION OF METALS.....	5P01 GM15003-18	228,811
VALLEE, BERT L.....	THE FUNCTION AND DETECTION OF ZINC IN CELL BIOLOGY.....	5R01 GM24989-02	159,807
VEATCH, WILLIAM R.....	MEMBRANE CHANNEL STRUCTURE: SPECTROSCOPIC APPROACHES.....	5R01 AI15311-02	39,598
VENKATACHALAM, MANJERI A.....	RENAL PATHOPHYSIOLOGY: NORMAL AND ALTERED STRUCTURE.....	5R01 AM16749-07	81,617
VILLEE, CLAUDE A.....	HORMONE INDUCED AND DEPENDENT TUMORS.....	1R01 CA24615-01	87,790
VON LICHTENBERG, FRANZ C.....	SCHISTOSOMIASIS AND GRANULOMA FORMULATION.....	5R22 AI02631-21	140,043
WANER, JOSEPH L.....	SPOTTED FEVER IN TICKS, DOGS AND MAN ON CAPE COD.....	3R01 AI13552-03S1	2,484
WASSARMAN, PAUL M.....	TUMOR VIRUS CHROMATIN: STRUCTURE AND REPLICATION.....	3R01 CA20841-03S1	15,113
WASSARMAN, PAUL M.....	MAMMALIAN OOGENESIS: PROGRAMMING OF PROTEIN SYNTHESIS.....	1R01 HD12275-01	107,616
WEICHELBAUM, RALPH R.....	INTERACTIONS OF DRUGS, RADIATION AND HORMONES.....	5R01 CA21848-02	66,948
WELLER, THOMAS H.....	REPLICATION AND PERSISTENCE OF VARICELLA VIRUS.....	1R01 AI16154-01	126,288
WELLER, THOMAS H.....	ENDEMIC SCHISTOSOMIASIS AND CHAGAS' DISEASE IN BRAZIL.....	1P01 AI16305-01	367,367
WHITTENBERGER, JAMES L.....	OCCUPATIONAL AND ENVIRONMENTAL HEALTH.....	5P30 ES00002-17	838,980
WIESEL, TORSTEN N.....	STUDIES OF THE VISUAL SYSTEM.....	5R01 EY00606-16	236,216
WIESEL, TORSTEN N.....	EXPERIMENTAL MYOPIA IN PRIMATES.....	5R01 EY01966-03	47,156
WIESEL, TORSTEN N.....	STUDIES OF BASIC MECHANISMS IN VISION.....	3P30 EY01995-02S1	21,440
WIESEL, TORSTEN N.....	STUDIES OF BASIC MECHANISMS IN VISION.....	5P30 EY01995-03	146,970
WILSON, T HASTINGS.....	COMPARATIVE PHYSIOLOGY OF MEMBRANE TRANSPORT.....	5R01 AM05736-18	133,645
WYSHAK, GRACE.....	CANCER INCIDENCE IN MOTHERS OF DIZYGOTIC TWINS.....	1R01 CA25623-01	81,365
ZIGMOND, RICHARD E.....	EXPERIENCE AND THE NEUROCHEMISTRY OF THE SYNAPSE.....	2R01 NS12651-04	78,796
ORGANIZATION TOTAL	218 33,972,976		
JOSLIN DIABETES FOUNDATION ZIP CODE 02215			
CAHILL, GEORGE F, JR.....	PHYSIOLOGY, PATHOLOGY, AND BIOCHEMISTRY OF DIABETES.....	5R01 AM15191-10	381,407
CAHILL, GEORGE F, JR.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20530-02	1,118,461
CHICK, WILLIAM L.....	PANCREATIC ISLET AND BETA CELL STUDIES.....	5R01 AM15398-09	146,800
CHICK, WILLIAM L.....	STUDIES TOWARDS DEVELOPMENT OF AN ARTIFICIAL PANCREAS.....	5R01 AM21222-03	105,560
RAND, LAWRENCE I.....	CASE CONTROL STUDY OF DIABETIC RETINOPATHY.....	5R01 EY02636-02	193,916
SOELDNER, JOHN S.....	DIABETES-PATHOGENESIS, DETECTION, AND ORAL AGENTS.....	5R01 AM09748-13	393,430
SOELDNER, JOHN S.....	THE DEVELOPMENT OF AN IMPLANTABLE GLUCOSE SENSOR.....	5R01 AM18352-04	327,042
SOELDNER, JOHN S.....	PATHOGENESIS OF MICROANGIOPATHY IN DIABETES.....	5R01 EY01421-18	138,123
SOELDNER, JOHN S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05673-10	110,450
SPIRO, MARY J.....	COMPLEX CARBOHYDRATES IN DIABETES.....	1R01 AM23009-01A1	86,038
SPIRO, ROBERT G.....	STUDY OF THE STRUCTURE OF GLYCOPROTEINS.....	5R01 AM17325-07	127,520
SPIRO, ROBERT G.....	STUDY OF BIOSYNTHESIS OF GLYCOPROTEINS.....	2R01 AM17477-07	140,718
ORGANIZATION TOTAL	12 3,269,465		
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114			
ALBERT, DANIEL M.....	HISTOPATHOLOGIC STUDY OF PIGMENTED OCULAR TUMORS.....	5R01 EY01917-04	133,798

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ALBERT, DANIEL M.....	NEW ANTIVIRAL NUCLEOSIDES FOR OCULAR AND OTHER HERPES.....	5R01 EY02268-02	164,646
ALBERT, DANIEL M.....	OCULAR MELANOMA MODEL.....	5R01 EY02678-02	68,091
DOHLMAN, CLAES H.....	OPHTHALMIC RESEARCH CORE FACILITIES.....	5P30 EY01537-05	177,697
DONALDSON, DAVID D.....	OPHTHALMIC INSTRUMENTATION RESEARCH.....	3R01 EY00999-05S1	49,621
DUEKER, DAVID K.....	PATHOGENESIS OF IRIS NEOVASCULARIZATION.....	2R01 EY01750-03	61,167
EPSTEIN, DAVID L.....	METABOLISM OF THE TRABECULAR MESHWORK.....	5R01 EY01894-03	103,208
GRANT, W MORTON.....	PRESSURE-REGULATING MECHANISMS IN GLAUCOMA.....	5R01 EY00002-27	113,633
GRANT, W MORTON.....	GLAUCOMA CLINICAL RESEARCH CENTER.....	5P50 EY02518-02	437,381
JEDZINIAK, JUDITH A.....	ISOLATION/CHARACTERIZATION OF PROTEINS FROM HUMAN LENS.....	5R01 EY01964-03	93,605
KIANG, NELSON Y.....	BASIC AND CLINICAL STUDIES OF THE AUDITORY SYSTEM.....	5P01 NS13126-04	741,554
KIMURA, ROBERT S.....	ELECTRON MICROSCOPY OF THE INNER EAR.....	2R01 NS03932-18	111,233
RICHARDSON, THOMAS M.....	TISSUE ELEMENTS IN THE TRABECULAR MESHWORK.....	5R01 EY02655-02	78,141
SCHUKNECHT, HAROLD F.....	OTOPATHOLOGY BY LIGHT MICROSCOPY.....	2R01 NS05881-14	40,530
SCHUKNECHT, HAROLD F.....	VESTIBULAR ABLATION.....	5R01 NS13425-03	14,377
SCHUKNECHT, HAROLD F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05485-17	99,778
WILSON, WILLIAM R.....	CLINICAL AND VIRAL STUDIES OF SUDDEN HEARING LOSS.....	1R01 NS15629-01	64,475
ZWAAN, JOHAN.....	GENETIC CONTROLS IN EYE LENS DEVELOPMENT.....	1R01 EY03158-01	140,571
ORGANIZATION TOTAL	18 2,693,506		
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
ALPERT, ELLIOT E.....	IMMUNOCHEMICAL STUDIES OF GASTROINTESTINAL CANCER.....	2R01 CA12389-09	90,165
AMES, ADELBERT, III.....	ENERGY METABOLISM AND FUNCTION IN RETINA.....	5R01 EY02245-02	31,861
AUSIELLO, DENNIS A.....	STUDY OF PROTEIN PHOSPHORYLATION AND HORMONE ACTION.....	5R01 AM19406-03	29,634
AVRUCH, JOSEPH.....	RED CELL CATION TRANSPORT AND CONTRACTILE FUNCTIONS.....	5R01 AM16914-06	74,937
AVRUCH, JOSEPH.....	STUDIES ON PHOSPHOPEPTIDE METABOLISM IN ADIPOCYTES.....	5R01 AM17776-05	69,817
BADEN, HOWARD P.....	KERATIN BIOSYNTHESIS—COMPARATIVE STUDIES.....	5R01 AM06838-17	140,862
BARLOW, JOHN S.....	CLINICAL EEG ANALYSIS AND REPORTING BY COMPUTER.....	1R01 NS14889-01A1	118,216
BECK, WILLIAM S.....	THE METABOLISM OF NORMAL AND LEUKEMIC LEUKOCYTES.....	5R01 CA03728-22	115,973
BEITINS, INESE Z.....	HETEROGENEITY OF GONADOTROPINS IN SERUM AND URINE.....	1R01 HD12328-01	85,285
BEITINS, INESE Z.....	EFFECTS OF NUTRITION ON GONADOTROPIN SECRETION.....	1R01 HD12722-01	61,076
BISWAS, CHITRA.....	MAMMALIAN COLLAGENASE IN TUMOR INVASION.....	2R01 CA19158-04	65,925
BLACK, PAUL H.....	MECHANISMS OF TRANSFORMATION BY ONCOGENIC VIRUSES.....	5R01 CA10126-13	182,415
BLANK, IRVIN H.....	PHYSICAL AND CHEMICAL NATURE OF THE CUTANEOUS BARRIER.....	5R01 AM15461-14	101,078
BLOCH, KURT J.....	EXPERIMENTAL ALLERGIC GASTROENTEROPATHY.....	1R01 AM23099-01	53,526
BROWNELL, GORDON L.....	TRANSVERSE SECTION X-RAY CAMERA.....	5R01 CA15882-06	86,984
BUCHER, NANCY L.....	THE ROLE OF NUCLEOTIDES IN CELL PROLIFERATION.....	2R01 AM19435-04	52,252
BUCHER, NANCY L.....	CYTOPLASMIC FACTORS IN CELLULAR GROWTH.....	3R01 CA02146-25S1	19,492
BUCHER, NANCY L.....	CYTOPLASMIC FACTORS IN CELLULAR GROWTH.....	2R01 CA02146-26A1	99,324
BURKE, JOHN F.....	BURN TRAUMA CENTER.....	5P50 GM21700-05	334,591
BURKE, JOHN F.....	REQUEST FOR GAS CHROMATOGRAPH-MASS SPECTROMETER.....	1P41 GM27377-01	146,784
BURTON, JAMES A.....	SYNTHESIS OF INHIBITORS FOR THE STUDY OF RENAL RENIN.....	2R01 HL19517-04	46,309
CARES, HERBERT L.....	LOW-RISK INTRAVASCULAR TECHNIQUES AND THE CNS.....	5R01 NS09349-09	31,673
CAREY, ROBERT W.....	COOPERATIVE STUDY OF CANCER & ACUTE LEUKEMIA GROUP B.....	2R10 CA12449-09	85,400
CARTER, DENNIS R.....	FATIGUE DAMAGE AND REPAIR IN BONE.....	7R01 AM27117-01	59,580
CHESLER, DAVID A.....	GATED IMAGING WITH THE MGH X-RAY CAMERA.....	5R01 HL20274-03	51,555
CODINGTON, JOHN F.....	GLYCOPROTEINS FROM CANCER CELLS.....	2R01 CA08418-14	98,209
CODINGTON, JOHN F.....	MASKING OF ANTIGENS AT CANCER CELL SURFACES.....	5R01 CA18600-04	55,549
COGGINS, CECIL H.....	STUDY OF THE ADULT IDIOPATHIC NEPHROTIC SYNDROME.....	3R01 AM15646-08S1	31,979
COOPER, JEFFREY B.....	NEW APPROACHES TO ANESTHESIA MANAGEMENT.....	2R01 GM22023-04	102,785
CORI, CARL F.....	CELLULAR REGULATION OF ENZYME ACTIVITY.....	3R01 AM11448-11S1	15,762
CROWELL, ROBERT M.....	REVERSIBILITY OF FOCAL CEREBRAL ISCHEMIA.....	2R01 NS13165-04	70,573
DAGGETT, WILLARD M.....	EXTRINSIC FACTORS INFLUENCING MYOCARDIAL PERFORMANCE.....	3R01 HL12322-10S1	6,283
DAGGETT, WILLARD M.....	EXTRINSIC FACTORS INFLUENCING MYOCARDIAL PERFORMANCE.....	5R01 HL12322-11	110,550
DAGGETT, WILLARD M.....	MECHANISMS IN CARDIAC PERFORMANCE.....	3R01 HL12777-09S1	30,913
DAGGETT, WILLARD M.....	MECHANISMS IN CARDIAC PERFORMANCE.....	5R01 HL12777-10	106,278
DIENSTAG, JULES L.....	PRIMARY BILIARY CIRRHOSIS: STUDIES OF PATHOGENESIS.....	1R01 AM25553-01	96,722
DONAHOE, PATRICIA K.....	MULLERIAN INHIBITING SUBSTANCE.....	5R01 CA17393-05	161,963
DONOFF, R BRUCE.....	HYALURONIDASE IN NORMAL AND ABNORMAL WOUND HEALING.....	1R01 GM25850-01	52,617
DVORAK, ANN M.....	BASOPHIL/MAST CELL FUNCTION IN THE CONTROL OF CANCER.....	5R01 CA19141-04	93,333
DVORAK, HAROLD F.....	BIOLOGY OF SOLID TUMOR GROWTH AND IMMUNE REJECTION.....	5R01 CA16881-05	92,908

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
EHRlich, H PAUL	THE CONTROL AND MODIFICATION OF SCAR FORMATION.....	5R01 GM25561-02	39,867
ELMALEH, DAVID R	RADIOPHARMACEUTICALS FOR POSITRON TOMOGRAPHY IN CANCER.....	1R01 CA26371-01	54,052
EPP, EDWARD R	RADIATION SENSITIZATION APPLIED TO CANCER RADIOBIOLOGY.....	2R01 CA18614-04	128,609
ERBE, RICHARD W	FOLATE METABOLISM AND MENTAL RETARDATION.....	2R01 HD06356-08	111,515
FISHER, CHARLES M	A CLINICAL, RADIOLOGIC AND PATHOLOGIC STUDY OF STROKES.....	5R01 NS05152-16	73,629
FOOTE, WARREN E	STUDIES OF RETINAL AFFERENTS TO THE BRAIN STEM RAPHE.....	1R01 EY02979-01	78,014
GERWECK, LEO E	METABOLIC FACTORS IN HEAT AND RADIATION LETHALITY.....	5R01 CA22860-02	64,759
GINNS, LEO C	LYMPHOCYTE RESPONSES IN TUBERCULOSIS.....	1R23 HL24581-01	39,980
GROSS, JEROME	STUDY OF MESENCHYMAL TISSUES AND THEIR DISEASES.....	2P01 AM03564-20	831,120
GROSS, JEROME	CORNEAL COLLAGENASE: CELLULAR AND BIOCHEMICAL CONTROL.....	5R01 EY02252-02	87,151
GROSS, JEROME	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05486-17	201,413
HABENER, JOEL F	BIOSYNTHESIS OF THYROID STIMULATING HORMONE.....	1R01 AM25532-01	89,299
HABER, EDGAR	SEQUENCE, SHAPE AND SPECIFICITY OF ANTIBODIES.....	5R01 CA24432-17	170,933
HABER, EDGAR	STUDY OF ISCHEMIC HEART DISEASE.....	5P50 HL17665-05	1,231,208
HABER, EDGAR	DIGOXIN SPECIFIC ANTIBODY IN HUMAN THERAPY.....	5P01 HL19259-04	396,461
HARRIS, WILLIAM H	PREVENTION OF POSTOPERATIVE VENOUS THROMBI.....	2R01 HL18738-03A1	55,523
HIRSCH, MARTIN S	IMMUNE REACTIVITY AND ONCOGENIC VIRUS INFECTIONS.....	2R01 CA12464-09	97,519
HOCHBERG, FRED H	EPIDEMIOLOGY OF BRAIN TUMORS.....	5R01 CA22533-02	64,490
HOLICK, MICHAEL F	SYNTHESIS AND METABOLISM OF VITAMIN D ANALOGUES.....	1R01 AM25506-01	51,689
HOLMES, LEWIS B	DEVELOPMENTAL SIGNIFICANCE OF MINOR ANOMALIES.....	5R01 HD10910-02	62,234
HOMCY, CHARLES J	PURIFICATION/CHARACTERIZATION—CARDIAC ADENYLATE CYCLASE.....	1R23 HL23660-01	38,298
HYSL0P, NEWTON E, JR	ALLERGY TO PENICILLIN AND CEPHALOSPORIN ANTIBIOTICS.....	5R01 AI14100-03	94,009
ISSELBACHER, KURT J	STRUCTURE AND FUNCTION OF INTESTINAL CELL MEMBRANES.....	2R01 AM01392-23	71,613
ISSELBACHER, KURT J	METABOLIC STUDIES OF INTESTINAL MUCOSA.....	5R01 AM03014-21	77,314
ISSELBACHER, KURT J	TUMOR ASSOCIATED CHANGES OF INTESTINAL AND LIVER CELLS.....	5P01 CA14294-05	281,531
JACOBY, GEORGE A, JR	STUDY OF INCP-2 PSEUDOMONAS.....	1R01 AI16019-01	78,553
JACOBY, LEE B	MUTATION AND REGULATION IN NORMAL OR NEOPLASTIC CELLS.....	2R01 GM25758-07A1	85,422
JEANLOZ, ROGER W	STUDY OF MESENCHYMAL TISSUES AND THEIR DISEASES.....	3P01 AM03564-19S1	142,328
JEANLOZ, ROGER W	BIOCHEMISTRY OF THE SIMIAN AND HUMAN CERVICAL MUCUS.....	1R01 HD12431-01	106,618
JOHNSON, ROBERT A	DIGOXIN IN HEART FAILURE WITH SINUS RHYTHM.....	5R01 HL22750-02	46,330
KEUTMANN, HENRY T	PEPTIDE HORMONES OF REPRODUCTION: CHEMISTRY AND ASSAY.....	1R01 HD12851-01	88,849
LANDIS, DENNIS M	MEMBRANE STRUCTURE IN NEURONS AND ASTROCYTES.....	1R01 NS15573-01	61,963
LEAF, ALEXANDER	SUPPORT FOR METABOLIC DISEASE RESEARCH CENTER.....	5P01 AM04501-18	308,709
LEAF, ALEXANDER	CARDIOPULMONARY FUNCTION IN REMEDIABLE VASCULAR DISEASE.....	5P01 HL06664-18	446,956
LEAF, ALEXANDER	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR10666-02	618,538
LIN, CHI-WEI	HISTAMINASE AS A BIOCHEMICAL MARKER FOR HUMAN CANCER.....	3R01 CA26652-01S1	16,769
LIN, CHI-WEI	HISTAMINASE AS A BIOCHEMICAL MARKER FOR HUMAN CANCER.....	5R01 CA26652-02	71,063
LINSENMAYER, THOMAS F	CORNEAL STROMA: SYNTHESIS AND ASSEMBLY OF COLLAGENS.....	5R01 EY02261-02	54,615
LIPPIELLO, LOUIS	EFFECT OF PROSTAGLANDINS ON ARTICULAR CARTILAGE.....	2R01 AM19111-04	68,017
LONG, JOHN C	TISSUE CULTURE STUDIES OF HODGKIN'S DISEASE.....	2R01 CA19514-04	96,176
MALOOF, FARAHE	SIGNIFICANCE OF ALTERED TSH SECRETION.....	2R01 AM16791-06A1	166,234
MALT, RONALD A	STUDY OF NEPHRECTOMY AT BIRTH AND DURING GROWTH.....	2R01 AM12769-14	113,545
MALT, RONALD A	ENTERIC INTERRELATIONS IN CANCER OF THE COLON.....	5R26 CA17324-05	57,541
MANKIN, HENRY J	NUCLEIC ACID AND PROTEIN METABOLISM IN CARTILAGE.....	5R01 AM16265-08	133,447
MANKIN, HENRY J	BONE AND CARTILAGE ALLOGRAFTS IN BONE TUMOR TREATMENT.....	1R01 AM21896-01	84,882
MANKIN, HENRY J	BIOCHEMICAL AND IMMUNOLOGIC STUDY OF CHONDROSARCOMA.....	5R01 CA15614-05	80,831
MARTIN, DONALD B	GLUCOSE AND INSULIN INTERACTIONS WITH CELL MEMBRANE.....	5R01 AM13774-09	46,022
MARTIN, JOSEPH B	WORKSHOP ON CLINICAL NEUROENDOCRINOLOGY.....	1R13 AM27129-01	5,000
MASLAND, RICHARD H	NEUROTRANSMISSION IN MAMMALIAN RETINA.....	5R01 EY01075-06	39,415
MC CLUSKEY, ROBERT T	IMMUNOLOGIC FACTORS IN TUBULINTERSTITIAL NEPHRITIS.....	5R01 AM18729-04	114,928
MEDEARIS, DONALD N, JR	INFECTION OF THE CENTRAL NERVOUS SYSTEM.....	5R01 NS14763-02	42,908
MEGERMAN, JOSEPH	ANALYSIS OF FAILURES IN ARTERIAL BYPASS GRAFTS.....	1R01 HL23762-01	81,570
MILLER, KEITH W	MEMBRANE EXPANSION AND GENERAL ANESTHESIA.....	1R01 GM25911-01	40,124
ORKIN, ROSLYN W	HYALURONATE IN CARDIOVASCULAR DEVELOPMENT AND DISEASE.....	1R01 AM25527-01	78,879
ORKIN, ROSLYN W	CELL-MATRIX INTERACTIONS.....	5R23 DE04734-03	28,482
PALMER, JOHN L	INSULIN REGULATION OF PROTEIN PHOSPHORYLATION.....	1R23 AM26041-01	38,548
PARRISH, JOHN A	OPTICS AND PHOTOTOXICITY OF SKIN IN PHOTOMEDICINE.....	1R01 AM25395-01	102,758
POHOST, GERALD M	ANTIMYOSIN IN ISCHEMIA AND INFARCTION.....	2R01 HL21751-03	221,877
POLETTI, CHARLES E	LIMBIC INFLUENCES ON PERIAQUEDUCTAL GRAY NEURONS.....	1R01 NS15238-01	29,259
POLLEN, DANIEL A	SPATIAL SELECTIVITY IN NONSTRIATE VISUAL CORTICES.....	5R01 EY00597-09	45,816

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
POTTS, JOHN T, JR.....	HORMONAL CONTROL OF CALCIUM METABOLISM.....	2P01 AM11794-11	473,531
POWELL, WILLIAM J, JR.....	PHARMACOLOGIC STUDIES OF NEUROGENIC DIGITALIS EFFECTS.....	2R01 HL18657-04	83,147
PROUT, GEORGE R, JR.....	CHEMOTHERAPY FOR PATIENTS WITH PROSTATIC CARCINOMA.....	2R26 CA15284-07	55,021
PROUT, GEORGE R, JR.....	EVALUATION OF MANAGEMENT OF BLADDER CARCINOMA PATIENTS.....	5R26 CA15944-06	103,356
PROUT, GEORGE R, JR.....	NATIONAL BLADDER CANCER COLLABORATIVE STUDY.....	5R26 CA23082-02	83,711
QUARONI, ANDREA.....	INTESTINAL CELLS IN CULTURE: GROWTH REGULATION.....	1R01 AM25956-01	74,249
QUARONI, ANDREA.....	INTESTINAL CELLS: GROWTH REGULATION AND CARCINOGENESIS.....	1R26 CA26675-01	41,254
RAPAPORT, ELIEZER.....	THE ROLE OF APA1 IN MALIGNANT TRANSFORMATION.....	5R01 CA22904-02	70,046
ROBINSON, DWIGHT R.....	PROSTAGLANDINS IN RHEUMATIC DISEASES.....	3R01 AM19427-03S1	8,070
ROBINSON, DWIGHT R.....	PROSTAGLANDINS IN RHEUMATIC DISEASES.....	2R01 AM19427-04	76,585
RUSKIN, JEREMY N.....	CNS-MEDIATED EFFECTS OF ANTIARRHYTHMIC DRUGS.....	5R01 HL22862-02	26,880
RUSSELL, PAUL S.....	TISSUE SPECIFICITY STUDIES.....	5R01 AM07055-17	99,764
RUSSELL, PAUL S.....	STUDIES BASIC TO HEART TRANSPLANTATION.....	5P01 HL18646-04	392,900
SHANNON, DANIEL C.....	SIDS-RESPIRATORY CONTROL DEVELOPMENT.....	5R01 HD11965-02	58,816
SHIH, VIVIAN E.....	NEW AMINO ACID DISORDERS IN CEREBRAL DISEASE.....	5R01 NS05096-17	167,547
SLATER, EVE E.....	PURIFICATION OF HUMAN RENAL RENIN.....	5R23 HL12147-03	38,195
SMITH, GENE M.....	EXPERIMENTAL AND PERIODONTAL SURGICAL PAIN.....	5R01 DE04939-02	68,751
STINSON, THOMAS W, III.....	MECHANICS OF CHOLINERGIC RECEPTORS AND BIOMEMBRANES.....	5R23 GM25566-02	42,390
STOSSEL, THOMAS P.....	PHAGOCYTOSIS-INGESTION IN PULMONARY ALVEOLAR MACROPHAGE.....	2R01 HL19429-04	117,035
STRAUSS, HARRY W.....	AMBULATORY MONITORING OF VENTRICULAR FUNCTION.....	1R01 HL24623-01	116,583
SUIT, HERMAN D.....	MODIFICATION OF TUMOR RESPONSE TO LOCAL IRRADIATION.....	5R01 CA13311-08	202,937
SUIT, HERMAN D.....	CLINICAL TRIAL OF RADIATION THERAPY AND CORYNEBACTERIUM.....	5R01 CA19415-03	96,391
SUIT, HERMAN D.....	PROTON RADIATION THERAPY RESEARCH.....	3P01 CA21239-02S1	23,707
SUIT, HERMAN D.....	PROTON RADIATION THERAPY RESEARCH.....	5P01 CA21239-03	720,228
SWANN, DAVID A.....	MOLECULAR BASIS OF JOINT LUBRICATION.....	5R01 AM19834-03	100,585
SWANN, DAVID A.....	CHEMISTRY AND BIOLOGY OF VITREOUS STRUCTURAL PROTEINS.....	5R01 EY01030-06	76,279
TAVERAS, JUAN M.....	AN INTERDEPARTMENTAL STROKE PROGRAM.....	3P50 NS10828-05S2	901,132
TOOLE, BRYAN P.....	MORPHOGENETIC ROLE OF GLYCOSAMINOGLYCANS.....	5R01 DE04220-05	117,305
TRELSTAD, ROBERT L.....	CARDIOVASCULAR MATRIX: MORPHOGENESIS AND MATURATION.....	5R01 HL18714-05	109,410
URANO, MUNIYASU.....	TUMOR RESPONSE TO HYPERTHERMIA AND IRRADIATIONS.....	1R01 CA26350-01	193,609
WALKER, W ALLAN.....	INTESTINAL UPTAKE OF MACROMOLECULES.....	5R01 AM16269-06	54,760
WALKER, W ALLAN.....	EFFECT OF COLOSTRUM ON GUT MATURATION AND HOST DEFENSE.....	1R01 HD12437-01	54,424
WANDS, JACK R.....	THE EFFECT OF AGE ON THE HEPATOCYTE CELLULAR RESPONSE.....	1R01 AG01454-01	65,916
WANDS, JACK R.....	HORMONAL PROTECTION AND REPAIR IN HEPATOCELLULAR INJURY.....	5R01 AM20309-03	72,657
WATKINS, W DAVID.....	PULMONARY ARACHIDONATE METABOLISM IN ARDS/ANESTHESIA.....	1R01 HL22850-01	80,690
WINN, HENRY J.....	TUMOR IMMUNOLOGY.....	5R01 CA17800-05	132,522
WINN, HENRY J.....	TRANSPLANTATION IMMUNOLOGY.....	5R01 CA20044-14	139,559
WITTERS, LEE A.....	REGULATION OF HEPATIC METABOLISM BY INSULIN.....	5R01 AM19270-03	42,243
WOOD, WILLIAM C.....	HUMORAL CYTOTOXIC RESPONSE IN GLIOMA PATIENTS.....	5R01 CA22613-02	63,996
WRAY, SHIRLEY H.....	DEMYELINATION AND THE OPTIC NERVE.....	5R01 NS11551-06	102,880
YOUNG, DAVID M.....	NERVE GROWTH FACTOR FUNCTION & SECRETION BY CANCER CELLS.....	5R01 CA17137-05	47,478
YOUNG, DAVID M.....	SALIVA NERVE GROWTH FACTOR: NATURALLY OCCURRING FORM.....	5R01 NS14152-02	36,655
ZAPOL, WARREN M.....	PULMONARY SCOR: ADULT RESPIRATORY FAILURE.....	5P50 HL23591-02	956,192
ZERVAS, NICHOLAS T.....	TREATMENT OF POST-SURGICAL VASOCONSTRICTION.....	2R01 HL22573-02	140,539
ORGANIZATION TOTAL	144	18,426,265	
MASSACHUSETTS OFFICE OF HUMAN SERVICES—MASSACHUSETTS MENTAL HEALTH CENTER ZIP CODE 02115			
GRINSPOON, LESTER.....	PSYCHEDELIC DRUGS IN PERSPECTIVE.....	5R01 LM03118-02	17,939
ORGANIZATION TOTAL	1	17,939	
NEW ENGLAND DEACONESS HOSPITAL ZIP CODE 02215			
BISTRIAN, BRUCE R.....	METABOLIC RESPONSE TO ACUTE INFECTION.....	5R01 GM24401-02	100,112
BLACKBURN, GEORGE L.....	NEW CONCEPTS IN PARENTERAL PROTEIN SPARING THERAPY.....	2R01 GM22691-05	144,286
BLACKBURN, GEORGE L.....	BRANCHED CHAIN AMINO ACID FEEDING DURING INJURY.....	5R01 GM24206-02	72,379
BROWN, CLARK E.....	CANCER OF RAT PROSTATE: ITS INDUCTION AND PREVENTION.....	1R01 CA24893-01	51,865
HERZFELD, ANNEMARIE.....	LYMPHOMA: DIAGNOSIS BY BLOOD AND LIVER TESTS.....	5R01 CA22065-02	89,681
HERZFELD, ANNEMARIE.....	GROWTH AND DIFFERENTIATION OF SMALL INTESTINE.....	1R01 HD12552-01	97,722
KNOX, W EUGENE.....	REGULATION OF ENZYME CONCENTRATION IN TISSUES.....	5R01 AM00567-26	122,889
MAKI, TAKASHI.....	GENERATOR OF EFFECTOR CELLS FOR TUMOR IMMUNOTHERAPY.....	1R23 CA25486-01	33,875
MC DERMOTT, WILLIAM V, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05591-15	45,156

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
MONACO, ANTHONY P.....	IMMUNOSUPPRESSION AND SPECIFIC UNRESPONSIVENESS.....	5R01 AI14551-03	112,990
MONACO, ANTHONY P.....	IMMUNODIAGNOSTIC ASSAY OF BLADDER CARCINOMA.....	5R26 CA20888-04	89,701
ORGANIZATION TOTAL	11 960,656		
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111			
AGNELLO, VINCENT.....	STUDY OF HUMAN IMMUNE COMPLEX DISEASES.....	2R01 AM16984-07	100,663
BABIOR, BERNARD M.....	THE FUNCTION OF NORMAL AND MALIGNANT PHAGOCYTIC CELLS.....	5R01 AI11827-07	79,463
BABIOR, BERNARD M.....	ADHERENCE-PROMOTING GLYCOPROTEIN OF NEUTROPHILS.....	1R01 AI15756-01	51,550
BABIOR, BERNARD M.....	STUDY OF COENZYME B12 AND RELATED COMPOUNDS.....	5R01 AM16589-07	86,506
BABIOR, BERNARD M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05598-14	159,448
BARZA, MICHAEL.....	OCULAR PENETRATION OF ANTIBIOTICS IN A MODEL.....	5R01 EY01517-05	101,423
BAUM, JULES L.....	BIOCHEMISTRY OF NORMAL AND DYSTROPHIC CORNEAS IN CULTURE.....	2R01 EY01793-04	133,374
BERKMAN, EUGENE M.....	STUDIES ON GRANULOCYTE ANTIGEN ANTIBODY INTERACTION.....	5R01 AM21027-02	37,705
BRENNER, JOHN.....	AUTOMATIC METAPHASE CELL LOCATION SYSTEM DEVELOPMENT.....	2R01 GM22965-03	116,601
CALLOW, ALLAN D.....	PLATELET-FIBRIN DYNAMICS IN HEALING ARTERIAL SURFACES.....	1R01 HL24447-01	86,598
COHEN, JORDAN J.....	REGULATION OF ELECTROLYTE AND ACID-BASE EQUILIBRIUM.....	5R01 HL00759-30	151,112
COHEN, JORDAN J.....	ELECTROLYTE PHYSIOLOGY AND RESPIRATORY ACID-BASE.....	5R01 HL15810-07	160,046
DONOWITZ, MARK.....	ABSORPTION AND SECRETION IN DIARRHEAL DISEASES.....	5R01 AM20700-02	37,033
FANBURG, BARRY L.....	HUMORAL AND METABOLIC ASPECTS OF CARDIAC FUNCTION.....	5R01 HL06924-17	61,330
FANBURG, BARRY L.....	LUNG METABOLISM—ENZYMES IN THE PULMONARY CIRCULATION.....	5R01 HL14456-08	120,219
FANBURG, BARRY L.....	DEFENSES OF LUNG CELLS AGAINST OXYGEN TOXICITY.....	5R01 HL20352-03	52,176
FANBURG, BARRY L.....	RADIATION INJURY TO PULMONARY ENDOTHELIUM.....	1R01 HL25261-01	53,550
FURIE, BARBARA C.....	METAL-DEPENDENT COMPLEXES IN BLOOD COAGULATION.....	5R01 HL18834-05	63,386
FURIE, BRUCE.....	STRUCTURE-FUNCTION RELATION OF BLOOD CLOTTING PROTEINS.....	5R01 HL21543-03	36,371
GENNARI, F JOHN.....	RENAL TUBULAR PCO2 AND ACID-BASE EQUILIBRIUM.....	1R01 AM23053-01	36,136
JACKSON, IVOR.....	SECRETION OF TRH AND OTHER NEURAL PEPTIDES.....	5R01 AM21863-02	78,088
KAPLAN, MARSHALL M.....	ENZYME REGULATION IN LIVER DISEASE.....	3R01 AM10571-12S1	22,747
LEVINE, HERBERT J.....	CARDIODYNAMICS AND METABOLISM OF CONGESTIVE FAILURE.....	5R01 HL07139-18	98,201
LEVY, STUART B.....	HISTONE AND NUCLEOSOME PHASING DURING TRANSFORMATION.....	1R01 GM25792-01	58,089
MOLITCH, MARK E.....	SHORT-LOOP FEEDBACK CONTROL OF PITUITARY HORMONES.....	5R01 AM20870-02	72,211
PLAUT, ANDREW G.....	MUCOSAL DEFENSE AGAINST GONOCOCCAL INFECTIONS.....	5R01 AI14648-02	78,873
PLAUT, ANDREW G.....	PROTEOLYTIC MECHANISMS IN HUMAN COLON CONTENTS.....	5R01 AM17194-07	83,034
REICHLIN, SEYMOUR.....	NEURAL CONTROL MECHANISMS OF METABOLIC FUNCTIONS.....	2R01 AM16684-08	154,678
REICHLIN, SEYMOUR.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00054-18	595,134
SCHWARTZ, BERNARD.....	RESPONSE OF OCULAR PRESSURE TO CORTICOSTEROIDS.....	5R01 EY00024-11	109,521
SCHWARTZ, BERNARD.....	CHANGES IN THE OPTIC DISC IN PATIENTS WITH GLAUCOMA.....	5R01 EY00936-06	119,345
SCHWARTZ, ROBERT S.....	STUDY OF SYSTEMIC LUPUS ERYTHEMATOSUS.....	2R01 AM09351-14	231,572
SCHWARTZ, ROBERT S.....	EXPERIMENTAL MODEL OF MALIGNANT LYMPHOMA.....	3R01 CA10018-13S1	113,112
SOKOL, SAMUEL.....	ERG AND VECF AS INDICES OF PHOTOPIC DYSFUNCTION.....	2R01 EY00926-06	94,069
TALLY, FRANCIS P.....	DETERMINANTS OF VIRULENCE IN BACTEROIDES FRAGILIS.....	1R01 AI15389-01A1	83,261
THORNE, GRACE M.....	VIRULENCE FACTORS OF E. COLI DIARRHEAGENIC FOR MAN.....	1R22 AI15871-01	61,173
WEITER, JOHN J.....	STUDIES OF NORMAL AND PATHOLOGICAL RETINAL P02.....	5R01 EY02246-02	60,574
WEITER, JOHN J.....	AGING IN THE RETINAL PIGMENT EPITHELIUM.....	1R01 EY02572-01A1	85,799
ORGANIZATION TOTAL	38 3,924,171		
NORTHEASTERN UNIVERSITY ZIP CODE 02115			
ARMINGTON, JOHN C.....	STIMULUS ALTERNATION AND VISUAL POTENTIALS.....	5R01 EY00589-12	69,984
DAVIS, MICHAEL A.....	SYNTHESIS OF NEW 75SE ORGAN SPECIFIC IMAGING AGENTS.....	2R01 CA19898-04	105,855
FINE, SAMUEL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07143-08	44,518
GIESE, ROGER W.....	NEW ANALYTICAL METHODOLOGY FOR HORMONE ANALYSIS.....	5R01 AM21797-02	107,627
HANSON, ROBERT N.....	RADIOLABELED B1-ANTAGONISTS: MYOCARDIAL IMAGING AGENTS.....	1R01 HL24666-01	85,897
KARGER, BARRY L.....	STUDIES IN HIGH PERFORMANCE LIQUID CHROMATOGRAPHY.....	2R01 GM15847-10	72,551
MAHUT, HELEN S.....	HIPPOCAMPUS: A NEUROPSYCHOLOGICAL DEVELOPMENTAL STUDY.....	5R01 HD08135-05	41,943
MILLER, JOANNE L.....	TUNING PROPERTIES OF FEATURE DETECTORS FOR SPEECH.....	5R01 NS14394-02	50,899
NEUMEYER, JOHN L.....	DEVELOPMENT OF NEW ANTICONVULSANT COMPOUNDS.....	1R01 NS15439-01	39,835
SCHARF, BERTRAM.....	LOUDNESS SUMMATION, LATERALIZATION, AND FUSION.....	5R01 NS07270-08	50,614
SKAVENSKI, ALEXANDER A.....	EYE MOVEMENT AND MECHANISMS OF VISUAL LOCALIZATION.....	5R01 EY02409-02	41,572
STRAUSS, PHYLLIS R.....	THYMIDINE METABOLISM AT THE CELL SURFACE.....	5R01 CA24283-02	63,689
VOUROS, PAUL.....	MASS SPECTROMETRY OF BIOLOGICALLY SIGNIFICANT COMPOUNDS.....	2R01 GM22787-04	69,304
YERGANIAN, GEORGE.....	CELL TYPE/HOST ASSAY OF MUTAGEN-CARCINOGEN ACTIVITY.....	5R01 CA25772-02	97,128

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ORGANIZATION TOTAL	14	941,416	
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115			
ARBEIT, ROBERT D.	INTERFERON PRODUCTION IN IMMUNITY TO HERPESVIRUSES	1R01 AI16033-01	52,649
CANTOR, HARVEY I.	T-CELL SUBPOPULATIONS IN TRANSPLANTATION IMMUNITY	5R01 AI12184-05	61,061
CANTOR, HARVEY I.	IMMUNOBIOLOGY OF LY0 T CELL SUBCLASSES	5R01 AI13600-04	118,709
CHAYKOVSKY, MICHAEL	NEW FOLATE ANTAGONISTS IN CANCER CHEMOTHERAPY	3R01 CA17718-03S1	8,861
CHEN, LAN B.	STUDIES OF PROTEINS INVOLVED IN CELL INTERACTION	5R01 CA22659-02	79,761
COOPER, GEOFFREY M.	INFECTIOUS DNA FOR ENDOGENOUS RNA TUMOR VIRUS GENES	2R01 CA18689-04	90,048
DUBEY, DEVENDRA P.	GENETICS OF CYTOTOXICITY TO VIRUS MODIFICATION IN MAN	1R01 CA27063-01	34,556
FRANTZ, CHRISTOPHER N.	REGULATION OF CELL GROWTH BY MEMBRANE ION FLUX	1R23 CA26889-01	34,899
FREI, EMIL, III.	COMPREHENSIVE CANCER CENTER SUPPORT	3P30 CA06516-15S1	413,076
FREI, EMIL, III.	COMPREHENSIVE CANCER CENTER SUPPORT	5P30 CA06516-16	2,468,545
FREI, EMIL, III.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17979-05	291,090
FREI, EMIL, III.	CLINICAL CANCER RESEARCH CENTER	2P01 CA19589-04	1,892,018
FREI, EMIL, III.	COLLABORATIVE THERAPEUTIC RESEARCH IN HUMAN LEUKEMIA	3P01 CA22719-01S1	18,000
FREI, EMIL, III.	COLLABORATIVE THERAPEUTIC RESEARCH IN HUMAN LEUKEMIA	5P01 CA22719-02	205,884
GREENBERGER, JOEL S.	STEM CELL AGE AND X-RAY/CHEMOTHERAPY LEUKEMOGENESIS	1R01 CA25412-01	77,134
HANLEY, JAMES A.	EXPLORATORY STUDIES IN CANCER PATIENT DATA CONTROL	1R10 CA24996-01	94,252
HANLEY, JAMES A.	RTOG STATISTICAL COORDINATING CENTER	1R10 CA25287-01	235,875
HASELTINE, WILLIAM A.	MOLECULAR BIOLOGY OF REPLICATION RNA TUMOR VIRUSES	2R01 CA19341-04	90,942
HASELTINE, WILLIAM A.	THE MOLECULAR BIOLOGY OF ANTITUMOR DRUGS	1R01 CA25118-01	77,623
HASELTINE, WILLIAM A.	DNA DAMAGE/REPAIR BY ENVIRONMENTAL CARCINOGENS/MUTAGENS	1R01 CA26716-01	132,384
ISRAEL, MERVYN	PREPARATION OF ADRIAMYCIN ANALOGS AND DERIVATIVES	5R01 CA17263-05	188,295
ISRAEL, MERVYN	BIOCHEMICAL PHARMACOLOGY OF A NEW ADRIAMYCIN ANALOG	2R01 CA19118-04	160,220
KOLODNER, RICHARD D.	ENZYMATIC MECHANISMS OF GENETIC RECOMBINATION	1R01 GM26017-01	76,412
LAMPIDIS, THEODORE J.	ANTHRACYCLINE CARDIAC TOXICITY: AN IN VITRO MODEL	1R23 CA24771-01A1	39,705
LANE, MARY-ANN L.	ANTIGEN SPECIFIC NK ACTIVITY AND SUPPRESSION IN MMTV	1R01 CA26825-01	36,560
LAZARUS, HERBERT	CYSTINE AUXOTROPHY IN HUMAN MALIGNANCY—IMPLICATIONS	3R01 CA19126-03S1	15,529
LAZARUS, HERBERT	CYSTINE AUXOTROPHY IN HUMAN MALIGNANCY—IMPLICATIONS	2R01 CA19126-04	93,459
LIVINGSTON, DAVID M.	STRUCTURE AND FUNCTION OF SV40 NON-VIRION PROTEINS	5R01 CA15751-06	105,699
LIVINGSTON, DAVID M.	ISOLATION AND FUNCTION OF SMALL SV40 T ANTIGEN	3R01 CA24715-01S1	20,004
MILLER, RICHARD A.	THYMIC HORMONES AND THE IMMUNE RESPONSE	1R23 AG01508-01	38,247
MODEST, EDWARD J.	MECHANISMS OF DRUG RESISTANCE IN HUMAN MALIGNANT CELLS	1R01 CA27013-01	39,664
NATHAN, DAVID G.	CHILDHOOD LEUKEMIA—ABELSON VIRUS	5P01 CA18662-05	623,184
PARDEE, ARTHUR B.	IN VIVO PROTECTION AGAINST ANTINEOPLASTIC AGENTS	5R01 CA19664-03	46,983
PARDEE, ARTHUR B.	MOLECULAR ANALYSIS OF MALIGNANT TRANSFORMATION	5P01 CA22427-02	360,209
PARDEE, ARTHUR B.	BIOCHEMISTRY OF G0/G1 REGULATION IN ANIMAL CELLS	5R01 GM24571-02	110,488
REINISCH, CAROL L.	IMMUNOSUPPRESSION BY ADJUVANT-STIMULATED T CELLS	3R01 CA21100-02S1	15,600
REINISCH, CAROL L.	IMMUNOSUPPRESSION BY ADJUVANT-STIMULATED T CELLS	5R01 CA21100-03	114,257
RHEINWALD, JAMES G.	SENESCENCE IN CULTURE: KERATINOCYTE VS FIBROBLAST	1R01 AG02048-01	67,765
RHEINWALD, JAMES G.	CELL CULTURE ANALYSIS OF HUMAN EPIDERMAL NEOPLASIA	1R01 CA26656-01	75,383
ROSENBERG, ROBERT D.	HYPERCOAGULABILITY & THE HEPARIN-ANTITHROMBIN MECHANISM	2R01 HL19131-05	224,597
ROSOWSKY, ANDRE	BRANCHED SUGAR NUCLEOSIDES AS ANTICANCER AGENTS	5R01 CA22738-02	46,874
ROSOWSKY, ANDRE	DEVELOPMENT OF POTENTIAL NEW AGENTS AGAINST MELANOMA	5R01 CA23151-02	126,262
ROSOWSKY, ANDRE	NEW APPROACHES TO ANTIFOLATE CHEMOTHERAPY	1R01 CA25394-01	103,805
RUBIN, GERALD M.	CONTROL OF GENE EXPRESSION IN ANIMAL CELLS	5R01 GM23614-03	65,406
SAGER, RUTH	CYTOPLASMIC GENES IN NORMAL AND TUMORIGENIC CELLS	5R01 CA21365-03	70,175
SAGER, RUTH	GENETIC ANALYSIS OF TUMORIGENESIS	1R01 CA24828-01	110,171
SAGER, RUTH	CYTOPLASMIC GENETIC CONTROL SYSTEMS	5R01 GM22874-05	153,282
SAMY, T S.	BIOCHEMICAL PHARMACOLOGY OF NEOCARZINOSTATIN	5R01 CA17305-05	105,345
SAMY, T S.	BIOCHEMICAL PHARMACOLOGY OF ANTITUMOR PROTEIN MACROMYCIN	5R01 CA24406-02	55,353
SANFORD, BARBARA H.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05526-17	201,413
SCHAFER, PRISCILLA A.	TRANSFORMING GENES OF HERPES SIMPLEX VIRUS	5R01 CA02060-03	101,257
SCHLOSSMAN, STUART F.	STUDY OF ISOLATION AND GENETIC CONTROL OF IMMUNOCYTES	2R01 AI12069-06	210,451
SCHLOSSMAN, STUART F.	HUMAN LEUKEMIA ANTIGENS: ISOLATION & CHARACTERIZATION	1R01 CA25369-01	204,011
SCHOENFELD, DAVID A.	REGRESSION ANALYSIS TECHNIQUES FOR CANCER RESEARCH	1R23 CA25162-01	39,200
SLAYTER, HENRY S.	ELECTRON MICROSCOPY OF MACROMOLECULAR STRUCTURES	5R01 GM14237-12	68,831
SLAYTER, HENRY S.	PLATELET GLYCOPROTEIN	5R01 HL22270-02	91,218
STEELE, GLENN D, JR.	MINIMAL RESIDUAL DISEASE AFTER RAT COLON CA. EXCISION	5R01 CA22513-02	70,129

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
STILES, CHARLES D	ROLE OF SERUM IN THE FOREIGN BODY RESPONSE.....	5R01 CA22042-03	65,403
STROMINGER, JACK L	CHEMICAL AND SEROLOGICAL STUDIES OF LYMPHOCYTE SURFACES.....	5R01 AI15669-02	83,770
STROMINGER, JACK L	MOLECULAR BASIS OF VIRAL ONCOGENESIS.....	5P01 CA21082-03	171,487
STUX, STEPHEN V	THE IMMUNOGENETICS OF MACROPHAGE SUPPRESSION IN MAN.....	1R23 CA26158-01	37,991
TENEN, DANIEL G	SV40 T ANTIGEN BINDING SITES IN CELLULAR DNA.....	1R23 CA26018-01	31,769
TERHORST, CORNELIS P	CELL SURFACE RECEPTORS ON HUMAN CYTOTOXIC T CELLS.....	5R01 AI15066-02	87,189
THORLEY-LAWSON, DAVID A	HOST IMMUNITY TO EBV INFECTION IN VITRO AND IN VIVO.....	5R01 AI15310-02	69,038
UREN, JACK R	EVALUATION OF CHEMICALLY MODIFIED THERAPEUTIC ENZYMES.....	1R01 CA26358-01	184,434
WICK, MICHAEL M	L-DOPA ANALOGS AS NEW ANTITUMOR AGENTS.....	1R01 CA24988-01A1	70,814
WILLIAMS, R MICHAEL	GENETIC CONTROL OF TUMOR RESISTANCE AND IMMUNITY.....	3R01 CA19791-03S1	12,065
WILLIAMS, R MICHAEL	IMMUNOGENETICS & EPIDEMIOLOGY IN GUILLAIN-BARRE SYN.....	5R01 NS14387-02	84,587
YUNIS, EDMOND J	GENETIC ANALYSIS OF NORMAL AND MALIGNANT LYMPHOCYTES.....	5R01 CA20531-03	164,493
YUNIS, EDMOND J	IMMUNOLOGICAL ASPECTS OF AGING.....	3R01 CA21084-03S1	29,155
YUNIS, EDMOND J	IMMUNOLOGIC FACTORS IN SPONTANEOUS MAMMARY CARCINOMA.....	3R01 CA21672-03S1	10,905
ZAIA, JOHN A	CORRELATION OF ZOSTER IMMUNITY AND VIRUS REACTIVATION.....	5R23 AI14373-03	49,261
ZELIN, MARVIN	CANCER CLINICAL INVESTIGATIONS COORDINATING CENTER A.....	3R10 CA23318-02S1	388,481
ZELIN, MARVIN	ECOG STATISTICAL COORDINATING CENTER.....	2R10 CA23318-03	785,847
ZELIN, MARVIN	STATISTICAL MODELS OF BIOMEDICAL PHENOMENA.....	5R01 CA23415-03	107,195
ORGANIZATION TOTAL	75 13,186,694		
ST. ELIZABETH'S HOSPITAL OF BOSTON ZIP CODE 02135			
COHEN, CARL M	ORGANIZATION OF ACTIN IN THE RED CELL CYTOSKELETON.....	1R01 HL24382-01	74,871
GUREWICH, VICTOR	FIBRINOGEN DEGRADATION AND CATABOLISM.....	1R01 HL23367-01	122,509
ORGANIZATION TOTAL	2 197,380		
ST. MARGARET'S HOSPITAL FOR WOMEN ZIP CODE 02125			
MITCHELL, GEORGE W, JR	HOST-PARASITE RELATIONSHIPS IN PREGNANCY.....	5R01 HD01805-13	45,557
THOMAS, GAIL B	AIR POLLUTANTS INTERACTION/CHRONIC RESPIRATORY DISEASE.....	7R23 ES02420-01	43,983
ORGANIZATION TOTAL	2 89,540		
TUFTS UNIVERSITY ZIP CODE 02111			
BLOOMQUIST, EUNICE I	SMOOTH MUSCLE OF RESISTANCE VESSELS IN HYPERTENSION.....	3R01 HL19012-03S1	38,776
BLUMENSTEIN, MICHAEL	NMR STUDIES OF PEPTIDE-MACROMOLECULE INTERACTION.....	5R01 HD10616-03	28,268
BORYSENKO, MYRIN	COMPARATIVE IMMUNOBIOLOGY.....	5R01 CA20093-07	50,225
BOYD, DANA H	FUNCTION OF STRUCTURES INVOLVED IN TRANSCRIPTION.....	5R01 GM22170-05	69,593
BRAWERMAN, GEORGE	THE ROLE OF NUCLEIC ACIDS IN CELL DIFFERENTIATION.....	5R01 GM17973-10	90,198
BRENNER, JOHN F, III	AUTOMATED LEUKOCYTE DIFFERENTIATION RESEARCH.....	1R01 AM21634-01A1	115,164
CATALDO, EDMUND F	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA20849-02	65,295
CATHOU, RENATA E	CONFORMATION AND STRUCTURAL DYNAMICS OF ANTIBODIES.....	5R01 AI10115-09	48,067
CAVAZOS, LAURO F	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05382-18	150,046
COFFIN, JOHN M	RELATIONSHIP OF AVIAN TUMOR VIRUS RNA AND HOST GENOME.....	2R01 CA17659-04	97,375
COHEN, JONATHAN B	ASSAY OF TISSUE REACTION TO IMPLANTED MATERIALS.....	5R01 AM18591-07	89,532
COOPER, AMIEL G	STRUCTURE AND SYNTHESIS OF LEUKEMIC PLASMA MEMBRANES.....	5R01 AI12875-05	100,388
DATTA, SYAMAL K	GENETIC-VIRAL-IMMUNOLOGIC STUDIES IN NEW ZEALAND MICE.....	2R01 CA19575-04	71,741
DATTA, SYAMAL K	A THYMUS DETERMINED MECHANISM OF LEUKEMIA RESISTANCE.....	1R01 CA24950-01	71,246
DINARELLO, CHARLES A	THE PATHOGENESIS OF FEVER IN HUMANS.....	1R01 AI15614-01	84,404
DOUGLAS, WILLIAM H	PRIMARY CULTURE OF PROSTATIC EPITHELIAL CELLS.....	1R01 CA26063-01	67,922
DOUGLAS, WILLIAM H	MUCOUS CELLS: CULTURE, DIFFERENTIATION AND CONTROL.....	1R01 HL24718-01	107,973
DRYSDALE, JAMES W	MAMMALIAN ISOFERRITINS—STRUCTURE AND METABOLISM.....	5R01 AM17775-06	123,535
DUCIBELLA, THOMAS	PREIMPLANTATION EMBRYO CELL SURFACE ORGANIZATION.....	7R01 HD13984-01	15,650
EL-BERMANI, AL-WALID I	INNERVATION OF THE LUNG.....	2R01 HL20548-03A1	64,948
GILL, D MICHAEL	MECHANISM OF ACTION OF CHOLERA TOXIN.....	7R22 AI16928-01	103,040
GOLDBERG, EDWARD B	GENETIC CONTENT AND RECOMBINATION OF DNA FRAGMENTS.....	5R01 GM13511-14	88,892
GOLDBERG, EDWARD B	MULTIUSER ELECTRON MICROSCOPE FACILITY.....	1P41 GM27490-01	108,672
HABER, JEROME	IMMUNOLOGICAL STUDIES—CARIES AND PERIODONTAL DISEASE.....	1R23 DE05240-01	32,438
HUBER, BRIGITTE T	B LYMPHOCYTES: DIFFERENTIATION AND TRIGGERING.....	5R01 AI14910-02	65,749
KEUSCH, GERALD T	SHIGELLA EXOTOXIN: CELL RECEPTORS AND MODE OF ACTION.....	7R01 AI16242-01	60,271
KING, JOAN C	GONADOTROPIN RELEASING HORMONE DYNAMICS AND BEHAVIOR.....	7R01 HD14092-01	21,960
KISLIUK, ROY L	FOLATE ENZYMES, COENZYMES, AND ANALOGS.....	5R01 CA10914-11	86,709
KLEIN, ROBERT	NEW ENGLAND HYPOTHYROIDISM COLLABORATIVE FOLLOW-UP STUDY.....	1R01 HD11959-01	148,821

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
KRISCHER, JEFFREY P.	CRANIOFACIAL ANOMALIES: TREATMENT EVALUATION	5R23 DE04551-02	32,491
LESKOWITZ, SIDNEY	CELLULAR ASPECTS OF TOLERANCE & DELAYED HYPERSENSITIVITY	2R01 AI10895-07	131,696
MALAMY, MICHAEL H.	ROLE OF THE HOST IN THE REGULATION OF VIRUS GROWTH	1R01 AI15840-01	91,742
NAJJAR, VICTOR A.	TISSUE ENZYMES AND PLASMA PROTEINS	5R01 AI09116-11	108,899
NATHANSON, LARRY	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17983-05	158,553
OFNER, PETER	PROSTATIC DIFFERENTIATION AND SEX HORMONE METABOLISM	5R01 CA15776-05	87,377
ONDERDONK, ANDREW B.	EXPERIMENTAL MODEL FOR ULCERATIVE COLITIS	7R01 AM26453-01	61,961
OWEN, FRANCES L.	DIFFERENTIATION AND SPECIFICITY OF T CELL RECEPTORS	5R01 AI15262-02	65,374
PARK, JAMES T.	CHEMISTRY AND BIOSYNTHESIS OF MICROBIAL CELL WALLS	2R01 AI05090-17A1	52,003
PLANTE, LAURENCE T.	DEUTERIUM & CARBON-13 LABELED ENZYMES & ANTIFOLATES	3R01 CA20539-03S1	11,633
RESNICK, ROBERT H.	DISTAL SPLENORENAL VS PORTALSYSTEMIC ANASTOMOSIS	2R01 AM18702-05	64,031
ROCKLIN, ROSS E.	MECHANISMS OF CELLULAR HYPERSENSITIVITY IN MAN	5R01 AI15912-02	92,883
SCHAECHTER, MOSELIO	BACTERIAL CELL MEMBRANE ROLE IN GROWTH AND CELL DIVISION	5R01 AI09465-10	78,994
SCHWARTZ, EDITH R.	METABOLISM OF OSTEOARTHRITIC ARTICULAR CARTILAGE	3R01 AM22057-02S1	38,000
SCHWARTZ, EDITH R.	METABOLISM OF OSTEOARTHRITIC ARTICULAR CARTILAGE	5R01 AM22057-03	127,880
SCHWARTZ, EDITH R.	VITAMIN C EFFECT ON SURGICALLY INDUCED OSTEOARTHRITIS	5R01 AM22149-02	85,317
SCHWARTZ, ROBERT S.	EXPERIMENTAL LEUKEMOGENESIS	1P01 CA24530-01	598,906
SHAPIRO, EVERETT	PULSATING FORCES IN ORTHODONTICS	2R01 DE04487-03	60,254
SILBERT, JEREMIAH E.	BIOSYNTHESIS OF PROTEOGLYCANS	2R01 AM08816-15	72,935
SONENSHEIN, ABRAHAM L.	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION	5R01 GM19168-08	54,686
SONENSHEIN, CARLOS	MECHANISM OF HORMONE ACTION ON TARGET CELLS IN CULTURE	5R01 CA13410-06	109,881
STADECKER, MIGUEL J.	THE ROLE OF MACROPHAGES IN TUMOR GROWTH CONTROL	5R23 CA24481-02	33,459
STEARNS, NORMAN S.	DOCUMENTED READING FOR IMPROVED PATIENT CARE	2R01 LM02543-03	74,347
STOLBACH, LEO L.	ONCOLOGY STUDIES: EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA07190-17	176,933
STOLLAR, BERNARD D.	IMMUNOCHEMICAL BASIS FOR INDUCING TOLERANCE TO DNA	5R01 AI14534-03	44,353
TERRES, GERONIMO, JR.	SOMATIC CELL HYBRIDIZATION OF IMMUNE CYTOLYTIC T-CELLS	5R01 CA22664-02	76,274
VAAGE, JAN	IMMUNOTHERAPY OF MAMMARY TUMORS	2R01 CA15960-05A2	95,923
WOLFE, HUBERT J.	C-CELL HYPERPLASIA AND THYROID MEDULLARY CARCINOMA	5R01 CA17389-05	105,991
WORTIS, HENRY H.	LYMPHOCYTE DEVELOPMENT IN NUDE MICE	1R01 AI15803-01	124,149
WORTIS, HENRY H.	LYMPHOCYTE BINDING TO MACROPHAGES	5R01 CA21348-03	66,730
WRIGHT, ANDREW	STRUCTURE AND FUNCTION OF THE CELL MEMBRANE	5R01 GM15837-12	62,198
ORGANIZATION TOTAL	60	5,312,751	
TUFTS-NEW ENGLAND MEDICAL CENTER ZIP CODE 02111			
BRENNER, JOHN F, III	AUTOMATED ANALYSIS OF MUSCLE AND NERVE FIBERS	1R01 NS15584-01	190,110
GORBACH, SHERWOOD L.	DIET AND ITS EFFECT ON ENZYMES LINKED TO COLON CANCER	5R26 CA17511-05	98,668
MARCHANT, DOUGLAS J.	CANCER CENTER SUPPORT (CORE) GRANT	1P30 CA23776-01	691,692
MIKKELSEN, ROSS B.	CALCIUM-2-IONS AND PLASMODIA-INFECTED ERYTHROCYTES	1R01 AI16087-01	63,940
MIKKELSEN, ROSS B.	CA2 PLUS METABOLISM IN NORMAL & TRANSFORMED LYMPHOCYTES	5R01 CA22269-03	65,409
PIRO, ANTHONY J.	RADIOTHERAPY ONCOLOGY CENTER	5P01 CA12178-09	435,672
SCHMIDT-ULLRICH, RUPERT	CHARACTERIZATION OF SV40-SPECIFIC MEMBRANE ANTIGENS	5R01 CA23642-02	74,216
ORGANIZATION TOTAL	7	1,619,707	
U.S. VETERANS ADMINISTRATION OUTPATIENT CLINIC ZIP CODE 02108			
POON, LEONARD W.	MENTAL PERFORMANCE AND AGING	5R01 AG00467-05	73,706
ORGANIZATION TOTAL	1	73,706	
UNIVERSITY HOSPITAL ZIP CODE 02118			
CHIDECKEL, ELLIOTT W.	FUEL AND AMINO ACID METABOLISM IN THE PRIMATE BRAIN	5R01 AM21081-03	82,705
CLARK, ROBERT A.	NEUTROPHIL-MEDIATED TUMOR CELL CYTOTOXICITY	5R01 CA24353-02	85,190
COFFMAN, JAY D.	ANTIPEMIC REGIMES IN PERIPHERAL ARTERIOSCLEROSIS	5R01 HL13654-09	63,520
COFFMAN, JAY D.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05487-17	124,264
DECKERS, PETER J.	ADJUVANT PRIMARY BREAST CANCER THERAPY GROUP (NASBP)	5R01 CA22489-02	49,195
DIAMOND, RICHARD D.	PULMONARY AND SYSTEMIC KILLING OF OPPORTUNISTIC FUNGI	3R01 AI15338-01S1	2,376
DIAMOND, RICHARD D.	PULMONARY AND SYSTEMIC KILLING OF OPPORTUNISTIC FUNGI	5R01 AI15338-02	98,411
HOLLANDER, WILLIAM	DRUG TREATMENT OF ATHEROSCLEROSIS	2R01 HL16437-06	127,714
KRAMSCH, DIETER M.	DRUG TREATMENT OF STENOSING PRIMATE ATHEROSCLEROSIS	5R01 HL15512-07	87,179
KRAMSCH, DIETER M.	EXERCISE AND CORONARY ATHEROSCLEROTIC HEART DISEASE	5R01 HL18060-05	98,185
LANGE, YVONNE	STUDIES OF HUMAN ERYTHROCYTE MEMBRANE CHOLESTEROL	2R01 HL20303-04	51,598
LEVINSKY, NORMAN G.	HYPOTENSION, RENAL ISCHEMIA AND EFFECT OF MANNITOL	5R01 HL22172-02	177,516

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
LEVINSKY, NORMAN G.	RENAL KALLIKREIN IN KIDNEY FUNCTION AND DISEASE	1R01 HL23304-01A1	52,951
LEVY, ELINOR M.	CONTROL OF IMMUNOSUPPRESSOR CELL ACTIVATION FUNCTION	5R01 CA25039-02	88,374
LOWENSTEIN, LEAH M.	A NEW CYCLE FOR AMMONIA PRODUCTION IN THE KIDNEY	5R01 AM17713-04	89,978
LOWENSTEIN, LEAH M.	THE REGULATION OF RENAL COMPENSATORY ADAPTATION	5R01 AM21596-02	92,831
MELBY, JAMES C.	MECHANISMS REGULATING ADRENOCORTICAL SECRETION	5R01 AM12027-12	136,770
MELBY, JAMES C.	CORE CENTER FOR ENDOCRINE-DIABETES-METABOLIC RESEARCH	1P30 AM21683-01A1	537,421
MIRSKY, ALLAN F.	NEUROBEHAVIORAL STUDIES IN PETIT MAL EPILEPSY	5R01 NS12201-05	91,452
OLSSON, CARL A.	STEROID HORMONE RECEPTORS IN HUMAN PROSTATE TISSUE	5R26 CA23666-02	105,017
POCHI, PETER E.	SEBACEOUS GLANDS, ACNE AND ANDROGEN METABOLISM	5R01 HD11632-02	79,466
REDINGER, RICHARD N.	INTERRELATION OF BILIARY LIPID AND PLASMA LIPOPROTEIN	5R01 AM21986-02	126,760
RUDERMAN, NEIL B.	GLUCOSE AND AMINO ACID METABOLISM IN SKELETAL MUSCLE	2R01 AM19514-03A1	110,510
WEINTRAUB, LEWIS R.	IRON METABOLISM	2R01 AM18550-04	132,363
WOTIZ, HERBERT H.	CELLULAR KINETICS OF CLINICAL CANCER CHEMOTHERAPY	3P01 CA18837-03S1	127,665
YABLON, ISADORE G.	THE CAUSE OF JOINT REPLACEMENT FAILURE	2R01 AM17730-03A2	115,428
ORGANIZATION TOTAL	26	2,934,839	
UNIVERSITY OF MASSACHUSETTS AT BOSTON ZIP CODE 02125			
LAUFER, DANIEL A.	CYCLODEXTRIN-CINNAMIC ACID SERIES COMPLEXES	1R01 GM26004-01	34,532
LIPKE, HERBERT	SCLEROTIN PRECURSORS IN DIPTERANS	5R01 AI14753-02	79,284
ORGANIZATION TOTAL	2	113,816	
BROOKLINE			
HELLENIC COLLEGE ZIP CODE 02146			
BOSSE', RAYMOND	THE EFFECT OF RETIREMENT ON PHYSICAL HEALTH	1R01 AG02287-01	60,927
ORGANIZATION TOTAL	1	60,927	
CAMBRIDGE			
BIO-RESEARCH INSTITUTE ZIP CODE 02141			
HOMBURGER, FREDDY	SYRIAN HAMSTER MODEL OF PANCREATIC CARCINOGENESIS	1R01 CA24696-01	62,388
HOMBURGER, FREDDY	SKIN BIOASSAY OF CARCINOGENESIS IN SYRIAN HAMSTERS	1R01 CA25082-01	55,258
HOMBURGER, FREDDY	INBRED LINES AND MUTANT STOCKS OF THE SYRIAN HAMSTER	3P40 RR01033-03S1	22,501
ORGANIZATION TOTAL	3	140,147	
CAMBRIDGE COLLABORATIVE ZIP CODE 02142			
FREDBERG, JEFFREY J.	CHEST WALL MECHANICS IN LUNG SOUND TRANSDUCTION	1R01 HL23335-01	37,087
ORGANIZATION TOTAL	1	37,087	
HARVARD UNIVERSITY ZIP CODE 02138			
BLOCH, KONRAD E.	BIOSYNTHESIS AND FUNCTION OF LIPIDS	2R01 HL02477-24	219,812
BOGORAD, LAWRENCE	MOLECULAR MECHANISMS OF INTRACELLULAR INTEGRATION	5R01 GM20470-07	90,458
BRANTON, DANIEL	ORGANIZATION OF NORMAL AND TRANSFORMED CELL MEMBRANES	5R01 GM20396-07	107,851
BRANTON, DANIEL	MOLECULAR STUDIES OF RED BLOOD CELL SPECTRIN	5R01 HL17411-05	74,477
BROWN, PAUL K.	MICROSPECTROPHOTOMETRY OF PHOTORECEPTORS	1R01 EY03165-01	120,409
CALABRESE, RONALD L.	NEURONAL CONTROL OF HEARTBEAT	1R01 NS15101-01	53,953
CANTLEY, LEWIS C, JR.	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS	1R01 GM26199-01	95,140
COOPER, WILLIAM E.	SEGMENTAL TIMING IN SPEECH	1R01 NS15059-01	59,626
COREY, ELIAS J.	ANTITUMOR/ANTIBIOTIC SUBSTANCES: SYNTHESIS & CHEMISTRY	5R01 CA16421-05	270,415
COREY, ELIAS J.	COMPUTER-ASSISTED ANALYSIS OF CHEMICAL SYNTHESIS	5R01 GM18519-09	147,323
CREWS, DAVID P.	HORMONE-BEHAVIOR INTERACTIONS REGULATING REPRODUCTION	1R01 HD12709-01	61,108
CREWS, DAVID P.	NEUROENDOCRINE CONTROL OF REPRODUCTIVE BEHAVIOR	5R01 NS15305-02	73,268
DOBSON, CHRISTOPHER M.	NMR STUDIES OF THE STRUCTURE AND DYNAMICS OF LYSOZYME	1R01 GM26272-01	46,769
DOTY, PAUL M.	REGULATORY STATES OF COLLAGEN GENE EXPRESSION	1R01 AM23073-01	41,368
DOTY, PAUL M.	CHROMATIN, SPECIAL GENES AND RNA IN DEVELOPMENT	5R01 HD01229-28	141,066
DOWLING, JOHN E.	ANATOMICAL ORGANIZATION OF THE VISUAL SYSTEM	5R01 EY00811-08	58,711
DOWLING, JOHN E.	FUNCTIONAL ORGANIZATION OF VERTEBRATE VISUAL SYSTEMS	2R01 EY00824-09	72,117
DOWLING, JOHN E.	PHYSIOLOGY OF PHOTORECEPTORS OF THE RETINA	5R01 EY02418-02	36,290
DRESSLER, DAVID H.	MOLECULAR MECHANISMS IN DNA REPLICATION	5R01 GM17088-10	81,128

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ELGIN, SARAH C.....	NONHISTONE CHROMOSOMAL PROTEINS OF DROSOPHILA.....	3R01 GM20779-05S1	22,122
ELGIN, SARAH C.....	NONHISTONE CHROMOSOMAL PROTEINS OF DROSOPHILA.....	5R01 GM20779-06	87,154
GELBART, WILLIAM M.....	GENETIC CONTROL OF DROSOPHILA ACETYLCHOLINESTERASE.....	5R01 GM23522-03	52,338
GILBERT, WALTER.....	CONSTRUCTION OF AN INSULIN-PRODUCING BACTERIAL STRAIN.....	5R01 AM21240-03	131,686
GILBERT, WALTER.....	ROLE OF RIBONUCLEIC ACID IN PROTEIN SYNTHESIS.....	5R01 GM09541-18	370,621
GILBERT, WALTER.....	INTERACTION OF PROTEINS WITH DNA.....	5R01 GM21514-05	78,024
GREEN, DAVID M.....	TEMPORAL FACTORS IN MASKING.....	2R01 NS11620-06	90,057
GREER, HELEN A.....	GENE REGULATION OF HISTIDINE BIOSYNTHESIS IN YEAST.....	5R01 GM25207-02	49,006
GUIDOTTI, GUIDO.....	STRUCTURE AND FUNCTION OF MEMBRANE PROTEINS.....	5R01 HL08893-15	102,741
HARRISON, STEPHEN C.....	VIRUS STRUCTURE AND ASSEMBLY.....	2R01 CA13202-08	191,099
HASTINGS, JOHN W.....	MOLECULAR AND CELLULAR MECHANISMS OF BIOLOGICAL RHYTHMS.....	5R01 GM19536-07	90,725
HUBBARD, RUTH.....	CHEMISTRY AND PHYSIOLOGY OF PHOTORECEPTORS.....	1R01 EY03104-01	96,844
KAFATOS, FOTIS C.....	REGULATION AND EVOLUTION OF A MULTIGENE FAMILY.....	5R01 GM24225-03	61,726
KAFATOS, FOTIS C.....	STUDIES IN DEVELOPMENTAL BIOLOGY.....	5R01 HD04701-10	87,814
KAGAN, JEROME.....	COGNITIVE AND AFFECTIVE DEVELOPMENT IN INFANCY.....	5R01 HD10094-03	57,485
KARPLUS, MARTIN.....	THEORETICAL STUDIES OF BIOMOLECULES.....	5R01 EY00062-10	88,868
KESSIN, RICHARD H.....	CONTROL OF AGGREGATION IN D. DISCOIDEUM.....	5R01 GM21809-05	94,378
KISHI, YOSHITO.....	SYNTHESIS OF ANTITUMOR NATURAL PRODUCTS.....	5R01 CA22215-02	117,955
KISHI, YOSHITO.....	CHEMISTRY OF NATURAL PRODUCTS.....	5R01 GM04229-25	307,915
KISHI, YOSHITO.....	SYNTHETIC STUDIES ON COMPLEX NATURAL PRODUCTS.....	5R01 NS12108-05	152,494
KLECKNER, NANCY E.....	ILLEGITIMATE RECOMBINATION BY DRUG RESISTANCE ELEMENTS.....	5R01 GM25326-02	61,109
KNOWLES, JEREMY R.....	MECHANISMS OF ENZYME CATALYSIS.....	2R01 GM21659-05	138,179
KNOWLES, JEREMY R.....	PHOTOGENERATED REAGENTS FOR BIOLOGICAL RECEPTORS.....	5R01 GM22961-04	76,205
KRONAUER, RICHARD E.....	COME INPUTS TO HUMAN SPATIAL DETECTORS.....	3R01 EY01808-03S1	28,217
KRONAUER, RICHARD E.....	BREATHING PATTERNS IN MAN.....	5R01 HL16325-04	51,293
LEVINE, ROBERT A.....	CULTURAL FACTORS IN FAMILY SUPPORT FOR THE ELDERLY.....	5R01 AG01095-02	95,043
LEWONTIN, RICHARD C.....	GENETIC VARIATION OF PROTEINS IN NATURAL POPULATIONS.....	2R01 GM21179-06	146,550
LEWONTIN, RICHARD C.....	GENETIC VARIATION DETECTABLE BY ELECTROPHORESIS.....	5R01 GM24849-02	45,389
LIPSCOMB, WILLIAM N.....	STRUCTURE & FUNCTION OF BIOLOGICALLY ACTIVE MOLECULES.....	5R01 GM06920-21	253,912
LOSICK, RICHARD M.....	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION.....	5R01 GM18568-07	89,140
MC CLURE, WILLIAM R.....	MECHANISM AND REGULATION OF E. COLI RNA POLYMERASE.....	5R01 GM21052-05	55,077
MC MAHON, THOMAS A.....	MUSCLE FORCE DURING RUNNING BY X-RAY CINE.....	5R01 AM19638-03	48,006
MC MAHON, THOMAS A.....	BALLISTIC WALKING: NORMAL AND PATHOLOGICAL GAITS.....	1R01 AM25829-01	70,520
MC MAHON, THOMAS A.....	THERMALLY INDUCED OCULAR DEFORMATION.....	3R01 EY01907-02S1	19,604
MC MAHON, THOMAS A.....	SERVO-SIMULATED COMPLIANCE CHANGES: A REVERSIBLE M.I.....	2R01 HL21425-03	112,712
MESELSON, MATTHEW S.....	NUCLEAR AND MESSENGER RNA OF DROSOPHILA.....	5R01 GM22274-05	146,390
MILLER, KENNETH R.....	STRUCTURE OF THE PHOTOSYNTHETIC MEMBRANE.....	2R01 GM24078-03	110,003
PERSHAN, PETER S.....	ORIENTED MULTILAMELLA LIPID BILAYERS: POLARIZED RAMAN.....	1R01 GM24081-01A1	64,340
PETERS, KEVIN S.....	PICOSECOND STUDY OF THE VISUAL PROTEIN RHODOPSIN.....	1R01 EY02922-01	87,865
POLLAKOWSKI, HENRY O.....	ECONOMIC DETERMINANTS OF POPULATION DISTRIBUTION.....	7R01 HD14161-01	61,159
PTASHNE, MARK S.....	BACTERIOPHAGE REPRESSORS.....	5R01 GM22526-04	96,195
RADIN, ERIC L.....	BONE-CEMENT INTERFACE AFTER JOINT REPLACEMENT.....	5R01 AM19801-03	93,519
ROSOVSKY, HENRY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07046-14	201,413
STROMINGER, JACK L.....	BIOCHEMISTRY—MECHANISM OF ACTION OF ANTIBIOTICS.....	5R01 AI09152-11	87,907
STROMINGER, JACK L.....	STRUCTURAL AND BIOSYNTHETIC STUDIES OF HL-A DETERMINANTS.....	5R01 AI10736-05	164,624
STROMINGER, JACK L.....	BIOSYNTHESIS OF COMPLEX POLYSACCHARIDES.....	5R01 AM13230-11	49,649
TAYLOR, C RICHARD.....	LOCOMOTION: IDLING METABOLISM AND GAIT DYNAMICS.....	5R01 AM18140-05	68,134
TAYLOR, D LANSING.....	STRUCTURAL AND CHEMICAL DYNAMICS OF CELL MOVEMENT.....	5R01 AM19111-05	57,619
VAIDA, VERONICA.....	KINETICS & MECHANISMS OF PHOTOAFFINITY LABELING REAGENTS.....	1R01 GM26620-01	73,177
WANG, JAMES C.....	PHYSICOCHEMICAL STUDIES OF NUCLEIC ACIDS.....	5R01 GM24544-03	157,717
WENDER, PAUL A.....	SYNTHETIC STUDIES ON CYTOTOXIC SESQUITERPENES.....	5R01 CA21136-03	67,170
WESTHEIMER, FRANK H.....	MECHANISM OF ENZYME ACTION.....	5R01 GM04712-23	81,030
WILEY, DON C.....	VIRAL MEMBRANE AND GLYCOPROTEIN STRUCTURE.....	5R01 AI13654-03	82,525
WILLIAMS, CARROLL M.....	NEW STRATEGIES IN THE SELECTIVE CONTROL OF INSECTS.....	5R01 AI12604-05	114,995
ORGANIZATION TOTAL	73 7,338,728		
JOHN C. SHEEHAN INSTITUTE FOR RESEARCH ZIP CODE 02138			
QUICK, JAMES E.....	SYNTHESIS OF THE LYTHRACEAE ALKALOIDS.....	1R01 NS15343-01	71,403
RAZDAN, RAJ K.....	DEVELOPMENT OF NOVEL ANTIEPILEPTIC DRUGS.....	1R01 NS15346-01	50,245
ORGANIZATION TOTAL	2 121,648		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139			
AMOUR, MARY O.....	FACTORS AFFECTING IRRITANT POTENCY OF GASES AND AEROSOLS.....	3R01 ES01939-01S1	6,406
AMOUR, MARY O.....	FACTORS AFFECTING IRRITANT POTENCY OF GASES AND AEROSOLS.....	2R01 ES01939-02	107,140
BAKER, RAYMOND M.....	GENETIC STUDIES OF MEMBRANE TRAITS AND TRANSFORMATION.....	2R01 GM21665-04	73,658
BALTIMORE, DAVID.....	MOLECULAR BIOLOGY OF RNA VIRUSES.....	5R01 AI08388-12	130,872
BARRETT, ALAN H.....	NONINVASIVE SENSING OF SUBCUTANEOUS TEMPERATURES.....	5R01 GM20370-07	163,781
BAUM, MICHAEL J.....	MATING BEHAVIOR, ANDROGEN METABOLISM, AND MONOAMINES.....	5R01 HD12002-02	66,508
BELL, EUGENE.....	ANALYSIS OF AGING IN CELL LINEAGES.....	3P01 AG00354-02S1	30,159
BELL, EUGENE.....	ANALYSIS OF AGING IN CELL LINEAGES.....	2P01 AG00354-03A1	218,169
BENEDEK, GEORGE B.....	PHYSICAL AND CHEMICAL BASIS OF LENS OPACITY.....	3R01 EY00797-07S1	1,984
BENEDEK, GEORGE B.....	PHYSICAL AND CHEMICAL BASIS OF LENS OPACITY.....	5R01 EY00797-08	138,375
BERCHTOLD, GLENN A.....	ANTICANCER AGENTS: SYNTHESIS AND ACTIVITY STUDIES.....	2R01 CA18888-04	85,490
BERCHTOLD, GLENN A.....	INVESTIGATIONS OF METABOLIC SYSTEMS.....	2R01 GM19103-07	78,260
BERCHTOLD, GLENN A.....	ARENE OXIDES IMPORTANCE IN BIOLOGICAL REACTIONS.....	1R01 GM26388-01	70,151
BEVAN, MICHAEL J.....	CYTOTOXIC RESPONSE TO HISTOCOMPATIBILITY ANTIGENS.....	5R01 AI14269-03	68,564
BIEMANN, KLAUS.....	MASS SPECTROMETRIC SEQUENCING OF PROTEINS.....	5R01 GM05472-21	106,501
BIEMANN, KLAUS.....	MASS SPECTROMETRY FACILITY FOR BIOMEDICAL RESEARCH.....	2P41 RR00317-13	377,019
BIZZI, EMILIO.....	STUDY OF EYE-HEAD COORDINATION.....	5R01 NS09343-10	145,425
BJARNGARD, BENGT E.....	DOSE DISTRIBUTION IN CANCER RADIATION THERAPY.....	3P01 CA17588-04S1	137,690
BOTSTEIN, DAVID.....	DNA REPLICATION OF PHAGE P22.....	5R01 GM18973-08	44,471
BOTSTEIN, DAVID.....	MOLECULAR GENETICS OF MORPHOGENETIC PATHWAYS.....	2R01 GM21253-05	110,565
BOWMAN, H FREDERICK.....	MEASUREMENT OF PERFUSION FROM TISSUE THERMAL PROPERTIES.....	1R01 HL20304-01A3	94,997
BRAIDA, LOUIS D.....	INTENSITY PERCEPTION AND LOUDNESS.....	5R01 NS11153-04	83,101
BRAIDA, LOUIS D.....	MATCHING SPEECH TO RESIDUAL AUDITORY FUNCTION.....	2R01 NS12846-04	263,554
BROWN, GENE M.....	BIOSYNTHESIS OF B VITAMINS.....	5R01 AM03442-21	78,643
BROWNELL, GORDON L.....	STUDIES OF BORON NEUTRON CAPTURE THERAPY.....	2R01 CA19665-03	150,126
BUCHI, GEORGE H.....	THE CHEMISTRY OF NATURAL PRODUCTS.....	5R01 GM09686-18	156,138
CAREY, SUSAN E.....	DEVELOPMENT OF VISUAL FORM RECOGNITION IN CHILDREN.....	2R01 HD09179-05	65,458
CATSIMPOOLAS, NICHOLAS.....	LYMPHOID CELL PURINE NUCLEOSIDE PHOSPHORYLASE.....	1R01 CA24915-01	65,680
CATSIMPOOLAS, NICHOLAS.....	HUMAN CELL CULTURE PRODUCTION OF OPSONIC PROTEIN.....	1R01 HL24876-01	62,888
CHOUCRI, NAZLI.....	INTERSTATE MIGRATION IN THE MIDDLE EAST.....	5R01 HD09804-02	57,008
COHEN, DAVID.....	CLEARANCE OF MAGNETIC DUST FROM LUNGS OF SMOKERS.....	1R01 HL24540-01	95,062
COHEN, DAVID.....	MAGNETIC MEASUREMENTS OF INJURY CURRENTS OF THE HEART.....	1R01 HL24541-01	68,245
COLBURN, H STEVEN.....	BINAURAL HEARING.....	2R01 NS10916-05	172,982
COLEMAN, JOHN W.....	AUGER ELECTRON MICROSCOPY FOR BIOLOGICAL RESEARCH.....	5R01 GM23597-02	90,549
COLTON, CLARK K.....	TRANSPORT OF LDL IN ARTERIAL WALL.....	5R01 HL21429-03	200,315
CRAVALHO, ERNEST G.....	CRYOPRESERVATION OF THE ISOLATED HEART.....	5R01 HL20219-03	79,174
CUFFIN, BENJAMIN N.....	ACCURACY OF ELECTRIC & MAGNETIC HEART MEASUREMENTS.....	1R23 HL24645-01	47,521
DANHEISER, RICK L.....	SYNTHETIC APPROACHES TO CYCLIC NATURAL PRODUCTS.....	1R01 GM25950-01	64,826
DEEN, WILLIAM M.....	PHYSICOCHEMICAL ASPECTS OF RENAL TRANSPORT PROCESSES.....	5R01 AM20368-03	40,832
DEUTSCH, MARTIN.....	BIOLOGICAL CRYSTALLOGRAPHY, A PRECISION AREA DETECTOR.....	5R01 GM24918-02	143,475
DEWEY, C FORBES, JR.....	UNSTEADY FLOW IN ARTERIAL BIFURCATIONS.....	5R01 HL21859-02	71,622
DURLACH, NATHANIEL I.....	TACTILE COMMUNICATION OF SPEECH: STUDY OF TADOMA.....	1R01 NS14092-01A1	109,159
EISEN, HERMAN N.....	IMMUNITY TO MYELOMA TUMORS.....	3R01 CA15472-06S1	96,918
FERNSTROM, JOHN D.....	PROTEIN NUTRITION, SEROTONIN, AND PITUITARY FUNCTION.....	1R01 HD11417-01	44,088
FODOR, JERRY A.....	PROCESSES IN UNDERSTANDING AND PRODUCING SENTENCES.....	5R01 HD05168-07	173,781
FOX, JAMES G.....	RESEARCH ANIMAL DIAGNOSTIC LABORATORY.....	3P40 RR01046-03S1	17,421
FOX, JAMES G.....	RESEARCH ANIMAL DIAGNOSTIC LABORATORY.....	2P40 RR01046-04	121,890
FOX, MAURICE S.....	GENETIC RECOMBINATION AND MICROBIAL DNA SYNTHESIS.....	5R01 AI05388-17	130,427
FRISHKOPF, LAWRENCE S.....	TRANSDUCTION MECHANISMS IN HAIR CELL ORGANS.....	5R01 NS11080-05	99,879
GETTER, MALCOLM L.....	REGULATORY MECHANISMS IN NORMAL AND NEOPLASTIC CELLS.....	5R01 AI13357-04	101,644
GETTER, MALCOLM L.....	MECHANISM AND CONTROL OF DNA REPLICATION.....	5R01 GM20363-07	87,984
GOTTLIEB, PAUL D.....	GENETIC MARKERS, LEUKEMOGENESIS, AND THYMIC FUNCTION.....	5R01 CA15808-06	108,039
GRAYBIEL, ANN M.....	AN ANALYSIS OF EXTRAGENICULATE VISUAL MECHANISMS.....	1R01 EY02866-01	101,793
GREEN, HOWARD.....	THE ADIPOSE CONVERSION OF 3T3 CELLS.....	5R01 AM21997-02	106,740
GREEN, HOWARD.....	STUDY OF GROWTH AND CELL CONTROL PROCESSES.....	5P01 CA12174-10	375,987
GREEN, HOWARD.....	GROWTH AND DIFFERENTIATED FUNCTION IN MAMMALIAN CELLS.....	5R01 CA12187-10	145,443
GREENE, FREDERICK D.....	CYCLIC AZO DIOXIDES, POTENTIAL IN CANCER CHEMOTHERAPY.....	5R01 CA23550-02	68,089
GRIFFIN, ROBERT G.....	SOLID STATE NMR STUDIES OF LIPID BILAYER STRUCTURE.....	2R01 GM23289-04	105,760

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
GRIFFIN, ROBERT G.....	SOLID STATE NMR STUDIES OF AMINO ACIDS AND PEPTIDES.....	5R01 GM23403-03	44,371
GRIFFIN, ROBERT G.....	DEUTERIUM NMR INVESTIGATIONS OF LIPID ASSOCIATION.....	5R01 GM25505-02	47,435
HELD, RICHARD M.....	VISION AND VISUOMOTOR MECHANISMS.....	3R01 EY01191-06S1	44,394
HELD, RICHARD M.....	CENTRAL VISUAL PROCESSES.....	5P30 EY02621-02	137,252
HELD, RICHARD M.....	DEVELOPMENT OF AMBLYOPIA IN EARLY CATARACT & STRABISMUS.....	5R01 EY02649-02	54,085
HOPKINS, NANCY H.....	STUDIES OF ENDOGENOUS C TYPE VIRUSES.....	2R01 CA19308-04	75,794
HOPKINS, NANCY H.....	ANALYSIS OF C-TYPE VIRUSES OF WILD MICE.....	1R01 CA25629-01	38,301
HORVITZ, H ROBERT.....	GENETIC ANALYSIS OF NEMATODE EGG-LAYING.....	5R01 GM24663-02	44,905
HORVITZ, H ROBERT.....	CONTROL OF CELL DIVISION IN THE NEMATODE C. ELEGANS.....	5R01 GM24943-02	48,564
HOUSMAN, DAVID E.....	ERYTHROID DIFFERENTIATION IN FRIEND LEUKEMIA CELLS.....	5R01 CA17575-05	71,607
HOOTSMA, ADRIANUS J.....	AUDITORY PITCH PROCESSING OF COMPLEX TONES.....	5R01 NS11680-03	63,365
HYNES, RICHARD O.....	CELL SURFACE STRUCTURE AND TRANSFORMATION.....	5R01 CA17007-05	83,017
INGRAM, VERNON M.....	DIFFERENTIATION OF ERYTHROPOIESIS AND MYOGENESIS.....	5R01 AM13945-10	283,268
KAMM, ROGER D.....	HYDRODYNAMICS OF AQUEOUS OUTFLOW.....	1R01 EY03141-01	92,379
KEMP, DANIEL S.....	SYNTHESIS AND REACTIONS OF PEPTIDES.....	5R01 GM13453-14	147,091
KHORANA, HAR G.....	STUDIES OF BIOLOGICAL MEMBRANES.....	5R01 A111479-07	69,455
KHORANA, HAR G.....	SYNTHETIC AND BIOLOGICAL STUDIES OF NUCLEIC ACIDS.....	5R01 CA11981-10	392,696
KING, JOHN G.....	SURFACE STUDIES IN BIOLOGY MOLECULE MICROSCOPY.....	5R01 GM23678-02	109,551
KING, JONATHAN A.....	BACTERIOPHAGE ASSEMBLY AND ITS GENETIC CONTROL.....	5R01 GM17980-10	126,757
KOPITO, LOUIS.....	ZINC REQUIREMENTS AND ZINC STATUS IN ADULT MALES.....	5R22 AM19526-02	70,747
LANGER, ROBERT S.....	A SYSTEM FOR HEPARIN REMOVAL.....	1R01 GM25810-01	54,600
LANGER, ROBERT S.....	SURGICAL IMPLANTS FOR SUSTAINED MACROMOLECULAR RELEASE.....	1R01 GM26698-01	74,643
LEES, ROBERT S.....	LIPOPROTEINS, HEMOSTASIS AND ATHEROSCLEROSIS.....	5R01 HL21460-03	142,251
LELE, PADMAKAR P.....	LOCAL ULTRASONIC HYPERTHERMIA FOR CANCER THERAPY.....	2R01 CA16111-05	136,169
LEVIN, DANIEL.....	CONTROL OF PROTEIN SYNTHESIS BY DOUBLE-STRANDED RNA.....	5R01 GM24825-02	101,928
LODISH, HARVEY F.....	TRANSLATION OF VIRAL MESSENGER RNAs.....	5R01 A108814-12	117,658
LONDON, IRVING M.....	REGULATION OF HEMOGLOBIN SYNTHESIS AND ERYTHROPOIESIS.....	2R01 AM16272-08	179,027
LURIA, SALVADOR E.....	CELL CONTROL FUNCTIONS AND BACTERIOICIN ACTION.....	5R01 A103038-21	93,461
LURIA, SALVADOR E.....	CANCER BIOLOGY CENTER SUPPORT.....	3P01 CA14051-07S1	11,690
LURIA, SALVADOR E.....	SUPPORT FOR CANCER BIOLOGY CENTER.....	5P01 CA14051-08	1,518,362
MAGASANIK, BORIS.....	SYNTHESIS OF HISTIDINE DEGRADING ENZYMES.....	5R01 AM13894-10	114,571
MAGASANIK, BORIS.....	REGULATION AND FUNCTION OF GLUTAMINE SYNTHETASE.....	5R01 GM07446-21	100,314
MANN, ROBERT W.....	PRESSURE DISTRIBUTION ACROSS HUMAN HIP JOINT.....	5R01 AM16116-06	172,859
MARCUS, RICHARD S.....	NETWORKS FOR AIDING BIOMEDICAL INFORMATION TRANSFER.....	5R01 LM03120-02	119,308
MARK, ROGER G.....	BIOMEDICAL ENGINEERING CLINICAL INSTRUMENTATION CENTER.....	2P50 GM22392-04	435,761
MASAMUNE, SATORU.....	SYNTHESIS OF MACROLIDE NATURAL PRODUCTS.....	1R01 A115403-01	203,391
MOSKOWITZ, MICHAEL A.....	ARACHIDONIC ACID METABOLISM BY BRAIN BLOOD VESSELS.....	1R01 HL25368-01	111,484
MOSKOWITZ, MICHAEL A.....	NEUROTRANSMITTERS AND CEREBRAL BLOOD VESSELS.....	1R01 NS15201-01	29,821
MUNRO, HAMISH N.....	NUTRITIONAL REGULATION OF PROTEIN METABOLISM.....	5R01 AM15364-09	91,213
NEURINGER, LEO J.....	NMR STUDIES OF NORMAL AND TRANSFORMED CELL MEMBRANES.....	5R01 GM25689-02	83,052
NEURINGER, LEO J.....	A NATIONAL NMR FACILITY FOR BIOMOLECULAR RESEARCH.....	3P41 RR00995-03S1	60,006
NEURINGER, LEO J.....	A NATIONAL NMR FACILITY FOR BIOMOLECULAR RESEARCH.....	2P41 RR00995-04	17,000
NEWBERNE, PAUL M.....	ZINC, NITROSAMINE AND ESOPHAGEAL CANCER.....	1R01 CA25382-01	88,332
NEWBERNE, PAUL M.....	NUTRITION AND THE THYMOLYMPHATIC SYSTEM.....	5R22 HD06917-06	37,153
OSHIMA, ROBERT G.....	CHROMATIN PROTEINS OF EMBRYONAL CARCINOMA CELLS.....	1R01 CA27580-01	106,681
PARDUE, MARY L.....	GENE FUNCTION ANALYSIS BY POLYTENE CHROMOSOMES.....	5R01 GM21874-05	97,694
PARDUE, MARY L.....	ORGANIZATION OF SPECIFIC SEQUENCES IN EUKARYOTIC DNA.....	5R01 GM24635-02	72,429
PENMAN, SHELDON.....	TRANSCRIPTION AND TRANSLATION IN MAMMALIAN CELLS.....	5R01 CA08416-14	220,867
PETSKO, GREGORY A.....	AN ENZYME MECHANISTIC PATHWAY AT ATOMIC RESOLUTION.....	1R01 GM26788-01	88,651
RAJBHANDARY, UTTAM L.....	STRUCTURE AND FUNCTION OF TRANSFER RIBONUCLEIC ACIDS.....	5R01 GM17151-10	98,381
RASTETTER, WILLIAM H.....	CHELATION-ANTIBIOTICS/TREATMENT OF IRON OVERLOAD.....	5R01 AM20452-03	45,350
RASTETTER, WILLIAM H.....	REACTIVE HETEROCYCLES—CANCER AND BIOMECHANISM.....	5R01 CA20574-03	69,414
RHA, CHOKYUN.....	SYNTHESIS OF POLYPEPTIDES FOR PHENYLKETONUREA THERAPY.....	1R01 AM27118-01	68,960
RICH, ALEXANDER.....	BIOSYNTHESIS OF PARATHYROID HORMONE AND CALCITONIN.....	1R01 AM21529-01	62,776
RICH, ALEXANDER.....	MOLECULAR STRUCTURE OF NUCLEIC ACIDS AND PROTEINS.....	5R01 CA04186-21	189,261
ROBBINS, PHILLIPS W.....	CELL AND VIRUS GLYCOPROTEINS—SYNTHESIS AND FUNCTION.....	5R01 CA14142-17	146,394
ROBERTS, MARY F.....	INTERFACIAL ACTIVATION OF SOLUBLE PHOSPHOLIPASES.....	1R01 GM26762-01	48,421
ROGERS, ADRIANNE E.....	DIETARY FAT, PROLACTIN AND MAMMARY CANCER.....	1R01 CA25538-01	123,497
ROSENBLITH, WALTER A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07047-14	201,413
ROUSH, WILLIAM R.....	INTRAMOLECULAR DIELS-ALDER REACTIONS.....	1R01 GM26782-01	66,110

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ROWELL, DEREK.....	MOBILITY, ENHANCEMENT FOR THE BLIND.....	1R01 EY02463-01A1	117,379
SAKITT, BARBARA.....	PROBLEMS IN HUMAN VISION.....	7R01 EY03412-01	34,300
SALZMAN, EDWIN W.....	THROMBORESISTANT MATERIALS.....	5R01 HL20079-03	414,584
SAMUELSON, PAUL A.....	ECONOMIC AND BIOLOGICAL ANALYSIS OF POPULATION.....	5R01 HD09081-04	47,761
SAUER, ROBERT T.....	VIRAL PROTEINS: STRUCTURE AND ASSEMBLY PATHWAYS.....	1R01 AI15706-01	64,945
SCHILLER, PETER H.....	STUDIES OF INTERACTION BETWEEN EYE MOVEMENT AND VISION.....	2R01 EY00676-09	139,209
SCHIMMEL, PAUL R.....	INVESTIGATIONS OF REACTIONS OF PHYSIOLOGICAL IMPORTANCE.....	2R01 GM15539-12	143,022
SCHIMMEL, PAUL R.....	GENETIC APPROACHES TO PROTEIN-NUCLEIC ACID INTERACTIONS.....	5R01 GM23562-03	48,126
SCHNEIDER, GERALD E.....	NEUROPSYCHOLOGICAL STUDIES OF THE VISUAL SYSTEM.....	3R01 EY00126-09S1	10,394
SCHNEIDER, GERALD E.....	NEUROPSYCHOLOGICAL STUDIES OF THE VISUAL SYSTEM.....	2R01 EY00126-10	156,288
SCRIMSHAW, NEVIN S.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00088-16	729,918
SOLOMON, EDWARD I.....	SPECTROSCOPIC STUDIES OF BINUCLEAR COPPER PROTEINS.....	5R01 AM20406-03	57,503
STANBURY, JOHN B.....	GOITER AND RETARDATION IN RURAL ECUADOR & PERU.....	2R01 AM17266-05A1	36,384
STEINER, LISA A.....	STRUCTURE AND DIVERSITY IN THE IMMUNE SYSTEM.....	5R01 AI08054-13	129,686
STEVENS, KENNETH N.....	PHYSIOLOGICAL AND ACOUSTICAL STUDIES OF SPEECH.....	5R01 NS04332-17	289,492
SZOLOVITS, PETER.....	ARTIFICIAL INTELLIGENCE AND CLINICAL PROBLEM SOLVING.....	1P01 LM03374-01	321,344
SZOLOVITS, PETER.....	LABORATORY FOR CLINICAL DECISION MAKING.....	5P41 RR01096-03	154,770
TANAKA, TOYOICHI.....	PHASE SEPARATION OF CYTOPLASMA IN SUGAR CATARACTS.....	2R01 EY01696-04	72,988
TANAKA, TOYOICHI.....	QUANTITATIVE CHARACTERIZATION OF LENS OPACITIES.....	5R01 EY02433-02	51,601
TANNENBAUM, STEVEN R.....	DIET AND INTESTINAL FORMATION OF NITRITE IN MAN.....	1R26 CA25025-01	123,584
TANNENBAUM, STEVEN R.....	CARCINOGENIC NITROSAMINES FROM PRIMARY AMINES.....	1R01 CA26156-01	77,174
TORRIANI-CORINI, ANNAMARIA.....	ENZYME SYNTHESIS, STRUCTURE-E COLI ALKALINE PHOSPHATASE.....	5R01 GM24009-03	78,043
TORRIANI-CORINI, ANNAMARIA.....	GENETICS OF ALKALINE PHOSPHATASE EXPRESSION IN E. COLI.....	1R01 GM25854-01	58,734
TYLER, BONNIE M.....	REGULATION OF TRANSCRIPTION BY GLUTAMINE SYNTHETASE.....	3R01 GM22527-03S1	49,407
VARSHAVSKY, ALEXANDER J.....	STRUCTURE OF CELLULAR AND VIRAL CHROMATIN STUDIES.....	1R01 GM26086-01	89,346
WALKER, GRAHAM C.....	MUTAGENESIS AND REPAIR OF DNA.....	5R01 CA21615-03	84,054
WALSH, CHRISTOPHER T.....	ENZYMATIC REACTION MECHANISMS.....	5R01 GM20011-07	59,445
WALSH, CHRISTOPHER T.....	COENZYME ANALOGUES AS PROBES OF FLAVOENZYME CATALYSIS.....	5R01 GM21643-05	70,675
WAUGH, DAVID F.....	BLOOD COAGULATION: PHYSICO-CHEMICAL INTERACTIONS.....	5R01 HL13198-22	75,292
WAUGH, JOHN S.....	HIGH RESOLUTION NMR IN SOLIDS.....	5R01 GM16552-11	149,230
WEINBERG, ROBERT A.....	INTERACTION OF SARCOMA AND LEUKEMIA GENOMES.....	5R01 CA17537-05	60,583
WHITESIDES, GEORGE M.....	SYNTHESIS OF PROTEIN-PROTEIN CONJUGATES.....	5R01 GM24025-02	75,831
WHITESIDES, GEORGE M.....	MAGNETIC SEPARATIONS IN BIOCHEMISTRY.....	5R01 GM24540-02	31,734
WHITESIDES, GEORGE M.....	ENZYMES AS CATALYSTS IN ORGANIC SYNTHESIS.....	1R01 GM26543-01	101,983
WHITESIDES, GEORGE M.....	FOURIER TRANSFORM INFRARED SPECTROMETER.....	1P41 GM27551-01	129,721
WOGAN, GERALD N.....	STUDY OF FOOD-BORNE ENVIRONMENTAL TOXICANTS.....	5P01 ES00597-09	675,887
WOGAN, GERALD N.....	HEALTH, EFFECTS OF FOSSIL FUELS UTILIZATION.....	5P01 ES01640-02	582,274
WOGAN, GERALD N.....	ENVIRONMENTAL HEALTH SCIENCES CENTER.....	5P30 ES02109-02	479,748
WOLF, GEORGE D.....	VITAMIN A-GLYCOPHOSPHOLIPIDS AND GLYCOPROTEINS.....	5R01 AM20476-03	82,238
WOLF, GEORGE D.....	VITAMIN A AND GLYCOPROTEINS OF SKIN TUMORS.....	5R01 CA13792-03	62,376
WOLF, GEORGE D.....	CORNEAL GLYCOPROTEINS, COLLAGENASE AND VITAMIN A.....	2R01 EY00515-11	82,105
WORDEN, FREDERIC G.....	NEUROSCIENCES RESEARCH PROGRAM.....	1P20 NS15690-01	411,647
WURTMAN, RICHARD J.....	CONTROL OF AROMATIC AMINO ACID UTILIZATION IN MAMMALS.....	5R01 AM14228-10	92,800
WURTMAN, RICHARD J.....	CONTROL OF ARGININE VASOTOCIN AND MELATONIN SECRETION.....	1R01 HD11722-01A1	98,709
YANNAS, IOANNIS V.....	DESIGN AND EVALUATION OF AN ARTIFICIAL SKIN.....	5R01 GM23946-03	111,245
YANNAS, IOANNIS V.....	THROMBOGENIC/NONTHROMBOGENIC COLLAGEN FIBERS.....	1R01 HL20436-01	71,268
YOUNG, VERNON R.....	ALBUMIN SYNTHESIS IN AGING MAN.....	1R01 AG01215-01	60,545
YOUNG, VERNON R.....	QUANTITATIVE GLUCOSE METABOLISM IN AGING HUMANS.....	1R01 AG01481-01	75,733
YOUNG, VERNON R.....	DIETARY PROTEIN INTAKE AND HUMAN PROTEIN METABOLISM.....	5R22 AM15856-08	90,068
ORGANIZATION TOTAL	167	21,464,986	
CHESTNUT HILL			
BOSTON COLLEGE ZIP CODE 02167			
BADE, MARIA L.....	BIOCHEMISTRY OF INSECT CUTICLE.....	2R01 ES00650-07	63,631
BRENNER, MICHAEL.....	STUDIES OF ADENYLATE AND GUANYLATE CYCLASES.....	7R01 GM27941-01	57,563
CLARKE, MICHAEL J.....	STABLE HEAVY-METAL COMPLEXES OF NUCLEOTIDE AND COENZYME.....	1R01 GM26390-01	35,650
HADJU, JOSEPH.....	ACTIVE-SITE DIRECTED INHIBITORS OF PHOSPHOLIPASE A2.....	1R01 AM26165-01	49,985
KANTROWITZ, EVAN R.....	THE MOLECULAR BASIS OF CELLULAR CONTROL MECHANISMS.....	1R01 GM26237-01	57,181

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
KELLY, T ROSS.....	PRACTICAL SYNTHESIS OF THE ANTICANCER DRUG ADRIAMYCIN.....	5R01 CA17631-05	83,714
KELLY, T ROSS.....	SYNTHESIS OF THE ANTICANCER AGENT TRIPDIOLIDE.....	5R01 CA22936-02	75,475
NICHOLAS, KENNETH M.....	SYNTHETIC UTILITY OF METAL-STABILIZED CARBENIUM IONS.....	1R01 GM26760-01	41,391
NUMAN, MICHAEL.....	MATERNAL BEHAVIOR: NEURAL AND HORMONAL BASIS.....	2R01 HD10395-03	44,392
PETRI, WILLIAM H.....	CONTROL OF DIFFERENTIATION: DROSOPHILA CHORION GENES.....	5R01 GM24185-03	42,206
PLOCKE, DONALD J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07156-04	38,236
SARDELLA, DENNIS J.....	PROBING CARCINOGENS' ACTIVE SITES BY F-SUBSTITUTION.....	1R01 CA23454-01A1	52,257
ORGANIZATION TOTAL	12	641,681	
LOWELL			
UNIVERSITY OF LOWELL ZIP CODE 01854			
LYNCH, ROBERT D.....	CHANGES IN LIPID UNSATURATION AND IN VITRO CELL AGING.....	5R23 AG00747-03	45,266
ORGANIZATION TOTAL	1	45,266	
MEDFORD			
TUFTS UNIVERSITY ZIP CODE 02155			
APRILLE, JUNE R.....	DEVELOPMENT OF NEONATAL THERMOREGULATION.....	2R01 HD11697-02A1	66,366
APRILLE, JUNE R.....	PATHOGENIC ROLE OF A SERUM FACTOR IN REYE'S SYNDROME.....	1R01 NS14936-01	81,784
FELDBERG, ROSS S.....	NATURE AND REPAIR OF A NEW FORM OF DNA DAMAGE.....	2R01 CA19419-04	92,220
GERSHOFF, STANLEY N.....	EFFECT OF DIET ON VESICAL TUMOR AND STONE FORMATION.....	5R01 CA23714-03	77,512
HECHT, NORMAN B.....	RNA SYNTHESIS IN SPERMATOCYTES.....	1R01 HD11878-01	70,424
KANAREK, ROBIN B.....	DIET SELECTION AND OBESITY.....	5R01 AM19821-03	21,600
KANAREK, ROBIN B.....	BEHAVIORAL AND NEUROANATOMICAL ASPECTS OF FOOD INTAKE.....	5R01 AM20683-03	82,079
SAMPSON, PHILIP B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07179-02	16,777
SIEGEL, ELI C.....	GENETIC CONTROL OF MUTATION IN ESCHERICHIA COLI.....	1R01 GM25921-01	64,599
ORGANIZATION TOTAL	9	573,361	
NORTHAMPTON			
SMITH COLLEGE ZIP CODE 01060			
OLIVO, MARGARET A.....	STUDIES ON A SINGLE SARCOMERE II.....	5R01 NS12196-05	36,312
TEGHTSOONIAN, MARTHA.....	MODELS OF APPARENT SIZE AND DISTANCE.....	5R01 HD10857-02	42,499
ORGANIZATION TOTAL	2	78,811	
NORTH DARTMOUTH			
SOUTHEASTERN MASSACHUSETTS UNIVERSITY ZIP CODE 02747			
THOMAS, GEORGE J, JR.....	MOLECULAR STRUCTURE AND INTERACTIONS OF VIRUSES.....	5R01 AI11855-05	43,324
ORGANIZATION TOTAL	1	43,324	
NORTON			
WHEATON COLLEGE ZIP CODE 02766			
SMUTS, MARY E.....	CHARACTERIZATION OF EARLY PRIMARY PALATE FORMATION.....	5R23 DE05368-02	29,366
ORGANIZATION TOTAL	1	29,366	
SHREWSBURY			
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY ZIP CODE 01545			
ABERHART, DONALD J.....	STEREOCHEMISTRY IN VALINE AND LEUCINE METABOLISM.....	5R01 GM24420-03	50,069
ABERHART, DONALD J.....	STEREOCHEMICAL STUDIES OF AMINOMUTASES.....	1R01 GM25919-01	67,016
BARIL, EARL F.....	DNA SYNTHESIS: REGULATION IN NORMAL AND CANCER CELLS.....	5R01 CA15187-04	89,720
BERGER, EDWARD A.....	A SURFACE LECTIN AND CELL COHESION IN DICTYOSTELIUM.....	1R01 GM25588-01A1	62,469
CASPI, ELIAHU.....	STUDIES WITH STEREOSPECIFICALLY LABELED MEVALONATES.....	5R01 AM12156-12	158,061
CASPI, ELIAHU.....	IODINATED ESTROGENS IN BREAST CANCER.....	5R01 CA16464-05	127,662
CASPI, ELIAHU.....	BIOSYNTHESIS OF CARDENOLIDES AND RELATED STEROLS.....	2R01 GM19882-12A1	68,578

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
CRAIN, WILLIAM R, JR.....	DNA SEQUENCE ARRANGEMENT AND CHROMATIN STRUCTURE.....	1R01 GM24620-01A1	81,309
CRAIN, WILLIAM R, JR.....	SYNTHESIS & PROCESSING OF HNRNA & MRNA IN HELA CELLS.....	5R01 GM25492-02	63,308
FAIRBANKS, GRANT.....	MEMBRANE AND RED CELL DYSFUNCTION IN HEMOLYTIC ANEMIA.....	5R01 HL19933-03	77,199
FORBES, WILLIAM B.....	DIETARY RESTRICTION, LONGEVITY AND CNS AGING.....	5R23 AG00779-03	47,273
GUT, MARCEL.....	SYNTHESIS OF LABELED ADRENAL HORMONES.....	3R01 AM03419-18A1S1	16,600
GUT, MARCEL.....	SYNTHESIS OF LABELED ADRENAL HORMONES.....	5R01 AM03419-19	145,301
HOAGLAND, MAHLON B.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA12708-09	732,439
HOAGLAND, MAHLON B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05528-17	145,212
JAHAN-PARWAR, BEHRUS.....	NEURAL CONTROL OF FEEDING BEHAVIOR.....	1R01 NS14388-01A1	70,251
KUPFER, DAVID.....	EFFECTS OF CHLORINATED HYDROCARBONS ON MAMMALIAN SYSTEMS.....	5R01 ES00834-06	136,379
KUPFER, DAVID.....	PROSTAGLANDINS: INTERACTIONS WITH MONOOXYGENASES.....	2R01 GM22688-04	76,154
LAU, IN-FAI.....	5 ALPHA-DHT, SPERM, MATURATION AND FERTILITY IN RABBIT.....	5R01 HD12216-02	52,078
LEAVITT, WENDELL W.....	HORMONE RECEPTOR ONTOGENY AND CANCER.....	5R01 CA23362-02	70,253
LEAVITT, WENDELL W.....	HORMONE RECEPTOR ONTOGENY AND CANCER.....	5R01 CA23693-03	59,604
LEAVITT, WENDELL W.....	ESTROGEN AND PROGESTERONE RECEPTORS IN DECIDUOMA.....	1R01 HD13152-01	78,297
LONGCOPE, CHRISTOPHER L.....	OVARIAN FUNCTION IN POSTMENOPAUSAL WOMEN.....	5R01 AG00058-03	98,901
LONGCOPE, CHRISTOPHER L.....	CATECHOL ESTROGENS: PRODUCTION ACTION METABOLISM.....	1R01 AM20915-01A1	105,109
LONGCOPE, CHRISTOPHER L.....	REPRODUCTIVE FUNCTION AND GONADAL STEROID DYNAMICS.....	5R01 HD08034-05	87,023
LUFTIG, RONALD B.....	ASSEMBLY OF MURINE LEUKEMIA VIRUSES.....	5R01 CA22652-02	40,499
MACRIDES, FOTEOS.....	OLFACTORY AND NEUROENDOCRINE FUNCTIONS.....	5R01 NS12344-05	160,046
MAUDSLEY, DAVID V.....	DIAMINES AND POLYAMINES IN TISSUE GROWTH.....	5R01 HD07476-05	75,392
MC CRACKEN, JOHN A.....	ENDOCRINE FUNCTION OF TRANSPLANTED UTERUS AND OVARY.....	5R01 HD08129-06	92,779
O'CONNELL, ROBERT J.....	MECHANISMS OF OLFACTORY COMMUNICATION.....	5R01 NS14453-03	100,457
PEDERSON, THORU.....	GENE TRANSCRIPTION IN EUKARYOTES.....	5R01 GM21595-05	167,875
PEDERSON, THORU.....	EUKARYOTIC CHROMOSOME STRUCTURE.....	5R01 GM23914-02	58,751
RESNICK, OSCAR.....	MATERNAL PROTEIN RESTRICTION AND MENTAL RETARDATION.....	5P01 HD06364-08	474,782
ROBERTS, JOHN S.....	OXYTOCIN SECRETION AND ACTION.....	5R01 HD09345-05	107,634
ROBINSON, HARRIET L.....	INHERITANCE AND EXPRESSION OF AVIAN C-TYPE VIRUSES.....	5R01 CA23086-03	135,291
SKARNES, ROBERT C.....	HOST DEFENSE MECHANISMS AGAINST BACTERIAL ENDOTOXINS.....	1R01 AI15458-01	79,142
VALLEE, RICHARD B.....	HM WEIGHT PROTEIN, MICROTUBULES, & CELLULAR FILAMENTS.....	1R01 GM26701-01	96,111
VOGLMAYR, JOSEF K.....	SPERM MATURATION, AND ENDOCRINE FUNCTION OF THE TESTIS.....	5R01 HD09356-05	99,066
WADSWORTH, SAMUEL C.....	TRANSCRIPTIONAL CONTROL OF HEAT SHOCK GENES.....	1R01 GM26710-01	75,714
WEIHING, ROBERT R.....	ACTIN & TUBULIN CANCER CELLS (HUMAN, ADENOVIRUS).....	5R01 CA15229-04	104,367
WILLIAMS, KENNETH I.....	ANTIESTROGEN ACTION AND CANCER.....	1R01 CA25614-01	117,987
WU, JUNG-TSUNG.....	THE EFFECT OF BLASTOCYSTS ON THE UTERUS.....	1R01 HD12047-01A1	93,298
ORGANIZATION TOTAL.....	42.....	4,845,456	
SOUTH HADLEY			
MOUNT HOLYOKE COLLEGE	ZIP CODE 01075		
COHEN, JOSEPH D.....	ADAPTATION IN NORMAL AND DEFICIENT COLOR VISION.....	5R01 EY02025-02	29,091
WILLIAMSON, KENNETH L.....	CONFORMATIONAL ANALYSIS BY NMR.....	5R01 AM21381-15	59,566
ORGANIZATION TOTAL.....	2.....	88,657	
WALTHAM			
BRANDEIS UNIVERSITY	ZIP CODE 02154		
ABELES, ROBERT H.....	ANTITUMOR DRUG DEVELOPMENT.....	5R01 CA23496-02	79,091
ABELES, ROBERT H.....	ENZYME MECHANISMS AND ENZYME INHIBITORS.....	5R01 GM12633-16	114,268
AREND, LAWRENCE E.....	ANALYSIS OF FREQUENCY CHANNELS IN VISION.....	2R01 EY01797-04	52,912
CANNON, LOVICK E.....	STRUCTURE AND GENETICS OF ANTIBODY VARIABLE REGIONS.....	5R01 CA25049-02	64,834
CASPAR, DONALD L.....	ASSEMBLY OF VIRUSES, MEMBRANES, AND TISSUE.....	5R01 CA15468-06	201,813
CASPAR, DONALD L.....	MYELIN MEMBRANE STABILITY AND DYNAMICS.....	5R01 NS14378-02	72,308
COHEN, CAROLYN.....	MUSCLE STRUCTURE AND THE CONTRACTILE MECHANISM.....	2R01 AM17346-07	195,131
COHEN, JOEL M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07044-14	172,856
DE ROSIER, DAVID J.....	STRUCTURAL STUDIES OF BIOLOGICAL COMPLEXES.....	5R01 GM21189-07	119,276
DE ROSIER, DAVID J.....	STRUCTURAL STUDIES OF CELLULAR ASSEMBLIES OF ACTIN.....	1R01 GM26357-01	34,905
EPSTEIN, HERMAN T.....	BRAIN DEFICITS AND THEIR REHABILITATION.....	1R01 NS15171-01	51,279
FASMAN, GERALD D.....	PROTEIN NUCLEIC ACID INTERACTIONS: MODEL STUDIES.....	5R01 GM17533-18	122,693

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
FREIFELDER, DAVID M.	PHYSICOCHEMICAL AND GENETIC STUDIES OF DNA FUNCTION.	5R01 GM14358-13	72,472
FULTON, CHANDLER M.	CELL DIFFERENTIATION AND ORGANELLE MORPHOGENESIS.	5R01 GM24444-02	132,684
HABER, JAMES E.	CONTROL OF GAMETOGENESIS.	5R01 GM20056-07	94,165
HALL, JEFFREY C.	NEUROGENETICS OF DROSOPHILA REPRODUCTIVE BEHAVIOR.	5R01 GM21473-05	64,333
HALVORSON, HARLYN O.	PROTEIN METABOLISM IN YEAST.	5R01 AI10610-09	86,431
HALVORSON, HARLYN O.	REGULATION OF DIFFERENTIATION IN BACILLUS SPORES.	5R01 GM18904-08	105,618
HALVORSON, HARLYN O.	INTER-GENOMIC FUNCTIONAL RELATIONSHIPS IN YEAST.	5R01 GM25092-02	32,143
HENDRICKSON, JAMES B.	TOTAL SYNTHESIS OF QUASSINOIDS.	5R01 CA24058-02	81,355
HONG, JEN-SHIANG.	BIOCHEMISTRY AND GENETICS OF MEMBRANE FUNCTIONS.	2R01 GM22576-04	69,465
INGLE, DAVID J.	MOTOR FUNCTIONS OF TECTUM, PRETECTUM, AND CORTEX.	2R01 NS13592-04	74,892
JENCKS, WILLIAM P.	CHEMISTRY AND BIOCHEMISTRY OF ENERGY TRANSFER.	2R01 GM20888-22	130,356
KUSTIN, KENNETH.	CHEMICAL KINETICS STUDIED BY RELAXATION SPECTROMETRY.	5R01 GM08893-16	59,201
KUSTIN, KENNETH.	VANADATE AND BLOOD CELL TRANSPORT AND FUNCTION.	1R01 HL24225-01	75,132
LEVINE, LAWRENCE.	PROSTAGLANDINS & ENZYMES IN NORMAL AND MALIGNANT TISSUES.	5R01 CA17309-05	91,005
LISMAN, JOHN E.	MECHANISMS OF ADAPTATION.	5R01 EY01496-06	82,503
LOWENSTEIN, JOHN M.	LIPOGENESIS AS A FUNCTION OF AGING.	5R01 AG00120-05	80,090
LOWENSTEIN, JOHN M.	ENZYMATIC & CHEMICAL REACTIONS OF ADENOSINE TRIPHOSPHATE.	2R01 GM07261-19	117,431
LOWEY, SUSAN.	CHEMISTRY OF MUSCLE PROTEINS.	5R01 AM17350-07	101,996
MAKOWSKI, LEE.	DIFFRACTION ANALYSIS OF MACROMOLECULAR ASSEMBLIES.	5R23 CA24407-02	31,454
MILLER, CHRISTOPHER.	IONOPHORES OF THE SARCOPLASMIC RETICULUM MEMBRANE.	5R01 AM19826-03	24,996
NISONOFF, ALFRED.	IDIOTYPE AND GENETIC CONTROL OF ANTIBODY BIOSYNTHESIS.	5R01 AI12895-05	69,050
NISONOFF, ALFRED.	STRUCTURE AND BIOSYNTHESIS OF ANTIBODIES.	5R01 AI12907-05	112,488
NISONOFF, ALFRED.	IMMUNOSUPPRESSION OF IDIOTYPIC SPECIFICITIES.	5R01 AI12908-05	69,171
PRESS, JOAN L.	IMMUNOGENETIC ANALYSIS OF B CELL DIFFERENTIATION.	5R01 AI13725-03	53,296
RAYMENT, IVAN.	X-RAY DIFFRACTION STUDIES ON POLYOMA VIRUS.	1R23 CA27260-01	26,707
REDFIELD, ALFRED G.	STRUCTURAL KINETIC STUDIES BY NUCLEAR MAGNETIC RESONANCE.	5R01 GM20168-07	118,530
ROSBASH, MICHAEL M.	ORGANIZATION OF YEAST RIBOSOMAL PROTEIN GENES.	5R01 GM23549-03	73,369
ROSBASH, MICHAEL M.	MACROMOLECULAR SYNTHESIS IN OOGENESIS AND DEVELOPMENT.	5R01 HD08887-05	87,599
ROSENBLUM, MYRON.	ORGANOMETALLIC REAGENTS IN ORGANIC SYNTHESIS.	5R01 GM16395-12	67,394
ROSENBLUM, MYRON.	NIGMS SHARED INSTRUMENTATION PROGRAM—NMR SPECTROMETER.	1P41 GM27438-01	52,240
SCHIFF, JEROME A.	STUDIES OF THE CONTINUITY OF CELLULAR ORGANELLES.	5R01 GM14595-14	97,604
SCHLEIF, ROBERT F.	REGULATORY MECHANISMS OF THE ARABINOSE OPERON.	2R01 GM18277-09	109,090
STAFFORD, WALTER F., III.	MYOSIN-LINKED REGULATION IN VERTEBRATE SMOOTH MUSCLE.	5R23 HL21488-02	7,047
STEVENSON, ROBERT.	BISARYLPROPANOIDS OF CHEMICAL AND MEDICINAL INTEREST.	2R01 GM19566-09A1	74,168
STOUT, ROBERT D.	T-LYMPHOCYTE DIFFERENTIATION AND ITS REGULATION.	5R01 AI13806-03	82,868
STUBBS, GERALD J.	STRUCTURE AND ASSEMBLY OF TOBACCO MOSAIC VIRUS.	5R01 GM25236-02	87,865
SZENT-GYORGYI, ANDREW G.	REGULATION IN STRIATED, SMOOTH AND CARDIAC MUSCLES.	5R01 AM15963-14	176,474
TIMASHEFF, SERGE N.	TUBULIN ASSOCIATIONS AND EFFECTS OF ANTICANCER DRUGS.	5R01 CA16707-05	134,750
TIMASHEFF, SERGE N.	STRUCTURE AND INTERACTIONS OF PROTEINS IN SOLUTION.	5R01 GM14603-13	106,251
WENSINK, PIETER C.	SEQUENCE ARRANGEMENT IN EUKARYOTIC DNA & CHROMOSOMES.	5R01 GM21626-05	78,655
WINGFIELD, ARTHUR.	OVERLOAD OF CENTRAL CAPACITY IN SPEECH PERCEPTION.	5R01 NS14662-02	24,440
ORGANIZATION TOTAL	53	4,598,144	
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154			
ADAMS, RAYMOND D.	RESEARCH IN MENTAL RETARDATION.	5P30 HD04147-11	445,453
ADAMS, RAYMOND D.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05730-08	78,158
CAVINESS, VERNE S., JR.	DEVELOPMENTAL NEUROPATHOLOGY.	5R01 NS12005-05	117,204
JUNGALWALA, FIROZE B.	ASSEMBLY OF CEREBRAL MYELIN MEMBRANES.	2R01 NS10437-07A1	78,236
LEES, MARJORIE B.	RELATIONSHIP BETWEEN BRAIN PROTEINS AND LIPIDS.	5R01 NS13649-04	110,506
LEES, MARJORIE B.	CARBONIC ANHYDRASE AND MYELIN DEVELOPMENT.	5R01 NS13710-02	19,249
MC CLUER, ROBERT H.	BIOCHEMICAL AND GENETIC ASPECTS OF MENTAL RETARDATION.	5P01 HD05515-10	732,633
MC CLUER, ROBERT H.	HORMONE INDUCED EFFECTS ON GLYCOLIPID METABOLISM.	1R01 NS15037-01	53,127
SCHWARTING, GERALD A.	GLYCOLIPIDS OF NORMAL & TRANSFORMED MOUSE LYMPHOCYTES.	1R01 CA25532-01	-62,023
SIDMAN, MURRAY.	MENTAL RETARDATION: BASIC AND APPLIED RESEARCH.	5P01 HD05124-09	387,705
ORGANIZATION TOTAL	10	2,084,294	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
WELLESLEY			
WELLESLEY COLLEGE	ZIP CODE 02181		
GAUTHIER, GERALDINE F	CYTOLOGICAL HETEROGENEITY OF SKELETAL MUSCLE FIBERS	5R01 AM17964-05	10,700
PADYKULA, HELEN A	BIOMEDICAL RESEARCH SUPPORT GRANT	1S07 RR07186-01	19,286
ORGANIZATION TOTAL	2 29,986		
WILLIAMSTOWN			
WILLIAMS COLLEGE	ZIP CODE 01267		
DRICKAMER, LEE C	FACTORS AFFECTING SEXUAL MATURATION IN MAMMALS	5R01 HD08585-05	23,202
MC GILL, THOMAS E	THE GENETICS AND PHYSIOLOGY OF BEHAVIORAL DIFFERENCES	2R01 GM07495-18	51,705
TAYLOR, ALLEN	STUDY OF LENS LEUCINE AMINOPEPTIDASE	1R01 EY02842-01	43,934
ORGANIZATION TOTAL	3 118,841		
WOODS HOLE			
MARINE BIOLOGICAL LABORATORY	ZIP CODE 02543		
COPELAND, DONALD E	SECRETION OF AQUEOUS, VITREOUS HUMOR IN FISH EYE	5R01 EY02647-02	31,820
FEIN, ALAN	MECHANISMS OF VISION	5R01 EY01362-05	72,083
GROSS, PAUL R	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05547-11	25,431
MACNICHOL, EDWARD F, JR	STUDIES OF SINGLE VISUAL RECEPTOR CELLS	5R01 EY02399-02	136,845
PORTER, KEITH R	THE PIGMENT MOTILITY MECHANISM IN CHROMATOPHORES	5R01 GM24121-02	35,714
STEPHENS, RAYMOND E	THE FORMATION AND FUNCTION OF MICROTUBULES	5R01 GM20644-07	89,766
ORGANIZATION TOTAL	6 391,659		
SOCIETY OF GENERAL PHYSIOLOGISTS	ZIP CODE 02543		
BLOOM, FLOYD E	PEPTIDES AS VISCERAL INTEGRATORS: A SYMPOSIUM	1R13 AM25643-01	4,500
ORGANIZATION TOTAL	1 4,500		
WORCESTER			
CLARK UNIVERSITY	ZIP CODE 01610		
COMER, M MARGARET	MOLECULAR GENETICS OF TRNA AND ACTIVATING ENZYMES	1R01 GM24774-01A1	58,636
GOODGLASS, HAROLD	NEW MEASURES OF APHASIC SYMPTOM VARIABLES	5R01 NS07615-20	58,584
STEIN, DONALD G	AGING, NERVE GROWTH FACTOR AND BRAIN FUNCTION	2R01 AG00295-04	52,974
STEIN, DONALD G	INTERNATIONAL CONFERENCE ON THE PSYCHOBIOLOGY OF AGING	1R13 AG01493-01	5,000
ORGANIZATION TOTAL	4 175,194		
COLLEGE OF THE HOLY CROSS	ZIP CODE 01610		
CAMPBELL, DOUGLAS A	GENETIC CONTROL OF MITOTIC SEGREGATION IN YEAST	1R01 GM25749-01	50,371
ORGANIZATION TOTAL	1 50,371		
ST. VINCENT HOSPITAL	ZIP CODE 01604		
COHEN, SAMUEL M	EXPERIMENTAL BLADDER TUMOR STUDIES	5R26 CA15945-06	98,137
DRISCOLL, WALTER G	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05660-05	38,228
FRIEDEL, GILBERT H	ADMINISTRATION OF THE NATIONAL BLADDER PROJECT	5R26 CA13859-08	181,790
FRIEDEL, GILBERT H	NBCCGA: CENTRAL CYTOLOGY AND PATHOLOGY LABORATORY	5R26 CA15490-06	126,637
ORGANIZATION TOTAL	4 444,792		
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER	ZIP CODE 01605		
APPEL, MICHAEL A	CARBOHYDRATE METABOLISM IN DIABETES	1R01 AM25433-01	51,501
BECKINGHAM, KATHLEEN M	AN INVESTIGATION OF THE INTRONS OF DIPTERAN RDNA	1R01 GM26250-01	77,620
BRATT, MICHAEL A	MOLECULAR BIOLOGY OF NEWCASTLE DISEASE VIRUS INFECTION	5R01 AI12467-04	99,686
BRAVERMAN, LEWIS E	REGULATION OF THYROID FUNCTION, T4 AND T3 KINETICS	2R01 AM18919-05	125,615
BROWN, NEAL C	THE STRUCTURE AND FUNCTION OF A DNA REPLICASE	5R01 CA15915-07	85,609
BROWN, NEAL C	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05712-08	123,847
BUTCHER, REGINALD W	CONTROL OF CYCLIC AMP LEVELS	5R01 AM13904-10	36,240
BUTCHER, REGINALD W	INSULIN ACTION AND CYCLIC AMP TURNOVER	1R01 AM25364-01	54,771

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
CHLAPOWSKI, FRANCIS J.....	CYCLIC AMP METABOLISM IN TRANSITIONAL EPITHELIUM.....	5R26 CA21612-03	68,997
DE GIROLAMI, UMBERTO.....	ISCHEMIA, DIABETES, AND THE MICROCIRCULATION.....	5R01 HL21843-02	89,092
DOBSON, JAMES G, JR.....	REGULATION OF CARDIAC CONTRACTILITY AND METABOLISM.....	2R01 HL18280-04	44,736
DOBSON, JAMES G, JR.....	ADENOSINE AND CATECHOLAMINE INTERACTION IN THE HEART.....	5R01 HL22828-02	55,604
EASTWOOD, GREGORY L.....	EPITHELIAL RENEWAL IN PEPTIC AND NEOPLASTIC DISORDERS.....	5R01 AM21951-02	48,533
FAY, FREDRIC S.....	GENERATION AND REGULATION OF FORCE IN SMOOTH MUSCLE.....	5R01 HL14523-08	108,178
FLATT, JEAN-PIERRE.....	COMPOSITION OF EXPENDED ENERGY AND WEIGHT MAINTENANCE.....	1R01 AM25205-01	107,993
FRAY, JOHN C.....	CONTROL OF RENIN RELEASE FROM PERFUSED RAT KIDNEY.....	1R01 HL23516-01	29,560
GAUTHIER, GERALDINE F.....	CYTOLOGICAL HETEROGENEITY OF SKELETAL MUSCLE FIBERS.....	7R01 AM26727-01	76,019
GOODMAN, H MAURICE.....	MECHANISM OF ACTION OF GROWTH HORMONE.....	5R01 AM21216-03	79,983
GOODMAN, H MAURICE.....	INSULIN EFFECT ON AMINO ACID METABOLISM IN ADIPOCYTES.....	5R01 AM21216-03	48,170
GRIGG, PETER.....	MECHANICAL SENSITIVITY OF JOINT AFFERENT NEURONS.....	2R01 NS10783-07	50,595
HONEYMAN, THOMAS W.....	ROLE OF CALCIUM IN INSULIN AND CATECHOLAMINE ACTION.....	1R01 AM26013-01	66,180
HUMPHREYS, ROBERT E.....	MEMBRANE PROTEINS OF HUMAN LEUKEMIAS AND LYMPHOMAS.....	1R01 CA25873-01	99,495
JACOBSON, ALLAN S.....	THE RELATIONSHIP OF ELONGATION FACTOR.....	5R01 GM24755-02	52,961
KANE, EILEEN S.....	CENTRAL AUDITORY SYSTEM CONNECTIONS.....	2R01 NS14260-02A2	70,890
KELLY, LEWIS A.....	CELLULAR GROWTH, FUNCTION AND AGING IN DIABETES.....	1R01 AG02110-01	42,677
KRANT, MELVIN J.....	CLINICAL CANCER EDUCATION GRANT.....	5R25 CA22068-02	115,876
LIKE, ARTHUR A.....	ULTRASTRUCTURAL AND PHYSIOLOGIC STUDIES OF DIABETES.....	5R01 AM19155-05	230,200
MARINUS, MARTIN G.....	FUNCTION OF METHYLATED BASES IN NUCLEIC ACIDS.....	5R01 GM22055-05	57,145
MARKS, SANDY C, JR.....	THE ORIGIN AND ROLE OF OSTEOCLASTS IN TOOTH ERUPTION.....	5R01 DE03818-06	33,754
MILLER, THOMAS B, JR.....	REGULATION OF HEPATIC GLYCOGEN SYNTHESIS.....	5R01 AM18269-05	38,829
MILLER, THOMAS B, JR.....	EFFECTS OF DIABETES ON CARDIAC PERFORMANCE.....	3R01 HL20476-03S1	3,471
MORRISON, TRUDY G.....	SYNTHESIS AND ASSEMBLY OF VIRAL MEMBRANES.....	5R01 AI13847-02	56,999
NEMECEK, GEORGINA M.....	CYCLIC NUCLEOTIDE METABOLISM IN VASCULAR ENDOTHELIUM.....	5R23 HL21320-03	41,519
PADYKULA, HELEN A.....	CYCLIC UTERINE DIFFERENTIATION—ALBINO RAT AND HUMAN.....	7R01 HD13941-01	92,743
PARKER, DAVID C.....	ACTIVATION OF MOUSE B CELLS BY INSOLUBLE ANTI-IG.....	2R01 AI13447-04	55,080
PURTILO, DAVID T.....	IMMUNOPATHOLOGY X-LINKED LYMPHOPROLIFERATIVE SYNDROME.....	5R01 CA23561-02	128,364
ROSSINI, ALDO A.....	EXPERIMENTAL JUVENILE-TYPE DIABETES.....	5R01 AM25306-02	82,916
SCHNEIDER, GARY B.....	THE ROLE OF LYMPHOID CELLS IN ALVEOLAR BONE RESORPTION.....	1R01 DE05291-01	47,290
SINGER, ROBERT H.....	MESSAGE RNA CONTROL IN DIFFERENTIATING MUSCLE CELLS.....	5R01 NS11329-05	70,416
SMITH, EMIL R.....	SECRETORY PROCESSES IN THE PROSTATE GLAND.....	5R01 CA21607-02	43,173
SMITH, M SUSAN.....	CONTROL OF GONADOTROPIN SECRETION DURING LACTATION.....	5R01 HD09442-05	48,487
SUSSKIND, MIRIAM M.....	INTERACTING REGULATORS OF GENE EXPRESSION.....	2R01 GM22877-04	78,800
SZYMANSKI, IRMA O.....	MECHANISM OF DESTRUCTION OF TRANSFUSED RED CELLS.....	1R01 HL23841-01	61,650
TIPPER, DONALD J.....	STRUCTURE AND BIOSYNTHESIS OF BACTERIAL SPORE COMPONENTS.....	2R01 AI10806-06A1	72,420
TIPPER, DONALD J.....	REPLICATION OF DS RNA VIRUS-LIKE PARTICLES IN YEAST.....	5R01 GM20755-04	70,776
VILLA-KOMAROFF, LYDIA.....	THE STRUCTURE OF DEVELOPMENTALLY REGULATED GENES.....	1R01 GM26028-01	70,830
WAUD, DOUGLAS R.....	STUDY OF DRUG-RECEPTOR INTERACTIONS.....	2R01 NS12255-06	41,582
WOLF, MERRILL K.....	DEVELOPMENT OF CENTRAL NERVOUS SYSTEM.....	5R01 NS11425-05	66,211
WOODLAND, ROBERT T.....	IDIOTYPIC RESTRICTIONS ON T AND B CELL INTERACTIONS.....	1R01 AI16118-01	101,600
WRIGHT, GEORGE E.....	STRUCTURE OF NOVEL INHIBITORS OF A DNA REPLICASE.....	5R01 GM21747-05	51,337
ORGANIZATION TOTAL	50 3,556,020		
WORCESTER POLYTECHNIC INSTITUTE ZIP CODE 01609			
BROWNE, DOUGLAS T.....	ENZYME CONFORMATION AND MECHANISM.....	2R01 GM22008-04	54,800
MUGGLETON-HARRIS, AUDREY L.....	NUCLEO-CYTOPLASMIC CONTROL OF AGING AND MALIGNANCY.....	1R01 AG01212-01	96,282
MUGGLETON-HARRIS, AUDREY L.....	CATARACT AND LENS DETERIORATION DUE TO MATURATION.....	5R01 EY02523-02	82,831
ORGANIZATION TOTAL	3 233,913		
STATE TOTAL	1,548 185,736,329		

MICHIGAN

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AGRANOFF, BERNARD W.....	BIOCHEMICAL CONCOMITANTS OF NERVE REGENERATION.....	5R01 NS13743-03	80,687
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
AGRANOFF, BERNARD W.	METABOLISM OF CDP-DIGLYCERIDES IN BRAIN.....	1R01 NS15413-01	55,533
ALPERN, MATHEW.....	PSYCHOPHYSIOLOGICAL STUDIES OF OCULAR ABNORMALITIES.....	5R01 EY00197-22	86,552
AMINOFF, DAVID.....	BIOSYNTHESIS AND DEGRADATION OF BLOOD GROUP SUBSTANCES.....	2R01 HL17881-16	77,617
ANTONUCCI, TONI.....	ATTACHMENT IN THE AGING PROCESS: A LIFE SPAN FRAMEWORK.....	1R01 AG01100-01	45,890
ASGAR, KAMAL.....	NATURE OF ALLOY SYSTEMS FOR CROWN & BRIDGE RESTORATIONS.....	5R01 DE04883-02	130,351
ASHE, ARTHUR J. III.....	ARSENIC ANALOGUES OF IMPORTANT DRUGS.....	2R01 GM20992-04A1	36,728
AVERY, JAMES K.....	ROLE OF NERVES IN DENTINOGENESIS.....	5R01 DE01604-16	61,326
AVERY, JAMES K.....	DEVELOPMENT SUPPORT FOR DENTAL RESEARCH INSTITUTE.....	2P50 DE02731-13	1,400,612
AXELROD, DANIEL.....	MOLECULAR MOTION IN DEVELOPING NERVE AND MUSCLE.....	5R01 NS14565-02	49,476
BALLOU, DAVID P.....	RAPID KINETICS STUDY OF BIOLOGICAL OXYGENASES.....	5R01 GM20877-05	80,503
BARENBERG, SUMNER A.....	POLYORGANOPHOSPHAZENES; MOLECULAR MOTION & THROMBOSIS.....	1R01 HL23288-01	73,633
BEER, ALAN E.....	IMMUNOREGULATION OF MAMMALIAN REPRODUCTION.....	7R01 HD14234-01	61,289
BEIERWALTES, WILLIAM H.....	RADIONUCLIDE ADRENAL IMAGING IN HYPERTENSION.....	5R01 AM21477-02	132,099
BENDER, ROBERT A.....	REGULATION OF MICROBIAL NITROGEN METABOLISM.....	1R01 AI15822-01	53,361
BERNSTEIN, ISADORE A.....	NEOPLASTIC AND HYPERPLASTIC EPIDERMAL METABOLISM.....	5R01 AM15206-08	156,932
BOHR, DAVID F.....	MECHANISMS OF VASCULAR CHANGES IN HYPERTENSION.....	5P01 HL18575-04	415,849
BOLE, GILES G, JR.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20557-03	425,815
BRABEC, MICHAEL J.....	REPLACEMENT OF SULFITE OXIDASE AFTER CC14 DAMAGE.....	5R01 ES01919-02	79,001
BRADLEY, ROBERT M.....	ROLE OF TASTE BUDS IN SUDDEN INFANT DEATH SYNDROME.....	5R01 HD11081-03	30,850
BREWER, GEORGE J.....	GENETICS OF RBC, DPG & BETA GLOBIN IN RATS & MICE.....	1R01 AM23002-01	87,788
BREWER, GEORGE J.....	ZINC AND ZN-CA ANTAGONISM ON CELL MEMBRANE ATPASE.....	1R01 AM24075-01	75,100
BREWER, GEORGE J.....	TREATMENT OF WILSON'S DISEASE WITH ZINC.....	1R01 AM26050-01	58,411
BRINKLEY, LINDA L.....	TISSUE INTERACTION IN PALATAL SHELF CLOSURE.....	5R01 DE02774-11	85,221
BROCKMAN, WILLIAM W.....	ROLE OF SV40 GENE A IN CELLULAR TRANSFORMATION.....	2R01 CA19816-04	63,824
BURKEL, WILLIAM E.....	DEVELOPMENT OF CELL-LINED VASCULAR PROSTHESES.....	1R01 HL23345-01	93,928
BURT, BRIAN A.....	PLAQUE BACTERIA AS PREDICTORS OF HUMAN DENTAL CARIES.....	1R01 DE04504-01A2	90,028
CARLSON, BRUCE M.....	ADAPTIVE MECHANISMS IN FREE MUSCLE TRANSPLANTS.....	2R01 NS13116-04	52,318
CARLSON, BRUCE M.....	REGENERATION OF A HORMONE-SENSITIVE MUSCLE.....	5R01 NS14358-02	38,155
CARLSON, DAVID S.....	GROWTH AND FUNCTION OF THE MUSCLES OF MASTICATION.....	1R23 DE05232-01	37,714
CASEY, KENNETH L.....	MECHANISMS OF THERMAL PAIN: BEHAVIORAL ANALYSIS.....	2R01 NS12015-04A2	68,529
CASEY, KENNETH L.....	NEURAL MECHANISMS OF THERMAL PAIN.....	5R01 NS12581-05	60,183
CASTOR, C WILLIAM.....	CONNECTIVE TISSUE ACTIVATION IN RHEUMATIC DISEASES.....	5R01 AM10728-13	128,747
CASTOR, C WILLIAM.....	PATHOGENESIS OF INFLAMMATION IN THE LUNG.....	2R01 HL19685-04	97,961
CHRISTENSEN, ALBERT K.....	HYPOPHYSAL RESPONSE TO ESTROGENS AND PROGESTINS.....	5R01 HD03159-12	58,884
CHRISTENSEN, ALBERT K.....	LOCALIZATION OF HORMONE RECEPTORS IN THE TESTIS.....	2R01 HD12349-02	86,954
CHRISTENSEN, HALVOR N.....	SITES AND REACTANTS IN AMINO ACID TRANSPORT.....	5R01 HD01233-24	131,274
CLAFLIN, J LATHAM.....	REGULATION OF CLONOTYPE EXPRESSION.....	5R01 AI12533-05	91,643
CLEWELL, DON B.....	PLASMID-RELATED GENE AMPLIFICATION IN STREPTOCOCCI.....	5R01 AI10318-08	68,767
COHAN, BRUCE E.....	THE OPTIC DISC: QUANTITATION OF TOPOGRAPHY.....	5R01 EY02513-02	100,130
COHEN, BENNETT J.....	A UNIVERSITY RESOURCE IN LABORATORY ANIMAL MEDICINE.....	5P40 RR00200-16	217,549
COON, MINOR J.....	FUNCTION OF HYDROXYLASES AND OTHER OXIDATIVE ENZYMES.....	5R01 AM10339-14	122,839
COON, MINOR J.....	4TH INTERNATL SYMP ON MICROSOMES & DRUG OXIDATIONS.....	1R13 CA25800-01	26,378
COUNSELL, RAYMOND E.....	POTENTIAL TUMOR OR ORGAN IMAGING AGENTS.....	2R01 CA08349-13	129,651
DADDONA, PETER E.....	REGULATION OF ADENOSINE DEAMINASE IN HUMAN CELLS.....	1R01 CA26284-01	59,262
DATTA, PRASANTA.....	ALLOSTERIC ENZYMES AND METABOLIC REGULATION.....	5R01 GM21436-05	70,833
DEKKER, EUGENE E.....	ENZYMATIC PATHS & MECHANISMS IN AMINO ACID METABOLISM.....	5R01 AM03718-20	112,186
DIAZ, LUIS A.....	PEMPHIGUS AND PEMPHIGOID ANTIGENS.....	1R01 AM21608-01A1	83,871
EASTER, STEPHEN S, JR.....	RETINAL GROWTH AND ITS CONSEQUENCES.....	5R01 EY00168-10	64,160
ENSMINGER, WILLIAM D.....	METHOTREXATE WITH PROTECTION BY THYMIDYLATE PRECURSOR.....	5R01 CA25429-02	78,268
ERICKSON, ROBERT P.....	CONTROL OF GENE EXPRESSION DURING SPERMATOGENESIS.....	5R01 HD11738-02	64,551
ERNST, STEPHEN A.....	LOCALIZATION OF SODIUM TRANSPORT SITES.....	7R01 GM26563-01	40,778
FAJANS, STEFAN S.....	LONG-TERM STUDY OF ASYMPTOMATIC AND FUTURE DIABETES.....	5R01 AM00888-24	120,823
FAJANS, STEFAN S.....	CARBOHYDRATE METABOLISM.....	5R01 AM02244-21	120,683
FAJANS, STEFAN S.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20572-03	1,238,428
FEE, JAMES A.....	MECHANISMS OF SUPEROXIDE DISMUTASES.....	5R01 GM21519-05	56,905
FEKETY, F ROBERT, JR.....	PATHOGENESIS, PREVENTION AND THERAPY OF ENTEROCOLITIS.....	1R01 AM21076-01	61,203
FISHER, LESLIE J.....	DEVELOPMENTAL ANALYSIS OF RETINAL SYNAPTIC ORGANIZATION.....	5R01 EY01281-05	41,943
FLYNN, GORDON L.....	PERMEATION OF BURN WOUNDS, METHODOLOGY AND MECHANISM.....	5R01 GM24611-02	63,698
FOLK, WILLIAM R.....	MAMMALIAN CELL TRANSFORMATION BY ONCOGENIC VIRUSES.....	2R01 CA13978-07	78,777
FOLK, WILLIAM R.....	ANALYSIS OF THE POLYOMA GENOME IN TRANSFORMED CELLS.....	5R01 CA21808-03	49,741

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
FOSTER, DOUGLAS L.....	MECHANISMS GOVERNING INITIATION OF OVULATION.....	1R01 HD12502-01	96,998
FOX, IRVING H.....	REGULATION OF HUMAN PURINE CATABOLISM.....	5R01 AM19674-03	53,337
FOX, JEFFREY L.....	HYDROXYAPATITE REMINERALIZATION: THE ROLE OF FLUORIDE.....	5R01 DE04600-03	47,060
FREEDMAN, DEBORAH S.....	LONGITUDINAL STUDY OF CORRELATES OF FERTILITY: 1962-77.....	2R01 HD10407-03	129,492
FREEDMAN, RONALD.....	FERTILITY AND FAMILY PLANNING IN TAIWAN.....	5R01 HD03002-12	222,249
FRETER, ROLF G.....	THE ROLE OF BACTERIAL CHEMOTAXIS IN INFECTIONS.....	5R22 AI15279-02	84,636
FRIEDMAN, DAVID I.....	HOST & VIRAL INFLUENCES ON PHAGE LAMBDA DEVELOPMENT.....	5R01 AI11459-07	89,633
FRIEDMAN, DAVID I.....	GENETICS OF HOST FACTORS IN INTEGRATIVE RECOMBINATION.....	5R01 AI14363-03	51,439
GANS, CARL.....	MUSCLE ACTIVITY AND CONTROL IN MASTICATION.....	1R01 DE05112-01	59,011
GAY, HELEN.....	CHROMOSOME STRUCTURE IN RELATION TO GENE ACTION.....	5R01 GM10499-17	58,070
GELEHRTER, THOMAS D.....	CELLULAR MARKERS OF GENETIC HETEROGENEITY IN DIABETES.....	5R01 AM22028-02	42,849
GELEHRTER, THOMAS D.....	HORMONAL REGULATION OF MEMBRANE PHENOTYPE.....	5R01 CA22729-02	120,024
GILLIAM, THOMAS B.....	PHYSICAL ACTIVITY EFFECT ON CORONARY HD RISK IN CHILDREN.....	1R01 HL22886-01	99,192
GOLDSTEIN, GARY W.....	METABOLIC ACTIVITY OF BRAIN CAPILLARIES.....	7R01 ES02380-01	87,155
GOLDSTEIN, GARY W.....	METABOLIC BASIS FOR DIABETIC MICROANGIOPATHY.....	7R01 HL25492-01	94,374
GOLDSTEIN, IRWIN J.....	PROTEIN-CARBOHYDRATE INTERACTION.....	5R01 AM10171-14	81,417
GOLDSTEIN, IRWIN J.....	MURINE ASCITES TUMOR CELL GLYCOPROTEINS.....	5R01 CA20424-03	61,490
GRABER, LEE W.....	PSYCHOLOGICAL IMPLICATIONS OF DENTOFACIAL MALOCCLUSION.....	1R01 DE05095-01	79,512
GREEN, DANIEL G.....	FUNCTIONAL ORGANIZATION OF THE RETINA.....	2R01 EY00379-12	96,359
GREENBERG, G ROBERT.....	MEMBRANE PROTEINS IN DEOXYRIBONUCLEOTIDE SYNTHESIS.....	1R01 GM25973-01	84,086
GRONVALL, JOHN A.....	MULTICATEGORICAL CLINICAL RESEARCH CENTER.....	5M01 RR00042-19	939,716
GRONVALL, JOHN A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05383-18	201,413
GROSSMAN, LAWRENCE I.....	MITOCHONDRIAL DNA FROM NEOPLASTIC AND NORMAL CELLS.....	5R01 GM26179-02	73,656
GROSSMAN, LAWRENCE I.....	GENES ON MITOCHONDRIAL DNA.....	2R01 GM26546-02	182,809
GROVES, JOHN T.....	MOLECULAR PROBES OF THE MECHANISM OF CYTOCHROME P-450.....	1R01 GM25923-01	88,082
GUMUCIO, JORGE J.....	HETEROGENEITY OF THE LIVER ACINUS AND CHOLESTASIS.....	5R01 AM18409-05	100,567
HAJRA, AMIYA K.....	METABOLISM OF PHOSPHATIDIC ACID & ITS ANALOGS IN BRAIN.....	5R01 NS08841-11	77,600
HANSEN, BARBARA W.....	OBESITY AND THE REGULATION OF APPETITE.....	2R01 AM20493-03	201,844
HANSEN, BARBARA W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05796-02	36,310
HARVIE, NANCY R.....	CLOSTRIDIAL TOXINS IN POSTANTIBIOTIC COLITIS.....	1R01 AI16243-01	69,558
HELLING, ROBERT B.....	CHLOROPLAST DNA FROM EUGLENA.....	5R01 GM25565-02	62,334
HERMALIN, ALBERT I.....	POPULATION STUDIES CENTER.....	5P30 HD10003-04	174,260
HEYN, RUTH M.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA02971-23	149,530
HEYN, RUTH M.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA19762-04	166,190
HICKS, SAMUEL P.....	DEVELOPMENT OF CORTICOSPINAL SYSTEM.....	2R01 NS10531-07	12,607
HIGGINS, MILICENT W.....	EPIDEMIOLOGIC STUDY OF CHRONIC LUNG DISEASE.....	5R01 HL18632-03	146,665
HIGUCHI, WILLIAM I.....	PRODRUG BASED METHODS FOR TOPICAL DELIVERY OF ARA-A.....	5R01 AI14987-01	61,161
HIGUCHI, WILLIAM I.....	MECHANISMS OF CHOLESTEROL GALLSTONE DISSOLUTION.....	5R01 AM16694-06	69,148
HIGUCHI, WILLIAM I.....	QUANTITATION OF ENAMEL DEMINERALIZATION MECHANISMS.....	5R01 DE01830-17	96,401
HOUSE, JAMES S.....	PSYCHOSOCIAL FACTORS AND CHRONIC DISEASE.....	1R01 HL24545-01	93,961
HULTQUIST, DONALD E.....	REDOX SYSTEMS OF ERYTHROCYTES.....	5R01 AM09250-14	58,811
ISAACSON, RICHARD E.....	COLONIZATION OF SMALL INTESTINES BY ESCHERICHIA COLI.....	1R22 AI16191-01	62,371
JACKSON, ETHEL N.....	VIRAL REGULATORY MECHANISMS IN INFECTION AND LYSOGENY.....	5R01 AI12369-05	49,580
JACKSON, JAMES S.....	A NATIONAL INTRA-FAMILY COHORT STUDY OF BLACK AGING.....	1R01 AG01294-01	302,566
JACQUEZ, JOHN A.....	IDENTIFICATION OF TRANSPORT ASSOCIATED PROTEINS.....	5R01 GM24507-02	61,200
JOHNSSON, LARS-GORAN.....	COCHLEAR NERVE DEGENERATION IN DEAFENED EARS.....	5R01 NS12706-05	80,016
JONES, GARTH W.....	VIRULENCE DETERMINANTS OF SALMONELLAE.....	5R01 AI13842-03	50,778
JOURDAN, GEORGE W.....	BIOCHEMISTRY OF MUCOPOLYSACCHARIDES.....	2R01 AM10531-14	81,121
JULIUS, STEVO.....	BLOOD VOLUME DISTRIBUTION IN HYPERTENSION.....	5R01 HL21893-02	86,531
JUNI, ELLIOT.....	GENETICS AND METABOLISM OF GRAM-NEGATIVE COCCOBACILLI.....	5R01 AI10107-09	95,559
KAHN, ROBERT L.....	SUPPORTS OF THE ELDERLY: FAMILY/FRIENDS/PROFESSIONALS.....	1R01 AG01632-01	224,968
KARSCCH, FRED J.....	REGULATION OF OVARIAN CYCLICITY IN SHEEP.....	1R01 HD12450-01	94,380
KELCH, ROBERT P.....	MATURATION OF PITUITARY RESPONSES TO GnRH IN HUMANS.....	1R01 HD12306-01	111,140
KELLEY, WILLIAM N.....	REGULATION OF PURINE METABOLISM IN HUMAN CELLS.....	5R01 AM19045-05	143,157
KEYES, JOHN W. JR.....	QUANTIFICATION OF INFARCT SIZE BY EMISSION TOMOGRAPHY.....	5R01 HL21707-02	89,855
KEYES, PAUL L.....	REGULATION OF OVARIAN FUNCTION DURING PREGNANCY.....	5R01 HD07127-08	69,291
KIM, SUN-KEE.....	AGE-RELATED CHANGES IN SALIVARY GLAND SECRETORY CELLS.....	5R01 AG00944-02	29,974
KLUGER, MATTHEW J.....	EVOLUTION AND ADAPTIVE VALUE OF FEVER.....	5R01 AI13878-03	65,842
KOPELMAN, RAOUL.....	EXCITATIONS IN MOLECULAR AGGREGATES.....	5R01 NS08116-11	79,315
KORAN, ANDREW, III.....	MAXILLOFACIAL MATERIALS—COLOR STUDY.....	5R01 DE04136-05	96,989

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
KOREEDA, MASATO.....	CHEMICAL AND BIOSYNTHETIC STUDIES OF STEROID HORMONES.....	5R01 AI15664-02	60,573
KOREEDA, MASATO.....	STUDIES OF ARENE OXIDES AND THEIR ANALOGUES.....	1R01 CA25185-01	98,507
KOREEDA, MASATO.....	BIOTOXICITY OF ACTIVATED OLEFINS.....	5R01 ES02133-02	56,867
KOSTYO, JACK L.....	ACTIVITIES OF RECOMBINED PEPTIDES OF GROWTH HORMONE.....	1R01 AM26511-01	103,018
KOSTYO, JACK L.....	ANABOLIC ACTIONS OF ADENOHYPOPHYSICAL HORMONES.....	1R01 AM27126-01	31,305
KRIEWAHL, TIMOTHY J.....	FETAL HEAD MOLDING: MECHANICAL TISSUE PROPERTIES.....	5R01 HD11202-02	26,376
KRIMM, SAMUEL.....	STUDIES OF HUMAN ERYTHROCYTE MEMBRANE STRUCTURE.....	3R01 HL18737-03S1	5,903
LANDEFELD, THOMAS D.....	GONADOTROPIN BIOSYNTHESIS.....	5R01 HD12016-02	66,993
LAWRENCE, MERLE.....	STUDY OF CAUSES OF DEAFNESS.....	5P01 NS05785-15	910,330
LAWRENCE, MERLE.....	CONTROL OF INNER EAR MICROCIRCULATION.....	5R01 NS11731-06	55,417
LEE, RONALD D.....	DESIRED FAMILY SIZE, CONTRACEPTION AND AGGREGATE RATES.....	1R01 HD12331-01	49,930
LEE, RONALD D.....	CORRECTING CENSUS AGE DISTRIBUTIONS: A NEW TECHNIQUE.....	1R01 HD13176-01	29,351
LICHTER, PAUL R.....	CARBONIC ANHYDRASE INHIBITORS IN TREATING GLAUCOMA.....	5R01 EY02450-02	68,274
LILLIE, JOHN H.....	HUMAN ORAL MUCOSA IN VITRO: SUBSTRATE INTERACTIONS.....	5R23 DE04945-02	22,018
LO BUGLIO, ALBERT F.....	EFFECT OF CANCER ON HUMAN MONOCYTE CYTOTOXIC MECHANISMS.....	5R01 CA25641-02	65,840
LOESCHE, WALTER J.....	EFFECT OF CHEMOTHERAPY ON PLAQUE AND MICROBIAL ECOLOGY.....	5R01 DE03011-11	110,064
LUCCHESI, BENEDICT R.....	ANALYSIS OF ANTIARRHYTHMIC AGENTS.....	5R01 HL05806-19	62,243
LUCCHESI, BENEDICT R.....	PHARMACOLOGIC STUDIES OF THE ISCHEMIC HEART.....	5R01 HL19782-03	68,082
LUDWIG, MARTHA L.....	STRUCTURE AND ACTIVITY OF ENZYMES IN CRYSTALLINE STATE.....	5R01 GM16429-12	100,662
MACDONALD, ROBERT L.....	ANTICONSULSANT-CONSULSANT ACTIONS IN CULTURED NEURONS.....	1R01 NS15225-01	62,025
MANN, WILLIAM R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05321-18	75,113
MARCELO, CYNTHIA L.....	MODULATION OF KERATINOCYTE GROWTH AND SPECIALIZATION.....	1R01 AM26009-01	86,895
MARINO, JOSEPH P.....	SYNTHETIC METHODS—SITE SPECIFIC/LATENT ANTITUMOR AGENTS.....	5R01 CA22237-02	56,536
MARSHALL, JOHN C.....	MODULATION OF GNRH INDUCED GONADOTROPIN SECRETION.....	5R01 HD11489-02	95,861
MASON, MERLE.....	REGULATION OF TRYPTOPHAN AND LYSINE CATABOLISM.....	2R01 AM18647-04	65,604
MASSEY, VINCENT.....	BIOLOGICAL OXIDATION MECHANISMS.....	5R01 GM11106-17	197,704
MATHEWS, KENNETH P.....	CLINICAL STUDY OF ALLERGIC DISEASES.....	3P50 AI10391-07S1	9,457
MATHEWS, KENNETH P.....	CLINICAL STUDY OF ALLERGIC DISEASES.....	5P50 AI10391-08	63,703
MATHEWS, KENNETH P.....	INHIBITOR DEFICIENCIES IN ANAPHYLACTOID REACTIONS.....	5R01 AI14950-02	62,826
MATTHEWS, ROWENA G.....	REGULATION OF FOLATE METABOLISM.....	5R01 GM24908-02	55,758
MC NAMARA, JAMES A, JR.....	ADAPTATIONS TO CHANGES IN MASTICATORY MUSCLE LENGTH.....	5R01 DE04227-05	87,668
MC REYNOLDS, JOHN S.....	FUNCTIONAL ORGANIZATION OF THE RETINA.....	2R01 EY01653-04	69,444
MEISLER, MIRIAM H.....	GENETIC REGULATION OF MOUSE ENZYMES.....	5R01 GM24872-03	55,089
MENON, K M.....	REGULATION OF OVARIAN FUNCTION BY GONADOTROPINS.....	3R01 HD06656-06S1	8,776
MENON, K M.....	REGULATION OF OVARIAN FUNCTION BY GONADOTROPINS.....	2R01 HD06656-07	65,182
MENON, K M.....	REGULATION OF GONADOTROPIN SECRETION.....	5R01 HD07729-05	62,214
MIDGLEY, A REES, JR.....	HORMONES IN REPRODUCTION—NONHISTONE CHROMATIN PROTEINS.....	3P50 HD08333-05S1	213,356
MIDGLEY, A REES, JR.....	GONADOTROPINS IN FERTILITY REGULATION.....	1P50 HD11311-01A1	318,471
MISTRETTA, CHARLOTTE M.....	NERVE-EPITHELIUM INTERACTION IN OROFACIAL DEVELOPMENT.....	5R01 DE04491-04	37,305
MOUW, DAVID R.....	MECHANISMS OF CNS-INDUCED CHANGES IN SODIUM EXCRETION.....	2R01 NS12825-04	81,860
MOYERS, ROBERT E.....	CRANIOFACIAL GROWTH AND DEVELOPMENT.....	2P01 DE03610-13	251,581
MURPHY, WILLIAM H.....	MECHANISMS OF IMMUNITY IN LEUKEMIA.....	2R01 CA13701-07A1	102,050
NACE, GEORGE W.....	AMPHIBIANS FOR HEALTH-RELATED RESEARCH.....	3P40 RR00572-08S1	132,752
NEIDHARDT, FREDERICK C.....	REGULATION OF BACTERIAL METABOLISM.....	5R01 GM17892-10	95,005
NIEDERHUBER, JOHN E.....	IMMUNE RESPONSES IN VITRO-H-2 (IR) LOCUS FUNCTION.....	9R01 CA25052-03A1	79,887
NORDMAN, CHRISTER E.....	X-RAY STRUCTURE ANALYSIS OF BIOLOGICAL COMPOUNDS.....	5R01 GM15259-16	105,429
NORTHCUTT, RICHARD G.....	VISION IN GARS—ANATOMICAL & BEHAVIORAL ORGANIZATION.....	5R01 EY02485-02	50,739
NORTHCUTT, RICHARD G.....	EVOLUTION OF THE TELENCEPHALON.....	5R01 NS11006-07	25,575
NUTTALL, ALFRED L.....	INTRACELLULAR STUDIES OF THE ORGAN OF CORTI.....	1R01 NS15107-01	49,045
OAKLEY, BRUCE.....	NEURAL PLASTICITY IN TASTE AND CUTANEOUS SENSES.....	5R01 NS07072-13	58,996
OLSEN, RONALD H.....	EVOLUTION AND EPIDEMIOLOGY OF ANTIBIOTIC RESISTANCE.....	5R01 AI14880-02	57,739
OLSON, GARY M.....	INFANT MEMORY PROCESSES.....	5R01 HD10486-03	50,712
OVERBERGER, CHARLES G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07050-14	201,413
OXENDER, DALE L.....	MEMBRANE TRANSPORT COMPONENTS IN BACTERIA.....	5R01 GM11024-16	66,562
OXENDER, DALE L.....	TRANSPORT COMPONENTS FROM EUKARYOTES.....	5R01 GM20737-06	62,905
PAUL, ARA G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05571-15	31,765
PAYNE, ANITA H.....	REGULATION OF STEROIDOGENESIS IN GONADS.....	2R01 HD04064-10A1	96,969
PAYNE, ANITA H.....	MECHANISM OF ACTION OF GONADOTROPINS IN THE TESTIS.....	5R01 HD08358-04	108,225
PEK, SUMER.....	PROSTAGLANDINS AND SECRETION OF GLUCAGON AND INSULIN.....	5R01 AM21192-03	82,793
PENNER, JOHN.....	CONTROL OF CLOTTING ON BIOMATERIALS BY ANTICOAGULANTS.....	1R01 HL23551-01	75,712

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
POWERS, JOHN M.	WEAR OF COMPOSITE RESTORATIVE RESINS	5R01 DE03416-08	78,102
PRATT, WILLIAM B.	STEROID RECEPTORS IN MOUSE CELLS CULTURED IN VITRO	5R01 CA16041-05	47,088
PRINGLE, JOHN R.	GENETIC STUDY OF CELL PROLIFERATION CONTROL IN YEAST	5R01 GM23936-03	65,204
RADIN, NORMAN S.	CHEMOTHERAPY AND MODELS OF HERITABLE SPHINGOLIPIDOSES	5R01 HD07406-06	47,961
RADIN, NORMAN S.	BRAIN GLYCOLIPIDS: METABOLISM AND PATHOLOGY	2R01 NS03192-20	144,196
REMINGTON, RICHARD D.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05447-18	87,496
RICHARDS, JOANNE S.	OVARIAN FOLLICULAR DEVELOPMENT AND HORMONE ACTION	2R01 HD09110-04	77,749
RICHARDSON, RUDY J.	NEUROTOXIC ESTERASE: NORMAL AND PATHOGENIC ROLES	5R01 ES01611-03	59,948
RIZKI, TAHIR M.	DEVELOPMENTAL GENETICS OF ADIPOSE CELLS IN DROSOPHILA	1R01 AG01945-01	171,194
RIZKI, TAHIR M.	CELL INTERACTIONS IN HEREDITARY TUMORS OF DROSOPHILA	5R01 CA16619-05	87,906
ROGERS, W LESLIE	RADIONUCLIDES RADIATION, DETECTION AND QUANTITATION	2R01 GM16188-09A1	145,765
ROSS, MURIEL D.	OTOCONIAL FORMATION AND DEGENERATION	5R01 AG00767-03	35,363
ROSS, MURIEL D.	IDENTIFICATION OF SOURCE(S) OF COCHLEAR EFFERENTS	5R01 NS13428-03	24,057
RUCKNAGEL, DONALD L.	BIOCHEMICAL GENETICS OF HUMAN HEMOGLOBIN VARIANTS	5R01 AM20964-02	130,535
RUDOLPH, PAUL H.	CROSS-FERTILIZATION IN BULINUS (PHYSOPSIS) GLOBOSUS	1R01 AI16219-01	41,731
SANDS, RICHARD H.	REDOX REACTIONS BY OPTICAL AND EPR SPECTROMETRY	5R01 GM12176-16	188,492
SCHACHT, JOCHEN H.	DISORDERS OF COCHLEAR HOMEOSTASIS AND FUNCTION	2R01 NS12881-04	69,118
SCHACHT, JOCHEN H.	MECHANISMS OF ANTIBIOTIC INDUCED HEARING LOSS	5R01 NS13792-03	64,116
SCHIEDER, WALTER	MECHANISM OF BINDING TO SERUM TRANSPORT PROTEINS	2R01 GM22309-04A1	53,860
SCHMICKEL, ROY D.	ORGANIZATION AND EXPRESSION OF REPEATED HUMAN GENES	1P01 HD13506-01	452,708
SCHULTZ, JEROME S.	EFFECT OF FLOW ON FIBRIN FORMATION	1R01 HL23379-01	52,823
SCHULTZ, JEROME S.	BLOOD MATERIAL INTERFACE INTERACTIONS	1R01 HL24039-01	136,735
SELLINGER, OTTO Z.	BRAIN METHYLATION AND EPILEPTOGENESIS	5R01 NS10629-11	118,332
SHAFER, JULES A.	REACTION MECHANISMS FOR ENZYMES	5R01 AM09276-15	75,994
SHAFER, JULES A.	MACROMOLECULES FOR ISOLATING PROTEIN ON CELL SURFACES	5R01 CA24439-05	67,222
SING, CHARLES F.	GENETIC ANALYSIS OF GLYCOLYSIS IN DROSOPHILA	1R01 AG01804-01	62,255
SINSHEIMER, JOSEPH E.	EPOXIDE TOXICITY IN ALKENE METABOLISM	1R01 CA25770-01	62,641
SMITH, AARON	CHANGING EFFECTS OF HEMISPHERECTOMY	5R01 NS10089-07	7,951
SOLOMON, WILLIAM R.	ALLERGENICITY OF AIRBORNE PARTICULATES	5R01 AI10181-09	78,143
STEBBINS, WILLIAM C.	CHANGES IN HEARING RELATED TO INNER EAR PATHOLOGY	1R01 NS15108-01	91,649
TANNEN, RICHARD L.	HYDROGEN ION REGULATION BY THE MAMMALIAN NEPHRON	5R01 AM25248-02	116,290
TASHIAN, RICHARD E.	EVOLUTION OF MAMMALIAN CARBONIC ANHYDRASES	5R01 GM24681-02	179,765
THORNTON, ARLAND D.	INTERGENERATIONAL CONSEQUENCES OF FERTILITY BEHAVIOR	1R01 HD12798-01	75,000
TOWNSEND, LEROY B.	CELLULAR BIOCHEMICAL STUDIES ON ANTIMETABOLITES	7R01 CA26032-01	72,154
UEDA, TETSUFUMI	CHARACTERIZATION OF CYCLIC AMP MEDIATED SYNAPSES	1R01 NS15113-01	57,118
WAGNER, JOHN G.	EFFECT OF ASSAY SPECIFICITY ON DIGOXIN CONCENTRATIONS	1R01 HL23862-01	63,165
WALKER, SARA E.	A RESOURCE FOR MURINE MODELS OF AUTOIMMUNE DISEASE	1R01 AM25543-01	52,977
WEINHOLD, PAUL A.	PHOSPHOLIPID METABOLISM DURING LUNG DEVELOPMENT	2R01 HD02871-13	57,702
WELLMAN, HENRY M.	DEVELOPMENT OF LARGE-SCALE SPATIAL COGNITION	1R01 HD13317-01	51,809
WHITFIELD, CAROLYN D.	CHARACTERIZATION OF ANIMAL CELL CARBOHYDRATE MUTANTS	5R01 AM19602-03	56,543
WILLIAMS, CHARLES H, JR.	PYRIDINE NUCLEOTIDE-DISULFIDE OXIDOREDUCTASES	2R01 GM21444-15	65,187
WILLIAMS, CHARLES H, JR.	SHARED FACILITY FOR PROTEIN SEQUENCING	1P41 GM27558-01	64,331
WINANS, SARAH S.	OLFACTORY AND VOMERONASAL PATHWAYS	1R01 NS14071-01A1	63,508
WISEMAN, JOHN R.	SYNTHESIS OF ANTHRACYCLINE ANTIBIOTICS	5R01 CA21935-02	74,727
YOUNG, ANNE B.	SPASTICITY AND SPINAL CORD NEUROTRANSMITTERS	1R01 NS15140-01	43,705
ORGANIZATION TOTAL	226	24,216,598	

AUGUSTA

FOUNDATION FOR BEHAVIORAL RESEARCH ZIP CODE 49012

LONG, JOETTA J.	DEVELOPING A HEALTH-ORIENTED LIFE STYLE IN CHILDREN	1R01 HD13170-01	155,119
ORGANIZATION TOTAL	1	155,119	

DETROIT

CHILDREN'S HOSPITAL OF MICHIGAN ZIP CODE 48201

KAPLAN, JOSEPH	LYMPHOCYTE DIFFERENTIATION IN CHILDHOOD LEUKEMIA	5R01 CA17534-05	64,148
ORGANIZATION TOTAL	1	64,148	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
DETROIT HEALTH DEPARTMENT	ZIP CODE 48202		
GODLEY, ALEGRO J.....	DETROIT HYPERTENSION CONTROL PROGRAM.....	5R01 HL22380-02	312,998
ORGANIZATION TOTAL	1	312,998	
HENRY FORD HOSPITAL	ZIP CODE 48202		
BICHER, HAIM I.....	HYPERTHERMIC OXYGENATION AS RADIATION SENSITIZER.....	1R01 CA25780-01	50,989
CARRETERO, OSCAR A.....	PHYSIOLOGICAL ROLE OF ISORENIN AND KALLIKREIN.....	5R01 HL15839-06	122,450
CARRETERO, OSCAR A.....	FACTORS OTHER THAN RENIN IN RENAL HYPERTENSION.....	5R01 HL21092-03	46,587
GOLDSTEIN, SIDNEY.....	PROSPECTIVE STUDY OF RESUSCITATED SUDDEN DEATH VICTIMS.....	5R01 HL18800-05	153,602
HALVORSON, HERBERT R.....	RELAXATION KINETICS OF SUBUNIT INTERACTIONS.....	2R01 GM23302-04	79,734
HETZEL, FREDRICK W.....	MULTICELLULAR SPHEROIDS: A TUMOR MODEL TEST SYSTEM.....	1R01 CA25781-01	69,274
HETZEL, FREDRICK W.....	CHEMOTHERAPEUTIC DRUGS AS RADIATION SENSITIZERS.....	5R23 CA25782-02	29,832
JACKSON, CHARLES E.....	DETECTION OF MEDULLARY THYROID CANCER IN FAMILIES.....	5R01 CA22595-02	81,310
KAHN, RAYMOND H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05490-17	43,922
O'BRYAN, ROBERT M.....	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY.....	5R10 CA04915-20	200,205
PARFITT, A MICHAEL.....	BONE MASS AND BONE CELL FUNCTION IN DIABETES MELLITUS.....	5R01 AM21296-02	44,367
SCICLI, ALFONSO G.....	KININS AND BLOOD PRESSURE REGULATION.....	1R01 HL24650-01	80,122
STEIN, PAUL D.....	PULMONARY PRESSURE AND VALVE ASSESSMENT BY SOUND.....	1R01 HL23669-01	88,046
TURNER, ROBERT G.....	INNER EAR TRANSDUCTION PROCESSES.....	5R01 NS13462-02	52,598
ORGANIZATION TOTAL	14	1,143,038	
MICHIGAN CANCER FOUNDATION	ZIP CODE 48201		
BRENNAN, MICHAEL J.....	BREAST CANCER PROGNOSTIC STUDY.....	5P01 CA16175-05	508,825
BRENNAN, MICHAEL J.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA22453-02	291,833
BUTLER, W BARKLEY.....	ESTROGEN RESPONSE IN A HUMAN BREAST CANCER CELL LINE.....	5R01 CA21606-03	64,685
CHLADEK, STANISLAV.....	THE STUDY OF PEPTIDYL TRANSFERASE RECOGNITION SITES.....	5R01 GM19111-08	84,618
HEPPNER, GLORIA H.....	IMMUNOPHARMACOLOGIC CONSEQUENCES OF TUMOR HETEROGENEITY.....	7R01 CA27419-01	25,196
HEPPNER, GLORIA H.....	IMMUNE REACTIVITY AND MAMMARY NEOPLASIA.....	7R01 CA27437-01	105,986
HINES, DAVID L.....	DIFFERENTIATION OF ABELSON VIRUS LEUKEMIC CELLS.....	1R01 CA25234-01	60,385
HOROWITZ, SAMUEL B.....	REGULATION OF NUCLEAR-CYTOPLASMIC SOLUTE TRANSPORT.....	5R01 GM19548-08	110,966
HOROWITZ, SAMUEL B.....	POTASSIUM, SODIUM, AND WATER IN OOCYTE MATURATION.....	1R01 HD12512-01	103,615
HOROWITZ, JEROME P.....	STERIOD SULFURYLATION INHIBITORS AS ANTITUMOR AGENTS.....	5R01 CA23079-02	96,593
KING, CHARLES M.....	MECHANISTIC APPROACHES TO CARCINOGENESIS.....	5R01 CA23386-02	128,112
MC GRATH, CHARLES M.....	ENDOGENOUS VIRUS AND HORMONES IN MAMMARY CANCER.....	2R01 CA18175-04	64,814
MC GRATH, CHARLES M.....	HORMONAL CONTROL OF METASTASIS.....	1R01 CA25482-01	99,554
PAINE, PHILIP L.....	MECHANISMS OF NUCLEOCYTOPLASMIC PROTEIN DISTRIBUTION.....	1R01 GM26734-01	74,676
POWERS, WILLIAM E.....	COMMITTEE FOR RADIATION ONCOLOGY STUDIES.....	2R01 CA25791-02	183,140
RICH, MARVIN A.....	THE VIRAL ETIOLOGY OF CANCER.....	5R01 CA14100-07	175,520
RICH, MARVIN A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05529-17	82,023
RUSSO, JOSE.....	STUDIES OF MAMMARY GLAND REFRACTORINESS TO CANCER.....	5R01 CA23539-02	55,601
VAUGHT, JIMMIE B.....	MECHANISMS OF PHENACETIN CARCINOGENESIS.....	1R26 CA25904-01	94,701
WANG, CHING Y.....	PREVENTION OF FANFT URINARY BLADDER TUMORIGENESIS.....	5R26 CA25800-02	89,534
WEIGAND, RAY A.....	ASSEMBLY AND MATURATION OF MURINE LEUKEMIA VIRUSES.....	5R01 CA23470-02	59,348
YANG, NING-SUN.....	ISOZYMES SPECIFIC TO HUMAN BREAST NEOPLASIA.....	1R01 CA25574-01	66,336
ZEMLICKA, JIRI.....	METABOLICALLY STABLE ANALOGS OF PUROMYCIN.....	5R01 CA21388-03	55,862
ZEMLICKA, JIRI.....	TRANSITION STATE MODELS OF PROTEIN SYNTHESIS.....	5R01 GM21093-04	46,851
ORGANIZATION TOTAL	24	2,728,774	
SINAI HOSPITAL OF DETROIT	ZIP CODE 48235		
KANTROWITZ, ADRIAN.....	QUANTITATING IN-SERIES EFFECTS IN CARDIAC ARRHYTHMIAS.....	5R01 HL22274-02	74,629
KANTROWITZ, ADRIAN.....	ACTIVE PROSTHETIC MYOCARDIUM: EFFECTS ON LV FUNCTION.....	5R01 HL22329-02	106,981
WHITTY, ALBERT J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05641-12	16,405
ORGANIZATION TOTAL	3	198,015	
UNIVERSITY OF DETROIT	ZIP CODE 48221		
FORSTHOEFEL, PAULINUS F.....	ANALYSIS OF LIMB DEVELOPMENT USING MOUSE CHIMERAS.....	5R01 HD12110-02	65,769
WEMPLE, JAMES N.....	SYNTHETIC ROUTES TO NEW THIOL ESTER DERIVATIVES.....	5R01 CA17719-05	32,945
ORGANIZATION TOTAL	2	98,714	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
WAYNE STATE UNIVERSITY	ZIP CODE 48202		
ANDERSON, GORDON F.....	CELL MECHANISMS CONTROLLING URINARY BLADDER CONTINENCE.....	5R01 AM21012-02	31,046
BAGCHI, MIHIR.....	CELL BIOLOGY OF MAMMALIAN EYE LENS IN CULTURE.....	3R01 EY01848-03S1	24,744
BAGSHAW, JOSEPH C.....	TRANSCRIPTIONAL REGULATION IN EMBRYONIC DEVELOPMENT.....	2R01 GM21376-03A1	72,755
BAKER, LAURENCE H.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA14028-06	158,360
BAKER, LAURENCE H.....	NATIONAL BLADDER CANCER PROJECT.....	1R26 CA27444-01	50,806
BEESEY, ROBERT C.....	ILEAL ABSORPTION OF BILE SALTS AND VITAMIN B-12.....	1R01 AM25343-01	42,848
BENJAMINS, JOYCE A.....	MYELINATION: ASSEMBLY OF LIPIDS AND PROTEINS.....	5R01 NS13143-03	44,227
BERK, RICHARD S.....	PSEUDOMONAS EYE INFECTIONS—AN EXPERIMENTAL MODEL.....	5R01 EY01935-03	27,288
BHAN, ASHOK K.....	BIOCHEMICAL PROPERTIES OF HUMAN CARDIAC MYOSIN.....	5R01 HL23994-02	53,677
BHAN, ASHOK K.....	CARDIAC MYOSIN SUBUNIT FUNCTION—REGULATOR ROLE OF LC2.....	1R01 HL24424-01	46,242
BOECKMAN, ROBERT K, JR.....	SYNTHESIS OF ADRIAMYCIN AND RELATED ANTITUMOR AGENTS.....	5R01 CA15061-05	46,651
BOECKMAN, ROBERT K, JR.....	SYNTHESIS OF ANTILEUKEMIC AND ANTITUMOR LACTONES.....	2R01 CA17154-04	40,810
BOECKMAN, ROBERT K, JR.....	METHODOLOGY FOR CONSTRUCTION OF COMPLEX MOLECULES.....	1R01 GM25982-01	61,529
BOROS, DOV L.....	IMMUNOREGULATION OF THE SCHISTOSOME EGG GRANULOMA.....	2R22 AI12913-04	77,723
BOURGUIGNON, LILLY Y.....	IMMUNOCYTOCHEMICAL STUDIES ON LYMPHOCYTE MEMBRANES.....	5R01 AI15258-02	59,303
BROOKS, SAM C.....	FATE OF STEROID HORMONES IN BREAST TUMOR CELLS.....	5R01 CA22828-02	61,152
CHOE, BYUNG-KIL.....	IMMUNOCHEMICAL STUDIES OF PROSTATIC ACID PHOSPHATASE.....	5R26 CA18748-05	66,460
CROSSLAND, WILLIAM J.....	DEVELOPMENT AND MAINTENANCE OF VISUAL CONNECTIONS.....	2R01 EY01796-04	66,405
ENDICOTT, JOHN F.....	REACTION MECHANISMS OF CYCLIC TETRAMINE COMPLEXES.....	2R01 AM14341-11	67,869
ESSNER, EDWARD S.....	CYTOCHEMICAL STUDIES OF RAT, RETINAL DYSTROPHIES.....	5R01 EY01889-03	32,923
FITZPATRICK, JOYCE J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05718-08	16,323
FRANK, ROBERT N.....	RETINAL MICROVESSELS: TISSUE CULTURE AND BIOCHEMISTRY.....	2R01 EY01857-04	129,279
FRANK, ROBERT N.....	A PROPOSED MODEL FOR DIABETIC RETINOPATHY.....	3R01 EY02566-01S1	3,500
FRANK, ROBERT N.....	A PROPOSED MODEL FOR DIABETIC RETINOPATHY.....	5R01 EY02566-02	31,273
FUNG, LESLIE W.....	MOLECULAR STUDIES OF HUMAN ERYTHROCYTE MEMBRANES.....	5R01 HL22432-02	49,092
GALA, RICHARD R.....	PROLACTIN-ADRENAL INVOLVEMENT IN DMBA MAMMARY TUMORS.....	5R01 CA21597-02	63,102
GIACOMELLI, FILIBERTO.....	PRIMARY MYOCARDIAL DISEASE IN THE DIABETIC MOUSE.....	2R01 AM25632-02	59,683
GORELL, JAY M.....	CNS ACETYLCHOLINE: HYPOGLYCEMIA, HYPOXIA AND RECOVERY.....	5R01 HD10890-03	59,519
GOSHGARIAN, HARRY G.....	FUNCTIONAL PLASTICITY IN THE SPINAL CORD.....	1R01 NS14705-01	36,200
HARDING, CLIFFORD V.....	TISSUE GROWTH IN THE NORMAL AND INJURED EYE.....	5R01 EY01874-03	71,799
HAZLETT, LINDA D.....	ALTERATION WITH AGE OF RESISTANCE TO EYE INFECTIONS.....	1R01 EY02986-01	51,416
HONG, FELIX T.....	PHOTOBIOLOGICAL SYSTEMS AND MEMBRANE INTERFACES.....	5R01 GM25144-02	54,401
HUDSON, RICHARD A.....	MECHANISM OF VENOM ALPHA-NEUROTOXIN ACTION.....	5R01 NS14491-02	30,949
HULL, FRANKLIN E.....	FATTY ACID BETA-OXIDATION IN NORMAL & ISCHEMIC HEART.....	5R01 HL14730-08	79,841
JAY, JAMES M.....	MINORITY BIOMEDICAL SUPPORT PROGRAM.....	3S06 RR08167-01S1	11,445
JOHNSON, PAUL H.....	RESTRICTION ENDONUCLEASE MECHANISMS AND DNA STRUCTURE.....	5R01 GM23690-03	59,938
KAHANA, EVA F.....	ATTITUDES TOWARD THE ELDERLY.....	3R01 AG00846-01S1	3,948
KAHANA, EVA F.....	ATTITUDES TOWARD THE ELDERLY.....	5R01 AG00846-02	41,612
KESSEL, DAVID H.....	CELL-SURFACE AND MEMBRANE EFFECTS OF ANTITUMOR AGENTS.....	5R01 CA23243-02	77,213
KESSEL, DAVID H.....	MODE OF ACTION OF THE PHOTO-ACTIVATED PORPHYRINS.....	5R01 CA23378-02	60,917
KIMURA, TOKUJI.....	STEROID HYDROXYLASES STUDIES.....	5R01 AM12713-11	124,538
KING, ALBERT I.....	GAIT ANALYSIS WITH MINIATURE SHOE-BORNE LOAD CELLS.....	5R01 AM11977-03	88,444
KITAI, STEPHEN T.....	EXPERIMENTAL STUDIES OF SENSORY PATHWAYS.....	3R01 NS00405-22S1	5,863
LANDE, MAURICIO A.....	STUDIES OF HUMAN AND RABBIT KERATOCYTES IN CULTURE.....	5R01 EY02339-02	41,828
LEE, CHUAN-PU.....	SUBCELLULAR RESPIRATORY FUNCTIONS OF CARDIAC MUSCLE.....	2R01 GM22751-03	87,065
LEE, CHUAN-PU.....	CELLULAR ENERGY METABOLISM IN DYSTROPHIC MUSCLE.....	1R01 NS14559-01A1	84,408
LEON, MYRON A.....	BIOLOGICAL ACTIVITIES OF HOMOGENEOUS MITOGENS.....	5R01 CA20812-05	53,357
LEVINE, SEYMOUR.....	RESPIRATORY SYNCYTIAL VIRUS AND MATURATION.....	2R01 AI10996-04A3	54,807
LOEWENFELD, IRENE E.....	HANDBOOK ON THE PUPIL (EYE).....	1R01 LM03217-01	38,595
LOUIS-FERDINAND, ROBERT T.....	EFFECTS OF LEAD EXPOSURE ON THE DEVELOPING RAT BRAIN.....	5R01 ES01638-02	44,071
LUCKINBILL, LEO S.....	SELECTION AND GENETICS OF LONGEVITY IN DROSOPHILA.....	1R01 AG01812-01	72,805
LYONS, H JAY.....	THE MECHANISM OF STIMULATED RENIN RELEASE IN VITRO.....	1R01 AM21418-01	27,325
MAISEL, HARRY.....	A STUDY OF STRUCTURAL LENS PROTEINS.....	5R01 EY01417-06	55,556
MAISEL, HARRY.....	PLASMA MEMBRANE PROTEINS OF OCULAR LENS CELLS.....	5R01 EY01855-03	62,556
MARKS, BERNARD H.....	DISTRIBUTION AND METABOLISM OF LABELED DIGITALOIDS.....	5R01 HL17555-06	43,460
MARNETT, LAWRENCE J.....	MALONALDEHYDE STUDIES.....	5R01 CA22206-03	34,388
MARNETT, LAWRENCE J.....	PROSTAGLANDIN SYNTHETASE STUDIES.....	5R01 GM23642-03	35,194
MARRAZZI, MARY A.....	HYPOTHALAMIC GLUCORECEPTOR POTENTIALS—PHARMACOLOGY.....	5R01 AM21476-03	41,875

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
MC CAULEY, ROY B.....	IMMUNOCHEMICAL STUDIES OF MULTIPLE FORMS OF MAO.....	2R01 AM19701-02A1	44,860
MC COY, LOWELL E.....	PROCOAGULANT LIPOPROTEINS: BIOCHEMISTRY & BIOACTIVITY.....	5R01 HL20317-03	48,026
MILLETTE, ROBERT L.....	HERPES SIMPLEX VIRUS GENE REGULATION.....	2R01 CA21065-04	83,957
MITCHELL, J ANDREW.....	P02 IN REPRODUCTIVE TRACT OF FEMALE ANIMALS.....	5R01 HD11266-03	11,733
PENNEY, DAVID G.....	EFFECT OF CARBON MONOXIDE ON THE DEVELOPING HEART.....	5R01 HL22859-02	43,162
PONTES, J EDSON.....	CHEMOTHERAPY IN CARCINOMA OF THE PROSTATE.....	5R26 CA22508-02	87,229
POURCHO, ROBERTA G.....	RETINAL NEUROTRANSMITTERS AND SYNAPTIC CIRCUITRY.....	1R01 EY02267-01A1	58,156
PRASAD, ANANDA S.....	REQUIREMENT FOR ZINC IN MAN.....	5R01 AM19338-03	43,478
PUTNEY, JAMES W, JR.....	CELLULAR PHARMACOLOGY OF SALIVARY SECRETION.....	5R01 DE04067-05	52,261
PUTNEY, JAMES W, JR.....	CELLULAR PHARMACOLOGY OF LACRIMATION.....	5R01 EY01978-03	48,154
RAFOLS, JOSE A.....	THE FINE STRUCTURE OF THE NERVOUS SYSTEM.....	5R01 NS06925-14	47,727
RAM, JEFFREY L.....	NEURONAL TARGETS OF A POLYPEPTIDE HORMONE.....	1R01 NS15041-01	63,732
RAUCH, HELENE C.....	IMMUNOLOGIC RESPONSES IN DEMYELINATING DISEASES.....	2R01 NS12754-03A2	70,090
RILLEMA, JAMES A.....	HORMONAL CONTROL OF METABOLISM IN THE MAMMARY GLAND.....	5R01 HD06571-08	41,666
RORABACHER, DAVID B.....	CYCLIC POLYTHIAETHERS IN METAL ION TRANSPORT.....	5R01 GM20424-06	94,769
ROSE, NOEL R.....	GENETICS OF THE RESPONSE TO SELF ANTIGENS.....	5R01 AM20023-02	97,574
ROSE, NOEL R.....	AUTOIMMUNE THYROIDITIS IN OS CHICKENS.....	5R01 AM20028-03	125,469
ROSE, NOEL R.....	ANTIGENIC COMPONENTS OF HUMAN PROSTATIC ADENOCARCINOMA.....	5R26 CA16426-06	119,314
ROSE, NOEL R.....	PROGRAM IN CANCER IMMUNOLOGY.....	5P01 CA18900-03	277,754
ROSEN, RUTH A.....	PREGNANCY RESOLUTION DECISION-MAKING AMONG MINORS.....	5R01 HD11099-02	78,070
ROTHSTEIN, HOWARD.....	HORMONAL CONTROL OF LENS GROWTH.....	5R01 EY02492-02	116,579
ROTHSTEIN, HOWARD.....	THE CELL CYCLE OF CORNEAL ENDOTHELIUM.....	1R01 EY02711-01	38,305
SACCO, ANTHONY G.....	IMMUNOCONTRACEPTION-ANTIBODIES TO ZONA PELLUCIDA.....	5R01 HD10189-02	53,772
SCHAAAP, A PAUL.....	ENZYMATICALLY GENERATED SINGLET OXYGEN IN CARCINOGENESIS.....	5R01 CA15874-05	45,665
SEEGERS, WALTER H.....	FORMATION AND PROPERTIES OF PROTHROMBIN DERIVATIVES.....	5R01 HL03424-22	112,997
SKOFF, ROBERT P.....	THE STUDY OF NORMAL AND ABNORMAL GILIOGENESIS.....	5R01 NS15338-02	80,668
SWANBORG, ROBERT H.....	ENCEPHALITOGENIC NATURE OF ALTERED BRAIN PREPARATION.....	2R01 NS06985-13	62,678
TCHEN, TCHE-TSING.....	CONVERSION OF CHOLESTEROL TO PREGNENOLONE.....	5R01 AM13724-10	77,032
TCHEN, TCHE-TSING.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07051-14	68,589
TIMBERLAKE, WILLIAM E.....	REGULATION OF THE LACTASE GENE OF ASPERGILLUS.....	1R01 GM26638-01	104,510
TSENGNOGLU, DEMETRIUS.....	X-RAY DIFFRACTION ANALYSIS OF THROMBIN AND NEUROTOXIN.....	5R01 HL15958-07	38,615
VAITKEVICIUS, VAINUTIS K.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17952-05	162,612
WEINER, LAWRENCE M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05384-18	157,732
WEINSIEDER, ALLAN.....	EXTRA-OCULAR FACTORS AFFECTING LENS GROWTH.....	5R01 EY02105-03	39,003
WHITTEN, CHARLES F.....	COMPREHENSIVE SICKLE CELL CENTER SUPPORT.....	5P60 HL16008-07	1,033,852
WIENER, JOSEPH.....	MORPHOGENESIS OF HYPERTENSIVE VASCULAR DISEASE.....	5R01 HL23603-02	136,077
WISGERHOF, MAX V, II.....	CAUSES OF LOW RENIN ACTIVITY IN ESSENTIAL HYPERTENSION.....	1R23 HL24254-01	52,204
YAMAZAKI, RUSSELL K.....	HORMONAL REGULATION OF MITOCHONDRIAL FUNCTION.....	5R01 AM25258-02	59,584
YUREWICZ, EDWARD C.....	HUMAN CERVICAL MUCIN: OLIGOSACCHARIDE STRUCTURE.....	1R01 HD12519-01	44,741
ZWAS, FRED.....	PSYCHOPHYSICAL STUDIES OF RETINITIS PIGMENTOSA.....	5R01 EY01707-04	40,433
ORGANIZATION TOTAL	98	7,183,232	

EAST LANSING

MICHIGAN STATE UNIVERSITY	ZIP CODE 48823		
AKERA, TAI.....	CARDIAC GLYCOSIDES: MECHANISM OF INOTROPIC ACTION.....	5R01 HL16052-06	123,295
ALLEN, RONALD E.....	PROPERTIES OF SATELLITE CELLS IN AGING MUSCLE.....	1R23 AG01467-01	40,528
ASHER, JAMES H, JR.....	GENETIC AND MOLECULAR ANALYSIS OF MESODERMAL INDUCTION.....	2R01 HD08134-04A1	78,320
AUST, STEVEN D.....	XENOBIOTIC CONJUGATION BY THE INTESTINE.....	2R01 GM22535-04	45,732
BABCOCK, GERALD T.....	BIOENERGETIC MECHANISMS IN MULTICENTER REDOX ENZYMES.....	1R01 GM25480-01A1	68,204
BARKER, ROBERT.....	MEMBRANE OLIGOSACCHARIDES.....	5R01 GM21731-05	61,108
BENNETT, JAMES L.....	DRUG DISRUPTION OF TREMATODE PHYSIOLOGICAL PROCESSES.....	5R22 AI14294-03	26,764
BENNETT, JAMES L.....	SCHISTOSOMIASIS: MODE OF ACTION OF NEW DRUGS.....	5R01 AI14993-02	51,087
BIEBER, LORAN L.....	SHORT-CHAIN ACYL-CARNITINES—FUNCTION AND ENZYMOLOGY.....	5R01 AM18427-05	83,140
BOEZI, JOHN A.....	PHOSPHONOACETIC ACID: ANTIVIRAL AND CYTOTOXIC ACTION.....	5R01 AI14357-03	49,165
BORLAND, DOLORES M.....	PARENTAL SUBJECTIVE WELL-BEING: LATE LIFE TRANSITION.....	7R23 AG02293-01	14,653
BREDECK, HENRY E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07049-14	108,118
BRUBAKER, ROBERT R.....	IRON-DEPENDENT ENHANCEMENT OF VIRULENCE IN YERSINIA.....	5R01 AI13590-03	43,626
BULL, ROBERT W.....	IMMUNOHEMATOLOGICAL REFERENCE CENTER SUPPORT.....	5P40 RR00931-05	81,293

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
CHANG, CHIA-CHENG.....	MECHANISM OF MUTAGENESIS IN HUMAN AND MAMMALIAN CELLS.....	5R23 ES01809-02	45,552
CHIMOSKEY, JOHN E.....	LEFT HEART FAILURE MODEL FOR TESTING ASSIST DEVICES.....	1R01 HL24503-01	65,615
CHOU, CHING-CHUNG.....	MECHANISMS OF HEMODYNAMIC CHANGES DURING DIGESTION.....	5R01 HL15231-06	53,046
CLEMENS, LYNNWOOD G.....	NEURAL CONTROL OF SEXUAL BEHAVIOR IN THE RAT.....	5R01 HD06760-08	83,080
DEAL, WILLIAM C, JR.....	FATTY ACID SYNTHETASE AND A NEW HEMOPROTEIN, H-450.....	5R01 AM20523-02	41,754
DUKELOW, W RICHARD.....	CYTOGENETIC STUDIES OF PRIMATE DEVELOPMENT.....	5R01 HD07534-05	72,611
DUKELOW, W RICHARD.....	PREIMPLANTATION DEVELOPMENT OF THE PRIMATE EMBRYO.....	1R01 HD11410-01A1	57,440
ELSTEIN, ARTHUR S.....	STUDIES IN CLINICAL REASONING & INFORMATICS THEORY.....	1P01 LM03396-01	140,708
EMERSON, THOMAS E, JR.....	PEPIIPHERAL GLUCOSE UTILIZATION DURING ENDOTOXIN SHOCK.....	1R01 GM26394-01	55,352
ESSELMAN, WALTER J.....	EXPRESSION OF T LYMPHOCYTE DIFFERENTIATION ANTIGENS.....	5R01 CA24437-05	63,259
FERGUSON-MILLER, S.....	ORGANIZATION AND CONTROL OF ELECTRON TRANSFER CHAINS.....	1R01 GM26916-01	64,424
FINK, GREGORY D.....	NEURAL CONTROL OF FLUID HOMEOSTASIS IN HYPERTENSION.....	1R01 HL24111-01	46,277
FLUCK, MICHELE M.....	THE ROLE OF TWO POLYOMA EARLY GENES IN TRANSFORMATION.....	7R23 CA27453-01	34,500
FRAKER, PAMELA J.....	DIETARY ZINC: ITS EFFECT ON THE IMMUNE RESPONSE.....	5R01 HD10586-03	42,148
FRIEDMAN, THOMAS B.....	REGULATION OF URATE OXIDASE ACTIVITY IN DROSOPHILA.....	1R01 AM26131-01	40,986
GEBBER, GERARD I.....	CENTRAL NEURAL CONTROL OF CARDIOVASCULAR FUNCTION.....	2R01 HL13187-10	104,353
GERHARDT, PHILIPP.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05772-05	56,521
GRAY, JAMES I.....	FORMATION OF N-NITROSO COMPOUNDS IN PROCESSED FOOD.....	1R01 CA26576-01	70,017
HART, HAROLD.....	STUDIES IN ORGANIC SYNTHESIS.....	2R01 GM15997-10	77,630
HATTON, GLENN I.....	INTERNAL SENSING SYSTEMS AND DRINKING BEHAVIOR.....	5R01 NS09140-09	47,351
HEISEY, S RICHARD.....	EFFECTS OF BLOOD FLOW AND ANESTHESIA ON CSF DYNAMICS.....	5R01 NS13565-03	39,599
HOFFERT, JACK R.....	COMPARATIVE PHYSIOLOGICAL STUDIES OF VERTEBRATE EYES.....	2R01 EY00009-16	57,391
HOLLAND, JOHN F.....	SUPPORT FOR MASS SPECTROMETRY FACILITY.....	5P41 RR00480-11	159,723
HOOK, JERRY B.....	FACTORS AFFECTING RENAL PHYSIOLOGY IN THE NEWBORN.....	5R01 AM10913-13	67,343
HOOK, JERRY B.....	PERINATAL PESTICIDE TOXICITY.....	5R01 ES00560-08	70,473
IRELAND, JAMES J.....	ESTRADIOL REGULATION OF FSH ACTION IN THE OVARY.....	1R01 HD12877-01	45,623
JORDAN, BRIGITTE.....	A CROSSCULTURAL INVESTIGATION OF CHILDBIRTH PRACTICES.....	5R01 HD11575-02	44,964
KIERSZENBAUM, FELIPE.....	TRYPANOSOMIASIS: MECHANISMS OF IMMUNITY AND RESISTANCE.....	1R01 AI14848-01A1	94,104
KIERSZENBAUM, FELIPE.....	IMMUNOLOGY OF THY-1-BEARING LYMPHOCYTE SUBSETS.....	5R01 CA25042-02	51,717
KITAI, STEPHEN T.....	EXPERIMENTAL STUDIES OF SENSORY PATHWAYS.....	5R01 NS14866-02	85,353
KOUL, HIRA L.....	HYPOTHESIS IN RELIABILITY; RANDOMLY CENSORED DATA.....	1R01 GM25449-01	12,402
KUNG, HSING-JIEN.....	RECOMBINATION AND REPLICATION OF AVIAN SARCOMA VIRUSES.....	1R01 CA24798-01	69,829
LEID, ROY W, JR.....	LARVAL TAPEWORM MODULATION OF INFLAMMATION.....	1R01 AI14746-01A2	62,831
LITTLE, ROBERT W.....	AGING OF SOFT CONNECTIVE TISSUE.....	1R21 AG01471-01	51,023
MAHER, VERONICA M.....	ROLE OF MUTAGENESIS IN CHEMICAL CARCINOGENESIS.....	5R01 CA21247-04	122,289
MAHER, VERONICA M.....	INTERACTION OF CARCINOGENS WITH DNA-REPAIR OF LESIONS.....	3R01 CA21253-03S1	25,927
MATSUMURA, FUMIO.....	TOXIC EFFECT OF CHLORINATED AND PYRETHROID PESTICIDES.....	5R01 ES01963-02	65,357
MC CONNELL, DAVID G.....	STUDIES OF RETINAL ROD CYCLIC GMP PHOSPHODIESTERASE.....	5R01 EY01574-03	44,822
MC CORMICK, J JUSTIN.....	TRANSFORMATION OF HUMAN CELLS BY CHEMICAL CARCINOGENS.....	5R01 CA21289-03	64,438
MEITES, JOSEPH.....	HYPOTHALAMO-PITUITARY-OVARIAN RELATIONSHIPS IN AGING RAT.....	5R01 AG00416-05	74,906
MEITES, JOSEPH.....	CONTROL OF SECRETION OF HYPOTHALAMO-PITUITARY HORMONES.....	2R01 AM04784-19	49,342
MEITES, JOSEPH.....	NEUROENDOCRINE CONTROL OF MAMMARY AND PITUITARY TUMORS.....	5R01 CA10771-12	87,991
MILLER, HAROLD C.....	IMMUNOGENESIS FROM BONE MARROW CELLS.....	5R01 CA13396-08	95,604
MOON, ROBERT J.....	ANTIMICROBIAL PROPERTIES OF THE LIVER.....	1R01 AI15452-01	48,030
MOORE, KENNETH E.....	THE ROLE OF CATECHOLAMINES IN DRUG TOXICITY.....	5R01 NS09174-14	63,798
MORRIS, ALLAN J.....	THE EFFECTS OF MESSENGER RNA STRUCTURE ON TRANSLATION.....	5R01 AM08575-14	69,619
PADGETT, GEORGE A.....	ANIMAL MODEL CENTER FOR SIGNIFICANT HUMAN DISORDERS.....	1P40 RR01173-01A1	103,185
PINNAAVAIA, THOMAS J.....	ALKALI METAL ION SPECIFICITY IN GUANINE NUCLEOTIDES.....	1R01 GM24516-01A1	41,080
REVZIN, ARNOLD.....	REGULATORY AND STRUCTURAL PROTEIN-DNA INTERACTIONS.....	1R01 GM25498-01	43,523
RIEGLE, GAIL D.....	STRESS EFFECTS ON PREGNANCY AND FETAL NORMALCY.....	5R01 HD10521-02	46,773
RIVERA, EVELYN M.....	THE BIOLOGY OF RAT MAMMARY HYPERPLASIAS.....	2R01 CA17862-04A1	105,457
ROBINSON, NORMAN E.....	DEVELOPMENT OF COLLATERAL VENTILATION.....	5R01 HL17768-05	42,941
ROMSOS, DALE R.....	EFFECT OF MEAL PATTERN AND DIET ON ENERGY METABOLISM.....	2R01 AM15847-09	63,597
ROMSOS, DALE R.....	EFFECT OF DIET ON CARBOHYDRATE AND LIPID METABOLISM.....	3R01 AM18957-03S1	5,292
ROSENBERG, BARNETT.....	METAL COORDINATION COMPLEXES IN CANCER CHEMOTHERAPY.....	5R01 CA11349-11	103,297
ROTH, ROBERT A, JR.....	ENVIRONMENTAL AGENTS AND NONRESPIRATORY LUNG FUNCTION.....	5R23 ES01861-02	35,574
ROTTMAN, FRITZ M.....	CONTROL OF RNA PROCESSING IN NORMAL AND TUMOR CELLS.....	5R01 CA13175-08	118,664
SADOFF, HAROLD L.....	CELL DIFFERENTIATION IN PROCARYOTIC ORGANISMS.....	5R01 AI01863-22	71,227
SCOTT, JERRY B.....	ROLE OF CHEMICALS IN LOCAL BLOOD FLOW REGULATION.....	2R01 HL10879-11A1	55,463
SCOTT, JERRY B.....	EFFECTS OF HISTAMINE ON THE MICROVASCULATURE.....	1R01 HL24363-01	47,532

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
SMITH, WILLIAM L.....	PROSTAGLANDIN SYNTHESIS IN KIDNEY COLLECTING TUBULES.....	5R01 AM22042-02	44,692
SPARKS, HARVEY V.....	DYNAMIC CONTROL OF CORONARY BLOOD FLOW.....	5R01 HL24232-02	69,770
SPARKS, HARVEY V.....	VASCULAR CONTROL IN EXPERIMENTAL DIABETES MELLITUS.....	5R01 HL24672-02	69,672
SUETTER, CLARENCE H.....	COMPARATIVE ENZYMOLOGY OF NORMAL AND ABNORMAL TISSUE.....	5R01 GM20716-06	58,243
SWEETLEY, CHARLES C.....	CHEMISTRY AND METABOLISM OF SPHINGOLIPIDS.....	5R01 AM12434-12	121,708
SWEETLEY, CHARLES C.....	METABOLIC PRODUCTS IN DIABETES: GC-MS QUANTITATION.....	5R01 AM23012-02	48,925
TIEN, H TI.....	BILAYER LIPID MEMBRANES IN AQUEOUS MEDIA.....	5R01 GM14971-14	99,656
TOLBERT, N EDWARD.....	PEROXISOMES IN DEVELOPING LIVER AND KIDNEY.....	5R01 HD06441-08	103,929
TROSKO, JAMES E.....	MUTATION AND DEREPRESSION OF GENES IN CARCINOGENESIS.....	3R01 CA21104-02S1	56,093
TROSKO, JAMES E.....	MUTATION AND DEREPRESSION OF GENES IN CARCINOGENESIS.....	5R01 CA21104-03	135,872
TULINSKY, ALEXANDER.....	RESOLUTION STUDIES OF MOTIONS IN CHYMOTRYPSIN.....	2R01 GM21225-04	65,972
TULINSKY, ALEXANDER.....	CRYSTAL AND SOLUTION STUDIES OF ALDOLYTIC MECHANISM.....	1R01 GM26360-01	55,706
UFFEN, ROBERT L.....	MEMBRANE MORPHOGENESIS AND DIFFERENTIATION IN BACTERIA.....	5R01 GM24672-02	52,100
VELICER, LELAND F.....	MAREK'S DISEASE HERPES VIRUS ANTIGENS.....	5R01 CA23408-02	79,793
VELICER, LELAND F.....	EXPRESSION OF GENES FOR TUMOR-SPECIFIC ANTIGENS.....	1R01 CA24937-01	92,739
WALKER, BRUCE E.....	TERATOGENICITY OF TRANSPLACENTAL DES IN MICE.....	1R01 CA27535-01	50,071
WEAVER, LYNNE C.....	AUTONOMIC CONTROL OF RENAL FUNCTION.....	5R01 HL21436-03	52,200
WELLS, WILLIAM W.....	ENERGY RELATIONSHIPS IN INBORN ERRORS OF METABOLISM.....	2R01 AM10209-14	109,486
WELSCH, CLIFFORD W.....	NEUROENDOCRINE CONTROL OF MURINE LEUKEMOGENESIS.....	5R01 CA18752-02	50,067
WELSCH, FRANK.....	DISTRIBUTION AND FUNCTIONS OF ACH IN PLACENTA.....	5R01 HD07091-06	35,195
WELSER, JOHN R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05623-13	48,000
WESTON, W DONALD.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA20441-01A2	134,472
WESTON, W DONALD.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05656-12	107,801
WILLIAMS, JEFFREY F.....	IMMUNOLOGY OF LARVAL TAPEWORM INFECTION.....	5R01 AI10842-08	129,588
WILLIAMS, JEFFREY F.....	COLLABORATIVE RESEARCH ON PARASITIC DISEASES IN SUDAN.....	1P01 AI16312-01	513,633
WILSON, JOHN E.....	HEXOKINASE AND ENERGY METABOLISM IN THE BRAIN.....	2R01 NS09910-09	96,207
ORGANIZATION TOTAL	100	7,227,350	
HOLLAND			
HOPE COLLEGE ZIP CODE 49423			
DOYLE, MICHAEL P.....	METALLOPROTEIN NITROSYL FORMATION AND REACTIVITY.....	1R01 ES01673-01A1	52,283
ORGANIZATION TOTAL	1	52,283	
MIDLAND			
MICHIGAN MOLECULAR INSTITUTE ZIP CODE 48640			
MEEHAN, THOMAS D.....	SPECIFICITY IN BAP DIOL EPOXIDE COVALENT BINDING TO DNA.....	1R01 CA25106-01	48,800
ORGANIZATION TOTAL	1	48,800	
ROCHESTER			
OAKLAND UNIVERSITY ZIP CODE 48063			
CALLEWAERT, DENIS M.....	MOLECULAR MECHANISMS IN CELLULAR IMMUNOLOGY.....	2R01 AI12766-04	50,739
CHOPP, MICHAEL.....	WAVEFORM ANALYSIS OF INTRACRANIAL PRESSURE.....	1R01 NS15555-01	44,217
LINDEMANN, CHARLES B.....	CONTROLLING FACTORS IN MAMMALIAN SPERM MOTILITY.....	1R01 HD12535-01	37,341
MOUDGIL, VIRINDER K.....	INTERACTION OF NUCLEOTIDES AND STEROID RECEPTORS.....	1R01 AM20893-01A1	43,172
OBEAR, FREDERICK W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07131-10	45,881
REDDAN, JOHN R.....	CONTROL OF CELL DIVISION IN THE OCULAR LENS.....	2R01 EY00362-13	83,263
REDDY, VENKAT N.....	INTRAOCULAR FLUID DYNAMICS.....	5R01 EY00483-11	66,931
REDDY, VENKAT N.....	STUDY OF INTRAOCULAR TRANSPORT.....	2R01 EY00484-12	213,199
REDDY, VENKAT N.....	PROTEINS OF NORMAL AND CATARACTOUS LENSES.....	5R01 EY02027-03	45,674
RILEY, MICHAEL V.....	CONTROL OF CORNEAL HYDRATION AND TRANSPARENCY.....	5R01 EY00541-10	83,546
ROY, ARUN K.....	HORMONAL CONTROL OF ALPHA GLOBULINS SYNTHESIS IN LIVER.....	2R01 AM14744-09	84,276
UNAKAR, NALIN J.....	MORPHOLOGICAL STUDIES IN EXPERIMENTAL CATARACTS.....	2R01 EY01680-04	63,292
WINKLER, BARRY S.....	PHOTORECEPTOR ELECTROGENESIS: DYNAMICS AND CONTROLS.....	5R01 EY01219-05	66,117
ZEPELIN, HAROLD.....	AGING AND THE QUALITY OF HUMAN SLEEP.....	5R23 AG00723-03	42,847
ORGANIZATION TOTAL	14	970,495	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
ROYAL OAK			
WILLIAM BEAUMONT HOSPITAL	ZIP CODE 48072		
MARGHERIO, RAYMOND R.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02563-01A1	53,699
POULIK, MIROSLAV D.....	URINARY PROTEIN COMPONENTS: DIAGNOSTIC AND THEORETICAL.....	5R01 AI11335-08	57,664
ORGANIZATION TOTAL	2	111,363	
SAGINAW			
SAGINAW COOPERATIVE HOSPITALS	ZIP CODE 48601		
DIMITROV, NIKOLAY V.....	PRIMARY BREAST CANCER THERAPY (NSABP).....	5R10 CA20647-03	28,570
ORGANIZATION TOTAL	1	28,570	
SOUTHFIELD			
PROVIDENCE HOSPITAL	ZIP CODE 48075		
VAUGHN, CLARENCE B.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA22416-02	91,308
ORGANIZATION TOTAL	1	91,308	
STATE TOTAL	490	44,630,805	
MINNESOTA			
DULUTH			
UNIVERSITY OF MINNESOTA AT DULUTH	ZIP CODE 55812		
DREWES, LESTER R.....	METABOLISM IN THE BRAIN.....	5R01 NS13597-03	52,632
MOHRMAN, DAVID E.....	DYNAMICS OF AUTOREGULATION OF MUSCLE BLOOD FLOW.....	5R23 HL22975-02	36,182
ZIEGLER, RICHARD J.....	HERPES VIRUS INFECTIONS OF NERVE TISSUE IN VITRO.....	2R01 NS13326-03	57,362
ORGANIZATION TOTAL	3	146,176	
MINNEAPOLIS			
HENNEPIN COUNTY MEDICAL CENTER	ZIP CODE 55415		
SCHWARTZ, SAMUEL.....	PORPHYRINS AND HEMES: METABOLISM AND BIOLOGICAL EFFECTS.....	2R01 AM12466-15	111,634
ORGANIZATION TOTAL	1	111,634	
MOUNT SINAI HOSPITAL	ZIP CODE 55404		
TRUITT, ROBERT L.....	MECHANISMS OF SUCCESSFUL ADOPTIVE IMMUNOTHERAPY.....	1R01 CA26245-01	89,066
ORGANIZATION TOTAL	1	89,066	
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL	ZIP CODE 55455		
ABUL-HAJJ, YUSUF J.....	EFFECT OF MAMMARY TUMORS ON STEROID METABOLISM.....	5R01 CA22467-02	29,087
ADOLPH, KENNETH W.....	NONHISTONE PROTEINS AND HELA CHROMOSOME STRUCTURE.....	1R01 GM26440-01	59,965
AHMED, KHALIL.....	STUDIES OF NORMAL AND NEOPLASTIC PROSTATE.....	5R01 CA15062-06	63,062
AMPLATZ, KURT.....	MOVING SLOT CHEST RADIOGRAPHY.....	1R01 GM26180-01	88,519
AMPLATZ, KURT.....	RADIOGRAPHIC VENTRICULOMETRY FOR CORONARY HEART DISEASE.....	2R01 HL16484-05	43,908
ANDERS, MARION W.....	METABOLISM AND CELLULAR INTERACTIONS OF HALOFORMS.....	5R01 CA21899-03	61,309
ANDERS, MARION W.....	ENVIRONMENTAL CHEMICALS AS CO-TOXICANTS.....	5R01 ES00953-05	78,572
ANDERS, MARION W.....	METABOLISM AND TOXICITY OF HALOGENATED HYDROCARBONS.....	5R01 ES01082-05	66,248
ANDERSON, DWIGHT L.....	MORPHOGENESIS OF BACTERIOPHAGE PHI-29.....	5R01 DE03606-11	103,651
ANDERSON, JOHN S.....	ENZYMOLGY OF BACTERIAL CELL MEMBRANES.....	2R01 AI08295-11	56,629
ANDERSON, ROBERT W.....	VENTRICULAR DYSFUNCTION AND CARDIAC SURGERY.....	5R01 HL22152-03	144,936
BACHE, ROBERT J.....	THE CORONARY VASCULAR RESPONSE TO ISCHEMIA.....	5R01 HL20598-04	61,085
BACHE, ROBERT J.....	MYOCARDIAL PERFUSION IN THE HYPERTROPHIED HEART.....	5R01 HL21872-02	53,568
BALFOUR, HENRY H, JR.....	THE ROLE OF VIRUSES IN RENAL TRANSPLANT PATIENTS.....	5R01 AM18883-04	77,019
BALFOUR, HENRY H, JR.....	CELL-MEDIATED IMMUNITY IN CONGENITAL CMV INFECTIONS.....	1R01 HD12342-01	68,675

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
BARBOSA, JOSE J.	GENETIC AND HLA STUDIES IN DIABETES MELLITUS	5R01 AM20729-03	96,125
BARBOSA, JOSE J.	STUDY OF EFFECTS OF DIABETIC CONTROL ON RENAL DISEASE	5R01 AM20742-02	101,569
BAUER, G ERIC	HORMONE SYNTHESIS AND SECRETION IN ANGLERFISH ISLETS	5R01 AM19223-03	41,269
BAUER, G ERIC	INSULIN SYNTHESIS AND RELEASE BY RAT-ISLET ADENOMAS	5R01 AM24090-02	34,599
BAUMANN, WOLFGANG J	UNUSUAL LIPIDS IN CANCER TISSUES	2R01 CA12150-08	72,294
BENSON, ELLIS S	HEMOGLOBIN AND RED CELL SYSTEM IN HEMOGLOBINOPATHIES	5P01 HL16833-05	247,714
BENSON, ELLIS S	HEMOGLOBIN AND RED CELL SYSTEM IN HEMOGLOBINOPATHIES	2P01 HL16833-06	687,183
BIRNBAUM, GARY	SUPPRESSOR LYMPHOCYTES IN NEUROLOGICAL DISEASE	5R01 NS14787-02	36,412
BISTNER, STEPHEN I	HEREDITARY CATARACT; ANATOMIC-METABOLIC CHANGES	5R01 EY02613-02	41,496
BLACKBURN, HENRY W	COMMUNITY SURVEILLANCE OF CARDIOVASCULAR DISEASE	1R01 HL23727-01	538,028
BLACKSHEAR, PERRY L, JR	PULSATORY WATER FLUX AND ENDOTHELIAL CELL DESQUAMATION	5R01 HL21188-03	84,722
BLOEDEL, JAMES R	PATTERNS OF INTEGRATION ALONG CEREBELLAR AFFERENT SYSTEM	2R01 NS09447-10	58,841
BLOEDEL, JAMES R	NEUROPHYSIOLOGIC-PSYCHOPHYSICAL STUDY OF PAIN SYSTEMS	2R01 NS13002-04	76,088
BLOOMER, JOSEPH R	PROTOPORPHYRIA: STUDY WITH CULTURED SKIN FIBROBLASTS	1R01 GM26466-01	122,703
BLOOMFIELD, VICTOR A	PHYSICAL CHEMISTRY OF BACTERIAL VIRUSES	5R01 GM17855-09	84,811
BLOOMFIELD, VICTOR A	HUMAN BRONCHIAL GLYCOPROTEINS	1R01 HL24952-01	65,717
BLUMENFELD, MARTIN S	SATELLITE DNA & MOLECULAR ORGANIZATION OF CHROMOSOMES	5R01 GM22138-05	67,690
BLUMENTHAL, MALCOLM N	IMMUNOGENETIC FACTORS IN ALLERGIC RESPIRATORY DISEASES	5R01 HL23631-02	93,789
BODLEY, JAMES W	GUANINE NUCLEOTIDES AND PROTEIN CHAIN GROWTH	5R01 GM21359-04	82,825
BODLEY, JAMES W	AMINO ACID X-STRUCTURE/DISTR/BIOSYNTHESIS/FUNCTION	1R01 GM26832-01	63,130
BORCH, RICHARD F	REDUCTION OF TOXICITY IN CANCER CHEMOTHERAPY	5R01 CA22925-02	43,887
BOWERS, LARRY D	COMBINED SEPARATION-IMMOBILIZED ENZYME SYSTEMS	1R01 GM26214-01	44,868
BRAMBL, ROBERT M	FUNGAL SPORE GERMINATION AND MITOCHONDRIAL BIOGENESIS	5R01 GM19398-06	46,424
BRAND, K GERHARD	SEQUENTIAL CELL STUDIES IN FOREIGN BODY TUMORIGENESIS	5R01 CA10712-12	80,141
BRAND, K GERHARD	ETIOLOGIC CO-FACTORS IN ASBESTOS-CARCINOGENESIS	1R01 ES02101-01	59,265
BRANDA, RICHARD F	CELLULAR FOLATE METABOLISM IN PRE-LEUKEMIA	5R01 CA20251-03	33,048
BROCKMAN, HOWARD L, JR	REGULATION OF CHOLESTERYL ESTER LEVELS IN THE AORTA	5R01 HL17371-06	40,800
BROCKMAN, HOWARD L, JR	BULK-SURFACE DISTRIBUTION OF CHOLESTERYL ESTERS	5R01 HL23003-02	31,189
BROOKS, MARION A	SYMBIOTES AS MODELS OF VECTOR PARASITISM	5R01 AI09914-10	69,552
BROWN, DAVID M	ISLET TRANSPLANTATION AND DIABETIC VASCULAR DISEASE	5R01 AM17697-06	91,772
BRYANT, ROBERT G	SOLVENT AND SMALL SOLUTES IN TISSUES AND PROTEINS	5R01 GM18719-08	68,682
BRYANT, ROBERT G	CROSS POLARIZATION NMR OF RARE SPINS IN PROTEIN SYSTEMS	5R01 GM25441-02	33,240
BRYANT, ROBERT G	ALKALINE EARTH ION NUCLEAR MAGNETIC RESONANCE	5R01 GM25757-02	40,522
BUCHWALD, HENRY	METHOD OF TREATMENT AND NEPHROPATHY IN DIABETICS	3R01 AM23060-01S1	3,710
BUCHWALD, HENRY	METHOD OF TREATMENT AND NEPHROPATHY IN DIABETICS	5R01 AM23060-02	110,434
BUCHWALD, HENRY	EFFECTS OF METABOLIC SURGERY ON THE HYPERLIPIDEMIAS	5R01 HL11901-13	115,266
BUCHWALD, HENRY	SURGICAL CONTROL OF THE HYPERLIPIDEMIAS	5R10 HL15265-07	2,782,218
BURKHARDT, DWIGHT A	VISION AND INTRARETINAL POTENTIALS	5R01 EY00460-11	39,636
CARPENTER, ANNA M	MICROANGIOPATHY IN DIABETIC HUMAN EAR	1R01 AM25469-01	37,350
CAVERT, H MEAD	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00400-11	781,440
CHIPAULT, JACQUES R	LIPIDS OF LENTICULAR MEMBRANES	5R01 EY02307-02	48,707
CHOIH, SUN-JIN	ORAL BACTERIA, PROTEASES AND HUMAN SALIVARY PROTEINS	5R23 DE05071-02	11,903
CLICK, ROBERT E	TOLERANCE OF BONE MARROW GRAFTS	5R01 CA23678-02	56,193
COHN, JAY N	SPLANCHNIC HEMODYNAMICS IN MAN	5R01 HL18020-05	46,548
COHN, JAY N	ROLE OF VASOCONSTRICTOR MECHANISMS IN HEART FAILURE	5R01 HL22977-02	129,960
COLLINS, W ANDREW	CHILD PSYCHOLOGY SYMPOSIUM SUPPORT	5R13 HD10650-03	10,320
COOK, R DENNIS	STATISTICAL CASE ANALYSIS	5R01 GM25587-02	40,731
CRADDOCK, PHILIP R	LEUKEMIA THERAPY AND NEUTROPHIL DYSFUNCTION	5R01 CA15627-06	65,210
CRAWFORD, RONALD L	DEGRADATION OF AROMATIC COMPOUNDS BY BACILLUS SPECIES	5R01 ES01284-03	46,934
CROW, RICHARD S	RISK REDUCTION AND EXERCISE FITNESS IN A POPULATION	5R01 HL21307-02	38,779
DAGLEY, STANLEY	ENZYMOLGY OF PATHWAYS OF PHENYLALANINE CATABOLISM	5R01 AM21981-02	54,824
DAGLEY, STANLEY	THE ENZYMATIC DEGRADATION OF AROMATIC COMPOUNDS	5R01 ES00678-13	58,983
DELANEY, JOHN P	GASTRIN CELL POPULATIONS	5R01 AM19326-03	98,667
DEMPESEY, MARY E	ENZYMIC CHOLESTEROL SYNTHESIS	5R01 HL08634-16	126,888
DOUGLAS, STEVEN D	MORPHODYNAMICS OF HUMAN LYMPHOCYTES AND MONOCYTES	5R01 AI12478-06	84,555
DUANE, WILLIAM C	ASCORBIC ACID NUTRITION AND STEROL METABOLISM	1R01 AM25811-01	51,966
DUVAL, ARNDT J, III	FLUID BARRIERS AND PATHWAYS WITHIN THE COCHLEA	5R01 NS04615-17	77,188
DWORKIN, MARTIN	CELL INTERACTIONS DURING MYXOBACTERIAL DEVELOPMENT	5R01 GM19957-07	67,040
EINZIG, STANLEY	BLOOD FLOW AND CARDIAC FUNCTION IN VIRAL MYOCARDITIS	2R01 HL18204-04A1	54,757
ENFIELD, FRANKLIN D	INVESTIGATIONS IN QUANTITATIVE GENETICS	5R01 GM16074-11	59,791

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
ERLANDSEN, STANLEY L.....	LYSOZYME SECRETION AND PANETH CELL FUNCTION.....	5R01 AM18344-05	45,558
ESTENSEN, RICHARD D.....	A COCARCINOGEN AS A LYMPHOCYTE MITOGEN.....	5R01 CA22195-03	70,526
FAN, DAVID P.....	ANTIGEN RECOGNITION BY CYTOTOXIC T LYMPHOCYTES.....	5R01 AI15067-02	68,297
FAN, DAVID P.....	CELL GROWTH AND DIVISION.....	2R01 GM19483-10	94,842
FARAS, ANTHONY J.....	RNA-DIRECTED DNA POLYMERASE AND 70S RNA OF ONCORNAVIRUS.....	5R01 CA18303-05	70,362
FARAS, ANTHONY J.....	MECHANISM OF RETROVIRUS PROVIRAL DNA SYNTHESIS.....	2R01 CA20011-03A1	56,780
FARAS, ANTHONY J.....	REVERSION OF ROUS SARCOMA VIRUS-TRANSFORMED CELLS.....	1R01 CA26387-01	83,219
FERGUSON, RONALD M.....	UTILIZING SUPPRESSOR CELLS IN ALLOGRAFT REACTIONS.....	5R23 AI14012-02	32,853
FERRIERI, PATRICIA.....	HOST RESPONSES TO GROUP B STREPTOCOCCI.....	5R01 AI13926-03	74,946
FERRIS, THOMAS F.....	PHYSIOLOGY OF RENIN, ALDOSTERONE AND PROSTAGLANDIN.....	5R01 HL23602-02	77,335
FLETCHER, THOMAS F.....	DEVELOPMENTAL NERVOUS DISORDERS: KRABBE'S DISEASE.....	2R01 NS06756-13	28,569
FOWLKS, W L.....	BIOCHEMICAL STUDIES OF THE BLOOD-VITREOUS BODY BARRIER.....	5R01 EY01258-05	104,888
FOX, IRWIN J.....	THE FUNCTION OF THE LEFT VENTRICULAR MECHANORECEPTORS.....	1R01 HL23947-01	56,542
FUCHS, JAMES A.....	DEOXYRIBONUCLEOTIDE METABOLISM IN ESCHERICHIA COLI.....	5R01 GM20884-06	49,791
FURCHT, LEO T.....	PATHOBIOLOGY OF THE CELL MEMBRANE IN CANCER.....	5R01 CA21463-03	65,154
GAUL-PECZALSKA, KAZIMIERA.....	IMMUNOLOGY OF HUMAN LYMPHOID TUMORS OF B-CELL ORIGIN.....	5R01 CA17034-05	82,734
GANDER, JOHN E.....	FUNGAL GLYCOPEPTIDE BIOSYNTHESIS.....	5R01 GM19978-06	72,420
GASSMAN, PAUL G.....	A STEROSPECIFIC FUNCTIONALIZATION OF AROMATIC AMINES.....	2R01 GM22346-03A2	38,434
GAULT, N L, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05385-18	201,413
GEISSER, SEYMOUR.....	PREDICTIVE SAMPLE REUSE METHODOLOGY.....	5R01 GM25271-02	43,241
GILLUM, RICHARD F.....	BLOOD PRESSURE AND LIPIDS IN YOUNG MEN OVER 30 YEARS.....	1R01 HL23482-01	29,143
GILLUM, RICHARD F.....	DIETARY CONTROL AND PREVENTION OF HYPERTENSION.....	1R01 HL23512-01	41,788
GOLDBERG, NELSON D.....	KREBS CYCLE AND CYCLIC NUCLEOTIDE CONTROL.....	5R01 NS05979-14	110,349
GONZALEZ, RICARDO.....	STEROL METABOLISM IN HUMAN RENAL CANCER.....	3R01 CA18256-03S2	3,700
GOODALE, ROBERT L, JR.....	CANCER DETECTION PROGRAM.....	2R26 CA20115-04	66,379
GORLIN, ROBERT J.....	ORAL PATHOLOGY PROGRAM GRANT.....	5R01 DE01770-17	104,313
GRAY, BEULAH H.....	BACTERICIDAL MECHANISMS OF HUMAN PMN LEUKOCYTES.....	1R01 AI16248-01	49,766
GRAY, ERNEST D.....	PATHOGENESIS OF RHEUMATIC HEART DISEASE.....	1R01 AI15845-01	120,828
GRAY, GARY R.....	ANTITUMOR ACTIVE COMPONENTS OF BCG CELL WALLS.....	5R01 CA15325-06	61,558
GUILFOYLE, THOMAS J.....	REGULATION OF RNA POLYMERASES DURING DEVELOPMENT.....	5R01 GM24096-03	49,829
GUTMANN, HELMUT R.....	MECHANISM OF ACTION OF AROMATIC AMINES IN CELL CULTURE.....	5R01 CA02571-24	93,917
HALBERG, FRANZ.....	MEAL-TIMING, CIRCADIAN RHYTHMS AND LIFE SPAN.....	5R01 AG00158-03	75,106
HALBERG, FRANZ.....	CARCINOSTATIC TREATMENT ACCORDING TO SPECTRUM OF RHYTHMS.....	3R01 CA14445-06S2	29,856
HALBERG, FRANZ.....	CARCINOSTATIC TREATMENT ACCORDING TO SPECTRUM OF RHYTHMS.....	5R01 CA14445-07	163,092
HAMILTON, DAVID W.....	EFFECT OF DIABETES IN THE MALE.....	5R01 AM22182-02	67,495
HAMILTON, DAVID W.....	STRUCTURE AND FUNCTION OF EPIDIDYMS AND VAS DEFERENS.....	5R01 HD11962-02	53,305
HANDWERGER, BARRY S.....	IMMUNE FUNCTION IN EXPERIMENTAL DIABETES MELLITUS.....	1R01 AM25879-01	54,825
HANNA, PATRICK E.....	CARCINOGEN ACTIVATION VIA ACYL TRANSFER.....	5R01 CA21659-02	61,090
HANNA, PATRICK E.....	BIOACTIVATION OF ARYLHYDROXAMIC ACIDS: SAR STUDIES.....	5R01 CA24427-02	63,601
HANSON, RUSSELL F.....	METABOLISM OF BILE ACIDS.....	5R01 AM15077-09	104,037
HARTUP, WILLARD W.....	RESEARCH IN DEVELOPMENTAL PSYCHOLOGY.....	5P01 HD05027-10	360,434
HEBBEL, ROBERT P.....	BLOOD CELL-MEDIATED PULMONARY AND VASCULAR DAMAGE.....	5R23 HL22621-02	44,153
HEGRE, ORION D.....	FETAL PANCREATIC TRANSPLANTATION.....	5R01 AM19899-03	78,339
HEGRE, ORION D.....	FETAL ENDOCRINOLOGY AND DIABETES.....	2R01 HD00412-22	71,495
HENDERSON, LA VELL M.....	NIACIN AND VITAMIN B6 METABOLISM IN RAT INTESTINE.....	5R01 AM19012-04	53,128
HENDERSON, LA VELL M.....	CARNITINE BIOSYNTHESIS; TRIMETHYLLYSINE FISSION.....	5R01 AM19764-03	53,455
HERMAN, ROBERT K.....	DEVELOPMENTAL GENETICS OF CAENORHABDITIS ELEGANS.....	2R01 GM22387-04	52,906
HOGENKAMP, HENRICUS P.....	STRUCTURE AND REACTIONS OF THE COBAMIDE COENZYMES.....	5R01 GM23773-04	103,326
HOGENKAMP, HENRICUS P.....	HEALTH SCIENCES NMR SPECTROSCOPY FACILITY.....	1P41 GM27423-01	148,141
HOLMAN, RALPH T.....	CHEMICAL AND BIOLOGICAL PROPERTIES OF LIPIDS.....	5P01 HL08214-16	820,535
HOLMAN, RALPH T.....	THE METABOLISM OF TRANS FATTY ACIDS.....	5R01 HL21513-03	60,442
HOLTZMAN, JORDAN L.....	CYTOCHROME-REDUCTASE ACTIVATION IN HYDROXYLATION.....	5R01 GM21310-05	66,582
HOLTZMAN, JORDAN L.....	FREE RADICALS IN THE TOXICITY OF NITRO AND AZO DRUGS.....	5R01 GM23032-04	31,651
HOLTZMAN, JORDAN L.....	DRUG METABOLISM IN THE ISOLATED HEPATOCYTE.....	1R01 GM24535-01	40,081
HOWARD, JAMES B.....	STRUCTURE AND MECHANISM OF A2-MACROGLOBULIN.....	1R01 HL24505-01	113,066
HOYE, THOMAS R.....	SYNTHESIS OF ANTINEOPLASTIC CHEMOTHERAPEUTIC AGENTS.....	5R01 CA24056-02	54,530
JACOB, HARRY S.....	ABNORMAL BLOOD CELL MEMBRANES IN DISEASE.....	5R01 AM15730-11	56,353
JACOB, HARRY S.....	COMPLEMENT-INDUCED PULMONARY INJURY.....	2R01 HL19725-04	93,678
JACOBS, DAVID R, JR.....	VOICE CHARACTERISTICS IN CORONARY PRONE BEHAVIOR.....	1R01 HL24635-01	28,673
JENDRISAK, JEROME J.....	REGULATION OF EUKARYOTIC GENE TRANSCRIPTION.....	5R01 GM24294-03	41,959

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
JENKINS, JAMES J.	CENTER FOR RESEARCH IN HUMAN LEARNING	5P01 HD01136-16	268,936
JOHNSON, RUSSELL C.	PATHOGENIC AND SAPROPHYTIC LEPTOSPIRES	2R01 AI06589-14A1	50,973
JOHNSON, RUSSELL C.	PERIODONTAL DISEASE—ROLE OF SPIROCHETES	1R01 DE05144-01	37,666
JOHN, S. K.	MECHANISMS OF INNER EAR DYSFUNCTION IN DIABETES	1R01 NS14911-01	39,697
KAPLAN, EDWARD L.	PROBLEMS IN PREVENTION OF RHEUMATIC HEART DISEASE	5R01 HL19307-04	91,305
KAUNG, HUE-LEE C.	DEVELOPMENTAL STUDIES OF ENDOCRINE PANCREAS	5R01 AM19868-03	35,783
KENNEDY, BYRL J.	CANCER & LEUKEMIA GROUP B—MEDICAL ONCOLOGY SUPPORT	2R10 CA16450-05	120,451
KENNEDY, BYRL J.	MINNESOTA CLINICAL CANCER EDUCATION PROGRAM	2R25 CA19527-04	151,100
KENNEDY, WILLIAM R.	FINE STRUCTURE OF MUSCLE SPINDLES	2R01 NS10969-05	52,998
KERSEY, JOHN H.	RADIATION EFFECTS ON IMMUNITY—MARROW/ORGAN TRANSPLANTS	1R01 CA24794-01	78,467
KERSEY, JOHN H.	DIFFERENTIATION OF IMMUNE SYSTEM: CELL SURFACE ANTIGENS	1R01 CA25097-01	60,927
KIRKWOOD, SAMUEL	USE OF ENZYMES IN STRUCTURAL CARBOHYDRATE CHEMISTRY	5R01 GM09293-17	43,289
KNOX, CHARLES K.	NEURAL CONTROL OF RESPIRATION	5R01 HL16430-06	42,607
KOFFLER, HENRY	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07052-14	191,765
KRIVIT, WILLIAM	PEDIATRIC ONCOLOGY PROGRAM PROJECT	5P01 CA21737-03	320,659
KRZYZEK, RICHARD A.	CONTROL OF AVIAN ONCORNAVIRUS GENES IN MAMMALIAN CELLS	5R23 CA23833-02	31,432
LAKOWICZ, JOSEPH R.	PASSIVE DIFFUSIONAL TRANSPORT IN MEMBRANES	5R01 ES01283-03	38,685
LEE, CHING Y.	REGULATION OF GONADOTROPIN RECEPTOR AND ADENYL CYCLASE	5R01 HD10075-03	15,915
LEE, JUI S.	VILLUS PRESSURES AND LYMPH FLOW OF INTESTINE	5R01 AM18085-05	41,997
LEETE, EDWARD	METABOLISM OF NATURAL PRODUCTS OF MEDICINAL INTEREST	2R01 GM13246-22	84,674
LEGGE, GORDON E.	BINOCULAR INTERACTIONS IN PATTERN VISION	1R01 EY02857-01	52,891
LEGGE, GORDON E.	MATRIX DISPLAYS IN LOW VISION READING AIDS	1R01 EY02934-01	48,934
LEUNG, BENJAMIN S.	HORMONAL INTERACTION IN MAMMARY CARCINOMA	1R01 CA25998-01	68,848
LEVITT, DAVID G.	BEHAVIOR AND EXISTENCE OF CELL MEMBRANE PORES	1R01 GM25938-01	61,387
LEVITT, MICHAEL D.	PRODUCTION AND ABSORPTION OF INTESTINAL GASES	2R01 AM13309-11	52,216
LEVITT, SEYMOUR H.	RADIATION ONCOLOGY RESEARCH AND CLINICAL CENTER	2P01 CA15548-04A1	324,233
LI, JONATHAN J.	ESTROGEN CARCINOGENICITY AND HORMONE DEPENDENT TUMORS	5R01 CA22008-03	78,503
LIENER, IRVIN E.	THE AVAILABILITY OF AMINO ACIDS OF LEGUMES	2R01 AM18324-05	39,760
LIENER, IRVIN E.	ROLE OF COLLAGENASES IN TUMOR INVASION AND METASTASIS	2R01 CA16231-06	42,165
LIENER, IRVIN E.	BIOCHEMICAL STUDIES ON THE PATHOGENESIS OF EMPHYSEMA	5R01 HL14865-08	71,851
LIFSON, NATHAN	BLOOD FLOW TO THE ISLETS OF LANGERHANS	1R01 AM25697-01	40,516
LILJEMARK, WILLIAM F.	ADHERENCE OF ORAL STREPTOCOCCI TO HYDROXYAPATITE	5R01 DE04614-03	47,941
LILLEHEI, RICHARD C.	RENAL CRYOPRESERVATION	2R01 AM16830-04A1	70,420
LILLEHEI, RICHARD C.	MECHANISMS OF RES STIMULATION IN EXPERIMENTAL SHOCK	2R01 HL18731-03	83,867
LIMAS, CATHERINE	CELL SURFACE CHANGES IN TRANSITIONAL CELL TUMORS	5R01 CA22753-03	28,254
LIMAS, CONSTANTINOS J.	CALCIUM TRANSPORT IN THE HYPERTROPHIC MYOCARDIUM	5R01 HL21850-02	59,325
LIMAS, CONSTANTINOS J.	NONHISTONE NUCLEAR PROTEINS IN CARDIAC HYPERTROPHY	1R01 HL24317-01	61,664
LIPSCOMB, JOHN D.	OXYGENASE ENZYME MECHANISM	5R01 GM24689-02	45,614
LUEPKER, RUSSELL V.	PREVENTION OF CIGARETTE SMOKING IN CHILDREN	1R01 HD12801-01	88,467
LUEPKER, RUSSELL V.	COMMUNICATION OF CARDIOVASCULAR RISK CONCEPTS	1R01 HL22763-01	78,582
MANNERING, GILBERT J.	DRUG METABOLISM AND BIOCHEMICAL PHARMACOLOGY	5R01 GM15477-13	312,992
MANNING, PATRICK J.	ANIMAL RESOURCE FACILITY IMPROVEMENT	1P40 RR01187-01	169,248
MARIANI, TONI N.	INTERRELATIONSHIP BETWEEN MALIGNANCY AND IMMUNITY	5R01 CA12929-08	90,447
MAUER, S. MICHAEL	HEMODYNAMIC & PERMEABILITY IN DIABETIC GLOMERULOPATHY	1R01 HL23749-01	121,193
MC KHANN, CHARLES F.	LYMPHOID CELL INTERACTIONS IN MALIGNANCY	3R01 CA19510-03S1	21,220
MC KHANN, CHARLES F.	ROLE OF CIRCULATING ANTIGEN IN TUMOR IMMUNITY	5R01 CA21431-03	96,209
MC KINNELL, ROBERT G.	SERIAL CLONING TESTS UNLIMITED DIVISION POTENTIAL	5R01 AG00794-02	43,200
MC KINNELL, ROBERT G.	A FROG MEGALOTENIS TEST SYSTEM	5R01 ES01605-03	86,602
MC KINNELL, ROBERT G.	RANA PIPISNI: ABUNDANCE, HEALTH AND REPRODUCTION	2R24 RR01072-02	84,226
MESSER, HAROLD H.	MINERAL NUTRITION AND ALVEOLAR BONE LOSS	5R01 DE04475-02	49,287
MESSNER, RONALD P.	T CELL SUBCLASS DISCRIMINATION BY MONOCLONAL ANTIBODY	1R01 AM26683-01	110,882
MESSNER, RONALD P.	ANTIBODIES AND LYMPHOCYTE FUNCTION IN LUPUS FAMILIES	7R01 AM26696-01	96,298
MEYER, MAURICE W.	CIRCULATION STUDIES IN TEETH AND SUPPORTING STRUCTURES	5R01 DE02212-12	92,103
MICHAEL, ALFRED F.	STUDY OF RENAL DISEASE IN CHILDHOOD	5R01 AI10704-19	123,996
MICHAEL, ALFRED F.	STUDIES OF THE MESANGIUM	1R01 AM25518-01	86,411
MICHAEL, ALFRED F.	PATHOGENESIS OF DIABETIC NEPHROPATHY	1R01 AM26149-01	73,949
MILLER, JACK W.	OXYTOCIN AND NEUROPHYSIN STORAGE AND RELEASE	2R01 HD10268-04	75,362
MILLER, LARRY L.	ELECTROCHEMICAL MEDICINAL SYNTHESIS	2R01 GM24493-02A1	47,547
MILLER, WILMER G.	CHOLESTERIC BIOPOLYMER LIQUID CRYSTALS	5R01 GM16922-11	60,309
MOLDOW, CHARLES F.	CELL SURFACE RECEPTORS FOR ONCOGENIC VIRUSES	3R01 CA13722-06S1	8,344

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
MONTGOMERY, MARK R.	STUDIES ON OXIDANT-INDUCED PULMONARY LESIONS.	5R01 ES01365-03	27,607
MUNCK, ECKARD	STUDIES OF O ₂ ACTIVATION BY MOSSBAUER SPECTROSCOPY.	5R01 GM22701-04	53,052
NAGASAWA, HERBERT T.	MUTAGENESIS OF NITRIMINES VIS-A-VIS NITROSAMINES.	5R01 CA24078-02	21,269
NAJARIAN, JOHN S.	STUDIES OF ORGAN TRANSPLANTATION IN ANIMALS AND MAN.	5P01 AM13083-12	821,536
NAJARIAN, JOHN S.	ISOLATION AND TRANSPLANTATION OF PANCREATIC ISLETS	5R01 AM16566-06	126,475
NELSESTUEN, GARY L.	THE CARBOHYDRATE OF THE BLOOD-CLOTTING GLYCOPROTEINS.	5R01 HL15728-07	64,047
NELSON, DAVID A.	AUDITORY ANALYSIS AND SENSORINEURAL HEARING LOSS.	1R01 NS15451-01	56,375
NELSON, ROBERT D.	MECHANISMS OF HUMAN LEUKOCYTE CHEMOTAXIS.	5R01 CA23707-03	71,546
NESBIT, MARK E, JR.	COOPERATIVE STUDY OF CHEMOTHERAPY FOR CHILDREN'S CANCER.	5R10 CA07306-16	260,193
NESBIT, MARK E, JR.	INTERGROUP EWING'S SARCOMA STUDY	1R10 CA25474-01	75,786
OEGEMA, THEODORE R.	COMPARATIVE BIOCHEMISTRY OF CARTILAGE TUMORS.	5R01 CA22558-02	68,846
OEGEMA, THEODORE R.	BIOCHEMISTRY OF LUNG PROTEOGLYCAN	5R01 HL21612-03	45,322
OKEN, MARTIN M.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA20365-02	142,492
OLIVER, RICHARD C.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05322-18	51,502
OPPENHEIMER, JACK H.	THYROXINE-PROTEIN INTERACTIONS.	5R01 AM19812-04	227,003
PAPARELLA, MICHAEL M.	MECHANISMS OF HEARING LOSS	5P50 NS12125-05	527,802
PAPARELLA, MICHAEL M.	OTITIS MEDIA PATHOGENESIS (CLINICAL RESEARCH CENTER).	5P50 NS14538-02	742,210
PASS, FRANKLIN.	HUMAN PAPILLOMA VIRUS AND MALIGNANT DISEASE.	1R01 CA25462-01	72,925
PEDERSON, JONATHAN E.	PATHOPHYSIOLOGIC MECHANISMS IN OCULAR HYPOTONY.	1R01 EY03277-01	115,148
PERLMUTTER, MARION A.	DEVELOPMENT OF MEMORY IN THE PRESCHOOL YEARS.	5R01 HD11776-02	54,147
PFEIFFER, DOUGLAS R.	KINETIC MECHANISM OF CATION TRANSPORT-IONOPHORE A23187.	1R01 GM24701-01A1	75,763
PLAGEMANN, PETER G.	LDH-VIRUS GROWTH AND EFFECT ON MACROPHAGE FUNCTIONS.	5R01 AI15267-13	70,969
PLAGEMANN, PETER G.	HEXOSE TRANSPORT AND PHOSPHORYLATION IN ANIMAL CELLS.	5R01 AM23001-02	62,507
PLAGEMANN, PETER G.	MECHANISMS OF UPTAKE OF METHOTREXATE AND OTHER DRUGS.	1R01 CA25283-01	43,519
PLAGEMANN, PETER G.	NUCLEOSIDE TRANSPORT IN ANIMAL CELLS.	1R01 GM24468-01A1	39,394
PREM, RONALD A.	GYNCEOLOGIC ONCOLOGY GROUP.	5R10 CA23088-02	39,446
PRINEAS, RONALD J.	PREVENTION OF HIGH BLOOD PRESSURE IN CHILDREN.	5R01 HL19877-03	197,096
PRIVETT, ORVILLE S.	RELATIONSHIPS OF DIET AND AIR POLLUTANTS TO AGING.	5R01 AG00174-05	44,690
PRIVETT, ORVILLE S.	EFFECT OF DIETARY FAT ON GLYCERIDE STRUCTURE.	5R01 AM04942-19	84,012
PRIVETT, ORVILLE S.	ULTRAMICROANALYSIS OF PROSTAGLANDINS & RELATED COMPOUNDS.	5R01 HL21764-02	61,044
PURPLE, RICHARD L.	STUDIES ON INTEGRATIVE MECHANISMS OF NEURONS.	5R01 EY00293-14	34,814
QUEBEMANN, ALOYSIUS J.	THE PHARMACOLOGY OF RENAL TUBULAR EXCRETORY TRANSPORT.	3R01 AM14145-09S1	5,398
QUIE, PAUL G.	HOST REACTIONS TO MICROORGANISMS IN CHRONIC DISEASE.	5R01 AI06931-14	110,539
QUIE, PAUL G.	STUDIES OF OPSONINS IN PHAGOCYTOSIS.	2R01 AI08821-10	106,288
RAMSAY, ROBERT C.	OCULAR STATUS OF DIABETIC RENAL TRANSPLANT RECIPIENTS.	5R01 EY02204-02	30,806
RAMSAY, ROBERT C.	INVOLUTIONAL DIABETIC RETINOPATHY STUDY.	5R01 EY02316-03	20,556
RAMSAY, ROBERT C.	HLA AND GENETIC STUDIES IN DIABETIC RETINOPATHY.	5R01 EY02455-02	91,885
RATHBUN, WILLIAM B.	GLUTATHIONE METABOLISM IN OCULAR TISSUES.	5R01 EY01197-06	107,748
ROGERS, PALMER.	DUAL-CONTROL OF THE EXPRESSION OF ARGININE OPERONS.	5R01 GM25320-02	63,075
ROSENBERG, MURRAY D.	CELL SURFACE ECTOATPASES.	1R01 GM25880-01	81,086
RUBENSTEIN, IRWIN.	EUKARYOTIC GENE EXPRESSION—THE ZEIN LOCUS IN MAIZE.	5R01 GM24756-02	89,946
SAUERBIER, WALTER.	TRANSCRIPTIONAL ORDER IN EUKARYOTIC CHROMOSOMES.	5R01 GM25715-02	53,957
SCHACHTELE, CHARLES F.	STUDIES ON THE MOLECULAR BASIS OF DENTAL CARIES.	2R01 DE03654-07	68,679
SCHIEINMAN, JON I.	GLOMERULAR MESANGIAL MYOSIN IN DIABETIC NEPHROPATHY.	1R01 AM21956-01A1	47,334
SCHLENK, HERMANN.	INTERCONVERSION OF LIPIDS IN ANIMALS.	5R01 AM13424-19	83,017
SCHLENK, HERMANN.	BIOCHEMISTRY OF FURAN FATTY ACIDS.	2R01 GM22880-04	63,012
SCHMID, HARALD H.	LIPID METABOLISM IN ISCHEMIC & INFARCTED MYOCARDIUM.	1R01 HL24312-01	48,489
SCHMIDTKE, JON R.	MACROPHAGE REGULATION OF ANTITUMOR IMMUNOCYTOTOXICITY.	5R01 CA21539-03	43,068
SCHUMAN, LEONARD M.	EPIDEMIOLOGIC STUDY OF ALZHEIMER'S DISEASE.	1R01 AG01529-01	78,916
SCHWARTZ, JEFFREY S.	CORONARY VASOMOTION.	5R23 HL21298-03	42,055
SHAPIRO, BURTON L.	CYSTIC FIBROSIS & FIBROBLASTS: INTERCELLULAR CALCIUM.	1R01 AG02114-01	77,815
SHARP, HARVEY L.	INTRALUMINAL INFLUENCES UPON ENTEROCYTE DEVELOPMENT.	1R01 HD12227-01	49,102
SHEPPARD, J R.	PATHOBIOLOGY OF MYELIN MEMBRANE IN MULTIPLE SCLEROSIS.	5R01 NS14436-02	55,980
SHERIDAN, JUDSON D.	CELL JUNCTION FORMATION & ROLE IN CELL PROLIFERATION.	5R01 CA16335-05	94,640
SHERIDAN, JUDSON D.	JUNCTIONAL COMMUNICATION BETWEEN VASCULAR CELLS.	5R01 HL21166-02	79,446
SHIDEMAN, FREDERICK E.	PHOSPHOLIPIDS AND CARDIAC RECEPTOR FUNCTION.	5R01 HL20793-03	39,498
SIEGEL, BROCK M.	BIOMIMETIC ORGANIC REDOX CHEMISTRY.	5R01 AM21975-02	34,675
SIMMONS, MICHAEL J.	MUTATION AND SELECTION IN DROSOPHILA POPULATIONS.	5R01 ES01960-02	34,892
SIMMONS, RICHARD L.	ORGAN REPLACEMENT USING GRAFTS MODIFIED IN VITRO.	5R01 AI12754-05	120,111
SIMMONS, RICHARD L.	PATHOGENESIS AND TREATMENT OF EXPERIMENTAL PERITONITIS.	5R01 AI14032-02	81,915

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
SIMMONS, RICHARD L.	IMMUNOLOGICAL REACTIVITY IN SPECIAL CIRCUMSTANCES	5R01 CA11605-11	164,099
SIMON, GEZA	PATHOPHYSIOLOGY OF VENOUS CHANGES IN HYPERTENSION	5R01 HL21673-02	33,476
SINGER, LEON	FLUORIDE METABOLISM—BONE MINERAL AMORPHOUS FRACTION	5P01 DE01850-16	178,053
SLADEK, NORMAN E.	ONCOTOXIC SPECIFICITY OF CYCLOPHOSPHAMIDE	1R01 CA26357-01	25,716
SNUSTAD, D. PETER	GENETICS OF VIRUS-INDUCED SHUTOFF OF HOST METABOLISM	5R01 GM25417-02	73,029
SOECHTING, JOHN F.	ORGANIZATION AND CONTROL OF MOVEMENTS	1R01 NS15018-01	30,288
SOLITS, RONALD D.	STUDIES OF IN VIVO IMMUNOGLOBULIN AGGREGATION	1R01 AM26086-01	103,798
SONG, CHANG W.	VASCULARITY AND REOXYGENATION IN X-IRRADIATED TUMORS	5R01 CA13353-06	44,780
SONG, CHANG W.	USE OF 5-THIO-D-GLUCOSE IN RADIOTHERAPY	5R01 CA21281-02	73,548
SORENSEN, ROBERT L.	ISLET SOMATOSTATIN SECRETION AND ITS PARACRINE ROLE	5R01 AM24006-02	67,568
STAUFFER, LEE D.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05448-18	31,224
SUTHERLAND, DAVID E.	TRANSPLANTATION FOR ENZYMIC AND METABOLIC DEFICIENCIES	3R01 AM19113-03S1	12,673
SUTHERLAND, DAVID E.	TRANSPLANTATION FOR ENZYMIC AND METABOLIC DEFICIENCIES	2R01 AM19113-04	41,350
SUTHERLAND, DAVID E.	PANCREATIC ISLET TRANSPLANTATION IN DIABETIC PATIENTS	5R01 AM19269-04	104,421
SUTHERLAND, DAVID E.	COMPARISON OF PANCREAS AND ISLET TRANSPLANTATION	1R01 AM24065-01	23,279
TAN, AGNES W.	CONTROL OF GLYCOGEN SYNTHASE BY PROTEIN MODIFICATION	5R01 AM21277-02	39,128
TAYLOR, HENRY L.	MYOCARDIAL FUNCTION, RISK FACTORS AND FUTURE CHD	5R01 HL16909-05	52,073
TAYLOR, HENRY L.	PHYSICAL ACTIVITY AND INCIDENCE OF CHRONIC HEART DISEASE	3R01 HL20662-02S1	3,738
TERZUOLO, CARLO A.	PROBLEMS OF NERVE CELL PHYSIOLOGY	5R01 NS02567-20	67,366
TOBIAN, LOUIS	KIDNEY, NA, CARDIAC OUTPUT, ARTERIOLES, & HYPERTENSION	5P01 HL17871-05	483,084
TUCKER, ROBERT D.	IN VITRO IMPEDANCE BIOASSAY FOR THE CF FACTOR	1R01 AM25665-01	59,884
VERNIER, ROBERT L.	DEVELOPMENTAL STUDIES OF THE KIDNEY	1R01 AM25425-01	89,497
VINCE, ROBERT	INHIBITORS OF RIBOSOMAL FUNCTIONS	2R01 CA13592-10	108,101
VINCE, ROBERT	CARBOCYCIC NUCLEOSIDE CHEMOTHERAPEUTIC AGENTS	1R01 CA23263-01A1	21,350
VOSIKA, GERALD J.	STUDY OF BACTERIAL COMPONENT IMMUNOTHERAPY IN CANCER	1R01 CA25307-01	73,620
WANGENSTEEN, O. DOUGLAS	BLOOD-GAS BARRIER STUDIES IN FETAL & NEONATAL LUNGS	5R01 HD08981-05	31,010
WANGENSTEEN, O. DOUGLAS	BLOOD-GAS BARRIER SOLUTE AND WATER TRANSPORT	5R01 HL21376-03	63,944
WANNAMAKER, LEWIS W.	BIOLOGY OF STREPTOCOCCI	5P01 AI08724-24	271,652
WANNAMAKER, LEWIS W.	DYNAMICS OF STREP ANTIGENS, PHAGES, AND ANTIBODIES	5R01 AI09527-15	108,410
WARNER, HUBER R.	METABOLISM OF DNA	5R01 GM25615-02	57,099
WATSON, DENNIS W.	STREPTOCOCCAL PYROGENIC EXOTOXINS: HOST INTERACTIONS	5R01 AI06487-15	88,089
WATTENBERG, LEE W.	MICROSOMAL INDUCTION AND RESISTANCE TO CARCINOGENS	3R01 CA09599-21S1	59,420
WATTENBERG, LEE W.	INHIBITION OF CHEMICAL CARCINOGENESIS	3R01 CA14146-06S1	13,206
WATTENBERG, LEE W.	INHIBITION OF CHEMICAL CARCINOGENESIS	2R01 CA14146-07	66,818
WATTENBERG, LEE W.	INHIBITION OF NEOPLASIA OF THE LARGE BOWEL	5R26 CA15638-06	106,919
WEAVER, LAWRENCE C.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05634-12	25,766
WEBER, ALVIN F.	PREPARATION OF MAMMALIAN HISTOLOGICAL NOMENCLATURE	2R13 LM00824-10	5,600
WEIR, EDWARD K.	ACTIVE NORMOXIC PULMONARY VASODILATION	5R01 HL23211-02	30,049
WHITE, JAMES G.	STRUCTURAL PHYSIOLOGY & PATHOLOGY OF BLOOD PLATELETS	5R01 HL11880-11	251,878
WHITE, JAMES G.	INVESTIGATIONS OF STORED PLATELETS	5R01 HL20695-03	74,258
WILSMAN, NORMAN J.	THE ROLE OF THE CILIUM IN THE ARTICULAR CHONDROCYTE	1R01 AM25282-01	29,475
WILSON, IVAN D.	IMMUNOLOGIC ASPECTS OF PANETH CELL FUNCTION	5R01 AM19710-03	86,222
WILSON, LEONARD G.	THE CHANGING CONCEPT OF FEVER IN THE 19TH CENTURY	1R01 LM03245-01	27,500
WIRTSCHAFER, JONATHAN D.	ANTERIOR CHAMBER FLUID ACETYLCHOLINE CONCENTRATION	5R01 EY02602-02	39,957
WITKOP, CARL J., JR.	ALBINISM	5P01 GM22167-05	130,122
WITKOP, CARL J., JR.	OCULOCUTANEOUS PIGMENT DEFECTS	9R01 GM24558-07	114,627
WOLD, FINN	PROTEIN STRUCTURE AND FUNCTION	2R01 GM15053-13	122,317
WOOD, JOHN M.	CHEMICAL STUDIES WITH FREE AND BOUND VITAMIN B12	5R01 AM18101-06	67,231
WOODWARD, CLARE K.	SINGLE PROTON EXCHANGE KINETICS IN PROTEINS	1R01 GM26242-01	48,425
WORMS, FRANK W.	QUANTITATION OF JAW FUNCTION	5R01 DE03528-06	106,294
XAVIER, ANTONIO V.	STRUCTURE AND FUNCTION OF PROTEINS IN SULFATE REDUCTION	1R01 GM25879-01	52,638
YUNIS, JORGE J.	TRANSCRIPTIONAL ORGANIZATION OF PROPHASE CHROMOSOMES	1R01 GM26800-01	77,499
ZANJANI, ESMAIL D.	REGULATION OF FETAL AND ADULT ERYTHROPOIESIS	1R01 AM24027-01	40,502
ZANJANI, ESMAIL D.	REGULATION OF CELLULAR PROLIFERATION IN NEOPLASTIC STATE	2R01 CA23021-03	32,408
ZARLING, JOYCE M.	CELLULAR IMMUNITY TO TUMORS AND HERPES INFECTIONS	7R01 CA27477-01	18,713
ZELICKSON, ALVIN S.	PSORALEN-PHOTOTHERAPY OF NORMAL AND PSORIATIC SKIN	5R01 AM21681-02	35,016
ZIMMERMAN, BEN G.	PHARMACOLOGIC AND REFLEX INFLUENCE ON VASCULAR TONE	5R01 HL08570-16	55,124
ORGANIZATION TOTAL	312	30,452,359	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
NORTHFIELD			
ST. OLAF COLLEGE ZIP CODE 55057			
HENDRICKSON, H STEWART	PROTEIN-LIPID INTERACTIONS	2R01 NS11777-06	23,406
ORGANIZATION TOTAL 1	23,406		
ROCHESTER			
INDIVIDUAL AWARD—SIEKERT, ROBERT G. ZIP CODE 55901			
SIEKERT, ROBERT G.	CEREBROVASCULAR RESEARCH STATUS REPORT—5TH EDITION.....	5R01 NS14831-02	13,715
ORGANIZATION TOTAL 1	13,715		
MAYO FOUNDATION ZIP CODE 55901			
ATASSI, M ZOUHAIR	DETERMINATION OF THE ANTIGENIC STRUCTURE OF LYSOZYME	5R01 AI13181-05	52,731
BAKER, HILLIER L, JR	XII SYMPOSIUM NEURORADIOLOGICUM	1R13 NS15989-01	9,245
BLACK, LEO F	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00585-08	479,993
BLACK, LEO F	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05530-17	201,413
BLINKS, JOHN R	CALCIUM TRANSIENTS IN STRIATED MUSCLE AND OTHER CELLS	5R01 HL12186-10	119,300
BOURNE, WILLIAM M.	STUDIES OF THE CORNEA	5R01 EY02037-02	79,755
BOWIE, E J	CONTROL OF COAGULATION	2P01 HL17430-06	608,993
BRIMJOIN, WILLIAM S.	AXONAL TRANSPORT IN ADRENERGIC AND CHOLINERGIC NERVES	5R01 NS11855-08	35,323
BRUBAKER, RICHARD F.	PATHOLOGY OF THE BLOOD-AQUEOUS BARRIER	5R01 EY00634-09	114,875
CHAO, EDMUND Y	FUNCTIONAL FORCES IN NORMAL AND ABNORMAL FINGERS	2R01 AM17172-05A1	98,891
CHESEBRO, JAMES H	PLATELET INHIBITOR DRUG IN CORONARY SURGERY	5R01 HL12533-03	115,650
DAVID, CHELLA S	GENETIC AND SEROLOGY OF H-2(IR)-LINKED IA ANTIGENS	5R01 AI14764-03	103,155
DAVID, CHELLA S	GENETICS & FUNCTIONS OF (H-2 LINKED) I REGION	5R01 CA24473-02	123,093
DEWANJEE, MRINAL K	PLATELET INHIBITORS AND INTIMAL PROLIFERATION	1R01 HL24602-01	114,898
DI MAGNO, EUGENE P	PANCREATIC CARCINOGENESIS: ROLE OF DUODENAL REFLUX	5R26 CA25064-02	78,123
DICKSON, EDGAR R	PRIMARY BILIARY CIRRHOSIS: PENCILLAMINE TRIAL	2R01 AM19448-04	104,422
DONALD, DAVID E	RESPONSE OF THE TOTALLY DENERVATED HEART TO EXERCISE	5R01 HL06143-19	103,925
DOUSA, THOMAS P	CELLULAR ACTION OF VASOPRESSIN IN THE KIDNEY	5R01 AM16105-08	85,391
DYCK, PETER J	PERIPHERAL NEUROPATHY CLINICAL RESEARCH CENTER SUPPORT	5P50 NS14304-02	662,162
ENGEL, ANDREW G	ELECTRON MICROSCOPY OF MYOPATHIES	5R01 NS06277-14	104,274
FUSTER, VALENTIN	ATHEROSCLEROSIS IN BLEEDER AND DRUG TREATED SUBJECTS	3R01 HL19001-03S1	19,652
GERICH, JOHN E	ALPHA AND BETA CELL FUNCTION IN HUMAN DIABETES	5R01 AM20411-03	79,609
GERICH, JOHN E	PANCREATIC SOMATOSTATIN SECRETION IN VITRO	5R01 AM20837-03	84,244
GETZ, MICHAEL J	REGULATION OF MRNA ABUNDANCE	1R01 GM25510-01A1	72,191
GLEICH, GERALD J	THE FUNCTIONS OF EOSINOPHILS	5R01 AI09728-10	76,877
GLEICH, GERALD J	ASTHMA AND ALLERGIC DISEASE CENTER PROGRAM GRANT	3P50 AI11483-06S1	26,518
GLEICH, GERALD J	ASTHMA AND ALLERGIC DISEASE CENTER PROGRAM GRANT	5P50 AI11483-07	197,496
GLEICH, GERALD J	EOSINOPHILS IN HUMAN DISEASE	5R01 AI15231-02	72,612
GREENLEAF, JAMES F	BREAST DIAGNOSIS QUANTITATIVE IMAGING BY ULTRASOUND	1R01 CA24085-01	191,294
GRONERT, G A	GAS EXCHANGE DURING ANESTHESIA AND SURGERY	5R01 GM21729-20	80,815
HAHN, RICHARD G	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA13650-07	145,939
HAHN, RICHARD G	CHEMOTHERAPY OF METASTATIC BLADDER AND KIDNEY CANCER	5R26 CA20247-03	9,056
HARRISON, CARLOS E, JR.	MYOCARDIAL DEFECTS INDUCED BY POTASSIUM DEPLETION	5R01 HL12997-08	91,695
HEATH, HUNTER, III	CONTROL OF PARATHYROID HORMONE AND CALCITONIN SECRETION	5R01 AM19607-02	58,720
HYATT, ROBERT E	RESPIRATORY MECHANICS IN NORMAL AND ABNORMAL STATES	5P01 HL21584-03	699,267
KAYE, MICHAEL P	NERVE GROWTH FACTOR AND OBSTRUCTIVE CARDIOMYOPATHY	3R01 HL20610-02S1	14,313
KAYE, MICHAEL P	PLATELET INHIBITORS: EFFECT ON CORONARY BYPASS GRAFTS	5R01 HL22445-02	133,973
KELLY, KEITH A	MOTILITY OF THE DIGESTIVE TRACT IN HEALTH AND DISEASE	5R01 AM18278-05	75,674
KELLY, PATRICK J	HEMODYNAMIC FACTORS IN FRACTURES AND BONE DISEASE	5R01 AM15980-07	73,947
KERR, FREDERICK W	SYNAPTOLOGY AND ORGANIZATION OF NOCICEPTIVE PATHWAYS	1R01 NS14853-01	85,573
KLINE, BRUCE C	GENETICS OF PLASMID REPLICATION AND INCOMPATIBILITY	5R01 GM25604-02	70,097
KNOX, FRANKLYN G	INTRARENAL REGULATION OF PHOSPHATE METABOLISM	5R01 AM19715-03	79,507
KNOX, FRANKLYN G	INTRARENAL ELECTROLYTE METABOLISM	2R01 HL14133-09	107,699
KOTTKE, BRUCE A	LIPOPROTEINS AND COAGULATION FACTORS IN ATHEROSCLEROSIS	5R01 HL21592-02	202,528
KOTTKE, BRUCE A	INTRACELLULAR STEROL METABOLISM IN ATHEROGENESIS	1R01 HL23465-01	85,490
KOTTKE, BRUCE A	EPIDEMIOLOGY OF ATHEROSCLEROSIS	1R01 HL24489-01	52,516

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
KUMAR, RAJIV	SIDE CHAIN METABOLISM OF 125 DIHYDROXYVITAMIN D3	1R01 AM25409-01	74,938
KURLAND, LEONARD T.	STUDY OF MALES EXPOSED IN UTERO TO DIETHYLSTILBESTROL	1R01 CA25441-01	180,937
KURLAND, LEONARD T.	NATURAL HISTORY OF HEART, CANCER & STROKE-EPIDEMIOLOGY	5P01 GM14231-14	554,058
KURLAND, LEONARD T.	CHD INCIDENCE, MORTALITY, RISK FACTOR RELATIONSHIPS	1R01 HL24326-01	68,231
KYLE, ROBERT A.	CHEMOTHERAPY OF ACUTE LEUKEMIA AND RELATED DISORDERS	3R10 CA04646-19S1	59,565
KYLE, ROBERT A.	CHEMOTHERAPY OF ACUTE LEUKEMIA AND RELATED DISORDERS	2R10 CA04646-20	77,178
KYLE, ROBERT A.	STUDIES OF MONOCLONAL GAMMOPATHIES IN HUMANS	5P01 CA16835-04	144,997
LA RUSSO, NICHOLAS F.	BILIARY EXCRETION OF LYSOSOMAL PROTEIN	1R01 AM24031-01	75,718
LENNON, VANDA A.	EXPERIMENTAL NEUROIMMUNOLOGY	5R01 NS15057-02	116,231
LYNCH, JAMES C.	OCULOMOTOR CONTROL MECHANISMS OF THE CEREBRAL CORTEX	5R01 EY02640-02	71,401
MANN, KENNETH G.	AMINO ACID SEQUENCE—BETA-HYDROXYBUTYRATE DEHYDROGENASE	1R01 GM25000-01	50,023
MANN, KENNETH G.	PRIMARY STRUCTURE OF PROTHROMBIN	2R01 HL16150-06	88,426
MC DUFFIE, FREDERIC C.	IMMUNE COMPLEXES IN RHEUMATOID ARTHRITIS	5R01 AM17174-06	112,027
MC KEAN, DAVID J.	MOLECULAR BASIS OF ANTIBODY FUNCTION AND DIVERSITY	1R01 AI15414-01	45,791
MC KEAN, DAVID J.	CHARACTERIZATION OF PRECURSOR PROTEINS AND FC RECEPTOR	5R01 CA22491-03	75,479
MEYERS, PAUL	TOLERANCE & IMMUNITY TO AVIAN RNA TUMOR VIRUSES & VISA	2R01 CA15494-06A1	93,748
MICHENFELDER, JOHN D.	CEREBRAL METABOLISM AND BLOOD FLOW	5R01 NS07507-13	97,435
MILLER, R. DREW	CHRONIC OBSTRUCTIVE PULMONARY DISEASE—FAMILIAL/GENETIC	5R01 HL20875-03	129,987
MOERTEL, CHARLES G.	COMPREHENSIVE CANCER CENTER SUPPORT	5P30 CA15083-06	722,889
MOSES, HAROLD L.	MECHANISM OF CHEMICAL CARCINOGENESIS IN VITRO	5R01 CA16816-05	96,579
OWEN, CHARLES A.	COPPER METABOLISM IN ANIMALS	5R01 AM21738-02	63,279
PALUMBO, PASQUALE J.	STEROL BALANCE AND CHOLESTEROL ABSORPTION IN DIABETICS	3R01 HL20483-03S1	5,118
PALUMBO, PASQUALE J.	PERIPHERAL ARTERIAL DISEASE IN THE DIABETIC	5R01 HL20522-04	153,981
PEARSON, GARY R.	BIOCHEMISTRY OF HERPES VIRUS-INDUCED MEMBRANE ANTIGENS	5R01 CA20679-03	91,353
PENNISTON, JOHN T.	VACUOLE FORMATION IN HUMAN ERYTHROCYTES AND GHOSTS	5R01 AM19785-04	60,770
PENNISTON, JOHN T.	INTRACELLULAR CA20 RECEPTORS IN ERYTHROCYTES AND TISSUE	5R01 AM21820-02	76,678
POWIS, GARTH	DRUGS AND FLAVOPROTEIN MEDIATED SUPEROXIDE FORMATION	1R01 CA25337-01	50,541
QUALTIERE, LOUIS F.	HUMORAL RESPONSE TO HERPES AND EPSTEIN-BARR VIRUS	1R01 CA24123-01A1	44,334
RITMAN, ERIK L.	CARDIOVASCULAR & LUNG DYNAMICS	5P01 HL04664-19	1,284,727
RITTS, ROY E., JR.	LABORATORY AND CLINICAL STUDY OF LAI IN HUMAN CANCER	1R01 CA26299-01	127,710
ROBB, RICHARD A.	COMPUTER ANALYSES OF BIOSYSTEM STRUCTURES AND FUNCTIONS	5R24 RR00007-16	341,754
ROBERTSON, DENNIS M.	CHORIORETINOPATHY	5R01 EY01709-03	17,639
ROHRBACH, MICHAEL S.	PULMONARY ANGIOTENSIN CONVERTING ENZYME STUDIES	5R23 HL21894-02	37,757
ROMERO, JUAN C.	PATHOGENIC FACTORS IN RENOVASCULAR HYPERTENSION	2R01 HL16496-05	100,760
RORIE, DUANE K.	PULMONARY ARTERY NEUROEFECTOR JUNCTIONS	1R01 HL23217-01A1	82,780
RYAN, ROBERT J.	MODE OF ACTION OF REPRODUCTIVE HORMONES	5P50 HD09140-05	493,051
SCOTT, ROBERT E.	MEMBRANE PATHOLOGY IN CARCINOGENESIS	5R01 CA21722-02	65,490
SERVICE, F. JOHN	GASTRIC INHIBITORY POLYPEPTIDE IN HEALTH AND DIABETES	5R01 AM20973-02	70,873
SHEPHERD, JOHN T.	REFLEX CONTROL OF RESISTANCE AND CAPACITANCE VESSELS	5R01 HL05883-19	174,372
SMITH, LYNNWOOD H.	SPECIALIZED CENTER OF RESEARCH IN UROLITHIASIS	5P50 AM20605-03	234,145
SOUTHRN, PETER A.	EFFECT OF ANESTHESIA ON RESPIRATORY MECHANICS IN ANIMALS	5R23 GM25196-02	38,000
SPELSBERG, THOMAS C.	CARCINOGEN-CHROMATIN INTERACTION IN CULTURED CELLS	5R01 CA22272-02	82,961
SPELSBERG, THOMAS C.	A NEW CLASS OF EPSTEIN-BARR VIRUS NUCLEAR ANTIGEN	1R01 CA25340-01	74,458
STAUFFER, RICHARD N.	BIOMECHANICAL EVALUATION OF TOTAL KNEE ARTHROPLASTY	5R01 AM18029-04	98,326
STEINMULLER, DAVID	CELLULAR AUTOIMMUNITY IN HUMAN SKIN DISEASE	5R01 AM21414-02	77,870
SZURSZEWSKI, JOSEPH H.	GASTROINTESTINAL HORMONES AND GASTRIC SMOOTH MUSCLE	5R01 AM17238-06	88,974
SZURSZEWSKI, JOSEPH H.	NEUROPHYSIOLOGICAL CONTROL OF GI MOTILITY	5R01 AM17632-06	79,442
TAYLOR, STUART R.	EXCITATION-CONTRACTION COUPLING IN MUSCLE	5R01 NS14268-02	42,768
TAYLOR, WILLIAM F.	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	5R10 CA21184-03	146,240
THISTLE, JOHNSON L.	HUMAN GALLSTONES—THERAPEUTIC TRIAL WITH BILE ACIDS	2R01 AM15887-07	69,999
TINKER, JOHN H.	ORGAN PROTECTION: ROLE OF ANESTHETICS	5R23 GM24531-02	37,260
TOFT, DAVID O.	INTERACTION OF PROGESTERONE RECEPTOR WITH ATP	5R01 AM20214-02	57,738
TOFT, DAVID O.	BIOCHEMICAL ACTION OF STEROID HORMONES IN EUKARYOTES	1R01 AM25625-01	70,714
TOMASI, THOMAS B., JR.	IGA OF SERUM GLOBULINS AND EXTERNAL SECRECTIONS	5R01 AM17554-06	155,882
TYCE, GERTRUDE M.	METABOLISM OF AROMATIC AMINES AFTER HEPATECTOMY	2R01 NS09143-07A1	67,723
VAN DYKE, RUSSELL A.	METABOLISM OF VOLATILE ANESTHETICS	2R01 GM17158-09	118,418
VENEZIALE, CARLO M.	HORMONAL REGULATION OF GLUCONEOGENESIS IN HEPATOCYTES	3R01 AM16319-05S1	4,400
VENEZIALE, CARLO M.	GUINEA PIG SEMINAL VESICLE EPITHELIUM: ANDROGEN ACTION	1R01 HD12657-01	113,411
WEINSHILBOUM, RICHARD M.	ADRENERGIC VASOREGULATORY INTERACTIONS IN HYPERTENSION	5R01 HL17487-05	47,928
WEINSHILBOUM, RICHARD M.	BIOCHEMICAL GENETICS OF NEUROTRANSMITTER SYSTEMS	2R01 NS11014-05	81,542

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
WHISNANT, JACK P.....	CEREBROVASCULAR CLINICAL RESEARCH CENTER.....	3P50 NS06663-13S1	55,220
YAKSH, TONY L.....	IN VIVO RELEASE OF SUBSTANCE P FROM SPINAL CORD.....	5R01 NS14629-02	53,276
ORGANIZATION TOTAL	108 14,458,214		
SAINT PAUL			
RAMSEY COUNTY WELFARE DEPARTMENT-ST. PAUL-RAMSEY HOSPITAL AND MEDICAL CENTER		ZIP CODE 55101	
FREY, WILLIAM H, II.....	THE ROLE OF GTPASE IN HUMAN BRAIN.....	5R01 NS14583-02	57,526
ORGANIZATION TOTAL	1 57,526		
UNITED HOSPITALS		ZIP CODE 55102	
EDWARDS, JESSE E.....	FUNCTIONAL PATHOLOGY OF CARDIOVASCULAR DISEASE.....	5R01 HL05694-21	113,398
ORGANIZATION TOTAL	1 113,398		
STATE TOTAL	429 45,465,494		
MISSISSIPPI			
HATTIESBURG			
UNIVERSITY OF SOUTHERN MISSISSIPPI		ZIP CODE 39401	
TOOM, PAUL M.....	STUDY OF TOXIN FROM A JELLYFISH MODEL.....	5R01 ES00858-06	35,083
YARBROUGH, KAREN M.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09083-02	113,670
ORGANIZATION TOTAL	2 148,753		
HOLLY SPRINGS			
MISSISSIPPI INDUSTRIAL COLLEGE		ZIP CODE 38635	
DRUMMOND, LARRY.....	CADMIUM, LEAD SELENIUM, COBALT-IRON INTERACTION STUDY.....	2S06 RR08133-04	56,984
ORGANIZATION TOTAL	1 56,984		
JACKSON			
JACKSON STATE UNIVERSITY		ZIP CODE 39217	
SPANN, CHARLES H.....	BIOMEDICAL SCIENCES SUPPORT (INTERDISCIPLINARY).....	5S06 RR08047-09	582,554
ORGANIZATION TOTAL	1 582,554		
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER		ZIP CODE 39216	
BERNDT, WILLIAM O.....	NEPHROTOXIC EFFECTS OF ENVIRONMENTAL MYCOTOXINS.....	5R01 ES01643-02	51,650
BYERS, BENJAMIN R.....	IRON METABOLISM IN CULTURED HEART CELLS.....	1R01 AM26163-01	40,638
BYERS, BENJAMIN R.....	TRACE METAL UPTAKE IN CARIOGENIC STREPTOCOCCUS MUTANS.....	1R01 DE04903-01A1	37,579
BYERS, BENJAMIN R.....	MICROBIAL IRON TRANSPORT.....	5R01 GM23778-08	53,083
CASE, STEVEN T.....	THE ORGANIZATION AND EXPRESSION OF CHROMOMERES.....	1R01 GM26362-01	70,903
CLEM, LESTER W.....	THE MOLECULAR BASIS OF IMMUNITY IN INVERTEBRATES.....	7R01 AI16927-01	51,140
COWLEY, ALLEN W, JR.....	QUANTIFICATION OF ARTERIAL PRESSURE CONTROL.....	5R01 HL14306-08	55,150
CUCHENS, MARVIN A.....	THE IMMUNOREGULATORY ROLE OF IGD.....	7R23 CA28046-01	30,915
GAFFORD, LANELLE G.....	BIOCHEMISTRY OF FOWLPOX REPLICATION AND HYPERPLASIA.....	2R01 AI02031-21	66,147
GATIPON, GLENN B.....	ANALGESIC IONTOPHORESIS ON CNS PAIN PATHWAYS.....	5R01 NS14147-02	60,589
GENTRY, GLENN A.....	ORAL HERPES SIMPLEX: AN APPRGACH TO DENTAL THERAPY.....	1R01 DE05089-01	84,337
GROGAN, JAMES B.....	ANTERIOR CHAMBER IMPLANTS AND TRANSPLANTATION IMMUNOLOGY.....	5R01 AI09588-08	65,297
GUYTON, ARTHUR C.....	CARDIOVASCULAR DYNAMICS AND THEIR CONTROL.....	5P01 HL11678-12	499,827
HALL, JOHN E.....	HORMONAL CONTROL OF RENAL FUNCTION.....	1R01 HL23502-01	30,833
HAYES, A WALLACE.....	THE EFFECTS OF RUBRATOXIN B ON MAMMALIAN SYSTEMS.....	5R01 ES01351-05	15,844
HAYES, A WALLACE.....	TERATOGENICITY OF ENVIRONMENTAL MYCOTOXINS.....	1R01 ES02191-01	82,228
HO, ING-KANG.....	MECHANISMS OF NEUROTOXICITY INDUCED BY KEPONE AND MIREX.....	5R01 ES01899-02	55,139
HUNT, RICHARD C.....	PLASMA MEMBRANE SYNTHESIS IN FRIEND LEUKEMIC CELLS.....	1R01 CA26103-01	47,109
JACKSON, JOHN F.....	SPINOCEREBELLAR ATAXIA LINKAGE TO HLA AND OTHER LOCI.....	2R01 NS13279-03	24,152

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSISSIPPI—Continued			
MC CA, ROBERT E.....	MECHANISMS RELATED TO CONGESTIVE HEART FAILURE.....	5R01 HL09921-14	97,561
MEHENDALE, HARIHARA M.....	MODIFICATION OF BILIARY EXCRETION BY TOXIC CHEMICALS.....	5R01 ES01369-02	68,926
MEHENDALE, HARIHARA M.....	PULMONARY UPTAKE AND ACCUMULATION OF DRUGS.....	5R01 HL20622-03	57,276
MORRISON, FRANCIS S.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA16385-05	132,074
NELSON, NORMAN C.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00626-07A1	124,432
NELSON, NORMAN C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05386-18	106,835
O'CALLAGHAN, DENNIS J.....	STUDY OF NUCLEIC ACIDS OF HERPES VIRUS-INFECTED CELLS.....	2R01 AI02032-22A1	85,811
PULLEN, D JEANETTE.....	SOUTHWEST ONCOLOGY GROUP, PEDIATRIC DIVISION.....	2R10 CA15989-05A1	77,803
SAUER, BARRY W.....	POROUS POLYETHYLENE-TISSUE TRACHEAL PROSTHESIS.....	1R01 GM26963-01	44,299
SLOBIN, LAWRENCE I.....	CONTROL OF POLYPEPTIDE CHAIN ELONGATION IN EUKARYOTES.....	5R01 GM25434-02	65,408
SRIDHARA, S.....	GENE ACTIVITY DURING INSECT METAMORPHOSIS.....	7R01 GM26549-01	55,603
THIGPEN, JAMES T.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA13633-08	98,027
THIGPEN, JAMES T.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA19541-01A2	87,309
WAHBA, ALBERT J.....	PROTEIN SYNTHESIS IN PROKARYOTES AND EUKARYOTES.....	5R01 GM25451-02	62,743
WATSON, ROBERT L.....	BLOOD PRESSURE-PRECURSORS AND CONSEQUENCES.....	5R01 HL19858-04	160,812
WILKINSON, J SIDNEY.....	RADIOIMMUNOASSAY OF ANGIOTENSINOGEN.....	2R01 HL18561-04	56,304
YOUNG, DAVID B.....	CONTROL, CARDIOVASCULAR & RENAL EFFECTS OF POTASSIUM.....	5R01 HL21435-03	31,639
ORGANIZATION TOTAL	36 2,835,422		
LORMAN			
ALCORN STATE UNIVERSITY	ZIP CODE 39096		
PARKER, HENRY L.....	ROLE OF ANTICOAGULANTS IN IMMUNOCHEMISTRY OF CELLULASE.....	5S06 RR08095-08	110,418
ORGANIZATION TOTAL	1 110,418		
MISSISSIPPI STATE			
MISSISSIPPI STATE UNIVERSITY	ZIP CODE 39762		
BLAIR, WILLIAM D.....	STUDIES OF CERVICAL MUSCULAR ACTIVITY IN THE BABOON.....	5R01 HD12382-02	68,148
CHAMBERS, JANICE E.....	NEUROPHARMACOLOGY OF CHLORINATED ALICYCLIC COMPOUNDS.....	1R01 NS14905-01	61,990
GLICK, BRUCE.....	IMMUNOGLOBULINS OF BURSECTOMIZED CHICKENS.....	3R01 AI11894-05S1	5,402
GLICK, BRUCE.....	LONG-LIVED LYMPHOCYTES AND SECRETORY BURSAL CELLS.....	2R01 CA20169-04	23,360
LEI, K Y.....	ORAL CONTRACEPTIVES: EFFECT ON VITAMIN C METABOLISM.....	5R01 HD10958-02	24,095
ORGANIZATION TOTAL	5 182,995		
TOUGALOO			
TOUGALOO COLLEGE	ZIP CODE 39174		
SRINIVASAN, ASOKA.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08110-08	112,711
ORGANIZATION TOTAL	1 112,711		
UNIVERSITY			
UNIVERSITY OF MISSISSIPPI	ZIP CODE 38677		
GILMORE, W FRANKLIN.....	NOVEL A-AMINO SULFONAMIDES-AMINO ACID ANTIMETABOLITES.....	1R01 NS14898-01	58,136
HUFFORD, CHARLES D.....	ANTITUMOR AGENTS FROM SELECTED AFRICAN PLANTS.....	5R01 CA15590-05	51,235
ORGANIZATION TOTAL	2 109,371		
STATE TOTAL	49 4,139,208		
MISSOURI			
COLUMBIA			
CANCER RESEARCH CENTER	ZIP CODE 65201		
BERKELHAMMER, JANE.....	SWINE MELANOMA: IN VITRO GROWTH AND IN VIVO PATHOLOGY.....	1R01 CA25718-01	77,256
DOSS, LARRY.....	RADIATION THERAPY ONCOLOGY GROUP.....	1R10 CA22486-01A1	97,132

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
JOHNSTON, WILLIAM D	CLINICAL CANCER EDUCATION-MEDICAL	2R25 CA17946-04	155,804
MENGEL, CHARLES E	SPECIALIZED MULTIDISCIPLINARY CANCER CENTER	3P01 CA08023-13S1	180,877
PAPERMASTER, BEN W	LYMPHOKINE MEDIATED TUMOR IMMUNOTHERAPY	5R01 CA25740-02	101,721
PAPERMASTER, BEN W	MOUSE TUMOR ASSAYS FOR LYMPHOKINE IMMUNOTHERAPY	1R01 CA26224-01	87,995
ORGANIZATION TOTAL	6 700,785		
EYE RESEARCH FOUNDATION ZIP CODE 65201			
WALKENBACH, RONALD J	CONTROL OF CORNEAL PHYSIOLOGY BY CYCLIC NUCLEOTIDES	5R01 EY02597-02	80,519
ORGANIZATION TOTAL	1 80,519		
UNIVERSITY OF MISSOURI-COLUMBIA ZIP CODE 65201			
BARBERO, GIULIO J	MUCUS ABNORMALITY IN CYSTIC FIBROSIS	5P50 HL19160-03	188,858
BARR, RONALD E	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07053-14	64,050
BRUNNGRABER, ERIC G	CARBOHYDRATE-CONTAINING MACROMOLECULES IN AGING BRAIN	1R01 AG00803-01	26,374
BURNS, ROBERT P	HEREDITARY CATARACT IN PEROMYSCUS	1R01 EY03283-01	7,500
BURNS, THOMAS W	HUMAN ADIPOSE TISSUE: REGULATION OF FAT MOBILIZATION	5R01 AM11265-11	61,413
CAMPBELL, BENEDICT J	CHARACTERIZATION OF KIDNEY PEPTIDASES	2R01 AM08511-14A1	29,497
CAMPBELL, BENEDICT J	IMMUNOBIOCHEMISTRY OF LOXOSCELES RECLUSA VENOM	5R01 ES00598-07	37,907
CARNES, DAVID L, JR	PARATHYROID AND VITAMIN D CONTROL OF BONE AND KIDNEY	5R23 DE04601-03	12,346
COOPERSTOCK, MICHAEL S	PATHOGENESIS OF NEONATAL ENDOTOXEMIA	5R23 AI14552-02	40,107
DAVID, JOHN D	STRUCTURE AND ACTIVITY OF MYOSIN HEAVY CHAIN GENE	5R01 GM25162-02	48,367
DAVIS, JAMES O	HUMORAL FACTORS IN HYPERTENSION AND HEART FAILURE	5R01 HL10612-14	151,018
FEENEY, LYNETTE	SYNTHESIS AND PHAGOCYTOSIS IN OCULAR NEUROEPITHELIA	3R01 EY03274-01S1	92,363
FINKELSTEIN, RICHARD A	THE CRITICAL ROLE OF IRON IN GONOCOCCAL VIRULENCE	7R01 AI16764-01	54,304
FINKELSTEIN, RICHARD A	ESCHERICHIA COLI DIARRHEAGENIC ENTEROTOXIN(S)	1R22 AI16776-01	60,000
FORTE, LEONARD R	MOLECULAR PHARMACOLOGY OF RENAL PLASMA MEMBRANES	5R01 AM14787-10	74,409
GAYLOR, JAMES L	STEROL BIOSYNTHESIS	5R01 AM02136-03	90,929
GOLDBERG, HERBERT S	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05387-18	123,918
GOLDSTEIN, DAVID E	VASCULAR CHANGES IN DIABETES MELLITUS	2R01 HL13632-09	81,308
GRIGGS, DOUGLAS M, JR	REGIONAL MYOCARDIAL BLOOD FLOW AND METABOLISM	2R01 HL1876-12	93,969
HARRIS, PATRICK D	MICROCIRCULATORY CONTROL MECHANISMS AND HYPERTENSION	5R01 HL12614-10	73,197
HEIMBERG, MURRAY	REGULATORY MECHANISMS IN LIPID METABOLISM	5R01 HL25800-06	174,851
HENRY, PATRICK H	CANCER AND LEUKEMIA GROUP B	2R10 CA12046-09	136,240
HEWETT, JOHN E	COMPARING GROUPS WHEN PREDICTOR VARIABLES ARE PRESENT	1R01 GM26576-01	14,997
JENG, INGMING	STUDIES OF THE CATABOLISM OF PLASMA LIPOPROTEINS	7R01 HL25817-01	37,213
JOHNSON, JOSEPH A	MECHANISMS IN EXPERIMENTAL HYPERTENSION	5R01 HL17366-06	53,428
JONES, ALLAN W	HYPERTENSIVE MECHANISMS AND VASCULAR ION EXCHANGE	5R01 HL15852-07	56,599
KAUSLER, DONALD H	ADULT AGE DIFFERENCES IN AUTOMATIC MEMORY PROCESSES	1R01 AG01485-01	33,260
KNOWLES, CHARLES O	METABOLISM AND MODE OF ACTION OF ACARICIDE CHEMICALS	5R01 ES01316-03	43,283
KUNTZ, ROBERT R	FREE RADICAL REACTIONS IN MODEL BIOLOGICAL SYSTEMS	5R01 AG00200-03	30,131
LOBECK, CHARLES C, JR	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	2M01 RR00287-13	508,433
LOEPKY, RICHARD N	NITROSAMINE FRAGMENTATION AND NITROSAMINE CARCINOGENESIS	5R01 CA22289-03	40,127
LOWER, WILLIAM R	DETECTION OF CARCINOGENS WITH ZEA AND TRADESCANTIA	1R01 CA23387-01A1	35,813
MARTINEZ, J RICARDO	METABOLIC & SECRETORY INTERACTIONS IN EXOCRINE GLANDS	3R01 AM18150-03S1	8,637
MORRIS, STEVEN J	TRACE-ELEMENT EXPOSURE FROM HUMAN MILK AND FORMULAE	1R01 HD12464-01	41,055
MULLEN, HELEN B	CELLULAR AND GENETIC REGULATION OF AUTOIMMUNE DISEASE	9R01 AI16350-04	55,481
MULLEN, HELEN B	CELLULAR MECHANISMS REGULATING ANTIBODY PRODUCTION	5R01 CA25054-05	38,037
O'DELL, BOYD L	TRACE ELEMENTS IN NUTRITION	5R01 HL11614-12	87,602
ORTWERTH, BERYL J	MODIFICATION OF tRNA 1/4YS CONTROLS CELL PROLIFERATION	1R01 CA26423-01	74,701
ORTWERTH, BERYL J	LENS INHIBITOR PROTEINS AND CATARACTOGENESIS	5R01 EY02035-03	54,229
RIDDLE, DONALD L	DEVELOPMENTAL GENETICS OF THE C. ELEGANS DAUER LARVA	5R01 HD11239-03	37,760
ROBBINS, JEFFREY	MECHANISMS OF CELLULAR CONTROL DURING MYOGENESIS	1R01 HD13225-01	72,157
SALTHOUSE, TIMOTHY A	AGE, EXPERIENCE, AND PERCEPTUAL-MOTOR PERFORMANCE	1R01 AG00694-01A1	38,447
SCHMITZ, KENNETH S	CONFORMATION OF CHROMATIN MULTIMERS IN SOLUTION	5R01 GM24346-03	53,773
SCHROEDER, FRIEDHELM	MEMBRANE LIPID ASYMMETRY IN A TUMORIGENIC CELL LINE	5R01 CA24339-02	47,952
SCHUDER, JOHN C	INDUCTIVE PROBE IN VIVO MEASUREMENTS OF SIGMA & EPSILON	5R01 GM22506-04	37,058
SCHUDER, JOHN C	WAVEFORM DEPENDENCY IN DEFIBRILLATING 100 KG CALVES	5R01 HL18040-05	46,264
SCHUDER, JOHN C	DEVELOPMENT OF AUTOMATIC IMPLANTED DEFIBRILLATOR	5R01 HL21674-02	74,787
SHARP, GORDON C	NUCLEAR ANTIGEN IMMUNE MECHANISMS IN POLYMYOSITIS	5R01 AM20305-03	30,467
SHARP, GORDON C	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20658-02	246,209

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
SHERMAN, LOUIS A.....	GENETICS AND PHOTOSYNTHESIS IN BLUE-GREEN ALGAE.....	5R01 GM21827-05	66,119
SILVER, DONALD.....	SURGICAL VASCULAR DISORDERS.....	5R01 HL18815-04	91,689
SMITH, GEORGE P.....	MOLECULAR GENETICS OF NEMATODE DEVELOPMENT.....	5R01 GM25626-02	33,488
STARK, WILLIAM S.....	NORMAL AND ANOMALOUS VISUAL RECEPTOR FUNCTION.....	7R01 EY03408-01	25,921
STOUT, SAMUEL D.....	HISTOMORPHOMETRIC STANDARDS FOR HUMAN CORTICAL BONE.....	1R01 AM22118-01	13,790
SUN, ALBERT Y.....	CHLORINATED WATER AND MEMBRANE FUNCTIONS AND NEOPLASIA.....	1R01 CA26586-01	67,341
THAWLEY, DAVID.....	ZINC AND CADMIUM INTERFERENCE WITH LEAD EXPOSURE TESTS.....	5R01 ES01889-02	40,526
VORBECK, MARIE L.....	MITOCHONDRIAL STRUCTURE AND FUNCTION IN AGING.....	5R01 AG00590-03	40,625
WAGNER, JOSEPH E.....	RESEARCH ANIMAL DIAGNOSTIC LABORATORY.....	5P40 RR00471-11	144,203
WANG, RICHARD J.....	MITOSIS AND MITOTIC ARREST IN MAMMALIAN CELLS.....	5R01 GM21305-05	60,309
WEINSTEIN, IRA.....	ESTROGEN-GLUCAGON INTERACTIONS IN HEPATIC METABOLISM.....	1R01 HD12959-01	70,826
WHITE, ARNOLD A.....	BIOCHEMICAL PHARMACOLOGY OF GUANYLATE CYCLASE IN LUNG.....	5R01 HL15002-08	32,709
WIEGMAN, DAVID L.....	HYPERTENSION, MICROVASCULAR CONTROL AND EXERCISE.....	5R23 HL21901-02	43,010
WILCOX, HENRY G.....	REGULATION OF HEPATIC PRODUCTION OF HDL.....	5R01 HL22812-02	63,337
WOSILAIT, WALTER D.....	FACTORS AFFECTING THE ACTION OF ANTICOAGULANTS.....	5R01 HL15698-13	51,914
ZAHLER, WARREN L.....	PROPERTIES AND REGULATION OF SPERM ADENYLATE CYCLASE.....	1R01 HD12305-01	55,346
ZATZMAN, MARVIN L.....	CARDIOVASCULAR AND RENAL FUNCTIONS OF MARMOTS.....	5R01 HL17847-05	40,540
ZGUTA, RUSSELL.....	RUSSIAN MEDICINE: PRE-KIEVAN TIMES TO THE BLACK DEATH.....	3R01 LM03163-01S1	6,923
ORGANIZATION TOTAL	67 4,569,441		
KANSAS CITY			
KANSAS CITY COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 64124			
HALL, L RAYMOND.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17933-05	53,734
ORGANIZATION TOTAL	1 53,734		
MIDWEST RESEARCH INSTITUTE ZIP CODE 64110			
COHEN, HARVEY D.....	TEMPERATURE BIOFEEDBACK: A DOUBLE-BLIND EVALUATION.....	1R01 NS14650-01	84,500
GRAHAM, CHARLES.....	BASIC STUDIES IN BIOFEEDBACK.....	1R01 GM26504-01	85,534
GRANDJEAN, CARTER J.....	DIALYLNITROSAMINE CARCINOGENESIS: SPECIES DIFFERENCES.....	7R01 CA27934-01	91,610
GREENE, FRANK T.....	TECHNIQUES FOR LCMS OF NONVOLATILE COMPOUNDS.....	5R01 GM24338-02	80,937
ORGANIZATION TOTAL	4 342,581		
ST. LUKE'S HOSPITAL ZIP CODE 64111			
GOETZ, KENNETH L.....	ATRIAL RECEPTORS.....	5R01 HL13623-09	50,800
ORGANIZATION TOTAL	1 50,800		
UNIVERSITY OF MISSOURI-KANSAS CITY ZIP CODE 64110			
EL ATTAR, TAWFIK M.....	PROSTAGLANDINS, CYCLIC AMP AND STEROIDS IN GINGIVA.....	5R01 DE04276-03	65,438
HUMPHREY, LOREN J.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19343-04	57,956
ORGANIZATION TOTAL	2 123,394		
KIRKSVILLE			
KIRKSVILLE COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 63501			
AWAD, ATIF B.....	ROLE OF FATTY ACIDS IN MEMBRANE FUNCTIONAL PROPERTIES.....	5R01 CA21857-02	21,658
CENEDELLA, RICHARD J.....	A NEW ANIMAL MODEL FOR CATARACTS: STUDY OF MECHANISM.....	5R01 EY02568-02	26,169
DENSLAW, JOHN S.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09130-02	98,145
ISAAK, DALE D.....	THYMUS-DETERMINED RECOGNITION OF SELF H-2 BY T CELLS.....	1R01 AI16226-01	34,400
THEOBALD, ROBERT J, JR.....	PURINERGICS AS INHIBITORS OF THE URINARY BLADDER.....	5R01 AM21465-02	9,787
TOWNS, LEX C.....	ANATOMICAL INTERCONNECTIONS OF RABBIT VISUAL SYSTEM.....	5R01 EY02285-02	33,129
WILLINGHAM, ALLAN K.....	THE MECHANISM OF ACTION OF VITAMIN K.....	5R01 HL20577-04	30,932
ZEPP, EDWIN A.....	ENDOCRINE FACTORS IN CANCER-INDUCED LIPOLYSIS.....	1R01 CA24228-01A1	29,627
ORGANIZATION TOTAL	8 283,847		
NORTHEAST MISSOURI STATE UNIVERSITY ZIP CODE 63501			
CORNELL, ROBERT P.....	INSULIN AND HEPATIC MACROPHAGES.....	5R01 AM22102-02	24,104
ORGANIZATION TOTAL	1 24,104		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
NORMANDY			
UNIVERSITY OF MISSOURI-ST. LOUIS	ZIP CODE 63121		
MURRAY, ROBERT W.....	OZONE CHEMISTRY AND CHEMICAL CARCINOGENESIS.....	1R01 ES01984-01	65,840
ORGANIZATION TOTAL	1	65,840	
ROLLA			
UNIVERSITY OF MISSOURI-ROLLA	ZIP CODE 65401		
DAY, DELBERT E.....	DEGRADATION OF ORTHOPEDIC ALUMINA BY CA SEGREGATION.....	1R01 AM21834-01A1	50,089
ORGANIZATION TOTAL	1	50,089	
SAINT LOUIS			
CENTRAL INSTITUTE FOR THE DEAF	ZIP CODE 63110		
HIRSH, IRA J.....	AUDITORY COMMUNICATION AND ITS DISORDERS.....	5P50 NS03856-17	753,887
ORGANIZATION TOTAL	1	753,887	
JEWISH HOSPITAL OF ST. LOUIS	ZIP CODE 63110		
AVIOLI, LOUIS V.....	BONE METABOLISM IN CHRONIC DISORDERS.....	5R01 AM11674-13	124,256
AVIOLI, LOUIS V.....	RENAL FUNCTION OF BONE METABOLISM.....	5R01 AM20521-03	107,036
BERGER, NATHAN A.....	POLY(ADPR) POLYMERASE INHIBITORS IN CANCER THERAPY.....	5R01 CA24986-02	54,555
BERGER, NATHAN A.....	POLY (ADPR) IN GENETIC DISORDERS OF DNA REPAIR.....	1R01 GM26463-01	107,227
BIRGE, STANLEY J.....	REGULATION OF CALCIUM AND PHOSPHORUS TRANSPORT.....	5R01 AM14571-08	54,780
CAMPBELL, EDWARD J.....	MACROPHAGES AS MODULATORS OF PULMONARY INFLAMMATION.....	1R23 HL24265-01	44,181
CATALONA, WILLIAM J.....	SUPPRESSOR CELL ACTIVITY IN BLADDER CANCER PATIENTS.....	5R26 CA23855-02	80,086
CATALONA, WILLIAM J.....	IMMUNOLOGIC CHARACTERIZATION/PROSTATIC ADENOCARCINOMA.....	5R26 CA25792-02	58,086
DEUEL, THOMAS F.....	ENZYME REGULATION IN NORMAL NEOPLASTIC CELLS.....	3R01 CA22409-02S1	35,085
DEUEL, THOMAS F.....	BIOCHEM OF PLATELET FUNCTION IN THROMBOSIS & CELL GROWTH.....	5R01 HL22119-02	123,694
GRAFF, RALPH J.....	MEMBRANE ANTIGEN LOCI OF CHROMOSOME 7.....	2R01 AI07437-12A1	68,985
HADDAD, JOHN G, JR.....	TRANSPORT AND QUANTITATION OF VITAMIN D STEROLS.....	2R01 AM14570-09	95,434
HAHN, THEODORE J.....	ANTICONVULSANT, DRUG-INDUCED MINERAL DISORDERS.....	5R01 NS10262-08	67,825
HICKMAN, SCOT G.....	SURFACE IGM OF MALIGNANT LYMPHOCYTES AND PLASMA CELLS.....	5R01 CA25044-02	64,546
KAPP-PIERCE, JUDITH A.....	MODE OF ACTION OF H-LINKED IMMUNE RESPONSE (IR) GENES.....	5R01 AI13987-03	71,060
PECK, WILLIAM A.....	REGULATION OF BONE CELL PROLIFERATION AND FUNCTION.....	5R01 AM19855-04	129,387
PECK, WILLIAM A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05491-17	72,909
PIERCE, CARL W.....	CELL INTERACTIONS IN IMMUNE RESPONSES IN VITRO.....	5R01 AI13915-04	125,123
PIERCE, CARL W.....	LYMPHOCYTE BIOLOGY, THE MHC AND IMMUNE REGULATION.....	1R01 AI15353-01	536,044
THOMAS, DAVID W.....	T LYMPHOCYTE AND MACROPHAGE INTERACTIONS.....	5R01 AI14226-03	83,672
WILNER, GEORGE D.....	FIBRINOGEN PROTEOLYSIS IN HEMOSTASIS AND THROMBOSIS.....	1R01 HL22642-01	66,636
ORGANIZATION TOTAL	21	2,170,607	
ST. LOUIS CITY HEALTH AND HOSPITALS DEPARTMENT	ZIP CODE 63104		
NICHOLAS, HAROLD J.....	ISOPRENOID METABOLISM IN THE CENTRAL NERVOUS SYSTEM.....	1R01 NS13413-01A3	66,949
ORGANIZATION TOTAL	1	66,949	
ST. LOUIS UNIVERSITY	ZIP CODE 63103		
BELLONE, CLIFFORD J.....	IDIOTYPES: THEIR ROLE IN RECOGNITION AND REGULATION.....	2R01 AI13115-04	61,327
BOSE, SUBIR K.....	THE BIOLOGY OF CHLAMYDIA TRACHOMATIS INFECTION.....	7R01 AI16577-01	110,435
CHALLONER, DAVID R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05388-18	141,904
CHINNADURAI, GOVINDASWAMY.....	IN VITRO CONSTRUCTION OF TS MUTANTS OF ADENOVIRUS 2.....	1R23 AI15559-01	36,836
COCKRELL, RONALD S.....	METABOLIC REGULATION IN NEOPLASMS BY CATION TRANSPORT.....	5R01 CA11766-08	76,986
COSCIA, CARMINE J.....	L-3,4-DIHYDROXYPHENYLALANINE METABOLISM.....	2R01 NS12342-04A1	61,538
DUNN, ROBERT C, JR.....	A STUDY OF THE CORTICOTRIGEMINAL PROJECTION.....	1R01 NS15622-01	53,032
ELICEIRI, GEORGE L.....	CONTROL MECHANISMS IN HUMAN TUMOR CELLS—SMALL RNAs.....	5R01 CA20683-03	65,015
ELICEIRI, GEORGE L.....	RNA METABOLISM IN NORMAL AND MALIGNANT GROWTH.....	2R01 GM22463-04	91,293
ELLIOTT, WILLIAM H.....	ROLE OF BILE ACIDS IN ETIOLOGY OF LARGE BOWEL CANCER.....	5R26 CA16375-06	75,600
ELLIOTT, WILLIAM H.....	METABOLISM OF NEUTRAL STEROLS.....	5R01 HL07878-17	124,899
FEIR, DOROTHY J.....	PROLONGED EXPOSURE TO FOUR LEVELS OF AIR POLLUTANTS.....	5R01 ES01361-03	40,192

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
FISCHER, VERNON W.....	MYOCARDIAL MICROVASCULATURE IN DIABETES MELLITUS.....	1R01 AM21207-01A2	42,303
FITCH, COY D.....	METABOLIC ADAPTATION OF MUSCLE: THE NEED FOR CREATINE.....	5R01 AM16623-06	57,907
GERARD, GARY F.....	MAMMALIAN RNA TUMOR VIRUS REVERSE TRANSCRIPTION.....	5R01 CA20335-02	74,858
GOLD, ALVIN H.....	GLYCOGEN SYNTHETASE IN DEVELOPING LIVER.....	5R01 HD07788-05	41,065
GRANDGENETT, DUANE P.....	AVIAN RNA TUMOR VIRUS DNA SYNTHESIS AND ITS REGULATION.....	2R01 CA16312-06	75,653
GREEN, MAURICE.....	BIOCHEMISTRY OF ANIMAL VIRUS MULTIPLICATION.....	5R01 A01725-22	173,551
GREEN, MAURICE.....	REPLICATION OF RNA TUMOR VIRUSES.....	3R01 CA19996-03S1	16,742
GREEN, MAURICE.....	REPLICATION OF RNA TUMOR VIRUSES.....	2R01 CA19996-04	89,135
GREEN, MAURICE.....	TRANSFORMING PROTEINS OF THREE HUMAN ADENOVIRUS GROUPS.....	5R01 CA21824-03	90,310
GREEN, MAURICE.....	SPECIALIZED CANCER CENTER (CORE) GRANT.....	1P30 CA25843-01	206,136
HERTELENDY, FRANK.....	ROLE OF PROSTAGLANDINS IN AVIAN REPRODUCTION.....	2R01 HD09763-04	87,895
HIRSCHBERG, CARLOS B.....	GLYCOSYLATION MECHANISMS OF CELL LIPIDS AND PROTEINS.....	5R01 CA17015-05	68,967
HIRSCHBERG, CARLOS B.....	METABOLISM AND FUNCTION OF SPHINGOLIPIDS.....	2R01 NS12827-04	47,599
KAPLAN, ARNOLD.....	BIOCHEMISTRY OF ENZYME PINOCYTOSIS.....	5R01 AM21424-02	73,705
KIM, YEE S.....	PATHOGENESIS OF FETAL MACROSOMIA IN MATERNAL DIABETES.....	5R01 HD11614-02	41,271
KLEIN, CLAUDETTE.....	BIOGENESIS OF A CHEMOTACTIC SYSTEM IN D. DISCOIDEUM.....	5R01 GM25080-02	68,473
KLEIN, CLAUDETTE.....	PROCESSING OF THE CHEMOTACTIC SIGNAL IN D. DISCOIDEUM.....	1R01 GM26349-01	56,964
LAGUNOFF, DAVID.....	MAST CELL GRANULES: STRUCTURE AND SECRETION.....	7R01 HL25402-01	58,898
LAMBOWITZ, ALAN M.....	BIOGENESIS OF MITOCHONDRIA IN NEUROSPORA.....	5R01 GM23961-03	69,695
LAMBOWITZ, ALAN M.....	RNA SPLICING IN NEUROSPORA MITOCHONDRIA.....	1R01 GM26836-01	69,847
LEE, JAMES C.....	PHYSICAL STUDIES OF PROTEIN INTERACTIONS.....	1R01 AM21489-01A1	49,100
LEE, JAMES C.....	BIOPHYSICAL STUDIES OF TUBULIN-LIGAND INTERACTIONS.....	1R01 NS14269-01A1	62,454
LICHTENSTEIN, JACK R.....	HERITABLE DISEASES OF COLLAGEN METABOLISM.....	5R01 AM21733-03	104,667
LONGMORE, WILLIAM J.....	REGULATION OF LIPID METABOLISM IN THE LUNG.....	5R01 HL13405-10	77,274
LOZERON, HOMER A.....	RNA PROCESSING IN THE DEVELOPMENT OF BACTERIOPHAGE.....	5R01 GM25579-02	99,002
MARR, J JOSEPH.....	PURINE METABOLISM IN PATHOGENIC HEMOFAGELLATES.....	1R01 A15663-01	86,632
MARRS, BARRY L.....	THE REGULATION OF BACTERIAL MEMBRANE FORMATION.....	5R01 GM20173-07	55,020
MARTONOSI, ANTHONY N.....	STUDIES ON SARCOPLASMIC RETICULUM AND MYOSIN.....	5R01 AM18117-12	46,348
MEDOFF, JUDITH.....	NERVE-PARENCHYMAL CELL INTERACTIONS IN DEVELOPMENT.....	1R01 HD12962-01	29,413
NADEL, ELI M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17949-03	136,264
OLSON, ROBERT E.....	MODE OF ACTION OF THE FAT-SOLUBLE VITAMINS.....	5R01 AM09992-15	113,085
OLSON, ROBERT E.....	BIOSYNTHESIS OF UBIQUINONE (COENZYME Q).....	5R01 AM10004-14	53,686
OLSON, ROBERT E.....	REGULATION OF PROTHROMBIN SYNTHESIS IN CULTURED CELLS.....	5R01 HL15619-06	71,165
PETROFSKY, JERROLD S.....	MICROPROCESSOR STIMULATION OF MUSCLE IN THE PARALYZED.....	1R01 NS15352-01	26,045
POGELL, BURTON M.....	CONTROL OF DIFFERENTIATION IN CHICK EMBRYO LIVER.....	5R01 HD12054-08	80,831
RUH, MARY F.....	ECDYSONE AND JUVENILE HORMONE ACTION.....	5R01 HD08186-05	48,416
RUH, THOMAS S.....	GLUCOCORTICOIDS AND LYMPHOCYTE FUNCTION.....	5R01 CA24034-02	49,694
RUH, THOMAS S.....	ESTROGEN AND ANTIESTROGEN BINDING AND ACTION.....	1R01 HD13425-01	91,144
SCHULZE, IRENE T.....	STRUCTURE AND SYNTHESIS OF MYXOVIRUSES.....	5R01 AI10097-08	54,207
SCHULZE, IRENE T.....	EFFECT OF INTERFERENCE ON VIRAL GENE EXPRESSION.....	5R01 AI14590-02	61,724
SENAY, LEO C, JR.....	DYNAMICS OF INTERSTITIAL SPACE IN WHOLE ANIMALS.....	5R01 HL21282-02	53,207
SENAY, LEO C, JR.....	SKIN TEMPERATURE AND HUMAN RESPONSES TO HEAT.....	1R01 HL22835-01A1	59,977
WEBER, MORTON M.....	MEMBRANE-ASSOCIATED FUNCTIONS IN MICROORGANISMS.....	5R01 HL22981-18	99,926
WESTFALL, THOMAS C.....	RECEPTOR MEDIATED CONTROL OF MONOAMINE TRANSMISSION.....	1R01 NS16215-01	73,971
WOLD, WILLIAM S.....	ADENOVIRUS 2 CODED EARLY GLYCOPROTEIN.....	5R23 CA24710-02	37,280
ORGANIZATION TOTAL.....	57 4,170,563		
WASHINGTON UNIVERSITY ZIP CODE 63130			
AGRAWAL, HARISH C.....	BIOCHEMICAL AND IMMUNOLOGICAL STUDIES OF MYELIN PLP.....	5R01 NS13464-03	63,240
ALPERS, DAVID H.....	INTESTINAL PROTEIN METABOLISM AND FUNCTION.....	5R01 AM14038-10	135,075
ANDERSON, CHARLES B.....	THROMBOXANE REGULATION OF RENOVASCULAR RESISTANCE.....	1R01 AM26109-01	148,716
APIRION, DAVID.....	CHANGES IN RNA METABOLISM AND THE INDUCTION OF TUMORS.....	1R01 CA24727-01	104,558
APIRION, DAVID.....	GENETICS OF PROCESSING OF RNA IN ESCHERICHIA COLI.....	2R01 GM19821-04A2	50,252
APIRION, DAVID.....	THE MOLECULAR BIOLOGY OF RNA TURNOVER IN E. COLI.....	1R01 GM25890-01	59,095
ATKINSON, JOHN P.....	EARLY ACTIVATION EVENTS IN IMMUNOLOGIC INFLAMMATION.....	5R01 AI14494-02	65,337
BAENZIGER, JACQUES U.....	OLIGOSACCHARIDE STRUCTURE AND RECEPTOR SPECIFICITY.....	5R01 CA21923-03	78,702
BALASUBRAMANIAN, TRICHEY M.....	PENTAIPHOL IONOPHORES STUDIES.....	1R01 AI16182-01	56,303
BALLINGER, WALTER F, II.....	ISLET TRANSPLANTATION UTILIZING IMMUNO-ISOLATION.....	2R01 AM17188-06	100,416
BANASZAK, LEONARD J.....	STRUCTURAL STUDIES OF DEHYDROGENASES AND LIPOPROTEINS.....	2R01 GM13925-14	127,729
BARNES, WAYNE M.....	HISTIDINE OPERON: GENETIC CONTROL OF DNA SEQUENCE.....	5R01 GM24956-02	75,502

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
BAUER, EUGENE A.....	CONTROL OF COLLAGENASE IN HUMAN FIBROBLAST CULTURES.....	5R01 AM19537-03	52,086
BECKER, BERNARD.....	TRANSPORT PROCESSES AND THE EYE.....	5R01 EY00004-25	226,636
BECKER, BERNARD.....	GLAUCOMA CLINICAL RESEARCH CENTER.....	3P50 EY00336-12S1	550,539
BELL, C ELLIOTT, JR.....	ANTIGENS AND IMMUNITY IN HUMAN LUNG CANCER.....	5R01 CA15556-06	77,271
BERG, DOUGLAS E.....	MECHANISMS OF GENE TRANSPOSITION IN BACTERIA.....	5R01 AI14267-03	73,920
BIER, DENNIS M.....	STABLE ISOTOPE STUDIES OF FUEL TRANSPORT IN CHILDREN.....	5R01 HD10667-03	83,437
BLAUSTEIN, MORDECAI P.....	THE PHYSIOLOGY OF PRESYNAPTIC NERVE TERMINALS.....	5R01 NS08442-11	62,776
BOHNE, BARBARA A.....	RESPONSE OF INNER EAR TO INJURY.....	2R01 NS01791-21	110,665
BOIME, IRVING.....	BIOSYNTHESIS OF PROTEIN HORMONES IN HUMAN PLACENTA.....	1R01 HD13481-01	117,811
BOTWINICK, JACK.....	AGE DIFFERENCES IN FORWARD STIMULUS MASKING.....	1R01 AG01500-01	51,267
BRACIALE, THOMAS J.....	CYTOTOXIC T LYMPHOCYTE RESPONSE TO INFLUENZA VIRUS.....	1R01 AI15608-01	73,363
BRADSHAW, RALPH A.....	STRUCTURE AND FUNCTION OF DEHYDROGENASES.....	5R01 AM13362-11	109,387
BRADSHAW, RALPH A.....	STRUCTURE AND FUNCTION OF NERVE GROWTH FACTOR.....	5R01 NS10229-08	71,502
BROWN, BARBARA I.....	PROGNOSIS IN GLYCOGENOSIS.....	5R01 HD12184-02	55,663
BROWN, DAVID H.....	ENZYMATIC STUDY OF GLYCOGEN METABOLISM.....	2R01 GM04761-23	119,342
BROWN, ELMER B.....	MAMMALIAN IRON METABOLISM.....	5R01 AM16577-07	95,218
BUNGE, RICHARD P.....	CYTOLOGICAL STUDIES OF DEVELOPING AND MATURE NEURONS.....	5R01 NS09923-09	92,063
BUNGE, RICHARD P.....	FUNCTIONAL STUDIES OF SYNAPSES IN TISSUE CULTURE.....	5R01 NS14416-02	68,053
BURTON, HAROLD.....	TEMPERATURE AND PAIN IN THE CENTRAL NERVOUS SYSTEM.....	5R01 NS09809-09	52,670
CHAPLIN, HUGH, JR.....	SYMPTOMATIC HEMOLYTIC ANEMIA IN MALIGNANT DISEASES.....	3R01 CA02918-23S1	47,717
CHEUNG, LAURENCE Y.....	GASTRIC BICARBONATE SECRETION AND CYTOPROTECTION.....	1R01 AM25998-01	58,957
CHILSON, OSCAR P.....	REGULATION OF PURINE TRANSPORT: MATURING RETICULOCYTES.....	5R01 AM21449-02	72,664
CLARK, RICHARD E.....	CLINICAL TRIAL OF NIFEDIPINE DURING CARDIAC SURGERY.....	1R01 HL24394-01	134,973
COHEN, ADOLPH I.....	CYTOLOGY AND PHYSIOLOGY OF THE RETINA.....	2R01 EY00258-17	161,568
COMMONER, BARRY.....	SIGNIFICANCE OF BEEF EXTRACT MUTAGENS IN CARCINOGENESIS.....	5R01 ES01954-02	74,138
CORR, PETER B.....	AUTONOMIC DETERMINANTS OF ARRHYTHMIA DUE TO ISCHEMIA.....	5R01 HL21654-02	63,770
COVEY, DOUGLAS F.....	SUICIDE SUBSTRATES: CANCER AND ENDOCRINE APPLICATIONS.....	5R01 CA23582-02	77,324
COWAN, W MAXWELL.....	QUANTITATIVE ANATOMICAL STUDIES OF VISUAL DEPRIVATION.....	2R01 EY01255-05	132,966
COWAN, W MAXWELL.....	STUDIES OF NEURONAL SPECIFICITY IN THE HIPPOCAMPUS.....	2R01 NS10943-07	99,819
COX, JEROME R, JR.....	A RESOURCE FOR BIOMEDICAL COMPUTING.....	5P41 RR00396-12	2,087,389
CROWLEY, DAVID E.....	STUDIES OF ACOUSTIC 10 MSEC VERTEX-MASTOID RESPONSES.....	5R01 NS14172-02	69,199
CULLEN, SUSAN E.....	STRUCTURAL AND SEROLOGICAL STUDIES ON IA ANTIGENS.....	5R01 CA20500-03	83,335
DANFORTH, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07054-14	112,484
DAUGHADAY, WILLIAM H.....	HORMONAL CONTROL OF CHONDROITIN SULFATE SYNTHESIS.....	5R01 AM01526-23	100,677
DAUGHADAY, WILLIAM H.....	THE MEASUREMENT OF PROTEIN HORMONES IN PLASMA.....	5R01 AM05105-18	181,633
DAUGHADAY, WILLIAM H.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20579-03	1,346,819
DAVIE, JOSEPH M.....	ROLE OF T CELLS IN B CELL DIFFERENTIATION.....	5R01 AI11635-06	89,435
DAVIE, JOSEPH M.....	PAUCICLONAL IMMUNITY: MODELS FOR DIVERSIFICATION.....	1R01 AI15926-01	97,494
DAW, NIGEL W.....	NEURAL MECHANISMS OF VISION.....	5R01 EY00053-10	76,429
DE WEER, PAUL J.....	MODES OF OPERATION OF THE SODIUM PUMP.....	3R01 NS11223-07S1	31,169
DIETZLER, DAVID N.....	STUDIES OF COORDINATE ALLOSTERIC REGULATION IN VIVO.....	5R01 AM18670-04	82,754
EISEN, ARTHUR Z.....	ROLE OF COLLAGENASES IN COLLAGEN REMODELING.....	5R01 AM12129-12	233,752
EL-MOFTY, SAMIR K.....	ALVEOLAR BONE IN EXPERIMENTAL RENAL INSUFFICIENCY.....	5R23 DE04755-03	29,877
ETHEREDGE, EDWARD E.....	MULTIPLE ANTIGEN SYSTEMS IN HUMAN ALLOGRAFT REJECTION.....	2R01 AM19110-04	64,380
FERRENDELLI, JAMES A.....	BIOCHEMISTRY AND PHARMACOLOGY OF THE RETINA.....	5R01 EY02294-02	75,086
FERRENDELLI, JAMES A.....	MECHANISMS OF SEIZURES AND ANTICONVULSANT DRUGS.....	1P01 NS14834-01	341,982
FINGER, STANLEY.....	SERIAL SURGERY AND FACTORS AFFECTING TACTILE RECOVERY.....	2R01 NS11002-05	44,866
FISHER, EDWIN B, JR.....	WEIGHT-LOSS RISK REDUCTION: BEHAVIORAL TECHNIQUES.....	5R01 AM21024-02	47,094
FISHER, EDWIN B, JR.....	SMOKING RISK-FACTOR REDUCTION: MAINTENANCE STRATEGIES.....	5R01 HL22472-02	53,953
FLEISCHMAN, JULIAN B.....	MOLECULAR GENETICS OF ANTIBODY FORMATION.....	5R01 CA20094-13	83,396
FLETCHER, ANTHONY P.....	FIBRINOGEN CATABOLISM AND INTRAVASCULAR COAGULATION.....	5R01 HL20218-03	101,159
FRAZIER, WILLIAM A, III.....	BIOCHEMISTRY OF DEVELOPMENT: A MORPHOGENETIC MODEL.....	5R01 NS13269-03	50,690
FRIEDEN, CARL.....	METABOLIC REGULATION AND INTERACTING ENZYME SYSTEMS.....	5R01 AM13332-11	134,217
GARDNER, RICHARD A.....	ELECTROMAGNETIC INTERACTION WITH BLOOD COMPONENTS.....	3R01 HL18321-03S1	2,468
GELLER, DAVID M.....	MECHANISM AND CONTROL OF SERUM ALBUMIN BIOSYNTHESIS.....	5R01 AM16226-06	43,452
GINGERICH, RONALD L.....	MECHANISM OF PANCREATIC POLYPEPTIDE SECRETION.....	1R23 AM25909-01	30,744
GLASER, LUIS.....	REGULATION AND MECHANISM OF CELL SURFACE SYNTHESIS.....	2R01 GM18405-08	129,099
GOLDRING, DAVID.....	EFFECT OF EXERCISE UPON THE HYPERTENSIVE ADOLESCENT.....	5R01 HL21578-02	150,442
GOLDRING, SIDNEY.....	COORDINATED BASIC AND CLINICAL BRAIN RESEARCH PROGRAM.....	5P50 NS04513-16	321,417
GOODENOUGH, URSULA W.....	MEMBRANE RECOGNITION AND ADHESION.....	2R01 GM26117-02	56,133

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
GOODENOUGH, URSULA W.....	FLAGELLAR SENSORY SIGNALLING AND SURFACE MOTILITY.....	1R01 GM26150-01	62,295
GOODENOUGH, URSULA W.....	MEMBRANE FUSION.....	5R01 GM26279-02	25,218
GOODENOUGH, URSULA W.....	SCANNING ELECTRON MICROSCOPE FACILITY.....	1P41 GM27402-01	72,688
GOTTLIEB, CHARLENE C.....	STUDIES OF MAMMALIAN GLYCOPROTEIN OLIGOSACCHARIDES.....	5R01 CA22857-02	58,931
GOTTLIEB, DAVID I.....	MOLECULAR BASIS OF CELL RECOGNITION IN DEVELOPMENT.....	2R01 NS12867-04	61,002
GREIDER, MARIE H.....	CELLULAR LOCALIZATION OF GASTRIN.....	2R01 AM13205-11	64,468
GREIDER, MARIE H.....	CELLULAR LOCALIZATION OF GASTRIN.....	5R01 AM13205-12	103,943
GUTSCHE, C DAVID.....	CALIXARENES AS ENZYME MODELS.....	5R01 GM23534-03	83,119
HAHN, BEVRA H.....	PATHOGENESIS AND THERAPY OF SYSTEMIC LUPUS ERYTHEMATOSUS.....	5R01 AM17469-05	100,628
HAHN, BEVRA H.....	ARTHRITIS CENTER.....	5P60 AM20602-03	253,488
HAMBURGER, VIKTOR.....	PROBLEMS OF NEUROGENESIS AND DEVELOPMENT OF BEHAVIOR.....	2R01 NS05721-15	51,774
HART, WILLIAM M, JR.....	AUTOMATED DIGITAL PROCESSING OF THE HUMAN VISUAL FIELD.....	5R01 EY02044-02	77,121
HARTMAN, BOYD K.....	NORADRENERGIC SYSTEM IN BRAIN: ANATOMY AND FUNCTION.....	5R01 NS12311-05	74,917
HARTMAN, BOYD K.....	EVALUATION OF NEUROLOGICAL DISEASE WITH BRAIN ANTIGENS.....	5R01 NS13672-03	58,998
HENRY, PHILIP D.....	POTASSIUM, NOREPINEPHRINE, AND CORONARY ARTERIAL TONE.....	5R01 HL21187-02	61,843
HESTON, WARREN D.....	HORMONE AND RADIATION THERAPY OF PROSTATIC TUMORS.....	5R26 CA23665-02	129,691
HILLMAN, LAURA S.....	CLINICAL CORRELATIONS TO VITAMIN D STATUS IN INFANTS.....	3R01 HD09998-03S1	20,291
HILLMAN, RICHARD E.....	MEMBRANE TRANSPORT OF AMINO ACIDS.....	5R01 AM15531-09	90,812
HOLLOSZY, JOHN O.....	EXERCISE-INDUCED BIOCHEMICAL AND ANATOMIC ADAPTATIONS.....	5R01 AG00425-15	132,207
HOLLOSZY, JOHN O.....	CARBOHYDRATE AND FAT METABOLISM DURING EXERCISE.....	2R01 AM18986-04	76,623
HOLLOSZY, JOHN O.....	EFFECTS OF EXERCISE-TRAINING IN ISCHEMIC HEART DISEASE.....	5R01 HL22215-02	160,070
HOLMES, WILLIAM F.....	A RESOURCE FOR BIOMEDICAL MASS SPECTROMETRY.....	3P41 RR00954-03S2	35,014
HOLTZER, ALFRED M.....	PROPERTIES OF ALPHA-HELIX-FORMING SUBSTANCES.....	2R01 GM20064-05	50,157
HUGHES, CHARLES P.....	VISUAL FUNCTION IN VENTRAL LATERAL GENICULATE.....	5R01 EY02535-02	38,439
HUNT, CARLTON C.....	VERTEBRATE MUSCLE RECEPTORS.....	2R01 NS07907-12	129,308
HUNTER, F EDMUND, JR.....	GSH-SPECIFIC ENZYMES ON ORGANONITRATES, PROSTAGLANDINS.....	5R01 GM24561-02	51,530
JACKSON, CRAIG M.....	IN VITRO REGULATION OF PROTHROMBIN ACTIVATION.....	5R01 HL12820-10	95,165
JAKSCHIK, SISTER BARBARA A.....	SRS-A-ITS BIOSYNTHESIS AND ACTION.....	5R01 HL21874-02	39,160
JARETT, LEONARD.....	HORMONAL REGULATION OF FAT CELL METABOLISM.....	2R01 AM11892-12	160,518
JARETT, LEONARD.....	MORPHOLOGICAL STUDIES ON MECHANISM OF INSULIN ACTION.....	5R01 AM20097-03	75,894
JEFFREY, JOHN J.....	HORMONAL REGULATION OF COLLAGENASE ACTIVITY IN UTERO.....	5R01 HD05291-07	107,338
JENG, INGMING.....	STUDIES ON THE CATABOLISM OF PLASMA LIPOPROTEINS.....	5R01 HL22983-02	16,087
JOHNSON, EUGENE M, JR.....	SYMPATHECTOMY: CARDIOVASCULAR & MOLECULAR PHARMACOLOGY.....	5R01 HL20604-04	75,586
JOHNSON, EUGENE M, JR.....	MECHANISM OF THE CLONIDINE WITHDRAWAL SYNDROME.....	1R01 HL23293-01	50,683
JOHNSON, GEORGE B.....	KINETIC STUDIES OF 'HIDDEN' ELECTROPHORETIC VARIATION.....	3R01 GM23504-02S1	8,181
JOHNSON, GEORGE B.....	STUDIES OF HIDDEN ELECTROPHORETIC VARIATION.....	2R01 GM23504-03	62,148
JONES, EDWARD G.....	SYNAPTIC RELATIONS IN SENSORY SYSTEMS.....	5R01 NS10526-08	70,847
JONES, EDWARD G.....	REGENERATION & FUNCTIONAL RECOVERY IN CEREBRAL CORTEX.....	1P01 NS15070-01	309,982
KAHN, ARNOLD J.....	DENTAL DISEASE AND OSTEOCLASTIC BONE RESORPTION.....	5R01 DE04629-03	110,999
KASS, MICHAEL A.....	PATHWAYS OF PROSTAGLANDIN SYNTHESIS AND INHIBITION.....	5R01 EY01333-05	110,009
KENNEL, DAVID E.....	METABOLISM OF MESSENGER RNA IN E COLI.....	2R01 AI13492-04	96,923
KING, M KENTON.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05389-18	201,413
KIPNIS, DAVID M.....	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00036-19	1,478,526
KIRK, DAVID L.....	GENETIC CONTROL OF MORPHOGENESIS IN VOLVOX.....	5R01 GM24172-03	42,890
KLAHR, SAULO.....	PATHOPHYSIOLOGY OF RENAL DISEASE AND UREMIA.....	2P01 AM00976-15	620,991
KORNFELD, STUART A.....	STRUCTURE, BIOSYNTHESIS AND FUNCTION OF GLYCOPROTEINS.....	2R01 CA08759-14	255,967
KRUPIN, THEODORE.....	CENTRAL NERVOUS EFFECTS ON AQUEOUS HUMOR DYNAMICS.....	5R01 EY01942-03	32,865
LACY, PAUL E.....	TISSUE CULTURE OF THE ISLETS OF LANGERHANS.....	5R01 AM01226-23	49,217
LACY, PAUL E.....	MICROENZYMATIC STUDIES OF ISLETS OF LANGERHANS.....	5R01 AM03373-21	55,469
LACY, PAUL E.....	STUDY OF SECRETION AND BIOSYNTHESIS OF INSULIN.....	5R01 AM06181-18	147,159
LEVINE, ROBERT P.....	COMPLEMENT ACTION ON MEMBRANES USING MYCOPLASMA MUTANTS.....	5R01 AI15644-02	76,696
LEVINSON, EUGENE M.....	MOVEMENT AND PATTERN ANALYSIS IN HUMAN VISION.....	1R01 EY03077-01	36,411
LIEBERMAN, MICHAEL W.....	CHEMICAL CARCINOGEN-INDUCED DNA REPAIR IN HUMAN CELLS.....	5R01 CA20513-03	92,357
LOEWY, ARTHUR D.....	CENT. NERVOUS SYSTEM: DEGENERATIVE/REGENERATIVE CHANGES.....	5R01 NS12751-05	50,269
LOWRY, OLIVER H.....	QUANTITATIVE HISTOCHEMISTRY OF THE KIDNEY.....	9R01 AM22112-11	116,837
LOWRY, OLIVER H.....	METABOLISM OF CELLS AND PARTS OF CELLS IN NERVOUS TISSUE.....	5R01 NS08862-10	54,571
LYNCH, RICHARD G.....	IMMUNOLOGIC REGULATION OF MYELOMA CELL GROWTH.....	5R01 CA23217-02	78,899
MACDERMOTT, RICHARD P, JR.....	CYTOTOXIC LYMPHOCYTE SUBCLASSES IN INTESTINAL DISEASE.....	5R01 AM21474-02	72,558
MAJERUS, PHILIP W.....	SPECIALIZED CENTER OF RESEARCH IN THROMBOSIS.....	5P50 HL14147-09	692,264
MAJERUS, PHILIP W.....	FUNCTION OF PLATELETS AND COAGULATION FACTORS.....	2R01 HL16634-14	168,519

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
MANSKE, PAUL R.....	NUTRITION OF TENDONS & TENDON GRAFTS IN SYNOVIAL SHEATHS.....	5R01 AM21879-02	70,752
MARSHALL, GARLAND R.....	COMPUTER-AIDED DRUG DESIGN.....	1P01 GM24483-01A1	656,393
MARSHALL, GARLAND R.....	HYPERTENSION—CHEMISTRY AND BIOPHYSICS OF ANGIOTENSIN.....	5R01 HL14509-08	87,997
MARTIN, JEANNE E.....	NEUROENDOCRINE CONTROL OF GONADOTROPIN SECRETION.....	1R01 HD11854-01A1	48,724
MATHEWS, F SCOTT.....	STRUCTURAL STUDIES OF CYTOCHROMES B562 AND B2.....	2R01 GM20530-07	134,270
MATTHEWS, DWIGHT E.....	DYNAMIC ASPECTS OF HUMAN AMINO ACID METABOLISM.....	1R01 AM25994-01	70,504
MC DONALD, JAY M.....	MECHANISM OF INSULIN ACTION AND THE ROLE OF CALCIUM.....	1R01 AM25897-01	67,015
MC DOUGAL, DAVID B, JR.....	METABOLISM AND FUNCTION IN PERIPHERAL NERVE.....	5R01 NS11941-05	73,235
MEDOFF, GERALD.....	PATHOGENIC FUNGI STUDIES.....	5R01 AI10622-08	37,530
MEDOFF, GERALD.....	MEDICAL MYCOLOGY.....	1P01 AI16228-01	333,089
MEDOFF, GERALD.....	AMPHOTERICIN B: CLINICAL ANTITUMOR USE, MECHANISM.....	5P01 CA15665-05	387,111
MILLER, JAMES G.....	ULTRASONIC STUDY OF MYOCARDIAL INJURY.....	5R01 HL19537-04	92,786
MILLER, ROBERT F.....	CELL COMMUNICATION IN THE VERTEBRATE RETINA.....	3R01 EY03014-01S1	28,007
MILLER, ROBERT F.....	CELL COMMUNICATION IN THE VERTEBRATE RETINA.....	5R01 EY03014-02	65,464
MOLNAR, CHARLES E.....	PERIPHERAL AUDITORY MECHANISMS.....	2R01 NS07498-12	104,815
MOOG, FLORENCE.....	FUNCTIONAL DIFFERENTIATION OF THE SMALL INTESTINE.....	5R01 HD03490-26	90,935
MOORE, BLAKE W.....	FRACTIONATION OF BRAIN PROTEINS.....	2R01 NS05270-16	114,938
MORRIS, CHARLES F.....	INITIATION OF DNA REPLICATION IN VITRO.....	1R01 GM26333-01	84,799
MOSES, ROBERT A.....	FACTORS AFFECTING INTRAOCULAR PRESSURE.....	5R01 EY00256-16	163,425
MOSES, ROBERT A.....	CENTER FOR VISION RESEARCH.....	1P30 EY02687-01	378,735
MUNNS, THEODORE W.....	CHARACTERIZATION OF RNA/DNA IN ONCOGENIC SYSTEMS.....	7R01 CA27801-01	71,012
NAKEFF, ALEXANDER N.....	MEGAKARYOCYTE PROLIFERATION AND ITS CONTROL.....	5R01 HL20826-03	14,363
NEEDLEMAN, PHILIP.....	HYPERTENSION: ANGIOTENSIN & PROSTAGLANDIN PHARMACOLOGY.....	5R01 HL14397-08	74,624
NEEDLEMAN, PHILIP.....	THROMBOXANES & PROSTAGLANDINS: BIOCHEMICAL PHARMACOLOGY.....	5R01 HL20787-03	53,701
NELSON, JAMES S.....	DIABETIC AUTONOMIC NEUROPATHY.....	5R01 AM19645-03	77,831
NELSON, JAMES S.....	PATHOGENESIS OF NUTRITIONAL BRAIN INJURY.....	2R01 NS11277-05	66,678
OLIVER, G CHARLES.....	PREDICTION AND PREVENTION OF SUDDEN CARDIAC DEATH.....	5R01 HL18808-05	226,318
OLNEY, JOHN W.....	NEUROTOXICITY OF EXCITATORY AMINO ACIDS.....	2R01 NS09156-10	89,418
OSTLUND, RICHARD E, JR.....	CONTRACTILE PROTEINS OF SECRETORY TISSUES.....	5R01 AM20421-03	76,584
PALMBERG, PAUL F.....	STUDIES IN GLAUCOMA AND RELATED DISEASES.....	2R01 EY01167-07	66,974
PARKER, CHARLES W.....	INTERDISCIPLINARY RESEARCH CENTER—IMMUNOLOGIC DISEASES.....	5P50 AI15322-02	407,639
PEARLMAN, ALAN L.....	FUNCTIONAL ORGANIZATION OF THE VISUAL SYSTEM.....	5R01 EY00621-07	66,478
PEREZ, CARLOS A.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA12261-08	162,984
PERMUTT, MARSHALL A.....	CONTROL OF INSULIN BIOSYNTHESIS.....	5R01 AM16746-07	82,167
PERMUTT, MARSHALL A.....	ISOLATION AND CHARACTERIZATION OF FISH ISLET HORMONES.....	1R01 AM25940-01	80,811
PERRAULT, JACQUES.....	VESICULAR STOMATITIS VIRUS DI RNA, STRUCTURE & FUNCTION.....	5R01 AI14365-03	51,616
PHILPOTT, GORDON W.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA03376-23	184,725
PHILPOTT, GORDON W.....	CYTOTOXIC ANTITUMOR ANTIBODIES.....	5R01 CA12626-08	72,705
PHILPOTT, GORDON W.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17955-05	103,234
PIERCE, JOHN A.....	MECHANISMS IN THE REMODELLING OF LUNG STRUCTURE.....	5P01 HL16118-07	573,785
POLAKOSKI, KENNETH L.....	ACTIVE SITE CHARACTERIZATION OF ACROSIN.....	2R01 HD09422-04A1	76,495
POLAKOSKI, KENNETH L.....	REGULATION OF SPERM PROACROSIN CONVERSION TO ACROSIN.....	1R01 HD12863-01	52,314
PRICE, JOSEPH L.....	STUDIES ON THE OLFACTORY CORTEX.....	2R01 NS09518-10	74,279
PULLON, PETER A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17966-05	29,359
PURVES, DALE.....	LONG-TERM CHANGES IN NEURONS.....	2R01 NS11699-05	131,087
RAICHEL, MARCUS E.....	AN INTERDISCIPLINARY STROKE PROGRAM.....	5P50 NS06833-13	395,390
RAKOWSKI, ROBERT F.....	INVESTIGATION OF GATING CURRENTS IN SKELETAL MUSCLE.....	1R01 NS14856-01	34,186
RAO, BANTWAL R.....	CARCINOGEN INDUCED CHANGES IN STEROID HORMONE ACTION.....	5R01 CA23579-02	65,477
RASKAS, HESCHEL J.....	GENE EXPRESSION OF ONCOGENIC VIRUSES.....	5R01 CA16007-06	67,123
RASKAS, HESCHEL J.....	CANCER CENTER SUPPORT GRANT.....	2P30 CA16217-04	562,758
REUSS, LUIS.....	ELECTROPHYSIOLOGY OF NECTURUS GALLBLADDER EPITHELIUM.....	5R01 AM19580-03	49,510
ROEDER, ROBERT G.....	REGULATION OF ADENOVIRUS GENE EXPRESSION.....	5R01 CA16640-05	116,601
ROEDER, ROBERT G.....	MOLECULAR BASIS OF DIFFERENTIATION AND NEOPLASIA.....	5R01 CA23615-02	163,956
ROGERS, JOHN C.....	CHARACTERIZATION OF LYMPHOCYTE EXCRETED DNA.....	5R01 CA17143-05	100,276
ROOS, ALBERT.....	TRANSMEMBRANE MOVEMENTS.....	5R01 HL00082-31	66,219
ROVAINEN, CARL M.....	ORGANIZATION OF SPINAL CORD.....	3R01 NS09367-09S1	15,000
ROVAINEN, CARL M.....	ORGANIZATION OF SPINAL CORD.....	2R01 NS09367-10	76,553
SCHARP, DAVID W.....	ISOLATION AND PURIFICATION OF BETA CELLS OF PANCREAS.....	5R01 AM221966-02	57,898
SCHARP, DAVID W.....	MASS ISOLATION OF VIABLE MAMMALIAN ISLETS.....	1R01 AM25585-01	106,474
SCHARP, DAVID W.....	DIABETIC COMPLICATION: EFFECT OF ISLET TRANSPLANTATION.....	1R01 AM26083-01	104,650

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
SCHLESINGER, MILTON J.	RNA-ENVELOPE VIRUS FORMATION IN ANIMAL CELLS.	5R01 CA14311-07	91,241
SCHLESINGER, PAUL H.	CONTROL OF EXTRACELLULAR LYSOSOMAL HYDROLASE LEVELS.	5R23 HL21411-03	50,090
SCHLESINGER, SONDRA	STRUCTURE AND REPLICATION OF ENVELOPED RNA VIRUSES.	5R01 AI11377-06	87,044
SCHLESINGER, SONDRA	REPLICATION OF ENVELOPED RNA VIRUSES IN MACROPHAGES.	5R01 AI12242-06	87,025
SCHLESSINGER, DAVID	PROCESSING AND TURNOVER OF HUMAN CELL NUCLEAR RNA.	5R01 GM21357-05	86,784
SCHONFELD, GUSTAV	ASSAYS FOR THE PEPTIDES OF LIPOPROTEINS.	5R01 HL15308-08	107,577
SCHONFELD, GUSTAV	SYNTHESIS & SECRETION OF PLASMA LIPOPROTEINS.	2R01 HL15427-07	125,280
SCHONFELD, GUSTAV	DIETARY EFFECTS ON HDL LEVELS AND COMPOSITION.	1R01 HL24743-01	123,440
SCHWARTZ, BENJAMIN D.	MAJOR HISTOCOMPATIBILITY COMPLEX ANTIGENS CHEMICAL STUDY.	5R01 AI13782-03	82,120
SHERMAN, WILLIAM R.	METABOLISM OF INOSITOLS AND INOSITIDES.	5R01 NS05159-16	125,274
SHERMAN, WILLIAM R.	EFFECTS OF LITHIUM ON INOSITOL AND PHOSPHOINOSITIDES.	5R01 NS13781-03	98,176
SHREFFLER, DONALD C.	ORGANIZATION AND FUNCTIONS OF THE H-2 GENE COMPLEX.	5R01 AI12734-04	197,275
SILBERT, DAVID F.	BIOCHEMICAL GENETIC STUDY OF MEMBRANE LIPID.	5R01 GM16292-11	112,056
SILVER, SIMON D.	PLASMID-DETERMINED RESISTANCE TO HEAVY METALS.	1R01 AI15672-01	83,667
SIMMONS, DAVID J.	CIRCADIAN VARIATIONS IN CARTILAGE AND BONE GROWTH.	2R01 AM16391-06A1	72,490
SLY, WILLIAM S.	ENZYME THERAPY IN LYSOSOMAL STORAGE DISEASES.	5P01 GM21096-05	441,691
SMERDON, MICHAEL J.	CARCINOGEN DAMAGE & REPAIR OF DNA IN HUMAN CHROMATIN.	5R23 ES01797-02	48,084
SMITH, CARL H.	PLACENTAL MECHANISMS OF AMINO ACID TRANSFER.	5R01 HD07562-06	120,257
SOBEL, BURTON E.	STUDY OF ISCHEMIC HEART DISEASE.	5P50 HL17646-05	1,299,685
SPARKS, ROBERT E.	BIOSORBABLE THROMBORESISTANT SURFACES.	2R01 HL18764-04	107,726
SPARKS, ROBERT E.	BIOLOGICALLY-ACTIVE, VIRUS FREE BLOOD COMPONENTS.	1R01 HL24832-01	80,084
SPILBERG, ISAIAH.	CRYSTAL INDUCED CHEMOTACTIC FACTOR.	5R01 AM19349-04	32,880
STAHL, PHILIP D.	LYSOSOME BIOGENESIS: NORMAL AND TUMOR CELLS.	2R01 CA12858-08	133,365
STEIN, PAUL S.	SPINAL CORD CONTROL OF LOCOMOTION.	1R01 NS15049-01	44,641
STEWART, CARLETON C.	LYMPHOCYTE RESPONSES TO MITOGENS AND SPECIFIC ANTIGENS.	5R01 AI14046-02	48,975
STEWART, CARLETON C.	PROLIFERATION AND FUNCTION OF MONONUCLEAR PHAGOCYTES.	1R01 AI15563-01	61,055
STORANDT, MARTHA A.	A MULTI-FACETED INVESTIGATION OF AGING AND BEHAVIOR.	5P01 AG00535-03	409,225
STRAUSS, ARNOLD W.	SYNTHETIC CONTROL: FATTY ACID SYNTHETASE AND ALBUMIN.	5R01 AM20407-03	70,456
STRICKLER, RONALD C.	STUDY OF THE PROGESTERONE BINDING SITE.	5R01 HD12025-02	47,485
SULLIVAN, TIMOTHY J.	BIOCHEMISTRY OF MAST CELL SECRETION.	5R01 AI13880-03	39,573
SUTERA, SALVATORE P.	BLOOD CELLS: PHYSICAL PROPERTIES, STRUCTURE AND FUNCTION.	2R01 HL12839-10	221,399
SWANSON, LARRY W.	CONNECTIONS OF THE LIMBIC SYSTEM AND HYPOTHALAMUS.	5R01 NS13267-03	72,446
SWEET, FREDERICK	STEROID BIOSYNTHESIS, TRANSPORT & MECHANISM OF ACTION.	5R01 AM16854-05	66,376
SWEET, FREDERICK	MECHANISM OF SEX STEROID BINDING TO MACROMOLECULES.	1R01 HD12533-01	67,882
TER-POGOSSIAN, MICHEL M.	CYCLOTRON PRODUCED ISOTOPES IN BIOLOGY AND MEDICINE.	5P01 HL13851-17	788,934
THACH, BRADLEY T.	CONTROL OF BREATHING IN RECOVERY FROM APNEA.	5R01 HD10993-03	57,543
THACH, ROBERT E.	REPLICATION OF VIRULENT AND ONCOGENIC VIRUSES.	5R01 CA13008-08	124,705
THACH, WILLIAM T., JR.	TIMING AND CODING OF CEREBELLAR OUTPUT.	5R01 NS12777-05	75,155
THALMANN, RUEDIGER R.	METABOLIC PROCESSES OF THE INNER EAR.	5R01 NS06575-12	138,248
THALMANN, RUEDIGER R.	BIOCHEMICAL CORRELATE OF VESTIBULAR FUNCTION.	5R01 NS14334-02	53,611
THURSTON, JEAN H.	CEREBRAL METABOLISM IN THE NEWBORN AND THE YOUNG.	2R01 NS06163-14A1	105,505
THURSTON, JEAN H.	GLUCOCORTICOIDS IN EPILEPSY AND NEUROLOGIC DISORDERS.	1R01 NS15660-01	72,159
TOLMACH, L. J.	EFFECTS OF X-RAYS ON NORMAL AND MALIGNANT CELLS.	2R01 CA04483-20	173,800
VALERIOE, FREDERICK A.	RESPONSE OF MURINE MYELOMA TO CHEMOTHERAPEUTIC AGENTS.	1R01 CA23388-01A1	131,687
VALERIOE, FREDERICK A.	QUANTITATION OF EFFECT OF COMBINED CHEMOTHERAPY.	1R01 CA24960-01	119,817
VIETTI, TERESA J.	SOUTHWEST ONCOLOGY GROUP.	5R10 CA05587-19	350,572
VOLPE, JOSEPH J.	REGULATION OF FATTY ACID SYNTHESIS DURING DEVELOPMENT.	5R01 HD07464-06	84,449
WALBOT, VIRGINIA E.	VARIATION IN MITOCHONDRIAL GENOTYPE AND PHENOTYPE.	5R01 GM23479-03	55,993
WALLACK, MARC K.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).	5R10 CA12030-08	44,896
WALTMAN, STEPHEN R.	RETINAL VASCULAR CHANGES IN DIABETES MELLITUS.	5R01 EY02198-02	119,752
WARREN, JAMES C.	BINDING, BIOSYNTHESIS, AND ACTION OF STEROIDS.	5R01 AM15708-08	155,535
WATERSTON, ROBERT H.	MOLECULAR GENETICS OF MUSCLE ASSEMBLY IN C. ELEGANS.	5R01 GM23883-03	59,479
WEDNER, H. JAMES	CYCLOC NUCLEOTIDES AND LYMPHOCYTE PROLIFERATION.	5R01 CA24430-02	35,839
WHITESIDE, LEO A.	STUDIES OF REGIONAL BONE BLOOD FLOW AND METABOLISM.	5R01 AM20934-02	141,688
WIEST, WALTER G.	STEROIDOGENESIS IN DISPERSED, PERFUSED LUTEAL CELLS.	1R01 HD13259-01	91,380
WILLARD, MARK B.	AXONALLY TRANSPORTED PROTEINS IN THE VISUAL SYSTEM.	5R01 EY02682-05	27,553
WILLIAMSON, JOSEPH R.	RISK FACTORS AND MICROVASCULAR DISEASE IN DIABETES.	2R01 HL13694-09	123,014
WINDER, WILLIAM W.	CONTROL OF LIVER GLYCOGENOLYSIS DURING EXERCISE.	5R01 AM20384-02	6,666
WOOLSEY, THOMAS A.	THE STRUCTURE OF THE SOMATOSENSORY SI NEOCORTEX.	2R01 NS10244-07A1	65,422
YAO, MENG-CHAO.	GENE AMPLIFICATION AND ELIMINATION IN TETRAHYMENA.	1R01 GM26210-01	85,540

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
ORGANIZATION TOTAL	252	34,595,029	
SPRINGFIELD			
DRURY COLLEGE	ZIP CODE 65802		
ROY, RABINDRA N.....	PH MEASUREMENT STANDARDS OF BLOOD IN ISOTONIC SALINE.....	1R01 GM26809-01	9,091
ORGANIZATION TOTAL	1	9,091	
STATE TOTAL	426	48,111,260	
MONTANA			
BOZEMAN			
MONTANA UNIVERSITY SYSTEM—MONTANA STATE UNIVERSITY	ZIP CODE 59715		
BOND, CLIFFORD W.....	MOLECULAR CHARACTERIZATION OF A NEUROTROPIC CORONAVIRUS.....	7R01 NS15705-01	36,731
BOND, CLIFFORD W.....	MOLECULAR CHARACTERIZATION OF A NEUROTROPIC CORONAVIRUS.....	5R01 NS15705-02	52,798
CUTLER, JIMMY E.....	INNATE DEFENSE MECHANISMS AGAINST CANDIDA ALBICANS.....	5R01 AI13512-02	35,772
CUTLER, JIMMY E.....	AUTO-REGULATION OF DIMORPHISM BY CANDIDA ALBICANS.....	1R01 AI15996-01	48,724
DUBEY, JITENDER P.....	TOXOPLASMA GONDII IN OOCYST SHEDDING.....	5R01 AI15919-02	72,678
REED, NORMAN D.....	IMMUNOLOGY OF GERMFREE GENETICALLY THYMUSLESS MICE.....	5R01 CA24443-08	29,060
REED, NORMAN D.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09135-01A1	136,230
ORGANIZATION TOTAL	7	411,993	
GREAT FALLS			
COLUMBUS HOSPITAL	ZIP CODE 59401		
STIMPFING, JACK H.....	THE HISTOCOMPATIBILITY ANTIGENS OF THE MOUSE.....	5R01 AI06525-15	109,956
ORGANIZATION TOTAL	1	109,956	
MISSOULA			
MONTANA UNIVERSITY SYSTEM—UNIVERSITY OF MONTANA	ZIP CODE 59801		
GUSTAFSON, GARY L.....	CONTROL OF ENZYME ACCUMULATION DURING DIFFERENTIATION.....	5R01 GM22188-05	68,275
HILL, WALTER E.....	PHYSICAL STUDIES OF RAT LIVER RIBOSOMES.....	5R01 GM24763-02	50,338
WATSON, KENNETH F.....	MECHANISM OF VIRAL RNA-DIRECTED DNA POLYMERIZATION.....	2R01 CA19729-04	51,818
ORGANIZATION TOTAL	3	170,431	
STATE TOTAL	11	692,380	
NEBRASKA			
BOYS TOWN			
FATHER FLANAGAN'S BOYS' HOME	ZIP CODE 68010		
JAVEL, ERIC.....	STUDIES OF TONAL INTERACTIONS IN THE AUDITORY NERVE.....	1R01 NS14880-01	52,576
JESTEADT, WALT.....	FREQUENCY ANALYSIS IN NORMAL AND IMPAIRED LISTENERS.....	5R01 NS14709-02	40,335
WARR, WILLIAM B.....	THE STRUCTURE AND PROJECTIONS OF THE COCHLEAR NUCLEI.....	2R01 NS14832-02	58,729
WATSON, CHARLES S.....	FACTORS IN THE DISCRIMINATION OF AUDITORY PATTERNS.....	5R01 NS14637-02	55,511
WATSON, CHARLES S.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09003-03	91,326
ORGANIZATION TOTAL	5	298,477	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEBRASKA—Continued			
LINCOLN			
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN ZIP CODE 68508			
BANERJEE, MIHIR R.....	HORMONES, CELLULAR BIOSYNTHESIS & MAMMARY CARCINOGENESIS.....	3R01 CA11058-09S2	17,516
BANERJEE, MIHIR R.....	HORMONES, CELLULAR BIOSYNTHESIS & MAMMARY CARCINOGENESIS.....	2R01 CA11058-10A1	76,083
BRUMBAUGH, JOHN A.....	MECHANISMS MEDIATING MELANOGENIC CONTROL GENE EFFECTS.....	2R01 GM18969-08	87,828
CROMWELL, NORMAN H.....	HETEROCYCLIC SYNTHESIS.....	5R01 CA02931-22	58,302
GUPTA, NABA K.....	GENETIC CODE AND PROTEIN SYNTHESIS IN MAMMALIAN SYSTEMS.....	5R01 GM18796-08	61,505
GUPTA, NABA K.....	PROTEIN SYNTHESIS INITIATION IN RED BLOOD CELLS.....	5R01 GM22079-05	63,695
PARKHURST, LAWRENCE J.....	HEMOGLOBIN AND MYOGLOBIN KINETIC STUDIES.....	3R01 HL15284-06S1	4,223
PARKHURST, LAWRENCE J.....	HEMOGLOBIN AND MYOGLOBIN KINETIC STUDIES.....	2R01 HL15284-07	71,536
SCHMEHL, FRANCIS L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07055-14	36,202
SCHWARTZBACH, STEVEN D.....	REGULATION OF ORGANELLE BIOGENESIS.....	1R01 GM26994-01	45,861
SHAHANI, KHEM M.....	PROCESSING OF NUTRITIONAL ASPECTS OF BREAST MILK.....	1R01 HD12457-01	35,897
SMITH, GARY L.....	GROWTH CONTROL IN NORMAL AND NEOPLASTIC CELLS.....	5R01 CA17620-05	55,224
VEOMETT, GEORGE E.....	FACTORS IN CELL AGING: DOMINANCE AND RECESSIVENESS.....	5R01 AG00818-02	22,389
VIDAVER, GEORGE A.....	MEMBRANE STRUCTURE AND TRANSPORT.....	5R01 HL13256-09	37,113
VIDAVER, GEORGE A.....	MEMBRANE STRUCTURE AND TRANSPORT.....	2R01 HL13256-10	95,839
ORGANIZATION TOTAL	15	769,213	
OMAHA			
CREIGHTON UNIVERSITY ZIP CODE 68178			
ANDREWS, RICHARD V.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05390-18	33,261
BAUMSTARK, JOHN S.....	ELASTASE, SERUM INHIBITORS AND THE VASCULATURE.....	2R01 HL15979-06	97,255
BAUMSTARK, JOHN S.....	PATHOPHYSIOLOGY OF HOMOLOGOUS ELASTASE IN EMPHYSEMA.....	1R01 HL24227-01	92,555
BEWTRA, AGAINDRA K.....	BRONCHIAL SENSITIVITY TO MEDIATORS.....	3R23 AI14233-01S1	7,302
BEWTRA, AGAINDRA K.....	BRONCHIAL SENSITIVITY TO MEDIATORS.....	5R23 AI14233-02	43,813
BRODY, ALFRED W.....	REGIONAL PERBRONCHIAL CHEMOIMMUNOTHERAPY-BRONCHOCANCER.....	1R01 CA24738-01	48,788
HANEY, ROBERT P.....	LONGITUDINAL STUDY OF A PRE-OSTEOPOROSIS POPULATION.....	2R01 AM07912-15	190,567
SANDERS, W EUGENE, JR.....	PREVENTION OF PYOGENIC INFECTIONS.....	5R01 AI11584-07	39,437
TOWNLEY, ROBERT G.....	ALLERGIC DISEASES CENTER GRANT-MECHANISMS IN ASTHMA.....	5P50 AI12029-06	149,268
TOWNLEY, ROBERT G.....	NATURAL HISTORY OF ASTHMA-METHACHOLINE TOLERANCE TEST.....	1R01 HL21494-01A1	69,379
TOWNLEY, ROBERT G.....	ADRENERGIC RECEPTORS IN CHRONIC BRONCHITIS AND ASTHMA.....	1R01 HL24396-01	63,408
WELLS, IBERT C.....	LIPID-MOBILIZATION AND DIABETIC ATHEROSCLEROSIS.....	5R01 HL22115-03	46,231
ORGANIZATION TOTAL	12	881,264	
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105			
ANGLE, CAROL R.....	CHILDHOOD LEAD, PYRIMIDINES AND METABOLIC DEBRIS.....	5R01 ES01857-02	46,333
BARKER, KENNETH L.....	SPECIFICITY OF UTERINE RESPONSE TO OVARIAN HORMONES.....	2R01 HD02851-12	99,920
BARKER, KENNETH L.....	REGULATION OF UTERINE RIBOSOME ACTIVITY BY ESTROGENS.....	5R01 HD10528-03	84,834
BIRT, DIANE F.....	INFLUENCE OF DIETARY SELENIUM ON PANCREATIC CANCER.....	1R01 CA24549-01	85,777
BLAKE, CHARLES A.....	MECHANISMS OF CYCLIC LH AND FSH RELEASE.....	5R01 HD11011-03	45,870
CAMPBELL, GARY T.....	CYTOARCHITECTURE IN BRAIN-PITUITARY CONTROL SYSTEMS.....	2R01 AM19170-04A1	83,046
CAVALIERI, ERCOLE L.....	CYCLOPENTA(CD)PYRENE-SUSPECTED ENVIRONMENTAL CARCINOGEN.....	1R01 ES02145-01	86,414
CLARK, EDWARD B.....	ROLE OF BLOOD FLOW IN AORTIC ARCH DEVELOPMENT.....	1R01 HD13125-01	42,064
COOK, DAVID E.....	MECHANISM OF ACTION OF DIABETES ON DRUG METABOLISM.....	5R01 AM21282-03	46,312
CROUSE, DAVID A.....	THE THYMIC MICROENVIRONMENT AND T-CELL DIFFERENTIATION.....	1R01 AI15819-01	61,776
CURTIS, GARY L.....	PREVENTION OF SPERM ANTIBODY FOLLOWING VASECTOMY.....	1R01 HD12756-01	33,104
DEUPREE, JEAN D.....	ADRENERGIC STORAGE GRANULES STUDIES.....	1R01 NS15187-01	46,807
DONNELLY, THOMAS E, JR.....	PROPERTIES OF NUCLEAR CGMP-DEPENDENT PROTEIN KINASES.....	5R01 GM24287-02	54,878
GARDNER, PAUL J.....	LOCALIZATION OF TESTOSTERONE IN THE TESTIS.....	5R01 HD10872-02	23,780
GILMORE, JOSEPH P.....	NEURAL CONTROL OF BLOOD VOLUME.....	5R01 HL13427-10	128,852
GILMORE, JOSEPH P.....	STUDY OF THE MAMMALIAN RENAL MICROCIRCULATION.....	5R01 HL17902-05	66,384
GILMORE, JOSEPH P.....	MICROANGIOPATHY IN RENAL VASCULAR HYPERTENSION.....	1R01 HL25327-01	93,037
GOLD, BARRY.....	EPOXIDATION IN CHLORO-OLEFIN CARCINOGENESIS.....	1R01 CA24554-01	103,110
GRANDJEAN, CARTER J.....	DIALLYLNITROSAMINE CARCINOGENESIS: SPECIES DIFFERENCES.....	1R01 CA24863-01	48,589
HEIDRICK, MARGARET L.....	AGING OF IMMUNOCOMPETENT CELLS.....	5R01 AG00904-05	55,486
HEIDRICK, MARGARET L.....	BIOLOGY OF AGING STUDIES.....	1R21 AG01455-01	68,760

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEBRASKA—Continued			
HOFERT, JOHN F.....	BINDING AND ACTION OF INSULIN IN THE THYMUS.....	1R01 AM23015-01	34,397
JACOBS, MARYCE M.....	EFFECT OF SELENIUM ON COLON CARCINOGENESIS.....	1R26 CA25699-01	95,624
LANGENBACH, ROBERT J.....	IN VITRO CHEMICAL CARCINOGENESIS.....	3R01 CA20022-03S1	49,170
LEMON, HENRY M.....	CLINICAL CANCER EDUCATION.....	2R25 CA19623-04	129,639
MIRVISH, SIDNEY S.....	MECHANISM OF LIVER CARCINOGENESIS BY TWO NITROSOUREAS.....	1R01 CA24776-01	89,630
MIRVISH, SIDNEY S.....	STUDIES ON N-NITROSO COMPOUNDS.....	1P01 CA25100-01	576,038
MORIARTY, C MICHAEL.....	CELLULAR MECHANISMS OF PITUITARY HORMONE SECRETION.....	5R01 AM18328-05	26,406
PHARES, C K.....	GROWTH FACTOR FROM PLEROCERCOIDS OF S. MANSONOIDES.....	5R01 AM17226-05	34,334
PHARES, C K.....	EFFECTS OF GROWTH FACTORS IN DIABETICS.....	5R01 AM21186-03	59,425
PIPER, WALTER N.....	TOXICANT DEREGULATION OF ENDOCRINE HEME BIOSYNTHESIS.....	7R01 ES02423-01	94,217
PIPER, WALTER N.....	LEAD AND DRUG TOXICITY RELATED TO HEME BIOSYNTHESIS.....	7R01 ES02424-01	91,003
POUR, PARVIZ M.....	MULTIDISCIPLINARY INVESTIGATIONS ON PANCREATIC NEOPLASMS.....	5R26 CA20198-03	244,417
RAMALEY, JUDITH A.....	NEURAL CONTROL OF ADRENAL DEVELOPMENT.....	2R01 HD08703-04A1	50,380
ROGAN, ELEANOR G.....	BINDING OF AROMATIC HYDROCARBONS TO NUCLEIC ACIDS.....	1R01 CA25176-01	99,495
ROSENQUIST, GLENN C.....	ORIGIN OF HEART CHAMBERS IN THE CHICK EMBRYO.....	1R01 HL24058-01	38,927
SCHNELL, R CRAIG.....	SELENIUM TOXICITY: EFFECT ON HEPATIC DRUG METABOLISM.....	1R01 ES02425-01	54,348
SHARP, JOHN G.....	ROLE OF SUPPRESSOR T CELLS IN PANCREATIC DISEASE.....	5R01 AM21137-03	59,832
SIEGFRIED, CHARLES M.....	VITAMIN K EPOXIDE REDUCTASE & THE ACTION OF VITAMIN K.....	1R01 HL24470-01	55,256
SKULTETY, F MILES.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05391-18	77,995
SMITH, MC CLURE L.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA23084-02	25,546
STOHS, SIDNEY J.....	GLUTATHIONE LEVELS AND DRUG METABOLISM RELATIVE TO AGE.....	1R01 AG01513-01	56,680
ZUCKER, IRVING H.....	REFLEX CONTROL OF THE CIRCULATION IN HEART FAILURE.....	5R01 HL22594-02	87,036
ORGANIZATION TOTAL	43	3,534,928	
STATE TOTAL	75	5,483,882	
NEVADA			
LAS VEGAS			
UNIVERSITY OF NEVADA SYSTEM—UNIVERSITY OF NEVADA LAS VEGAS ZIP CODE 89154			
DILL, DAVID B.....	EXERCISE TOLERANCE TO DESERT HEAT: AGE, SEX AND RACE.....	2R01 AG00437-07A1	51,446
ORGANIZATION TOTAL	1	51,446	
RENO			
UNIVERSITY OF NEVADA SYSTEM—UNIVERSITY OF NEVADA RENO ZIP CODE 89507			
APICELLA, MICHAEL A.....	SUBGROUPS OF NEISSERIA GONORRHOEAE.....	7R01 AI16266-01	48,517
APICELLA, MICHAEL A.....	TAXONOMIC STUDIES OF B MENINGOCOCCI.....	7R01 AI16267-01	41,486
KOZEL, THOMAS R.....	CRYPTOCOCCAL POLYSACCHARIDE: INHIBITION OF PHAGOCYTOSIS.....	5R01 AI14209-03	29,571
LIGHTNER, DAVID A.....	BILIRUBIN PHOTOCHEMISTRY AND JAUNDICE PHOTOTHERAPY.....	5R01 HD09026-04	58,585
ORT, CAROL A.....	DEVELOPMENT OF FIBER TYPES IN AMPHIBIAN LIMB MUSCLES.....	1R01 AM25626-01	49,316
REITZ, RONALD C.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09035-03	55,336
SCOTT, LAWRENCE T.....	AZULOQUINONES: POTENTIAL NEW ANTITUMOR AGENTS.....	1R01 CA23488-01A1	27,860
ST JEOR, STEPHEN C.....	HERPESVIRUS-INDUCED MALIGNANCY.....	7R01 CA28089-01	87,033
VIG, BALDEV K.....	CENTROMERE SEPARATION, C-CHROMATIN AND NON-DISJUNCTION.....	1R01 GM24591-01A1	57,988
WOOD, JACKIE D.....	FUNCTION OF THE ENTERIC NERVOUS SYSTEM.....	7R01 AM26742-01	32,436
ORGANIZATION TOTAL	10	488,128	
STATE TOTAL	11	539,574	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW HAMPSHIRE			
DURHAM			
UNIVERSITY SYSTEM OF NEW HAMPSHIRE—UNIVERSITY OF NEW HAMPSHIRE		ZIP CODE 03824	
CHASTEEN, N DENNIS	PHYSICO-CHEMICAL CHARACTERIZATION OF THE TRANSFERRINS	2R01 GM20194-07A1	57,550
COLLINS, WALTER M	GENETICS, THE LYMPHOCYTE AND TUMOR REGRESSION	2R01 CA17680-05	53,248
GREEN, DONALD M	MECHANISM OF TRANSFECTION ENHANCEMENT IN B. SUBTILIS	1R01 GM25491-01	58,471
KLIPPENSTEIN, GERALD L	STRUCTURE AND MECHANISM OF RIBONUCLEOTIDE REDUCTASE	1R01 GM26314-01	59,138
SMITH, ROBERT A, JR	THE PHYSIOLOGY OF TUNED CHANNELS IN HUMAN VISION	5R01 EY01475-05	35,469
ORGANIZATION TOTAL	5	263,876	
HANOVER			
DARTMOUTH COLLEGE		ZIP CODE 03755	
ADLER, ROBERT A	MORPHOLOGIC AND METABOLIC STUDIES OF HUMAN OBESITY	5R01 AM13321-11	68,578
ADLER, ROBERT A	PROLACTIN—AS A POSSIBLE DIABETOGENIC	1R01 AM22032-01A1	72,198
ALLEN, ROBERT D	BIOLOGICAL MOVEMENT PROCESSES	5R01 GM22356-05	120,905
ALLEN, ROBERT D	BIOMEDICAL RESEARCH SUPPORT GRANT	5507 RR07056-06	40,359
BARTLETT, DONALD, JR	ROLE OF THE UPPER AIRWAYS IN THE CONTROL OF BREATHING	5R01 HL19827-03	81,558
BERGER, EDWARD M	GENETIC CONTROL OF PROTEIN SYNTHESIS IN EUKARYOTES	2R01 GM22866-04	62,484
BORISON, HERBERT L	CHEMOSENSORS OF THE NERVOUS SYSTEM	3R01 NS04456-17S1	27,346
BURGESS, DAVID R	ULTRASTRUCTURE AND BIOCHEMISTRY OF MICROVILLUS GROWTH	5R01 AM20021-03	35,077
CHANG, TA-YUAN	ROLES OF CHOLESTEROL AND ITS METABOLIC REGULATION	5R01 HL21246-03	66,933
CORNWELL, GIBBONS G, III	CANCER AND LEUKEMIA GROUP B	2R10 CA04326-21	111,145
CULP, WILLIAM J	SODIUM CHANNEL COMPONENTS OF EXCITABLE MEMBRANES	2R01 NS12067-04A2	58,480
DAUBENSPECK, JOHN A	BREATHING PATTERN VARIATION AND MECHANICAL INFLUENCES	5R01 HL19248-04	39,586
DOUPLE, EVAN B	RADIOSENSITIZATION BY PLATINUM ANTICANCER COMPOUNDS	5R01 CA23368-02	62,556
FERM, VERGIL H	TERATOGENIC EFFECTS OF HEAVY METALS	5R01 ES00697-08	137,094
FORSTER, ROY P	CELLULAR ASPECTS OF ACTIVE TRANSPORT	5R01 HL04457-21	83,036
FROEHNER, STANLEY C	MOLECULAR ASPECTS OF ACETYLCHOLINE RECEPTOR FUNCTION	1R01 NS14871-01	66,485
GALTON, VALERIE A	MECHANISMS OF THYROID HORMONE ACTION IN DEVELOPMENT	5R01 HD09020-05	62,744
GILBERT, JOHN J	VITAMIN E: ASSAYS, DEFICIENCY, EFFECTS, NEW COMPOUND	5R01 HD08210-05	74,830
GOSSELIN, ROBERT E	DRUG EFFECTS ON SOLUTE TRANSPORT ACROSS EPITHELIA	5R01 GM11598-15	43,549
GRIBBLE, GORDON W	FLUORINATED BENZANTHRACENE SYNTHESIS AND SCREENING	3R01 CA26422-01S1	26,509
HARRIS, EDWARD D, JR	STUDY OF CONNECTIVE TISSUE METABOLISM IN MAN	5R01 AM14780-09	86,038
HARRIS, EDWARD D, JR	MULTIPURPOSE ARTHRITIS CENTER SUPPORT	5P60 AM20641-03	192,398
INSELBURG, JOSEPH W	STABLE PLASMID-CELL ASSOCIATIONS	5R01 AI08937-11	80,464
JACKSON, ROBERT C	BIOSYNTHESIS AND SEGREGATION OF SECRETORY PROTEINS	1R01 GM26763-01	67,655
JENNETTE, KAREN W	INTERACTION OF CARCINOGENIC METALS WITH NUCLEIC ACIDS	5R01 CA22270-03	42,049
LAYTON, WILLIAM M, JR	CONGENITAL HEART MALFORMATIONS AND SITUS INVERSUS	2R01 HL19430-04	76,510
LIENHARD, GUSTAV E	THE MONOSACCHARIDE TRANSPORT SYSTEM OF THE ADIPOCYTE	1R01 AM25336-01	66,548
LIENHARD, GUSTAV E	THE GLUCOSE TRANSPORT SYSTEM OF THE HUMAN ERYTHROCYTE	2R01 GM22996-04	79,497
LONGNECKER, DANIEL S	STUDIES OF DNA CHANGES INDUCED BY PANCREATIC CARCINOGENS	3R01 CA17843-04S1	18,180
LONGNECKER, DANIEL S	STUDIES OF DNA CHANGE INDUCED BY PANCREATIC CARCINOGENS	5R01 CA17843-05	71,291
LONGNECKER, DANIEL S	SURVEY OF HUMAN PANCREASES FOR ACINAR CELL DYSPLASIA	2R26 CA19410-04	21,044
LUBIN, MARTIN	MODIFICATION OF TUMOR CELLS AND TUMOR SYSTEMS	5R01 CA17293-05	178,733
MARIN-PADILLA, MIGUEL	NORMAL & ABNORMAL STRUCTURE, HUMAN CEREBRAL CORTEX	5R01 HD09274-05	76,977
MARX, KENNETH A	PROPERTIES OF NUCLEASE-RESISTING MOUSE CHROMATIN	1R01 GM25886-01	72,251
MC CARTHY, LAWRENCE E	ANTICANCER VOMITING: DELINEATION AND CONTROL	1R01 CA25190-01	53,354
MC INTYRE, O ROSS	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA19379-04	103,940
MC INTYRE, O ROSS	CANCER CENTER SUPPORT (CORE) GRANT	5P30 CA23108-02	334,438
MC KOON, GAIL A	READING AND THE ACQUISITION OF KNOWLEDGE	1R01 HD13318-01	82,673
MERRITT, KATHARINE	SIGNIFICANCE OF ALLERGY TO ORTHOPEDIC IMPLANTS	1R01 AM20271-01A1	49,818
MORIN, LAWRENCE P	BEHAVIOR, BIOLOGICAL CLOCKS AND HORMONES	5R01 HD10740-03	28,862
MUDGE, GILBERT H	ANALGESIC NEPHROPATHY: MECHANISMS OF PATHOGENESIS	5R01 AM16960-05	77,245
MUNCK, ALLAN U	THE MODE OF ACTION OF STEROID HORMONES	5R01 AM03535-21	158,485
MUNCK, ALLAN U	GLUCOCORTICOID-RESISTANT LEUKEMIC LYMPHOCYTES	5R01 CA17323-05	76,288
NATTIE, EUGENE E	BRAIN METABOLISM, ACID-BASE BALANCE, AND RESPIRATION	5R01 HL18351-04	30,949
NODA, LAFAYETTE H	HIGH ENERGY PHOSPHATE TRANSFERRING ENZYMES	5R01 GM23123-22	106,033
NORTH, WILLIAM G	ECTOPIC HORMONES IN SMALL CELL CARCINOMA OF THE LUNG	2R01 CA19613-04	72,355

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW HAMPSHIRE—Continued			
OU, LO-CHANG.....	PATHOPHYSIOLOGICAL EFFECTS OF HYPOXIA.....	5R01 HL21159-03	59,726
PFEFFERKORN, ELMER R.....	TOXOPLASMA GONDII: CELL BIOLOGY AND GENETICS.....	5R01 AI14151-02	70,247
RICHMOND, ROBERT C.....	RADIATION-CHEMICAL INDUCTION OF MUTAGENESIS.....	1R01 CA26045-01	74,566
SCORNIK, OSCAR A.....	MAMMALIAN CELL MUTANTS AFFECTING PROTEIN DEGRADATION.....	1R01 AG01420-01	72,015
SCORNIK, OSCAR A.....	REGULATION OF PROTEIN METABOLISM IN MAMMALIAN LIVER.....	5R01 AM13336-11	98,389
SINCLAIR, PETER R.....	LIVER CELL CULTURE FOR STUDY OF CARCINOGEN ACTIVATION.....	5R01 CA25012-02	85,096
SLOBODA, ROGER D.....	STUDIES OF MICROTUBULE-ASSOCIATED PROTEINS.....	1R01 GM25061-01	56,044
SMITH, KENDALL A.....	REGULATION OF T-CELL PROLIFERATION AND DIFFERENTIATION.....	2R01 CA17643-04A1	95,644
SMITH, ROGER P.....	METHEMOGLOBINEMIA AND ANTIHYPERTENSIVE DRUGS.....	5R01 HL14127-17	70,095
SORENSEN, GEORGE D.....	PATHOBIOLOGY OF SMALL CELL CARCINOMA OF THE LUNG.....	3R01 CA17710-03S1	36,528
SORENSEN, GEORGE D.....	PATHOBIOLOGY OF SMALL CELL CARCINOMA OF THE LUNG.....	1P01 CA25845-01	355,631
SPENCER, THOMAS A.....	NOVEL INHIBITORS OF CHOLESTEROL BIOSYNTHESIS.....	1R01 HL23083-01A1	88,394
SPIEGEL, MELVIN.....	REAGGREGATION OF DISSOCIATED EMBRYONIC AND ADULT CELLS.....	5R01 HD09320-05	53,679
ST JOHN, WALTER M.....	BRAIN STEM INTEGRATION OF CHEMORECEPTOR ACTIVITY.....	5R01 HL20574-04	27,165
STERN, PAUL.....	HUMAN DEVELOPMENTAL AND PATHOLOGICAL ASPECTS OF ADH.....	5R01 HD12123-02	58,409
STRICKLER, JAMES C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05392-18	143,791
TENNEY, STEPHEN M.....	INTERRELATIONSHIPS OF CIRCULATION AND RESPIRATION.....	5R01 HL02888-23	49,186
VALTIN, HEINZ.....	HEREDITARY DIABETES INSIPIDUS.....	5R01 AM08469-15	217,269
VELEZ, SAMUEL J.....	REGENERATION OF NEURONAL CONNECTIONS.....	5R01 NS13800-03	37,671
WIRA, CHARLES R.....	SEX HORMONE REGULATION OF IMMUNOGLOBULINS.....	5R01 AI13541-03	81,600
YAGER, JAMES D, JR.....	EFFECT OF DIETARY STRESS ON PANCREATIC CARCINOGENESIS.....	3R01 CA20948-02S1	19,411
YAGER, JAMES D, JR.....	ROLE OF CONADAL STEROIDS IN LIVER CARCINOGENESIS.....	5R01 CA23916-02	52,525
YAGER, JAMES D, JR.....	ERROR-PRONE DNA REPAIR IN HEPATOCARCINOGENESIS.....	1R01 CA26274-01	78,706
ORGANIZATION TOTAL	69 5,627,314		
STATE TOTAL	74 5,891,190		
NEW JERSEY			
CAMDEN			
INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 08103			
GIRARDI, ANTHONY J.....	IMMUNOLOGIC STUDIES IN MOUSE AND HUMAN BREAST CANCER.....	1R01 CA24940-01	189,582
JACOBS, LOIS J.....	QUANTITATIVE MUTAGENESIS STUDIES IN HUMAN FIBROBLASTS.....	1R01 CA26212-01	116,941
LASFARGUES, ETIENNE Y.....	TISSUE CULTURE STUDIES OF THE MAMMARY TUMOR VIRUS.....	5R01 CA08515-14	124,531
MC GARRITY, GERARD J.....	DIFFERENTIATED CELL CULTURES: INFECTION BY MYCOPLASMAS.....	1R01 AI15748-01	52,263
ORGANIZATION TOTAL	4 483,317		
RUTGERS THE STATE UNIVERSITY CAMDEN ZIP CODE 08102			
CRIMMINS, EILEEN M.....	THE U S MORTALITY DECLINE: EVIDENCE FROM CENSUS DATA.....	1R01 AG02089-01	26,972
ORGANIZATION TOTAL	1 26,972		
HOBOKEN			
STEVENS INSTITUTE OF TECHNOLOGY ZIP CODE 07030			
RYAN, VIVIAN W.....	SALIVARY PROTEINS IN BACTERIAL AGGREGATION/ADHERENCE.....	1R23 DE05436-01	23,300
ORGANIZATION TOTAL	1 23,300		
NEWARK			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103			
BARTELL, PASQUALE F.....	EFFECTS OF P. AERUGINOSA SLIME ON HOST DEFENSES.....	5R01 AI08504-11	78,977
CHINARD, FRANCIS P.....	PULMONARY TRANSPORT AND METABOLISM IN VIVO.....	5R01 HL12879-10	403,040
CHINARD, FRANCIS P.....	TRACER AND OSMOTIC KINETICS IN BODY ORGANS.....	5R01 HL12974-11	96,752
CUNNINGHAM, EARLENE B.....	INTERACTIONS OF ENZYMES OF THE ERYTHROCYTE MEMBRANE.....	3R01 GM26577-01S1	7,440
DI MAYORCA, GIAMPIERO.....	MOLECULAR MECHANISM OF CHEMICAL CARCINOGENESIS.....	5R01 CA25013-02	116,984
FARNSWORTH, PATRICIA N.....	COMPARATIVE STUDY OF AGING OF THE CRYSTALLINE LENS.....	5R01 EY01533-05	98,680

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
FRIEDMAN, KENNETH J.	ROLE OF LIPIDS IN CONTROLLING MEMBRANE PHYSIOLOGY.....	5R01 GM24017-03	43,705
FU, S. JOSEPH	PROGRESSION OF CATARACTOGENESIS AND POSSIBLE REVERSAL.....	5R01 EY01156-05	95,220
GONA, AMOS G.	NORMAL AND THYROID-INDUCED CEREBELLAR MATURATION.....	5R01 HD08157-06	45,909
HIRSCHBERG, ERICH	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05393-18	119,032
INGOGLIA, NICHOLAS A.	AXONAL RNA IN REGENERATING OPTIC NERVES OF GOLDFISH.....	1R01 EY02887-01	50,593
JANSONS, VILMA K.	LIPOSOMES AS CARRIERS FOR ANTITUMOR AGENTS.....	5R01 CA19127-04	45,552
KAPLAN, HARRY A.	VASCULAR ANATOMY OF THE TELENCEPHALON.....	3R01 HL19053-03S1	1,905
KROPP, DONNA L.	STRUCTURE-FUNCTION RELATIONSHIPS IN RED CELL NA-K PUMPS.....	5R01 HL20711-02	43,052
KUMAR, SURIENDER.	MECHANISM OF CONTROL OF FATTY ACID SYNTHESIS.....	5R01 AM16070-06	73,515
LAEMLE, LOIS K.	AN EXPERIMENTAL STUDY OF THE DEVELOPING VISUAL SYSTEM.....	5R01 EY01174-05	32,617
LASSER, NORMAN L.	SERIAL EXERCISE TESTING IN HIGH RISK MEN.....	1R01 HL22848-01A1	50,056
LEA, MICHAEL A.	NONHISTONE CHROMOSOMAL PROTEINS AND HEPATOMA GROWTH.....	5R01 CA16274-06	61,917
LOWNDES, HERBERT E.	SPINAL CORD CORRELATES OF PERIPHERAL NEUROPATHIES.....	5R01 NS11948-05	60,410
MACEO-SOBRINHO, BRAZ	CELL MEDIATED IMMUNITY IN GINGIVAL INFLAMMATION.....	2R01 DE04501-04	28,429
MACHIEDO, GEORGE W.	PROSTAGLANDIN IN SHOCK AND POST-SHOCK ORGAN FAILURE.....	1R01 GM25831-01A1	55,065
MASSOVER, WILLIAM H.	FORM AND FUNCTION OF NORMAL AND NEOPLASTIC FERRITINS.....	1R01 CA27491-01	55,390
MC ARDLE, JOSEPH J.	CONTROL OF MUSCLE DURING REINNERVATION.....	2R01 NS11055-07	17,900
MOSCHOS, CHRISTOS B.	CORONARY THROMBOSIS: PATHOGENESIS AND DIAGNOSIS.....	5R01 HL13036-09	106,094
MOSKOWITZ, HARVEY D.	EVALUATION OF NEW FILLERS FOR DENTAL COMPOSITE RESINS.....	5R23 DE04334-03	41,150
REGAN, TIMOTHY J.	THE MYOCARDIUM IN DIABETES MELLITUS.....	5R01 HL09914-14	194,997
SALEN, GERALD	THE METABOLISM OF URSODEOXYCHOLIC ACID IN MAN.....	5R01 AM18707-05	78,009
SALEN, GERALD	METABOLISM OF CHOLESTANOL AND CHOLESTEROL IN MAN.....	5R01 HL17818-06	104,450
SAPRU, HREDAY N.	CARDIOVASCULAR AND RESPIRATORY ACTIONS OF ENKEPHALINS.....	1R01 HL24347-01	34,520
SHEFER, SARAH	INBORN ERRORS IN BILE ACID SYNTHESIS.....	5R01 AM26756-02	118,554
SHERR, STANLEY I.	DRUG AND METABOLIC STUDIES OF PULMONARY FAT EMBOLISM.....	1R01 HL24624-01	59,520
SHOVLIN, FRANCIS E.	UPTAKE OF HYDROXYAPATITE PHOSPHORUS BY ORAL BACTERIA.....	5R01 DE03867-06	70,441
SIEGEL, ALLAN	ROLE OF THE LIMBIC SYSTEM IN HYPOTHALAMIC AGGRESSION.....	5R01 NS07941-10	52,359
STOUT, MARGUERITE A.	A MODEL FOR CALCIUM HOMEOSTASIS IN EXCITABLE TISSUE.....	5R23 HL21213-02	44,806
STUDZINSKI, GEORGE P.	ACTION OF AMINONUCLEOSIDE ON NORMAL AND CANCER CELLS.....	2R01 CA19750-04	58,131
SWAN, KENNETH G.	VS/OACTIVE AGENTS IN SPLANCHNIC VISCERA OF PRIMATES.....	2R01 HL18096-05	50,388
VITALE, LEONARD F.	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	3R10 CA12637-07S1	3,945
WAGNER, BETTY J.	PROTEOLYTIC ENZYMES AND CATARACTOGENESIS.....	5R01 EY02299-02	76,935
WILSON, ROBERT G.	MECHANISM OF ADRIAMYCIN ON L-1210 TRANSCRIPTION.....	1R01 CA24905-01	55,555
YANG, CHUNG S.	MONOOXYGENASE: PROPERTIES AND CARCINOGEN ACTIVATION.....	5R01 CA16788-06	60,629
ORGANIZATION TOTAL	40 2,892,623		
NEW JERSEY INSTITUTE OF TECHNOLOGY ZIP CODE 07102			
SNYDER, WILLIAM H.	BLOCKED ISOCYANATES FOR CHEMICAL BONDING TO DENTIN.....	1R01 DE05053-01	59,288
ORGANIZATION TOTAL	1 59,288		
NEWARK BETH ISRAEL MEDICAL CENTER ZIP CODE 07112			
PARSONNET, VICTOR	EXTENDING THE LIFE OF IMPLANTED PACEMAKERS.....	2R01 HL15247-06	48,025
PARSONNET, VICTOR	THERMAL CONTROL OF HEART RATE.....	1R01 HL23527-01	50,542
PARSONNET, VICTOR	SIMULATION OF PACEMAKER AND ECG INTERACTIONS.....	1R01 HL24567-01	28,893
ORGANIZATION TOTAL	3 127,460		
RUTGERS THE STATE UNIVERSITY NEWARK ZIP CODE 07104			
FEDER, HARVEY H.	HORMONAL REGULATION OF BEHAVIOR.....	5R01 HD04467-08	71,652
HALL, JAMES C.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07059-14	41,680
HALL, STAN S.	GLYOXALASE I INHIBITOR STUDIES AND ANTITUMOR AGENTS.....	1R01 GM25727-01A1	47,841
JORDAN, FRANK.	MECHANISM OF THIAMINE PYROPHOSPHATE REQUIRING ENZYMES.....	5R01 AM17495-06	60,861
JORDAN, FRANK.	PURINE NUCLEOSIDE PHOSPHORYLASE STUDIES.....	1R01 GM26682-01	51,910
STRAUSSER, HELEN R.	THE INFLUENCE OF SEX AND AGE ON IMMUNE FUNCTION.....	1R01 AG01225-01	59,614
ORGANIZATION TOTAL	6 333,558		
NEW BRUNSWICK			
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903			
AMAREL, SAUL	SPECIAL RESEARCH RESOURCE: COMPUTERS IN BIOMEDICINE.....	5P41 RR00643-08	675,986

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
BARFIELD, RONALD J.....	ENDOCRINE AND NEURAL BASES OF BEHAVIOR.....	5R01 HD04484-08	42,191
BRESLAUER, KENNETH J.....	RNA STABILITY AND CONFORMATIONAL FLEXIBILITY.....	1R01 GM23509-01A1	92,720
BROWN, HARRY D.....	MICROCALORIMETRIC DEFINITION OF CLINICAL REACTIONS.....	2R01 GM22679-05	61,684
CHAMPE, SEWELL P.....	GENETIC CONTROL OF DEVELOPMENT IN MODEL SYSTEMS.....	2R01 GM17020-11	102,398
CHEN, KUANG YU.....	MEMBRANE STRUCTURE & ENZYME INDUCTION.....	1R01 CA24479-01	54,178
COLLIER, GEORGE H.....	THE DETERMINANTS OF REINFORCEMENT.....	5R01 HD10588-03	72,063
COUSINS, ROBERT J.....	ZINC AND THE SYNTHESIS OF ZINC BINDING PROTEIN.....	5R01 AM18555-05	47,522
COUSINS, ROBERT J.....	ZINC METABOLISM IN ISOLATED LIVER CELLS.....	2R01 AM20485-03	51,212
COUSINS, ROBERT J.....	PERIODONTAL DISEASE AND COPPER AND ZINC METABOLISM.....	5R01 DE04606-02	48,903
COUSINS, ROBERT J.....	METABOLISM AND BIOCHEMICAL ACTIONS OF CADMIUM.....	5R01 ES00777-08	60,001
DAVIS, FRANK F.....	NONIMMUNOGENIC ENZYMES FOR THERAPEUTIC USE.....	5R01 GM20946-05	81,078
DENNEY, DONALD B.....	PREPARATION AND CHEMISTRY OF ORGANOPHOSPHORUS COMPOUNDS.....	9R01 GM26428-15	67,482
ESSIEN, FRANCINE B.....	STUDY OF A LETHAL MUTATION AFFECTING LUNG DEVELOPMENT.....	5R01 HD10260-03	59,193
FALK, JOHN L.....	BEHAVIORAL SHARE IN HYPERTENSION.....	5R01 HL19612-08	50,103
FISHER, HANS.....	HISTIDINE DERIVATIVES: ROLE IN OLFACTION AND TRAUMA.....	2R01 AM18932-03A1	47,881
GRIMINGER, PAUL.....	MELIORATION OF POST-TRAUMA NITROGEN LOSS IN OLD RATS.....	2R01 AG00160-04	24,982
GROB, GERALD N.....	HISTORY OF MENTAL HOSPITALS IN THE U.S. SINCE 1875.....	5R01 LM02306-10	19,989
ISIED, STEPHAN S.....	INERT METAL ION PROTECTING GROUPS IN PEPTIDE SYNTHESIS.....	1R01 GM26324-01	63,379
KAPLAN, MURRAY L.....	EARLY NUTRITION AND DEVELOPMENT OF OBESITY.....	5R01 AM18557-05	54,108
KENT, HARRY A, JR.....	ACTION OF CONTRACEPTIVE TETRAPEPTIDE AND STEROID.....	2R01 HD09608-04	64,788
KNAPP, SPENCER A.....	SYNTHESIS OF ANTITUMOR AGENTS RELATED TO CORIOLIN.....	5R23 CA24747-02	36,274
LAMPEN, J OLIVER.....	CELL PERMEABILITY AND INVERTASE BIOSYNTHESIS.....	5R01 AG00162-18	110,530
LEUNG, KIU.....	PRODUCTION OF ANTIBODIES TO TUMOR ASSOCIATED ANTIGENS.....	1R01 CA25910-01	69,285
MACDONALD, GORDON J.....	OVARIAN INVOLUTION IN AGING.....	5R01 AG00468-06	47,948
MACKAY, VIVIAN L.....	RECOMBINATION REPAIR AND CONJUGATION IN YEAST.....	5R01 GM22149-05	52,070
MARAMOROSCH, KARL.....	BACULOVIRUS IN MAMMALIAN CELLS: USES IN PARASITOLOGY.....	5R01 AI14509-02	73,921
MOSS, ROBERT A.....	MICELLAR ALKYLATING AGENTS AND ENZYME ANALOGS.....	5R01 CA14912-14	72,499
NICOLICH, LORRAINE M.....	MENTAL REPRESENTATION AND INITIAL LANGUAGE LEARNING.....	1R01 HD11731-01A1	67,613
NIEDERMAN, ROBERT A.....	ASSEMBLY OF AN ENERGY TRANSDUCING MEMBRANE SYSTEM.....	1R01 GM26248-01	68,754
OLSON, WILMA K.....	CARCINOGENESIS BY HYDROCARBONS: A MOLECULAR APPROACH.....	1R01 CA25981-01	10,075
OLSON, WILMA K.....	NUCLEIC ACID CONFORMATION, PROPERTIES AND INTERACTIONS.....	5R01 GM20861-06	57,043
OTHMER, HANS G.....	DYNAMIC PATTERN IN CHEMICALLY-REACTING SYSTEMS.....	2R01 GM21558-05	27,758
PAGE, CHARLES H.....	POSTURAL REGULATION.....	5R01 NS12262-05	30,378
PASSMORE, HOWARD C.....	RECOMBINATION ANALYSIS OF THE MOUSE H-2 COMPLEX.....	5R01 AI14424-02	39,318
PIECZENIK, GEORGE.....	GENOTYPIC SELECTION: SYNTAX AND STRUCTURE OF SEQUENCES.....	5R01 GM23503-03	20,836
PORETZ, RONALD D.....	LYMPHOCYTE SURFACE GLYCOCONJUGATES.....	5R01 CA25134-02	47,906
PRAMER, DAVID.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07058-14	144,493
ROSENSTRAUS, MAURICE J.....	CELL INTERACTIONS IN TETRATOCARCINOMA DIFFERENTIATION.....	1R01 CA26014-01	92,313
SAN FILIPPO, JOSEPH, JR.....	SUPEROXIDE REACTIVITY.....	2R01 AM18713-04	76,981
SCHUGAR, HARVEY J.....	BIOINORGANIC ASPECTS OF SELECTED MERCAPTEID COMPLEXES.....	5R01 AM16412-06	43,034
SIMPSON, ROBERT W.....	CHARACTERIZATION OF AVIAN CORONAVIRUSES.....	5R01 AI14359-02	95,673
SINHA, NAVIN K.....	IN VITRO ANALYSIS OF A DNA REPLICATION APPARATUS.....	5R01 GM24391-03	46,977
STRAUSS, ULRICH P.....	SPECIFIC COUNTERION BINDING BY POLYELECTROLYTES.....	5R01 GM12307-14	52,040
VALENTINE, JOAN S.....	THE HISTIDYL IMIDAZOLE LIGAND IN METALLOPROTEINS.....	5R01 GM24759-02	54,313
WALKOWITZ, JUDITH R.....	PROSTITUTION, VENEREAL DISEASE, AND CONTAGIOUS DISEASES.....	2R01 LM02574-03	22,749
WITKIN, EVELYN M.....	INDUCED MUTATIONS IN BACTERIA.....	5R01 AI10778-08	74,160
ZAMBRASKI, EDWARD J.....	NEURAL CONTROL OF RENAL TUBULAR SODIUM REABSORPTION.....	1R23 HL23539-01	33,101
ORGANIZATION TOTAL	48	3,409,883	

PASSAIC

BETH ISRAEL HOSPITAL ZIP CODE 07055

DVORAK, HAROLD F.....	PATHOGENESIS OF CELLULAR IMMUNITY AND TOLERANCE.....	7R01 AI16925-01	93,255
ORGANIZATION TOTAL	1	93,255	

PISCATAWAY

COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY-NEW JERSEY SCHOOL OF OSTEOPATHIC MEDICINE ZIP CODE 08854

MIDDLETON, RICHARD B.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09085-02	104,278
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
ORGANIZATION TOTAL	1	104,278	
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY-RUTGERS MEDICAL SCHOOL ZIP CODE 08854			
BERG, RICHARD A.	BIOSYNTHESIS OF PROCOLLAGEN AND PROLYL HYDROXYLASE	1R01 AM21744-01	65,465
BLANK, MARION S.	CENTER FOR THE NEUROCOGNITIVE STUDY OF DYSLLEXIA	1P01 HD12278-01	675,406
BRECKENRIDGE, BRUCE M.	CYCLIC AMP AND METABOLIC CONTROL IN THE NERVOUS SYSTEM	5R01 NS10975-13	102,012
BRODSKY, BARBARA M.	X-RAY DIFFRACTION OF CONNECTIVE TISSUE	5R01 AM19626-03	45,251
BROSTROM, CHARLES O.	CONTROL OF CYCLIC NUCLEOTIDE PHOSPHODIESTERASE	5R01 NS11340-06	70,981
BROWNING, EDWARD T.	METABOLIC REGULATION IN GLIOMA CELLS	5R01 NS08436-09	39,454
CRANE, ROBERT K.	BRUSH BORDER PHASE OF DIGESTIVE-ABSORPTIVE FUNCTION	5R01 AM10696-14	134,787
DUBIN, DONALD T.	R-RNA & RIBOSOME SYNTHESIS IN BACTERIA & ANIMAL CELLS	5R01 GM14957-12	90,385
EDELMAN, NORMAN H.	DETERMINANTS OF THE VENTILATORY RESPONSE TO HYPOXIA	5R01 HL16022-06	62,376
EDELMAN, NORMAN H.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05576-15	114,453
EGGER, M. DAVID	PLASTICITY IN A CUTANEOUS SPINAL REFLEX	5R01 NS13456-03	46,285
EICHHOLZ, ALEXANDER	STUDY OF THE TRANSPORT OF CARBOHYDRATES	5R01 AM17874-05	70,465
FIEZKE, PETER P.	STRUCTURE AND ORGANIZATION OF BASEMENT MEMBRANES	5R01 AM22051-02	76,639
GELLER, HERBERT M.	ENDOCRINE HYPOTHALAMIC NEURONAL CIRCUITS IN VITRO	1R01 NS15468-01	67,120
GOCKE, DAVID J.	CORRELATIVE STUDIES IN VIRAL HEPATITIS	5R01 AI11593-07	85,466
HOLOWCZAK, JOHN A.	TRANSCRIPTION & TRANSLATION IN POX VIRUS INFECTED CELLS	2R01 CA11027-12	87,789
KHACHADURIAN, AVEDIS K.	FAMILIAL HYPERCHOLESTEROLEMIA: STUDIES OF FIBROBLASTS	5R01 HL18878-04	87,685
KRAUTHAMER, GEORGE M.	CENTRAL NERVOUS MECHANISMS OF VISCERAL AND SOMATIC PAIN	5R01 NS10922-03	36,476
LEIBOWITZ, MICHAEL J.	VIRUS REPLICATION IN EUKARYOTIC CELLS	1R01 AI14843-01A1	3,478
LENARD, JOHN	VSV STRUCTURE, BUDDING, ENTRY USING MEMBRANE MUTANTS	2R01 AI13002-04	73,729
MACDONALD, GORDON J.	STUDY OF HORMONE LEVELS DURING PREGNANCY	5R01 HD10824-02	55,612
MACKENZIE, JAMES	COLLAGEN-ENZYME MATERIALS FOR ENZYME THERAPY	5R01 GM23672-02	16,192
MC ALLISTER, WILLIAM T.	REGULATION OF VIRAL GENE EXPRESSION	5R01 GM21783-05	39,254
MORRIS, N. RONALD	GENETICS AND BIOCHEMISTRY OF MITOSIS IN ASPERGILLUS	2R01 GM23060-04	80,529
MOYLE, WILLIAM R.	CYCLIC AMP: ROLE IN ADRENAL TUMOR STEROIDOGENESIS	7R01 CA26638-01	74,357
OLSEN, BJORN R.	STRUCTURE OF TYPE I AND TYPE II PROCOLLAGENS	1R01 AM21471-01	112,198
PROCKOP, DARWIN J.	BIOCHEMISTRY OF NORMAL AND DISEASED CONNECTIVE TISSUE	2P01 AM16516-09	421,222
PROCKOP, DARWIN J.	BIOCHEMISTRY AND MOLECULAR GENETICS OF COLLAGEN	1R13 AM26525-01	15,000
RASKA, KAREL, JR.	PATHOLOGY OF THE IMMUNE RESPONSE IN UREMIA	1R01 AM23007-01	64,673
RASKA, KAREL, JR.	LOW MOLECULAR WEIGHT RNA IN ADENOVIRUS INFECTIONS	5R01 CA21196-03	65,164
RILEY, DAVID J.	PREVENTION OF LUNG INJURY BY A PROLINE ANALOGUE	1R01 HL24264-01	38,175
ROISEN, FRED J.	STUDIES OF NERVE DEVELOPMENT	5R01 NS11299-05	57,039
SANDERS, MARILYN M.	GENE CONTROL & CGMP IN DROSOPHILA & SENILE DEMENTIA	1R01 AG02066-01	78,621
SANTIAGO, TEODORO V.	RESPIRATORY CONSEQUENCES OF METHADONE MAINTENANCE	1R23 HL23315-01	42,881
SCHIMMEL, RICHARD J.	THE ACTION OF CALCIUM ON ADIPOSE TISSUE	5R01 AM21431-03	40,987
SCHLESINGER, R. WALTER	TOGAVIRUS REPLICATION IN INSECT AND VERTEBRATE CELLS	2R22 AI05920-17	141,090
SCHNEIDER, STEPHEN H.	PHYSICAL TRAINING AND VASCULAR RISK FACTORS IN DIABETICS	1R01 AM26894-01	102,387
SHEA, STEPHEN M.	GLOMERULAR PATHOLOGY FOLLOWING PARTIAL NEPHRECTOMY	5R01 AM13495-10	74,756
SHIMAMURA, TETSUO	PATHOLOGY OF EXPERIMENTAL ACUTE PYELONEPHRITIS	5R01 AM21339-02	29,053
STEVENSON, NANCY R.	FEEDING-INDUCED RHYTHMICITY IN INTESTINAL FUNCTION	3R01 AM18953-03S1	11,621
STEVENSON, NANCY R.	FEEDING-INDUCED RHYTHMICITY IN INTESTINAL FUNCTION	2R01 AM18953-04	63,994
STOLLAR, VICTOR	GENETICS OF CULTURED MOSQUITO CELLS	5R01 AI11290-05	83,217
STROHL, WILLIAM A.	VIRAL CARCINOGENESIS AND LATENCY	5R01 CA08851-15	122,253
TAKAHASHI, MARK T.	REGULATION OF THREONINE-SENSITIVE ASPARTOKINASE ACTIVITY	5R01 GM18628-09	80,868
TRUPIN, GENE L.	MARSUPIAL MODEL FOR MAMMALIAN LIMB REGENERATION	1R01 HD13315-01	9,000
WEISS, HARVEY R.	REGIONAL OXYGEN CONSUMPTION OF HEART AND OTHER ORGANS	5R01 HL21172-03	49,583
WOLFF, DONALD J.	FUNCTION OF A BRAIN CALCIUM-BINDING PROTEIN	5R01 NS11252-06	58,802
ORGANIZATION TOTAL	47	4,064,230	
PRINCETON			
PRINCETON UNIVERSITY ZIP CODE 08540			
ALLEN, LELAND C.	ELECTRONIC STRUCTURE OF ENZYMES AND REDOX PROTEINS	1R01 GM26462-01	70,325
APPLEBURY, MEREDITH L.	PHOTORECEPTION AND TRANSDUCTION IN VISION	5R01 EY01542-05	64,154
APPLEBURY, MEREDITH L.	BIOCHEMISTRY OF PHOTORECEPTOR CELLS	5R01 EY02659-02	54,464
BONNER, JOHN T.	CHEMOTAXIS AND DIFFERENTIATION IN SLIME MOLDS	2R01 GM17856-07A1	75,710

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
BOTHWELL, MARK A.....	GLANDULAR AND EXTRA-GLANDULAR NERVE GROWTH FACTOR.....	5R01 NS14632-02	34,482
CLINE, THOMAS W.....	MATERNAL CONTROL OF DROSOPHILA EMBRYONIC DEVELOPMENT.....	5R01 GM23468-03	59,029
COALE, ANSLEY J.....	ESTIMATION OF DEMOGRAPHIC INDICES FROM IMPERFECT DATA.....	5R01 HD11720-02	81,217
COHEN, EDWARD H.....	ORGANIZATION AND EVOLUTION OF DROSOPHILA DNA.....	5R01 GM21786-05	67,645
COWAN, NICHOLAS J.....	IMMUNOGLOBULIN BIOSYNTHESIS IN MOUSE MYELOMA CELLS.....	5R01 CA20918-03	64,896
COWAN, NICHOLAS J.....	STRUCTURE OF TUBULIN AND RHODOPSIN MRNA.....	1R01 GM26456-01	82,987
FRESCO, JACQUES R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07057-14	131,347
GELPERIN, ALAN.....	BEHAVIORAL AND SYNAPTIC FUNCTIONS OF SEROTONIN.....	1R01 NS15698-01	55,194
KELLEY, DARCY B.....	NEURAL SUBSTRATES FOR REPRODUCTIVE BEHAVIOR.....	5R01 HD12126-02	41,717
KLOTZ, LYNN C.....	PHYSICAL STUDIES OF CHROMOSOMAL DNA.....	7R01 GM27940-01	38,462
LAEMMLI, ULRICH K.....	METAPHASE CHROMOSOME STRUCTURE: NONHISTONE PROTEINS.....	5R01 GM25111-02	123,300
LEVINE, ARNOLD J.....	DNA REPLICATION IN SV40 INFECTED CELLS.....	5R01 CA11049-11	87,156
MENKEN, JANE A.....	FERTILITY AND MARITAL DISRUPTION.....	1R01 HD12580-01	34,866
NEWTON, AUSTIN.....	REGULATION OF DEVELOPMENT IN CAULOBACTER CRESCENTUS.....	5R01 GM22999-05	79,007
NEWTON, AUSTIN.....	GENETICS OF CELL CYCLE AND DEVELOPMENT IN CAULOBACTER.....	5R01 GM25644-02	73,603
PATON, MARTHA C.....	EXPERIMENTS ON THE DEVELOPMENT OF NEURAL PATHWAYS.....	5R01 EY01872-03	55,653
QUINN, WILLIAM G, JR.....	GENETIC ANALYSIS OF LEARNING AND MEMORY IN DROSOPHILA.....	5R01 GM25578-02	99,683
REYNOLDS, GEORGE T.....	X-RAY DIFFRACTION STUDIES OF VERTEBRATE EYE MEMBRANE.....	1R01 EY02679-01	65,909
SCHEDI, PAUL.....	GENE EXPRESSION DURING D MELANOGASTER EMBRYOGENESIS.....	1R01 GM25976-01	86,878
SCHWARTZ, JEFFREY.....	STABILIZED PROSTACYCLINS TO TREAT VASCULAR DISEASE.....	5R01 HL22612-02	58,067
SEMMELHACK, MARTIN F.....	NATURAL PRODUCT SYNTHESIS.....	5R01 AI15916-02	88,119
SEMMELHACK, MARTIN F.....	SYNTHESIS OF NATURAL ANTI-CANCER AGENTS AND ANALOGS.....	1R01 CA26727-01	78,196
SHERRICK, CARL E.....	THE ROLE OF THE HAPTIC SYSTEM IN COMMUNICATION.....	5R01 NS04755-17	157,649
SHIMOMURA, OSAMU.....	BIOPHYSICS AND CHEMISTRY OF BIOLUMINESCENCE.....	1R01 GM25093-01	47,480
SPIRO, THOMAS G.....	METAL CENTERS IN BIOLOGICAL SYSTEMS.....	5R01 GM13498-14	82,911
SPIRO, THOMAS G.....	RAMAN STUDIES OF FLAVINS AND FLAVOPROTEINS.....	5R01 GM25158-02	77,335
SPIRO, THOMAS G.....	RAMAN SPECTRA OF HEME PROTEINS AND RELATED MOLECULES.....	2R01 HL12526-10A1	113,854
STEINBERG, MALCOLM S.....	CHEMISTRY AND MEASUREMENT OF INTERCELLULAR ADHESION.....	5R01 CA13605-08	152,025
STEINBERG, MALCOLM S.....	DESMOSOMAL CONSTITUENTS IN CELL ASSEMBLY AND DISEASE.....	1R01 GM26047-01	100,819
WESTOFF, CHARLES F.....	POPULATION RESEARCH CENTER.....	2P30 HD08008-06	74,390
WEVER, ERNEST G.....	THE NATURE OF HEARING.....	5R01 NS03798-17	101,518
WITMAN, GEORGE B, III.....	MOLECULAR MECHANISM OF FLAGELLA MOTILITY AND ASSEMBLY.....	5R01 GM21586-05	80,004
WOOLEY, JOHN C.....	CHROMATIN STRUCTURE AND GENE REGULATION FOR DROSOPHILA.....	1R01 GM26332-01	84,204
WORCEL, ABRAHAM.....	STRUCTURE OF INTERPHASE AND METAPHASE CHROMOSOMES.....	2R01 GM21574-04A1	84,624
WRIGHT, HARLAN T.....	STRUCTURAL BASIS OF MACROMOLECULE ASSOCIATION.....	5R01 GM23598-03	97,841
ZIMMERBERG, HELEN Y.....	CYCIC AMP-A CLASSIFIED BIBLIOGRAPHY OF PUBLICATIONS.....	5R01 LM02968-03	24,830
ORGANIZATION TOTAL	40	3,131,550	

TEANECK

FAIRLEIGH DICKINSON UNIVERSITY		ZIP CODE 07666		
ALFANO, MICHAEL C.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09117-02		97,020
DE PAOLA, DOMINICK P.....	FOLATE DEFICIENCY AND IN VITRO PALATOGENESIS.....	5R01 DE05301-02		57,618
FREUND, THOMAS S.....	SALIVARY CALCIUM BINDING PROTEINS AND ORAL DISEASE.....	1R23 DE05316-01		32,810
SINGER, ROBERT M.....	FETAL ISOENZYME EXPRESSION IN HUMAN TUMOR XENOGRAFTS.....	5R01 CA22360-03		52,606
ORGANIZATION TOTAL	4	240,054		
STATE TOTAL	197	14,989,768		

NEW MEXICO

ALBUQUERQUE

AMERICAN TELEPHONE AND TELEGRAPH COMPANY-SANDIA LABORATORIES		ZIP CODE 87115		
BARNABY, BRUCE E.....	D-T NEUTRON GENERATOR DEVELOPMENT FOR CANCER THERAPY.....	1R01 CA25156-01		270,230
ORGANIZATION TOTAL	1	270,230		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW MEXICO—Continued			
UNIVERSITY OF ALBUQUERQUE ZIP CODE 87140			
PANTLE, CURTIS.....	BIOMEDICAL SCIENCES SUPPORT (MINORITY STUDENTS).....	5S06 RR08108-08	113,648
ORGANIZATION TOTAL	1 113,648		
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131			
ANDERSON, ROBERT E.....	RADIATION INJURY IN SUBPOPULATIONS OF LYMPHOCYTES.....	2R01 CA13805-07	47,804
ANDERSON, ROBERT E.....	IMMUNE SURVEILLANCE IN RADIATION CARCINOGENESIS.....	5R01 CA14270-07	48,070
ATENCIO, ALONZO C.....	BIOMEDICAL SCIENCES ADVANCEMENT PROGRAM.....	5S06 RR08139-06	692,524
AVNER, BARRY P.....	DESENSITIZATION OF TRACHEAL MUSCLE TO ISOPROTERENOL.....	5R01 HL20184-03	37,140
BANKHURST, ARTHUR D.....	IMMUNOSUPPRESSION IN CANCER PATIENTS.....	1R01 CA24873-01	49,331
BERMAN, WILLIAM, JR.....	AGE-RELATED CHANGES IN DIGOXIN EFFECT AND TOXICITY.....	2R01 HL23980-02	94,443
CAMPBELL, GARY H.....	ANTIGENIC VARIATION AND IMMUNITY IN TRYPAOSOMIASIS.....	5R01 AI15131-02	76,158
CUSHING, ALICE H.....	TOXIGENIC FECAL BACTERIA IN SPORADIC INFANTILE DIARRHEA.....	1R22 AI13785-01A2	113,240
EATON, R. PHILIP.....	LIPOPROTEIN-CARBOHYDRATE METABOLISM.....	5R01 HL12085-11	92,698
FEENEY, DENNIS M.....	INTERDISCIPLINARY STUDY OF BRAIN INJURY.....	5R01 NS13684-02	67,396
GALEY, WILLIAM R, JR.....	MECHANISMS OF PANCREATIC ELECTROLYTE AND H2O SECRETION.....	5R01 AM17843-05	59,549
GARDNER, KENNETH D, JR.....	PATHOGENESIS OF RENAL CYSTIC DISEASE.....	2R01 AM17641-03A1	70,205
GOLDBERG, ELLEN H.....	IMMUNOBIOLOGY OF THE H-Y (MALE) ANTIGENIC SYSTEM.....	5R01 AI11560-06	20,858
GOLDBERG, ELLEN H.....	IMMUNOGENETICS OF PREIMPLANTATION EMBRYOS.....	1R01 HD13082-01	40,743
GOODWIN, JAMES S.....	ROLE OF PROSTAGLANDIN IN THE IMMUNOBIOLOGY OF AGING.....	1R01 AG01245-01	88,164
GOODWIN, JAMES S.....	SUPPRESSOR CELL ACTIVITY IN HUMAN PERIPHERAL BLOOD.....	5R23 AI14838-02	40,890
GREENBERG, ROBERT E.....	PHYSIOLOGIC AND DEVELOPMENTAL MECHANISMS IN DIABETES.....	5P50 HD11327-02	444,518
KELLEY, ROBERT O.....	BIOLOGY OF THE AGING CELL SURFACE.....	5R01 AG00191-05	77,548
KLIGERMAN, MORTON M.....	CLINICAL STUDIES OF PION RADIOTHERAPY.....	2P01 CA16127-06	3,063,635
KLIGERMAN, MORTON M.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA20379-03	50,557
KLIGERMAN, MORTON M.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA21074-03	580,336
KOGOMA, TOKIO.....	DNA REPLICATION E. COLI: REGULATORY MUTANTS.....	2R01 GM22092-04	53,311
LOFTFIELD, ROBERT B.....	PROTEIN BIOSYNTHESIS AS A FUNCTION OF AGE OR CANCER.....	5R01 AG00832-02	55,874
MESSNER, RONALD P.....	ANTIBODIES AND LYMPHOCYTE FUNCTION IN LUPUS FAMILIES.....	5R01 AM13789-10	12,828
MORROW, CARY J.....	SYNTHESIS OF CHOLESTEROL BIOSYNTHESIS INHIBITORS.....	1R01 HL24457-01	32,671
MOSELEY, ROBERT D, JR.....	OPTICAL QUALITY EFFECTS ON LUNG TUMOR DETECTION.....	1R01 CA23816-01	99,151
NAPOLITANO, LEONARD M.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00997-04	442,072
NAPOLITANO, LEONARD M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05583-15	176,012
OMDAHL, JOHN L.....	MODULATION OF 25 HYDROXYVITAMIN D3 METABOLISM.....	1R01 AM25476-01	48,012
PEAKE, GLENN T.....	SOMATOTROPE METABOLISM AND LACTOTROPE METABOLISM.....	5R01 HD05794-08	59,823
PRIOLA, DONALD V.....	INTRINSIC INNERVATION OF THE HEART.....	2R01 HL18517-04	68,523
PRIOLA, DONALD V.....	FUNCTION AND NEURAL CONTROL OF MITRAL VALVE MUSCLE.....	1R01 HL23178-01	52,072
RADLOFF, ROGER J.....	CLEAVAGE-DEFECTIVE MUTANTS OF EMC VIRUS SYNTHESIS.....	2R01 AI11658-05	5,160
RADLOFF, ROGER J.....	DEFECTIVE INTERFERING OF ENCEPHALOMYOCARDITIS VIRUS.....	1R01 AI15821-01	49,075
SAIKI, JOHN H.....	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY.....	5R10 CA12213-08	151,666
SCALETTI, JOSEPH V.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR07185-01	25,252
SCALLEN, TERENCE J.....	LIPID METABOLISM IN BIOLOGICAL SYSTEMS.....	5R01 AM10628-14	158,713
SCALLEN, TERENCE J.....	CHOLESTEROL REGULATION BY HMG-COA REDUCTASE.....	5R01 HL16796-06	116,274
SHAW, MICHAEL T.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA25554-01	79,398
SOLOMON, SIDNEY.....	POSTNATAL DEVELOPMENT OF RENAL AMMONIA EXCRETION.....	5R01 HD10792-03	40,164
TAI, ANNA.....	CHARACTERIZATION OF NATURAL KILLER CELLS.....	1R23 CA27115-01	32,560
TOKUDA, SEI.....	CROSS-REACTIONS BETWEEN FETAL, SPERM AND TUMOR CELLS.....	5R01 CA22964-02	33,470
TOKUDA, SEI.....	CELLULAR IMMUNE RESPONSES TO SYNGENEIC TUMORS.....	5R01 CA24377-02	72,501
TRUJILLO, JOHN L.....	CONTROL OF GLYCOLYSIS & GLUCONEOGENESIS: PFK-FDPASE.....	5R01 AM19496-02	54,631
TRUJILLO, JOHN L.....	STRUCTURE AND FUNCTION OF HEMOPROTEIN H-450.....	1R01 GM24639-01A1	56,314
TUNG, KENNETH S.....	SPERM-SPECIFIC ANTIBODIES ON FERTILIZATION IN VITRO.....	5R01 HD12247-02	71,516
VAN EPPS, DENNIS E.....	PHAGOCYTTIC CELLS: REGULATION, DYSFUNCTION AND DISEASE.....	2R01 CA20819-04	71,396
VAN EPPS, DENNIS E.....	FUCOSE BINDING LECTIN: A PMN MARKER AND CHEMOTAXIN.....	1R01 HL22653-01A1	29,500
VANDER JAGT, DAVID L.....	CELLULAR FUNCTIONS OF GLUTATHIONE.....	5R01 GM25295-05	54,017
VOGEL, KATHRYN G.....	GLYCOSAMINOGLYCANS OF THE AGING CELL.....	1R01 AG01214-01	64,841
VOLD, BARBARA S.....	ROLE OF TRNA IN CELLULAR REGULATORY MECHANISMS.....	7R01 GM27732-01	85,094
WARNER, NOEL L.....	GENETICS OF MURINE PLASMACYTOMAS AND AUTOIMMUNITY.....	5R01 AM19841-03	55,326
WARNER, NOEL L.....	ALLOTYPES OF MURINE IMMUNOGLOBULINS.....	5R01 CA22105-03	88,011
WARNER, NOEL L.....	GENETIC ASPECTS OF TUMOR HOST IMMUNE RELATIONSHIP.....	5R01 CA22268-03	108,969

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW MEXICO—Continued			
WILLIAMS, RALPH C, JR	STUDIES OF AUTOANTIBODIES AND IMMUNOGLOBULINS	5R01 AM13690-11	97,672
WILLIAMS, RALPH C, JR	INTERACTIONS OF CELLULAR AND HUMORAL IMMUNITY	5R01 AM13824-10	119,655
WOODSIDE, WILLIAM F	HORMONAL REGULATION OF HEPATIC KETOGENESIS	5R01 AM19998-03	38,125
YUHAS, JOHN M	RADIOPROTECTANTS AND RADIOSENSITIZERS IN RADIOTHERAPY	5R01 CA19326-03	71,311
ORGANIZATION TOTAL	58 8,786,767		
KIRTLAND AFB			
U.S. DEPARTMENT OF ENERGY-ALBUQUERQUE OPERATIONS OFFICE ZIP CODE 87115			
KNAPP, EDWARD A	PION GENERATOR FOR MEDICAL APPLICATIONS	1P01 CA26420-01	929,048
SALZMAN, GARY C	BIOMEDICAL APPLICATIONS OF LIGHT-SCATTER TECHNOLOGY	1R01 GM26857-01	72,485
ORGANIZATION TOTAL	2 1,001,533		
LAS VEGAS			
NEW MEXICO HIGHLANDS UNIVERSITY ZIP CODE 87701			
FLIPPO, JOSEPH R	COORDINATED RESEARCH AND TRAINING PROGRAM	5S06 RR08066-09	205,526
ORGANIZATION TOTAL	1 205,526		
UNIVERSITY PARK			
NEW MEXICO STATE UNIVERSITY LAS CRUCES CAMPUS ZIP CODE 88001			
BIRNBAUM, EDWARD R	LANTHANIDE IONS AS PROBES OF PROTEIN STRUCTURE	2R01 AM16582-07	95,994
BIRNBAUM, EDWARD R	TROPONIN-C AS A PROBE OF MUSCLE CONTRACTION	1R01 AM21930-01	40,555
CASILLAS, EDMUND R	CARNITINE AND CAMP IN MATURING MAMMALIAN SPERM	3R01 HD10664-03S1	15,605
CASILLAS, EDMUND R	CARNITINE AND CAMP IN MATURING MAMMALIAN SPERM	2R01 HD10664-04	47,990
DARNALL, DENNIS W	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07154-04	44,703
HAGEMAN, JAMES H	SERINE PROTEASES AND PROTEIN TURNOVER IN BACILLI	2R01 GM19643-07	48,363
HAGEMAN, JAMES H	BORONIC ACID PROBES FOR STUDY OF GLYCOPROTEINS	1R01 GM26244-01	36,317
KUEHN, GLENN D	CELL DEVELOPMENT STUDIES IN PHYSARUM POLYCEPHALUM	5R01 GM18538-09	38,881
KUEHN, GLENN D	HEALTH SCIENCE RESEARCH FOR ETHNIC MINORITY STUDENTS	5S06 RR08136-06	349,259
MC CARTHY, CHARLOTTE M	PHYSIOLOGY OF MULTIPLE DRUG RESISTANT MYCOBACTERIA	5R22 AI15293-02	37,364
WILKINS, RALPH G	KINETIC STUDIES OF HEMERYTHRIN REACTIONS	5R01 HL17828-05	48,311
ORGANIZATION TOTAL	11 803,342		
STATE TOTAL	74 11,181,046		
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH ZIP CODE 12237			
AXELROD, DAVID	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05649-13	89,916
BERNS, DONALD S	PHOTOSENSITIVE MODEL MEMBRANE STUDIES	5R01 GM22247-05	48,646
BRADY, GEORGE W	X-RAY DIFFRACTION OF NORMAL AND PATHOLOGICAL MEMBRANES	5R01 GM23084-02	46,251
DICKERMAN, HERBERT W	ESTROGEN RECEPTOR PROTEIN: DNA INTERACTION	1R01 AM23075-01	54,083
DODDS, W JEAN	COMPARATIVE STUDY OF COAGULATION AND VASCULAR DISEASE	5R01 HL09902-14	174,937
DODDS, W JEAN	BLOOD-MATERIALS INTERACTIONS: THE BRIDGE PROBLEMS	1R01 HL24017-01	33,753
FASCO, MICHAEL J	ROLE OF WARFARIN METABOLISM IN ANTIVITAMIN K ACTIVITY	5R01 HL19772-03	23,912
FENTON, JOHN W, II	HUMAN THROMBINS	5R01 HL13160-09	95,163
FLAHERTY, LORRAINE	IMMUNOGENETICS AND DIFFERENTIATION	5R01 AI12603-05	34,107
FLAHERTY, Lorraine	IMMUNOGENETIC MAPPING OF THE CELL SURFACE	5R01 CA23027-03	80,032
FRANK, JOACHIM	LOW DOSE ELECTRON MICROSCOPY OF CYTOCHROME OXIDASE	5R01 GM24412-02	56,213
FRENKEL, GERALD D	INHIBITION OF CELLULAR DNASES BY DNA TUMOR VIRUSES	7R01 CA28084-01	30,915
GALIVAN, JOHN H	MVTHOTREXATE UPTAKE AND METABOLISM IN HEPATIC CELLS	1R01 CA25933-01	58,827
GREENWALD, PETER	EPIDEMIOLOGIC STUDY OF OVARIAN CANCER	5R01 CA20502-03	173,654
GREENWALD, PETER	ENDOMETRIAL CANCER EPIDEMIOLOGY AND CONTROL	1R01 CA24367-01	160,191

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GRUFT, HOWARD.....	EPIDEMIOLOGY OF INFECTION WITH ATYPICAL MYCOBACTERIA.....	2R22 AI13813-03	132,451
HOTCHIN, JOHN E.....	LATENCY OF SCRAPIE VIRUS: DELAYED DISEASE AND AGING.....	5R01 NS13550-02	51,777
JANERICH, DWIGHT T.....	CANCER IN PARENTS OF CONGENITALLY DEFECTIVE CHILDREN.....	5R01 CA19564-03	62,522
KAMINSKY, LAURENCE S.....	POLYCHLORINATED BIPHENYLS METABOLISM/INDUCTION/TOXICITY.....	5R01 ES01544-03	54,214
KAMINSKY, LAURENCE S.....	HEPATIC MICROSOMAL ENZYME METABOLISM OF ANESTHETICS.....	2R01 GM23029-04	39,205
LAWSON, WILLIAM B.....	ENZYMES OF BLOOD COAGULATION AND FIBRINOLYSIS.....	5R01 HL15887-06	71,710
MACCOLL, ROBERT J.....	STRUCTURE AND FUNCTION OF PHOTOSYNTHETIC PIGMENTS.....	1R01 GM26050-01A1	31,312
MALEY, FRANK.....	MODEL SYSTEM TO STUDY CELL DIFFERENTIATION AND AGING.....	5P01 AG00207-03	224,938
MALEY, FRANK.....	FOLATE BINDING SITES IN THYMIDYLATE SYNTHETASE.....	1R01 GM26387-01	16,500
MALEY, GLADYS F.....	STUDIES ON DCMP DEAMINASE, A POTENTIAL DIAGNOSTIC ENZYME.....	1R01 GM26645-01	13,500
MATTA, KHUSHI L.....	STUDIES RELATED TO ENDOGLYCOSIDASES.....	1R01 GM24392-01A1	53,560
NASCA, PHILIP C.....	EPIDEMIOLOGIC STUDY OF CHILDHOOD GLIOMAS.....	1R01 CA26194-01	171,134
NUSS, DONALD L.....	HOW HYPERTONIC MEDIA INHIBITS IN VIVO TRANSLATION.....	1R01 AI16075-01	49,263
PAOLETTI, ENZO.....	VACCINIA RNA SYNTHESIS: A MODEL FOR MRNA PROCESSING.....	5R01 GM23853-03	59,745
POLLARA, BERNARD.....	SPECIFICITY OF HUMAN NEPHROTOXIC ANTIGENS.....	2R01 AM18158-08A1	77,327
ROSE, HARALD H.....	OPTIMUM IMAGING METHODS FOR BIOLOGICAL OBJECTS IN EM.....	5R01 GM24006-03	75,992
SCHRADER, WILLIAM P.....	ADENOSINE DEAMINASE BINDING PROTEINS OF HUMAN TISSUE.....	1R01 AM25578-01	31,111
TRIMBLE, ROBERT B.....	BIOSYNTHESIS OF THE YEAST GLYCOPROTEIN INVERTASE.....	5R01 GM23900-03	24,871
WOLIN, MEYER J.....	FERMENTATION INTERACTIONS IN MICROBIAL ECOSYSTEMS.....	5R01 AI12461-06	83,555
YOSHINARI, TADASHI.....	NITRITE AND NITROUS OXIDE PRODUCTION BY BACTERIA.....	1R23 ES02060-01	31,452
ORGANIZATION TOTAL	35 2,516,739		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE ZIP CODE 12229			
KARTEN, HARVEY J.....	RETINAL GANGLION CELLS AND ACCESSORY OPTIC NUCLEI.....	5R01 EY02146-03	98,390
WHALEN, RICHARD E.....	HORMONAL CONTROL OF BEHAVIOR.....	7R01 HD13957-01	50,869
ORGANIZATION TOTAL	2 149,259		
STATE UNIVERSITY OF NEW YORK AT ALBANY ZIP CODE 12222			
BAGLIONI, CORRADO.....	MECHANISMS OF INTERFERON ACTION.....	1R01 AI16076-01	157,006
BAGLIONI, CORRADO.....	SELECTIVE REPLICATION OF HEMOGLOBIN GENES.....	5R01 HL17710-05	88,092
BLANCHARD, EDWARD B.....	PSYCHOLOGICAL TREATMENT OF HEADACHE.....	1R01 NS15235-01	129,275
DAS, TARA P.....	ELECTRONIC PROPERTIES OF PHOTOSYNTHETIC SYSTEMS.....	5R01 GM25230-02	70,535
EDWARDS, CHARLES.....	MOLECULAR PHARMACOLOGY OF ACETYLCHOLINE RECEPTORS.....	5R01 NS07681-11	74,985
HIRSCH, HELMUT V.....	DEVELOPMENT AND FUNCTIONS OF THE VISUAL CORTEX.....	2R01 EY01268-07	103,853
HOLMES, DAVID S.....	REGULATION OF GENE EXPRESSION IN HIGHER ORGANISMS.....	5R01 GM24295-03	60,995
KING, TSOO E.....	BIOENERGETICS OF AGING: FACTS AND MECHANISMS.....	3R01 AG00069-04S1	4,588
KING, TSOO E.....	BIOENERGETICS OF AGING: FACTS AND MECHANISMS.....	5R01 AG00069-05	67,085
KING, TSOO E.....	RECONSTITUTION OF MITOCHONDRIAL RESPIRATORY CHAIN.....	1R01 GM16767-11S1	9,188
KING, TSOO E.....	BIOENERGETIC APPARATUS IN HEART MITOCHONDRIA.....	5R01 HL12576-11	92,932
LERMAN, LEONARD S.....	STRATEGY FOR THE CHARACTERIZATION OF THE HUMAN GENOME.....	2R01 GM24030-04	122,707
MC CUTCHEON, NORMAN B.....	BRAIN STIMULATION CONTROL OVER STRESS ULCERATION.....	5R01 AM19673-02	21,690
MILLIS, ALBERT J.....	SURFACE PROTEINS AND CELLULAR SENEESCENCE.....	5R01 AG00697-03	54,412
MURPHEY, RODNEY K.....	POSITIONAL INFORMATION AND IDENTIFIED SYNAPSES.....	1R01 NS15571-01	51,289
MYER, YASH P.....	CYTOCHROME C: ELECTRON-TRANSPORT MECHANISM.....	1R01 GM24854-01	44,646
NEWMAN, STUART A.....	NUCLEOSOME CONFORMATION AND GENE CONTROL.....	1R01 GM26198-01	18,071
RIKMENSPOEL, ROBERT.....	MECHANISMS IN CILIARY AND FLAGELLAR MOTION.....	5R01 HD06445-06	58,251
SARMA, RAMASWAMY H.....	MAGNETIC RESONANCE STUDIES OF BIOLOGICAL INTERACTIONS.....	5R01 CA12462-09	56,592
SATURNO, ANTONY F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07122-11	75,177
SAUNDERS, JOHN W, JR.....	EMBRYONIC CONTROLS OF LIMB DEVELOPMENT.....	5R01 HD07390-06	105,760
SCHOLES, CHARLES P.....	PROBING HEME AND HEMOPROTEINS.....	5R01 AM17884-05	39,796
SEEMAN, NADRIAN C.....	STRUCTURE AND RECOGNITION OF NUCLEIC ACIDS IN 3-D.....	1R01 GM26467-01	23,801
TEDESCHI, HENRY.....	THE MEMBRANE POTENTIAL OF MITOCHONDRIA.....	5R01 GM23789-02	39,914
TIEMAN, SUZANNAH.....	ANATOMICAL EFFECTS OF RESTRICTED EARLY VISION.....	1R01 EY02609-01A1	56,709
VELLUTINO, FRANK R.....	VERBAL PROCESSING IN POOR AND NORMAL READERS.....	2R01 HD09658-02A1	94,096
ZITOMER, RICHARD S.....	REGULATION OF CYTOCHROME C AND MITOCHONDRIAL GENES.....	1R01 GM26061-01	56,429
ZUBIETA, JON A.....	MOLYBDENUM & SULFUR COMPLEXES—MODELS FOR METALLOENZYMES.....	2R01 GM22566-04	48,990
ZUBIETA, JON A.....	PURCHASE OF AUTOMATED X-RAY DIFFRACTOMETER SYSTEM.....	1P41 GM27459-01	142,000
ORGANIZATION TOTAL	29 1,968,864		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208			
APPLEBY, DAVID W.....	DNA SIZE AND GENOME ORGANIZATION IN LENS CELLS.....	5R01 EY03019-02	82,725
BALINT, JOHN A.....	METABOLISM OF PULMONARY SURFACTANT.....	2R01 HL15273-07	46,099
BATZOLD, FREDERICK H.....	PROSTATIC 5-ALPHA-OXIDOREDUCTASE.....	5R26 CA23019-02	32,787
BONDURANT, STUART.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00749-07	318,412
BOURKE, ROBERT S.....	BRAIN AND SPINAL CORD TRAUMA.....	2P50 NS13042-04	391,963
COWGER, MARILYN L.....	BIOENERGETICS OF AGING: FACTS AND MECHANISMS.....	5R01 AG00070-05	61,327
COWGER, MARILYN L.....	MECHANISM OF BILIRUBIN TOXICITY.....	2R01 HD05333-09	49,573
ESTES, JAMES E.....	CONFORMATIONAL AND FUNCTIONAL STATES OF MUSCLE ACTIN.....	5R01 AM21573-02	45,998
FRENKEL, GERALD D.....	INHIBITION OF CELLULAR DNASES BY DNA TUMOR VIRUSES.....	5R01 CA22965-02	16,128
FRIEDLANDER, ROBERT L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05394-18	133,602
GLENN, JOSEPH L.....	PATHOGENESIS OF REYE'S SYNDROME.....	5R01 NS13857-02	41,182
GOLDFARB, ROY D.....	GENESIS OF CIRCULATORY SHOCK BY PANCREATIC PEPTIDES.....	5R01 HL19977-03	30,516
GOODMAN, A DAVID.....	ROLE OF THYROID HORMONES AND IODINE IN BREAST CANCER.....	5R01 CA22879-02	55,493
HALL, CHARLES A.....	VIT. B-12 & TRANSCOBALAMIN II ROLES IN ANTIBODY RESPONSE.....	2R01 AM17767-06	17,542
HAN, JAAK.....	EXPERIMENTAL CARDIAC ARRHYTHMIAS.....	5R01 HL18796-05	67,311
HORTON, JOHN.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA06594-17	220,205
HORTON, JOHN.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17971-04	101,269
JOSHI, SHARAD G.....	TISSUE-SPECIFIC PROTEINS IN PRIMATE ENDOMETRIUM.....	5R01 HD09622-03	46,894
KAPLAN, JOHN E.....	PHAGOCYTIC CONTROL OF THROMBOSIS DURING SEPSIS.....	1R01 GM25946-01	51,670
KAPLAN, JOHN E.....	SCINTIGRAPHIC EVALUATION OF PHYSIOLOGICAL EVENTS.....	1P41 GM27405-01	155,353
LAM, KWOK-WAI.....	BIOCHEMICAL STUDIES AND ACID PHOSPHATASE 5.....	5R01 GM22600-05	54,325
LAWRENCE, DAVID A.....	ACTIVITIES AND CHARACTERISTICS OF ACTIVATED T-CELLS.....	2R01 AI12527-04A1	92,859
LEE, PEI-FEI.....	LASER-BASED SURGICAL PROCEDURE FOR TREATMENT OF GLAUCOMA.....	2R01 EY01047-04A1	68,170
LEE, PEI-FEI.....	AQUEOUS HUMOR OF GLAUCOMATOUS EYES.....	1R01 EY02341-01A1	74,511
LOEGERING, DANIEL J.....	HEMOLYSIS AND PHAGOCYTIC DYSFUNCTION DURING SHOCK.....	1R01 GM26102-01	52,908
LOEGERING, DANIEL J.....	MECHANISM OF RETICULOENDOTHELIAL FAILURE IN SHOCK.....	9R01 GM26297-04A1	46,106
LUDLUM, DAVID B.....	ALKYLATING AGENTS, NITROSOUREAS—MOLECULAR PHARMACOLOGY.....	5R01 CA20129-04	74,938
LUDLUM, DAVID B.....	MUTAGENIC ALTERATIONS IN NUCLEIC ACID STRUCTURE.....	3R01 CA20292-03S1	29,955
MALIK, ASRAR B.....	PULMONARY VASCULAR ADJUSTMENTS IN CIRCULATORY COLLAPSE.....	5R01 HL17355-05	49,731
MEGRIAN, ROBERT.....	ANTITUMOR ACTIVITY OF BCG, C. PARVUM AND GLUCAN.....	5R01 CA21099-03	40,748
POWERS, SAMUEL R, JR.....	ON-LINE COMPUTER STUDY OF THERAPY FOR HUMAN SHOCK.....	5P50 GM15426-12	276,277
REICHERT, LEO E, JR.....	TESTICULAR RECEPTORS OF FOLLICLE STIMULATING HORMONE.....	7R01 HD13938-01	69,615
REINECKE, ROBERT D.....	STEREOPSIS AND MICROPTROPIA IN AMBLYOPIA PATHOGENESIS.....	3R01 EY00752-07S2	36,791
REINER, JOHN M.....	MOLECULAR THRESHOLD MODELS IN DEVELOPMENT AND AGING.....	1R01 HD11187-01	39,559
RODGERS, JOHN B, JR.....	USE OF THE GUT FOR THERAPY OF CORONARY ARTERY DISEASE.....	5R01 HL17332-05	51,508
ROSENBERG, EDWARD M.....	CYCLIC NUCLEOTIDES IN CANCER AND REGENERATING TISSUE.....	5R01 CA22690-02	66,959
SABA, THOMAS M.....	OPSONIC AND PHAGOCYTIC ACTIVITY DURING TUMOR GROWTH.....	5R01 CA16011-05	34,358
SABA, THOMAS M.....	SYSTEMIC HOST DEFENSE FOLLOWING TRAUMA.....	5R01 GM21447-05	60,485
SMITH, EDWARD J.....	CONTROL OF RESPIRATION AND BLOOD GASES.....	5R01 HL12564-10	62,759
SMITH, RICHARD S.....	ULTRASTRUCTURAL STUDY OF OCULAR VASCULAR PERMEABILITY.....	3R01 EY00538-09S1	60,993
THOMAS, WILBUR A.....	POPULATION DYNAMICS OF ARTERIAL CELLS IN ATHEROGENESIS.....	5P01 HL20993-03	837,838
TURINSKY, JIRI.....	MECHANISM OF INSULIN RESISTANCE AFTER BURNS.....	2R01 GM22825-04	60,045
WONG, PATRICK Y.....	STUDY OF KININS IN HYPERTENSION AND OTHER DISEASES.....	3R01 HL18624-03S1	2,324
ORGANIZATION TOTAL	43	4,209,811	
UNIVERSITY OF THE STATE OF NEW YORK ZIP CODE 12210			
MOLLOY, DANIEL P.....	EVALUATION OF SIMULIHD & CULICID BIOCONTROL AGENTS.....	1R01 AI15605-01	69,870
ORGANIZATION TOTAL	1	69,870	
AUBURN			
BARBARA KOPP GERIATRIC RESEARCH CENTER ZIP CODE 13021			
KUO, CHAO Y.....	TUMOR CELLS ESCAPE FROM IMMUNE EFFECTOR MECHANISMS.....	1R01 CA26440-01	38,290
ORGANIZATION TOTAL	1	38,290	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
AURORA			
WELLS COLLEGE	ZIP CODE 13026		
BYRNE, BRUCE C.....	THE EXCITABLE MEMBRANE AND BEHAVIOR IN PARAMECIUM.....	1R01 GM25298-01A1	38,790
ORGANIZATION TOTAL	1	38,790	
BINGHAMTON			
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON	ZIP CODE 13901		
CHRISTIAN, JOHN J.....	ANALYSIS AND TEST OF A FORMULA FOR POPULATION GROWTH.....	5R01 HD10515-02	49,823
FRANKEL, ARTHUR I.....	REPRODUCTIVE AGING IN THE MALE LABORATORY RAT.....	1R01 AG01155-01A1	93,915
FRANKEL, ARTHUR I.....	ROLE OF TESTOSTERONE IN MALE REPRODUCTION.....	2R01 HD04081-09	61,295
HASSNER, ALFRED.....	SYNTHESIS AND REACTIONS OF NOVEL HETEROCYCLES.....	2R01 CA19203-05	67,348
JENSEN, ROY A.....	GENE-ENZYME RELATIONSHIPS IN PSEUDOMONAS AERUGINOSA.....	5R01 AM19447-03	66,158
JENSEN, ROY A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07149-06	38,837
KULL, FREDRICK J.....	THYROID ALKALINE RNA/ASE I AND RNA/ASE INHIBITOR.....	1R01 AM23046-01	48,734
KULL, FREDRICK J.....	SELENIUM TOXICITY: SELENOCYSTEINE IN PROTEINS.....	5R01 ES00807-06	62,884
LOEW, LESLIE M.....	CHEMISTRY OF DRUG DELIVERY BY LIPID VESICLES.....	5R23 CA23838-02	28,840
LOEW, LESLIE M.....	A CONCERTED SEARCH FOR ELECTROCHROMIC MEMBRANE PROBES.....	5R01 GM25190-02	65,683
PASTORE, RICHARD E.....	AUDITORY ATTENTION II: TEMPORAL & FREQUENCY EFFECTS.....	5R01 NS10995-05	27,894
SCHRIER, EUGENE E.....	THE EFFECTS OF SALTS ON INTERACTIONS IN AQUEOUS MEDIA.....	5R01 GM11762-15	45,753
SHRIFT, ALEX.....	SELENIUM ASSIMILATION INTO HUMAN GLUTATHIONE PEROXIDASE.....	5R01 ES01465-03	52,973
STEVENS, EUGENE S.....	CHARACTERIZATION OF BIOPOLYMERS BY VACUUM C DICHROISM.....	2R01 GM24862-02A1	40,829
WU, TSU-MING.....	BOSE-EINSTEIN CONDENSATION IN BIOLOGICAL SYSTEMS.....	2R01 GM24502-02	19,159
ZAMIR, LOLITA O.....	STRUCTURE AND STEREOCHEMISTRY OF PRETYROSINE.....	1R01 GM26880-01	36,508
ORGANIZATION TOTAL	16	806,633	
BROCKPORT			
STATE UNIVERSITY OF NEW YORK—COLLEGE AT BROCKPORT	ZIP CODE 14420		
CHAN, STEPHEN W.....	MECHANISMS OF TESTICULAR AGING.....	1R23 AG01037-01	29,158
ORGANIZATION TOTAL	1	29,158	
BUFFALO			
CHILDREN'S HOSPITAL	ZIP CODE 14222		
CERNY, FRANK J.....	EXERCISE AND CYSTIC FIBROSIS.....	1R01 AM24066-01	40,797
EGAN, EDMUND A.....	ABNORMAL ALVEOLAR PERMEABILITY AND LUNG DISEASE.....	5R01 HL22552-03	87,000
ELLIS, ELLIOT F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05493-17	37,546
MACGILLIVRAY, MARGARET H.....	HORMONES AND GLUCOSE CONTROL IN JUVENILE DIABETICS.....	2R01 AM17879-04	121,475
MIDDLETON, ELLIOTT, JR.....	MULTIDISCIPLINARY STUDY OF ASTHMA.....	1P50 AI14198-01A2	82,812
NETER, ERWIN.....	STUDY OF BACTERIAL TOXINS AND HEMAGGLUTINATION.....	5R01 AI00658-23	15,529
OGRA, PEARAY L.....	IMMUNE RESPONSE TO RESPIRATORY SYNCYTIAL VIRUS IN MAN.....	1R01 AI15939-01	83,706
OGRA, PEARAY L.....	ETIOLOGIC ASPECTS OF SUDDEN INFANT DEATH SYNDROME.....	5R01 HD10088-04	96,946
RATTIAZZI, MARIO C.....	ENZYME THERAPY IN GM2 GANGLIOSIDOSIS: AN ANIMAL MODEL.....	5R01 NS13677-02	62,371
VLADUTIU, GEORGIRENE D.....	ENDO- AND EXOCYTOSIS OF LYSOSOMAL ENZYMES IN VITRO.....	1R01 HD11453-01A1	54,403
ORGANIZATION TOTAL	10	682,585	
MEDICAL FOUNDATION OF BUFFALO	ZIP CODE 14203		
BELLINO, FRANCIS L.....	REGULATION OF HUMAN ESTROGEN SYNTHETASE.....	3R01 HD10921-02S1	21,210
BELLINO, FRANCIS L.....	REGULATION OF HUMAN ESTROGEN SYNTHETASE.....	5R01 HD10921-03	52,753
CODY, VIVIAN.....	MOLECULAR STRUCTURES OF THYROACTIVE COMPOUNDS.....	5R01 AM15051-08	69,543
DETITTA, GEORGE T.....	DIFRACTION STUDIES OF THE BIOTIN VITAMERS.....	2R01 AM19856-03	77,975
DETITTA, GEORGE T.....	ULTRASTRUCTURE OF THE ANTIHYPERTENSIVE PROSTAGLANDINS.....	5R01 HL15378-07	63,411
DORSET, DOUGLAS L.....	ELECTRON DIFFACTION OF MEMBRANE PHOSPHOLIPIDS.....	2R01 GM21047-06	134,892
DUAX, WILLIAM L.....	MOLECULAR STRUCTURE OF STEROIDS.....	5R01 CA10906-12	120,075
DUAX, WILLIAM L.....	IONOPHORES, TRANSPORT AND MEMBRANE STRUCTURE.....	5R01 GM19684-07	89,742
DUAX, WILLIAM L.....	DISSEMINATION OF MOLECULAR DATA FOR BIOMEDICAL USE.....	2R01 LM02353-04	84,576
GREEN, EDWARD A.....	ADVANCES IN DIFFACTION ANALYSIS OF MACROMOLECULES.....	1R01 GM26195-01	56,977

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
HAUPTMAN, HERBERT A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05716-08	49,273
OSAWA, YOSHIO.....	MOLECULAR MECHANISM OF IODOTHYRONINE BIOSYNTHESIS.....	1R01 AM21874-01	67,523
OSAWA, YOSHIO.....	HUMAN DEVELOPMENT AND ESTROGEN BIOSYNTHESIS.....	5R01 HD04945-09	175,298
WEEKS, CHARLES M.....	DIFFRACTION ANALYSIS OF FRUCTOSE-1,6-DIPHOSPHATASE.....	5R01 AM25192-02	62,125
ORGANIZATION TOTAL	14 1,125,373		
NEW YORK STATE DEPARTMENT OF HEALTH—ROSSELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
ALDERFER, JAMES L.....	STRUCTURE AND FUNCTION OF FLUORINATED NUCLEIC ACIDS.....	1R01 CA25438-01A1	22,395
AMBRUS, CLARA M.....	IMMOBILIZED ENZYMES FOR MANAGEMENT OF PHENYLKETONURIA.....	2R01 GM22735-04	87,313
BANKERT, RICHARD B.....	RECEPTOR DYNAMICS AND NORMAL/TUMOR CELL FUNCTION.....	5R01 CA22786-02	58,330
BANKERT, RICHARD B.....	IMMUNOREGULATORY NETWORK PROBED BY CELL HYBRIDIZATION.....	1R01 CA25253-01	53,050
BAUMANN, HEINZ.....	EFFECT OF HORMONES ON CELL SURFACE ARCHITECTURE.....	1R01 CA26122-01	52,014
BEERMAN, TERRY A.....	MECHANISM OF ACTION OF ANTITUMOR PROTEIN MACROMOMYCIN.....	3R01 CA24906-01S1	19,154
BELLO, JAKE.....	THERMAL PERTURBATION SPECTROSCOPY OF PEPTIDES.....	1R01 GM24525-01	27,955
BERNACKI, RALPH J.....	PLASMA MEMBRANE AS A TARGET IN TUMOR CHEMOTHERAPY.....	5R01 CA15757-06	49,744
BERNACKI, RALPH J.....	METABOLIC FATE OF MAMMARY CELL SURFACE GLYCOCONJUGATES.....	2R01 CA19814-04	52,492
BERTRAM, JOHN S.....	MECHANISMS OF CARCINOGENESIS IN CELL CULTURE.....	5R01 CA18197-03	47,974
BERTRAM, JOHN S.....	CELL INTERACTIONS DURING MALIGNANT TRANSFORMATION.....	5R01 CA21359-03	33,708
BERTRAM, JOHN S.....	INHIBITION OF IN VITRO TRANSFORMATION BY RETINIODS.....	1R01 CA25484-01	61,849
BLOCH, ALEXANDER.....	DEVELOPMENT OF ANTITUMOR NUCLEOSIDES AND NUCLEOTIDES.....	2R01 CA12585-09	167,210
BOX, HAROLD C.....	TRANSFER MECHANISMS IN IRRADIATED BIOLOGICAL SYSTEMS.....	5R01 CA25027-14	50,259
BROSS, IRWIN D.....	CORE PROGRAM IN BIOMETRICS OF CANCER EPIDEMIOLOGY.....	3P01 CA11531-09S1	54,348
BROSS, IRWIN D.....	PROGRAM IN BIOMETRICS OF CANCER EPIDEMIOLOGY.....	1R01 CA27514-01	62,491
CARTER, WILLIAM A.....	CHEMOTHERAPY AND REGULATION OF ONCOGENIC VIRUSES.....	3P01 CA14801-06S1	419,322
CARTER, WILLIAM A.....	SEARCH FOR A 'VIOGENE' IN PROSTATIC TISSUES AND FLUIDS.....	5R26 CA15502-06	136,347
CHAPMAN, VERNE M.....	REGULATION OF X-CHROMOSOME DIFFERENTIATION IN MAMMALS.....	5R01 GM24125-03	85,713
CHAPMAN, VERNE M.....	NEW GLUCUCORONIDASE REGULATORY VARIANTS IN MICE.....	1R01 GM26770-01	136,944
CHENG, YUNG-CHI.....	CANCER CHEMOTHERAPY AND DEOXYNUCLEOTIDE METABOLISM.....	2R01 CA18499-04	28,001
CHHEDA, GIRISH B.....	MODIFIED NUCLEOSIDES IN CANCER AND NORMAL URINES.....	5R01 CA14185-06	59,487
CHU, TSANN M.....	BIOLOGICAL MARKERS IN TREATMENT OF PROSTATE CANCER.....	2R26 CA15126-06	53,306
CHU, TSANN M.....	ANTIGEN(S) MARKERS IN DIAGNOSIS OF PROSTATIC CANCER.....	5R26 CA15437-06	73,686
CHU, TSANN M.....	ONCOFETAL ANTIGEN(S) AND PANCREATIC CANCER.....	3R26 CA18410-03S1	2,124
CHU, TSANN M.....	TUMOR ANTIGENS IN PANCREATIC CANCER.....	2R26 CA18410-04	86,780
CHU, TSANN M.....	ANTIGEN-ANTIBODY COMPLEXES IN BREAST CANCER.....	1R01 CA25653-01	79,553
CREAVEN, PATRICK J.....	TUMOR DRUG RESPONSE PARAMETERS IN INDIVIDUAL PATIENTS.....	5P01 CA21071-03	480,787
DAO, THOMAS L.....	CLINICAL AND EXPERIMENTAL BREAST CANCER RESEARCH.....	5P01 CA14812-06	326,708
DOUGHERTY, THOMAS J.....	ACTIVATED DYES AS SPECIFIC CANCER DRUGS.....	5R01 CA16717-06	78,707
DOUGHERTY, THOMAS J.....	PORPHYRIN SPECIFICITY IN MALIGNANCY.....	5R01 CA20600-02	40,293
DOUGLASS, HAROLD O, JR.....	IMMUNODIAGNOSIS OF PANCREATIC CANCER.....	5R26 CA23646-02	31,303
DOYLE, DARRELL J.....	PROTEINS OF THE HEPATOMA CELL PLASMA MEMBRANE.....	5R01 CA17149-05	82,204
DOYLE, DARRELL J.....	MEMBRANE BIOGENESIS IN NORMAL AND MALIGNANT CELLS.....	5R01 GM24147-02	84,119
ELLIOTT, ROSEMARY W.....	MAPPING MOUSE GENES USING 2-D ELECTROPHORESIS.....	5R01 GM24265-02	48,055
EVANS, MARY J.....	DNA POLYMERASE(S) OF THE REPLICATION SV40 CHROMOSOMES.....	5R01 CA22655-02	44,356
FREEMAN, ARNOLD I.....	PHARMACOLOGY & ANTIVIRAL EFFECT OF DS-POLYNUCLEOTIDES.....	2R01 CA18533-04	66,352
FUJI, HIROSHI.....	IMMUNE FUNCTIONS OF TUMOR CELL VARIANTS.....	5R01 CA26479-01	94,609
GESSNER, TERESA.....	CONJUGATIONS AND CARCINOGEN METABOLISM.....	5R01 CA24127-02	71,490
GOLDROSEN, MARTIN H.....	MURINE COLON ADENOCARCINOMA: IMMUNOBIOLOGY.....	5R26 CA22931-03	49,935
GRINDLEY, GERALD B.....	RATIONAL APPROACHES TO COMBINATION CHEMOTHERAPY.....	5R01 CA17156-05	81,654
GROSS, KENNETH W.....	GENES ENCODING DEVELOPMENTAL HISTONE VARIANTS.....	5R01 GM25647-02	53,603
GURTOO, HIRA L.....	CYCLOPHOSPHAMIDE METABOLISM: ROLE IN CHEMOTHERAPY.....	1R01 CA23634-01A1	72,702
GURTOO, HIRA L.....	GENETICS OF AFLATOXIN METABOLISM-ROLE IN CARCINOGENESIS.....	1R01 CA25362-01	19,982
HASTIE, NICHOLAS D.....	EXPRESSION OF ABUNDANT MESSENGER RNAs IN MOUSE LIVER.....	5R01 GM24771-02	56,946
HELD, WILLIAM A.....	TRANSLATIONAL REGULATION OF PROTEIN SYNTHESIS.....	3R01 GM25023-01S1	7,887
HELD, WILLIAM A.....	TRANSLATIONAL REGULATION OF PROTEIN SYNTHESIS.....	5R01 GM25023-02	78,480
HELMSTETTER, CHARLES E.....	PLASMIDS AND INTEGRATIVE SUPPRESSION IN E. COLI.....	5R01 AI13761-03	31,474
HELMSTETTER, CHARLES E.....	BIOCHEMISTRY AND RADIATION EFFECT DURING THE CELL CYCLE.....	9R01 GM26429-14A1	63,464
HENDERSON, EDWARD S.....	CANCER AND LEUKEMIA GROUP B.....	3R10 CA02599-24S1	62,770
HENDERSON, EDWARD S.....	CANCER AND LEUKEMIA GROUP B-RPMI/SUNYAB.....	2R10 CA02599-25	231,837
HENDERSON, EDWARD S.....	CANCER CLINICAL RESEARCH CENTER.....	2P01 CA05834-18	578,310
HOWELL, JOHN H.....	CHARACTERIZATION OF LAI-DEFINED PANCREAS TUMOR ANTIGENS.....	1R26 CA26540-01	52,519

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
HUANG, CHESTER C.....	DIFFUSION CHAMBER CULTURES FOR CARCINOGENIC ASSAYS.....	2R01 ES01290-03A1	43,142
JACOBSON, KENNETH A.....	LATERAL MOTIONS OF MEMBRANE MOLECULES AT CELL SURFACES.....	5R01 CA16743-06	87,258
JOHNSON, RICHARD J.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA14058-06	91,945
KARTHA, GOPINATH.....	CYCLOC PEPTIDES, STRUCTURE AND FUNCTION.....	2R01 GM22490-04	42,565
KIM, UNTAE.....	MECHANISMS OF METASTASIS.....	3R01 CA24215-01S1	27,974
KIRDANI, RASHAD Y.....	PROSTATIC ESTROGEN RECEPTORS.....	2R26 CA20459-04A1	55,016
KLEIN, EDMUND.....	RELATION OF IMMUNE REACTIONS TO CUTANEOUS NEOPLASIA.....	5R01 CA13599-09	114,757
KORYTNYK, WALTER.....	CELL SURFACE SUGAR ANALOGS FOR CANCER CHEMOTHERAPY.....	5R01 CA08793-13	101,718
KOWALSKI, DAVID.....	ROLE OF DNA RELAXING ENZYME IN SV40 DNA REPLICATION.....	3R01 CA23996-01S1	20,812
KRESS, LAWRENCE F.....	VENOM PROTEASES: ACTION ON PLASMA PROTEASE INHIBITORS.....	5R01 HL22996-02	33,871
LASKOWSKI, MICHAEL, SR.....	STUDY OF LIMITED ENZYMATIC CLEAVAGES OF NATIVE DNA.....	5R01 GM24950-05	48,466
LASKOWSKI, MICHAEL, SR.....	INHIBITORS OF PROTEINASES.....	2R01 HL15892-06	89,617
LEE, CHING-LI.....	IMMUNODIAGNOSIS OF PROSTATIC CANCER.....	5R23 CA23990-02	34,689
MANLY, KENNETH F.....	MOLECULAR PATHOGENESIS OF VIRUS-INDUCED LEUKEMIA.....	5R01 CA21217-02	48,441
MARKUS, GABOR.....	PLASMINOGEN ACTIVATORS AND RELATED PROTEASES IN TUMORS.....	3R01 CA20367-02S1	12,876
MASLOW, DAVID E.....	SPECIFICITY OF NORMAL AND CANCER CELL INTERACTIONS.....	2R01 CA14370-07	28,415
MATTA, KHUSHI L.....	SYNTHETIC GLYCOSIDES FOR CANCER RESEARCH.....	5R01 CA24051-02	40,480
MAYERS, GEORGE L.....	AUTO-REGULATION OF IMMUNE RESPONSE BY ANTI-IDIDIOTYPE.....	5R01 CA24511-02	43,114
MC LIMANS, WILLIAM F.....	DIRECT SUSPENSION CULTURE OF HUMAN PROSTATE CELLS.....	5R26 CA18652-05	97,882
MERRIN, CLAUDE E.....	EVALUATION AND TREATMENT OF PATIENTS WITH BLADDER CANCER.....	5R26 CA15937-06	24,758
MIHICH, ENRICO.....	EXPERIMENTAL THERAPEUTICS AND CANCER DRUG PROGRAM.....	5P01 CA13038-08	1,002,798
MIHICH, ENRICO.....	CANCER CHEMOTHERAPY AND IMMUNOLOGIC EFFECTS.....	2R01 CA15142-06	128,256
MIHICH, ENRICO.....	GRACE CANCER DRUG CENTER CORE SUPPORT GRANT.....	3P30 CA24538-01S1	280,483
MINOWADA, JUN.....	STUDY OF HUMAN LYMPHATIC NEOPLASIA.....	2R01 CA14413-07	159,055
MIRAND, EDWIN A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18201-05	267,531
MITTELMAN, ARNOLD.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA12296-09	179,827
MORREAL, CHARLES E.....	BIOLOGICAL AND CHEMICAL STUDIES OF NEW DMBA COMPOUNDS.....	5R01 CA22001-03	63,778
MURPHY, GERALD P.....	NATIONAL PROSTATIC CANCER PROJECT.....	5R26 CA14716-07	482,791
MURPHY, GERALD P.....	CANCER CENTER CORE SUPPORT.....	5P30 CA16056-05	378,988
MURPHY, GERALD P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05648-13	201,413
NIR, SHLOMO S.....	MEMBRANE FUSION.....	5R01 GM23850-02	24,993
PAIGEN, BEVERLY J.....	GENETICS OF AHH IN RELATION TO CANCER ETIOLOGY.....	5R01 CA18542-04	81,495
PAIGEN, BEVERLY J.....	GENETIC SUSCEPTIBILITY TO LUNG CANCER.....	5R01 CA24270-02	77,287
PAIGEN, KENNETH.....	GENETIC STUDY OF MAMMALIAN CONTROL SYSTEMS.....	5P01 GM19521-08	623,896
PAIGEN, KENNETH.....	MOLECULAR STUDY OF GLUCURONIDASE REGULATORY VARIANTS.....	1R01 GM26848-01	117,309
PARTHASARATHY, RENGACHARY.....	STEREOCHEMISTRY OF THIOL-DISULFIDE INTERCHANGES.....	5R01 CA23704-03	49,370
PARTHASARATHY, RENGACHARY.....	STRUCTURE AND FUNCTION OF MODIFIED BASES OF TRNA.....	5R01 GM24864-05	34,999
PIERUCCI, OLGA.....	ROLE OF THE BACTERIAL ENVELOPE IN CELL DUPLICATION.....	2R01 GM21006-04A1	36,995
PORTER, CARL W.....	ANTICANCER DRUG ACTION ON POLYAMINES AND MITOCHONDRIA.....	2R01 CA22153-03	54,240
POSTE, GEORGE H.....	MODIFICATION OF TUMOR CELL BEHAVIOR BY LIPOSOMES.....	2R01 CA18260-04	87,351
PRESSMAN, DAVID.....	STRUCTURE AND CHEMICAL NATURE OF SPECIFIC ANTIBODY SITES.....	5R01 AI03962-19	164,873
PRESSMAN, DAVID.....	IMMUNOLOGICAL STUDIES WITH CULTURED HUMAN LYMPHOCYTES.....	5R01 AI08899-11	215,106
PRESSMAN, DAVID.....	MEMBRANE ANTIGENS FROM NORMAL AND LEUKEMIC LYMPHOCYTES.....	3R01 CA17276-04S1	37,666
PRIORE, ROGER L.....	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL.....	5R10 CA22190-03	123,520
ROHOLT, OLIVER A, JR.....	BINDING SITES OF MYELOMA PROTEINS AND ANTIBODIES.....	5R01 AI12100-06	51,186
ROHOLT, OLIVER A, JR.....	IMMUNE MECHANISMS INVOLVED IN TUMOR METASTASIS.....	1R01 CA24726-01	59,156
ROSEN, FRED.....	ENDOCRINE TUMORS: STEROID RECEPTORS AND THERAPY.....	5R01 CA22761-02	74,448
RUSTUM, YOUSEF M.....	CELLULAR SELECTIVITY OF ANTIMETABOLITES.....	2R01 CA18420-04	81,336
SANDBERG, AVERY A.....	CHROMOSOMES OF HUMAN BLADDER TUMORS.....	3R26 CA14555-06S1	5,536
SANDBERG, AVERY A.....	CHROMOSOMES OF HUMAN BLADDER TUMORS.....	2R26 CA14555-07	67,890
SANDBERG, AVERY A.....	TEST SYSTEMS FOR DRUGS AGAINST PROSTATIC CANCER.....	5R26 CA15436-06	71,764
SARCIONE, EDWARD J.....	PREGNANCY-ASSOCIATED PROTEIN ANIMAL MODEL SYSTEM.....	1R01 HD13291-01	51,412
SCHWARTZ, HERBERT S.....	MODEL PARAMETERS FOR ANTHRACYCLINE DRUGS.....	1R01 CA24778-01	92,191
SEON, BEN K.....	HUMAN LEUKEMIA AND LYMPHOMA ASSOCIATED ANTIGENS.....	2R01 CA19304-04	42,821
SHOWS, THOMAS B.....	HUMAN GENE LINKAGE RELATIONSHIPS IN CELL HYBRIDS.....	5R01 GM20454-07	139,187
SHOWS, THOMAS B.....	AN APPROACH TO HUMAN DEVELOPMENT WITH CELL HYBRIDS.....	2R01 HD05196-09	114,700
SRIVASTAVA, B I.....	BIOCHEMICAL MARKERS IN LEUKEMIAS.....	5R01 CA17140-05	87,688
TABER, ROBERT L, JR.....	INTERACTION OF NONENVELOPED VIRUSES WITH LIPOSOMES.....	5R01 AI14042-03	46,001
WEISS, LEONARD.....	CANCER CELL PROPERTIES AND HOST RESPONSE.....	5P30 CA17609-05	351,747
WENNER, CHARLES E.....	THE EFFECT OF COCARCINOGENS ON CELLULAR MEMBRANES.....	3R01 CA13784-06S1	9,977

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
WENNER, CHARLES E.....	THE EFFECT OF COCARCINOGENS ON CELLULAR MEMBRANES.....	2R01 CA13784-07	54,422
ZUCALI, JAMES R.....	REGULATION OF ERYTHROPOIETIN BIOGENESIS.....	2R01 AM18650-04	54,144
ORGANIZATION TOTAL	115 12,369,517		
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
ACARA, MARGARET A.....	RENAL METABOLISM OF CHOLINE: ENHANCEMENT OF EXCRETION.....	5R01 AM17201-06	47,066
ALMON, RICHARD R.....	CELLULAR INTEGRATION OF MULTIPLE RECEPTOR INFLUENCES.....	5R01 NS12865-02	47,781
ANBAR, MICHAEL.....	POLYMERIC POLYPHOSPHONATES ON DENTAL CARIES AND PLAQUE.....	1R01 DE05327-01	116,040
ANDERSON, WAYNE K.....	VINYLOGOUS CARBINOLAMINE TUMOR INHIBITORS.....	5R01 CA22935-03	37,799
ANDRES, GIUSEPPE A.....	IMMUNOPATHOLOGY OF NEPHRITIS AND RENAL TRANSPLANTS.....	5R01 AI10334-09	154,941
ARBESMAN, CARL E.....	CLINICAL AND IMMUNOLOGIC EFFECTS OF LOCAL IMMUNOTHERAPY.....	5R01 AI01303-22	46,516
BACK, NATHAN.....	VASOACTIVE MEDIATORS IN TUMOR TISSUE.....	2R01 HL11492-10A1	43,939
BAHL, OM P.....	HUMAN CHORIONIC AND OTHER GONADOTROPINS.....	5R01 HD08766-13	124,176
BAIZER, JOAN S.....	ORGANIZATION OF VISUAL FUNCTION IN PRESTRIATE CORTEX.....	5R01 EY02230-02	56,888
BARDOS, THOMAS J.....	CHEMICAL AND BIOLOGICAL STUDIES IN CANCER CHEMOTHERAPY.....	5R01 CA06695-17	84,450
BENDER, DAVID B.....	VISUAL FUNCTIONS OF THE MONKEY PULVINAR.....	1R01 EY02254-01A1	58,013
BEREZNEY, RONALD.....	THE NUCLEAR MATRIX AND DNA REPLICATION.....	5R01 GM23922-03	57,179
BORDER, JOHN R.....	SEQUENCE OF ORGAN FAILURES FOLLOWING TRAUMA.....	2P01 GM15768-11	400,107
BROWN, MURRAY.....	BARGAINING ANALYSIS OF AGGREGATE HOUSEHOLD BEHAVIOR.....	1R01 HD13312-01	70,322
BROWNE, ALEXANDER C.....	CONTROL OF STEROIDOGENESIS IN ADRENAL CORTICAL TISSUE.....	5R01 AM18141-05	84,655
BROWNE, ALEXANDER C.....	PATHOGENESIS AND PREVENTION OF HYPERTENSION.....	2R01 HL06975-19	202,372
BRUENN, JEREMY A.....	SEQUENCING OF YEAST KILLER-FACTOR RNAS.....	5R01 GM22200-05	72,111
CADENHEAD, DAVID A.....	SURFACE STUDIES OF MEMBRANE LIPIDS AND PROTEINS.....	3R01 HL12760-09S1	3,658
CADENHEAD, DAVID A.....	MOLECULAR PACKING IN/STEROID/LECITHIN MONOLAYERS.....	1R01 HL24535-01	53,237
CHEN, PRISCILLA T.....	CELLULAR IMMUNE RESPONSES TO ORAL BACTERIAL ANTIGENS.....	5R23 DE04953-02	28,912
COBURN, ROBERT A.....	CONTROL OF PERIODONTAL DISEASES: DESIGN OF NEW AGENTS.....	5R01 DE04744-03	82,763
CORAH, NORMAN L.....	CONTROL OF STRESS DURING DENTAL PROCEDURES.....	2R01 DE04494-03A1	43,665
COTTER, JOHN R.....	EFFERENT PROJECTIONS FROM ACCESSORY OPTIC NUCLEI.....	5R01 EY02368-02	9,541
CUDKOWICZ, GUSTAVO.....	FACTORS CONTROLLING GRAFT-HOST INTERACTIONS.....	5R01 AM13969-11	134,821
CUDKOWICZ, GUSTAVO.....	CONTROLS OF PROLIFERATION SPECIFIC FOR LEUKEMIAS.....	5R01 CA12844-07	81,287
DAVIS, PAUL J.....	IN VITRO ACTION OF THYROID HORMONE ON SODIUM PUMP.....	1R01 AM26113-01	39,421
DOW, BRUCE M.....	FOVEAL VISION IN THE ALERT RHEUS MONKEY.....	5R01 EY02349-02	68,981
EDWARDS, JOHN A.....	INHERITED ABNORMALITIES OF FE, CU AND GLOBIN METABOLISM.....	2R01 AM19424-04	54,638
ELLIOTT, WILLARD B.....	CHARACTERIZATION OF PHOSPHOLIPASES FROM VENOM.....	5R01 NS14788-02	46,503
ELLIOTT, WILLARD B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07066-14	85,941
ETTINGER, MURRAY J.....	THE MOLECULAR BASIS OF ANTIIDIURETIC HORMONE ACTION.....	5R01 AM17911-05	51,854
ETTINGER, MURRAY J.....	CELLULAR DYNAMICS OF COPPER METABOLISM.....	5R01 AM19708-03	52,308
EVANS, RICHARD T.....	SALIVARY ANTIBODIES TO S. MUTANS: INDUCTION AND EFFECTS.....	5R01 DE04061-05	147,741
FABER, DONALD S.....	NEURONAL INTERACTIONS AND ELECTROGENESIS.....	1R01 NS15335-01	82,467
FARHI, LEON E.....	CONVECTIVE GAS TRANSPORT AND O2 AND CO2 EXCHANGE.....	1P01 HL23190-01	320,853
FEDOR, LEO R.....	CHEMISTRY AND BIOLOGY OF BETA-GLUCURONIDASE.....	5R01 CA21755-03	22,791
FERGUSON, KAREN A.....	EFFECT OF STEROL ON MEMBRANE-BOUND ENZYMES.....	1R01 GM26600-01	58,471
FOURTNER, CHARLES R.....	MOTOR PATTERNS IN CROSS REGENERATED NERVES.....	5R01 NS14204-02	26,700
FUNG, HO-LEUNG.....	LEAD PHARMACOKINETICS AND TOXICITY.....	5R01 ES01317-02	60,163
FUNG, HO-LEUNG.....	ORAL AND LUNG ABSORPTION OF NITROGLYCERIN.....	5R01 HL22273-02	46,807
GALE, ELLIOT N.....	TREATMENT OF TEMPOROMANDIBULAR JOINT PAIN.....	2R01 DE04358-04	51,765
GARRICK, MICHAEL D.....	HEMOGLOBIN: BIOSYNTHESIS AND GENETICS.....	5R01 AM14923-08	67,018
GENCO, ROBERT J.....	PERIODONTAL DISEASE RESEARCH CENTER.....	5P50 DE04898-03	496,896
GESSNER, PIOTR K.....	DISPOSITION AND METABOLISM OF PARALDEHYDE IN INFANTS.....	5R01 HD12232-02	41,944
GRAHAM, SAXON.....	SOCIAL EPIDEMIOLOGY AND CONTROL OF CANCER.....	5P01 CA11535-10	510,903
GREEN, FLOYD A.....	ERYTHROCYTE MEMBRANE SULFHYDRYLS AND RH ACTIVITY.....	5R01 HL24009-13	91,849
GREENE, GEORGE W, JR.....	CLINICAL CANCER EDUCATION PROGRAM—DENTAL.....	5R25 CA19504-02	47,714
GRUSHKA, ELI.....	SEPARATION OF AMINO ACIDS USING LIQUID CHROMATOGRAPHY.....	5R01 GM20846-05	30,135
HARFORD, A GAYLER.....	NATURAL CORRECTION OF GENE DEFICIENCIES.....	5R01 GM21487-05	77,855
HERMAN, GABOR T.....	COMPUTER TECHNOLOGY FOR TRANSAXIAL TOMOGRAPHY.....	3R01 HL18968-03S1	13,615
HERMAN, GABOR T.....	COMPUTER TECHNOLOGY FOR TRANSAXIAL TOMOGRAPHY.....	2R01 HL18968-04	195,239
HO, JOHN T.....	PHOSPHOLIPID PHASE TRANSITIONS AND MEMBRANE FUSION.....	5R01 GM24590-02	37,788
HOGAN, PERRY M.....	MECHANISMS OF CARDIAC AUTORHYTHMICITY.....	5R01 HL16135-06	25,238
HONG, SUK K.....	MECHANISM OF TUBULAR SECRETION OF ORGANIC ANIONS.....	2R01 AM18918-04	50,354
JACOBS, DIANE M.....	MODE OF ACTION OF A STIMULATOR OF TUMOR RESISTANCE.....	5R01 CA20078-04	81,936

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
JACOBY, JACOB H.....	DRUGS AND BRAIN SEROTONIN METABOLISM.....	3R01 NS15993-01S1	1,516
JUNG, CHAN Y.....	IDENTIFICATION AND ISOLATION OF SUGAR TRANSPORT CARRIER.....	5R01 AM13376-11	53,787
JUSKO, WILLIAM J.....	AGE AND DISEASE IN DRUG DISPOSITION.....	5R01 GM24211-03	81,071
KATZ, LEONARD A.....	CANCER CLINICAL EDUCATION PROGRAM.....	2R25 CA17978-03A2	147,709
KESSLER, MICHAEL J.....	BIOSYNTHESIS OF OVINE LUTEINIZING HORMONE.....	1R01 HD12581-01	44,445
KITE, JOSEPH H, JR.....	ENDOCRINE AND AUTOIMMUNE DISORDERS IN THYROIDITIS.....	1R01 AM19042-01A1	73,171
KLOCKE, FRANCIS J.....	PATHOPHYSIOLOGY OF CARDIOPULMONARY DYSFUNCTION.....	5P01 HL15194-08	444,672
KOENIG, EDWARD.....	PROTEIN SYNTHESIZING MACHINERY IN THE AXON.....	5R01 NS04656-15	33,028
KOSTYNIAK, PAUL J.....	ENZYMATIC DEFLUORINATION—TOXICOLOGICAL IMPLICATIONS.....	1R23 ES02001-01	40,383
LEVINE, MICHAEL J.....	STREPTOCOCCUS SANGUIS RECEPTORS—SALIVARY GLYCOPROTEINS.....	2R01 DE04518-04	98,991
LEVINE, MICHAEL J.....	HUMAN SALIVARY ANTIGENS: CHARACTERIZATION.....	1R01 DE04971-01	92,004
LEVY, GERHARD.....	PHARMACOKINETICS OF SALICYLATE IN CHILDREN.....	5R01 GM19568-12	78,914
LEVY, GERHARD.....	CLINICAL PHARMACOKINETICS AND BIOPHARMACEUTICS.....	2P50 GM20852-06	412,342
LEWITT, ROBERT M.....	IMAGE RECONSTRUCTION FROM INCOMPLETE PROJECTIONS.....	5R23 CA23818-02	35,336
LINZER, ROSEMARY.....	CHARACTERIZATION OF SURFACE ANTIGENS OF S MUTANS.....	1R01 DE05017-01A1	40,006
MC CALL, W D, JR.....	DENTAL SIGNIFICANCE OF JAW MUSCLE SILENT PERIODS.....	5R01 DE04889-02	39,169
MERRICK, JOSEPH M.....	ISOLATION AND CHARACTERIZATION OF HETEROPHILE ANTIGENS.....	1R01 CA25852-01	48,042
MILGROM, FELIX.....	HUMORAL ANTIBODIES ACCOMPANYING HOMOGRAFTS.....	5R01 AM17317-15	149,182
MILLER, WILLIAM A.....	DIFFERENTIAL OF ODONTOBLASTS IN PULPAL HEALING.....	5R01 DE04048-04	67,201
MOHN, JAMES F.....	BLOOD GROUP ANTIGENS AND ANTIBODIES.....	5R01 HL05351-19	56,762
MURRAY, DANIEL H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05454-17	51,411
NANCOLLAS, GEORGE H.....	THE KINETICS OF FORMATION OF RENAL STONES.....	2R01 AM19048-04	62,440
NANCOLLAS, GEORGE H.....	THE KINETICS OF MINERALIZATION OF TEETH.....	2R01 DE03223-09	66,958
NATIELLA, JOSEPH R.....	STRUCTURAL-FUNCTIONAL CHANGES IN FREEZING ORAL TISSUE.....	5R01 DE03991-05	43,827
NATIELLA, JOSEPH R.....	A STUDY OF SUBPERIOSTEAL ORAL IMPLANTS.....	5R01 DE04226-04	119,685
NAUGHTON, JOHN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05400-18	171,408
NEIDERS, MIRDZA E.....	INTERACTIONS OF CELLS WITH TOOTH SURFACES.....	5R01 DE03689-03	16,801
NILES, EDWARD G.....	SPECIFIC SYNTHESIS AND PROCESSING OF RRNA IN VITRO.....	2R01 GM23259-04	58,042
NISINGGARD, RUSSELL J.....	IMMUNOPATHOLOGY OF GINGIVITIS AND PERIODONTITIS.....	2R01 DE03408-07A1	48,909
NOBLE, ROBERT W.....	REACTION OF HEMOGLOBIN WITH LIGANDS AND ANTIBODIES.....	5R01 HL12524-11	42,637
NOELL, WERNER K.....	RETINAL FUNCTION IN ADVANCED HEREDITARY DEGENERATION.....	1R01 EY02670-01	80,033
NOLAN, JAMES P.....	GUT-DERIVED ENDOTOXIN IN HEPATIC AND RENAL INJURY.....	1R01 AM25130-01	68,239
OHKI, SHINPEI.....	CELL FUSION IN MODEL AND BIOLOGICAL MEMBRANE SYSTEMS.....	5R01 GM24840-02	51,775
PHIPPS, GRANT T.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05330-18	67,768
REED, MICHAEL J.....	SPECIFICITY OF CMI RESPONSE IN PERIODONTAL DISEASE.....	1R01 DE04988-01	55,707
REICHLIN, MORRIS.....	IMMUNE RESPONSE TO THYMIC ANTIGENS IN POLYMYOSITIS.....	5R01 AM21747-02	50,556
REISMAN, ROBERT E.....	CLINICAL AND IMMUNOLOGICAL STUDIES OF INSECT ALLERGY.....	5R01 AI14501-02	52,373
REKOSH, DAVID M.....	ADENOVIRUS EARLY GENE FUNCTION AND DNA REPLICATION.....	1R01 CA25674-01	76,417
RENNICK, BARBARA R.....	HOMEOSTATIC REGULATION OF PLASMA CHOLINE.....	5R01 HL14092-08	58,511
RENNIE, DONALD W.....	CARDIORESPIRATORY PERFORMANCE & ENVIRONMENTAL FACTORS.....	5P01 HL14414-08	549,252
RITCHIE, CALVIN D.....	NUCLEOPHILIC REACTIVITY.....	2R01 GM12832-12A1	33,658
ROTH, JEROME A.....	BIOGENIC AMINE DISPOSITION IN IRON-DEFICIENT CHILDREN.....	5R01 HD12044-02	50,974
ROTH, JEROME A.....	VASOACTIVE AMINE DISPOSITION IN CULTURED ENDOTHELIUM.....	5R01 HL22077-02	43,357
ROTHSTEIN, MORTON.....	AGE-RELATED ALTERATION OF ENZYMES.....	5R01 AG00618-03	107,800
ROTHSTEIN, MORTON.....	PROTEOLYTIC ENZYMES IN TUBATRIX ACETI.....	1R01 AG01489-01	41,721
SACHS, FREDERICK.....	VOLTAGE CLAMP OF ISOLATED CARDIAC PURKINJE CELLS.....	5R01 HL21294-03	52,474
SACHS, FREDERICK.....	SYNAPTIC CHANNELS IN TISSUE CULTURED CELLS.....	5R01 NS13194-03	33,520
SCHENK, WORTHINGTON G, JR.....	HEMODYNAMICS AS APPLIED TO SURGICAL PROBLEMS.....	9R01 AM26186-22	79,237
SIEGEL, JOHN H.....	THE ROLE OF OCCULT MYOCARDIAL FAILURE IN HUMAN SHOCK.....	2R01 HL15676-07	122,994
SLAUNWHITE, W ROY, JR.....	THE STRUCTURE OF HUMAN TRANSCORTIN.....	2R01 GM21045-06	70,152
SNYDER, GRAYSON H.....	STRATEGIES FOR DIRECTING DISULFIDE PAIRING IN PROTEINS.....	1R01 GM26715-01	37,615
SPAULDING, STEPHEN W.....	HORMONAL CONTROL OF RNA SYNTHESIS IN THE THYROID.....	5R01 AM20283-03	33,858
STEVENS, EDWIN D.....	ELECTRON DENSITY MAPPING OF IRON PORPHYRINS.....	1R01 HL23884-01	47,267
TRIGGLE, DAVID J.....	SOURCES AND ROLES OF CALCIUM IN SMOOTH MUSCLE EXCITATION.....	5R01 HL16003-09	43,726
TUFARIELLO, JOSEPH J.....	ALKALOID SYNTHESIS.....	5R01 GM25303-02	62,211
VENTER, J CRAIG.....	BETA-RECEPTOR REGULATION & CARDIAC SITES OF DRUG ACTION.....	5R01 HL21329-03	36,639
VENUTO, ROCCO C.....	PROSTAGLANDIN E, RENIN AND UTEROPLACENTAL BLOOD FLOW.....	5R01 HD09875-02	52,754
WANG, JUI H.....	RESPIRATORY CONTROL AND COUPLED PHOSPHORYLATION.....	5R01 GM19990-07	111,419
WANG, TUNG Y.....	MECHANISM OF ANDROGEN ACTION.....	3R01 HD09443-03S1	26,146
WANG, TUNG Y.....	MECHANISM OF ANDROGEN ACTION.....	2R01 HD09443-04	67,333

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
WEISER, MILTON M.....	INTESTINAL CELL MEMBRANES: STRUCTURE AND FUNCTION.....	1R01 AM25754-01	101,612
WEISER, MILTON M.....	CELL SURFACE ALTERATIONS IN MALIGNANCY.....	5R01 CA25074-02	88,528
WEISSTEIN, NAOMI.....	GLOBAL FACTORS IN VISUAL REPRESENTATION.....	1R01 EY03047-01	31,275
YEAGLE, PHILIP L.....	CHOLESTEROL INTERACTIONS: SERUM AND MEMBRANE PROTEINS.....	1R01 HL23853-01	59,590
ZALESKI, MAREK B.....	IMMUNE RESPONSE OF MICE TO THE THY-1 ANTIGENS.....	2R01 AI13628-04	42,092
ORGANIZATION TOTAL	120 10,436,559		
COLD SPRING HARBOR			
COLD SPRING HARBOR LABORATORY ZIP CODE 11724			
ALBRECHT-BUEHLER, GUENTER.....	EXPRESSION OF AGE IN THE MOTILITY OF HUMAN SKIN CELLS.....	5R01 AG00945-02	37,048
BLOSE, STEPHEN H.....	BIOLOGY OF CYTOPLASMIC FILAMENTS IN ENDOTHELIAL CELLS.....	1R01 HL23848-01	54,779
BUKHARI, AHMAD I.....	THE LIFE CYCLE OF MUTATOR PHAGE MU.....	5R01 GM23566-03	41,324
CHOW, LOUISE T.....	INVERSION OF THE G-SEGMENT IN THE PHAGE MU CHROMOSOME.....	5R01 GM23996-03	84,874
GARRELS, JAMES I.....	COMPUTERIZED GEL ANALYSIS OF PROTEINS IN DEVELOPMENT.....	1R01 GM26298-01	116,026
HICKS, JAMES B.....	REGULATION AND INTERCONVERSION OF MATING TYPES.....	5R01 GM25624-02	147,392
KLAR, AMAR J.....	MOLECULAR MECHANISMS OF DIFFERENTIATION.....	5R01 GM25678-02	85,769
TOPP, WILLIAM C.....	SV40 EARLY GENE PRODUCTS AND VIRAL ONCOGENESIS.....	1R01 CA24830-01	87,046
WATSON, JAMES D.....	C ELEGANS MEETING.....	1R13 AG01431-01	13,290
WATSON, JAMES D.....	THE FOURTH HERPES VIRUS WORKSHOP.....	1R13 AI16201-01	21,250
WATSON, JAMES D.....	SUPPORT FOR SYMPOSIA ON QUANTITATIVE BIOLOGY.....	2R13 CA02809-24	33,250
WATSON, JAMES D.....	CANCER RESEARCH CENTER—TUMOR VIRUS SECTION.....	5P01 CA13106-08	2,717,133
WATSON, JAMES D.....	SUPPORT FOR CANCER RESEARCH CENTER COURSES.....	5R13 CA16224-06	91,990
WATSON, JAMES D.....	A CONFERENCE ON MEMBRANCE BIOGENESIS.....	1R13 GM26418-01	15,000
WATSON, JAMES D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05717-09	58,851
ORGANIZATION TOTAL	15 3,605,022		
COOPERSTOWN			
MARY IMOGENE BASSETT HOSPITAL AND CLINICS ZIP CODE 13326			
BLUMENSTOCK, DAVID A.....	TRANSPLANTATION OF THE LUNG.....	2R01 HL13987-05A1	47,295
PETERS, THEODORE, JR.....	FUNCTION AND METABOLISM OF SERUM ALBUMIN.....	5R01 HL02751-22	100,527
REED, ROBERTA G.....	FATTY ACID BINDING SITES OF SERUM ALBUMIN.....	1R01 HL22994-01	46,696
SAUER, LEONARD A.....	CONTROL MECHANISMS IN ADRENAL STEROIDOGENESIS.....	5R01 AM18600-02	45,388
SAUER, LEONARD A.....	PATHWAYS OF MALATE METABOLISM IN MALIGNANCY.....	3R01 CA18262-03S1	6,465
ORGANIZATION TOTAL	5 246,371		
CORTLAND			
STATE UNIVERSITY OF NEW YORK—COLLEGE AT CORTLAND ZIP CODE 13045			
SPINK, CHARLES H.....	CALORIMETRIC STUDIES OF BILE SALT BINDING REACTIONS.....	5R01 AM20946-02	15,174
ORGANIZATION TOTAL	1 15,174		
EAST MEADOW			
MASSAU COUNTY MEDICAL CENTER ZIP CODE 11554			
PINKUS, LAWRENCE M.....	GLUTAMINE AND INTESTINAL EPITHELIUM.....	5R01 AM22021-02	47,341
PRAISSMAN, MELVIN.....	125IIE-OP-CCK AND SECRETIN BINDING TO ACINAR CELLS.....	1R01 AM26135-01	50,036
ORGANIZATION TOTAL	2 97,377		
GARDEN CITY			
ADELPHI UNIVERSITY ZIP CODE 11530			
BETTELHEIM, FREDERICK A.....	LIGHT SCATTERING PARAMETERS OF CATARACTOUS LENSES.....	3R01 EY02571-01S1	500
BETTELHEIM, FREDERICK A.....	LIGHT SCATTERING PARAMETERS OF CATARACTOUS LENSES.....	5R01 EY02571-02	44,483
COOPERSTEIN, DEBORRA F.....	ENERGY SOURCES FOR CORNEAL TRANSPORT PROCESSES.....	5R01 EY01485-06	17,247
DAVIS, DONALD G.....	THE CONFORMATION AND FUNCTION OF CYCLIC PEPTIDES.....	5R01 GM24267-03	18,640
GORFEIN, DAVID S.....	AGING AND THE ENCODING AND RETRIEVAL OF MEMORIES.....	1R01 AG01645-01	56,218

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
NEW YORK—Continued				
ORGANIZATION TOTAL	5	137,088		
GREENVALE				
LONG ISLAND UNIVERSITY	ZIP CODE 11548			
LEWIS, ROBERT F.	INTRODUCTION TO BIOMEDICAL RESEARCH	3S06 RR08161-01S1	4,695	
LEWIS, ROBERT F.	INTRODUCTION TO BIOMEDICAL RESEARCH	5S06 RR08161-02	136,230	
MATIN, ETHEL	PSYCHOPHYSICAL STUDIES OF SENSITIVITY TO ORIENTATION	1R01 EY02951-01	30,609	
MATURO, JOSEPH M. III	CHARACTERIZATION OF AN INSULIN RECEPTOR COMPONENT	5R01 AM24069-02	53,881	
REISSIG, JOSE L.	CALCIUM FLUXES AND FUNGAL MORPHOGENESIS	1R01 AI15405-01	45,779	
ORGANIZATION TOTAL	5	271,194		
HASTINGS-ON-HUDSON				
INSTITUTE OF SOCIETY, ETHICS AND THE LIFE SCIENCES	ZIP CODE 10706			
VEATCH, ROBERT M.	HUMAN EXPERIMENTATION COMMITTEE NEWSLETTER	5R01 LM03130-02	24,791	
ORGANIZATION TOTAL	1	24,791		
ITHACA				
CORNELL UNIVERSITY	ZIP CODE 14850			
ALBRECHT, ANDREAS C.	NEAR ULTRAVIOLET RAMAN STUDIES OF CYTOCHROME P450	2R01 AM20379-03	79,330	
ALBRECHT, ANDREAS C.	BASIC PHOTOELECTRIC STUDIES IN ORGANIC SOLID STATE	5R01 GM10865-20	102,065	
APPEL, MAX J.	FACTORS INFLUENCING VIRAL PERSISTENCE	1R01 NS14342-01A1	59,802	
ARION, WILLIAM J.	GLUCOSE 6-PHOSPHATASE AND HEPATIC GLUCOSE PRODUCTION	5R01 AM19625-03	55,366	
AUSTIC, RICHARD E.	INTERACTION OF NA AND K IN HYPERURICEMIA AND GOUT	5R01 AM18946-03	45,625	
AUSTIC, RICHARD E.	INTERACTION OF MINERALS IN AMINO ACID METABOLISM	5R01 AM21615-02	55,601	
AVERY, ROGER C.	DIFFERENTIAL FERTILITY & MORTALITY	5R01 HD11348-02	66,434	
BARKER, ROBERT	MEMBRANE OLIGOSACCHARIDES	7R01 GM27948-01	18,059	
BENSADOUN, ANDRE	LIPID TRANSPORT IN AVIAN SPECIES	5R01 HL14990-08	94,107	
BERGMAN, EMMETT N.	CARBOHYDRATE AND KETONE BODY METABOLISM	5R01 AM05976-19	160,517	
CALNEK, BRUCE W.	AVIAN LEUKOSIS COMPLEX	5R01 CA06709-18	179,176	
CALVO, JOSEPH M.	REGULATION OF LEUCINE BIOSYNTHESIS IN BACTERIA	5R01 AI14340-02	42,156	
CAMHI, JEFFREY M.	BEHAVIORAL NEUROPHYSIOLOGY	5R01 NS09083-09	29,414	
CAMPBELL, T COLIN	EFFECT OF NUTRITION ON CARCINOGEN AND TOXIN METABOLISM	3R01 CA20079-03S1	18,717	
CAMPBELL, T COLIN	EFFECT OF PERINATAL IMPRINTING ON ADULT CARCINOGENESIS	5R01 CA23913-02	28,076	
CAMPENOT, ROBERT B.	CONTROL OF AXON DEVELOPMENT BY NERVE GROWTH FACTOR	1R01 NS15559-01	51,651	
CAPRANICA, ROBERT R.	ENCODING OF VOCAL SIGNALS IN THE AUDITORY SYSTEM	2R01 NS09244-09	111,270	
CARMICHAEL, LELAND E.	ANIMAL BRUCELLOSIS: DIAGNOSTIC CONTROL METHODS	5R24 RR01140-02	55,426	
CLARDY, JON C.	STRUCTURAL STUDIES OF BIOACTIVE NATURAL PRODUCTS	1R01 CA24487-01	74,922	
CLARDY, JON C.	SYNTHESIS OF SESBANINE, A CYTOTOXIC ALKALOID	1R01 CA25559-01	46,414	
COMBS, GERALD F, JR	ROLE OF SELENIUM IN PANCREATIC FUNCTION	1R01 AM21653-01A1	71,400	
COMBS, GERALD F, JR	RELATIONSHIP OF XENOBIOTICS, SELENIUM AND VITAMIN E	5R01 ES01354-02	51,031	
COOKE, W DONALD	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07061-14	201,413	
CORRADINO, ROBERT A.	SYNTHESIS AND FUNCTION OF CALCIUM-BINDING PROTEIN	5R01 AM15355-09	56,400	
CURRIE, W BRUCE	RECEPTORS AND CALCIUM BINDING IN MYOMETRIAL MEMBRANES	7R01 HD13458-01	56,649	
CYPRESS, RAYMOND H.	THE EPIDEMIOLOGY OF VISCERAL LARVA MIGRANS	5R01 AI14718-03	57,642	
DILLS, WILLIAM L, JR.	FRUCTOKINASE INHIBITORS ON FRUCTOSE UTILIZATION	5R01 AM20882-02	37,039	
DILLS, WILLIAM L, JR.	FRUCTOSE ANALOGS AS METABOLIC INHIBITORS	5R01 HD10967-03	42,530	
DROST, CORNELIS J.	ACCURATE TRANSCUTANEOUS DOPPLER BLOODFLOW MONITORING	2R01 HL19019-04	90,101	
EDELSTEIN, STUART J.	STRUCTURE AND ASSEMBLY OF TUBULIN	5R01 GM24800-02	52,454	
EDELSTEIN, STUART J.	STRUCTURE OF FIBERS OF SICKLE CELL HEMOGLOBIN	2R01 HL13591-07A2	46,395	
EISNER, THOMAS	SECRETIONS OF ARTHROPODS	2R01 AI02908-21	91,581	
ELSON, ELLIOT L.	DYNAMICS OF BIOPHYSICAL MEMBRANE PROCESSES	5R01 GM21661-05	116,712	
FABRICANT, CATHERINE G.	PATHOGENESIS OF VIRAL INDUCED ATHEROSCLEROSIS	5R01 HL19381-04	85,996	
FEIGENSON, GERALD W.	STRUCTURE AND DYNAMICS OF THE GRAMICIDIN CHANNEL	1R01 GM25675-01	24,425	
FEIGENSON, GERALD W.	LIPID-PROTEIN INTERACTIONS AND CALCIUM TRANSPORT	5R01 HL18255-05	62,681	
FINK, GERALD R.	CHEMICAL CARCINOGENS AND FRAMESHIFT MUTATION IN YEAST	5R01 CA23441-02	81,226	
FINK, GERALD R.	REGULATION OF HISTIDINE BIOSYNTHESIS IN YEAST	5R01 GM15408-12	69,483	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
FITCHEN, DOUGLAS B.....	HEME PROTEIN SOLUTION STRUCTURE FROM RAMAN SPECTRA.....	5R01 AM18048-05	39,929
FOOTE, ROBERT H.....	MATURATION, METABOLISM AND AGING OF GAMETES.....	5R01 HD03471-14	72,276
FREED, JACK H.....	ELECTRON-SPIN RELAXATION IN MODEL MEMBRANES.....	1R01 GM25862-01	66,942
GANEM, BRUCE.....	KINETICS OF TUMOR INHIBITORY DIEPOXIDES.....	2R01 CA17670-03	67,144
GANEM, BRUCE.....	SYNTHESIS OF MACROCYCLIC ANTITUMOR AGENTS.....	5R01 CA19686-04	50,160
GANEM, BRUCE.....	SYNTHESIS AND BIOSYNTHESIS IN THE SHIKIMATE PATHWAY.....	5R01 GM24054-02	75,078
GIBSON, QUENTIN H.....	KINETICS OF ENZYMES AND HEMOGLOBIN-LIGAND REACTIONS.....	2R01 GM14276-15	164,096
GLICKMAN, LAWRENCE T.....	TOXOCARA INFECTION AND OCULAR DISEASE.....	1R01 EY03163-01	108,911
HAMMES, GORDON G.....	KINETICS OF PHYSIOLOGICALLY IMPORTANT REACTIONS.....	5R01 GM13292-15	156,785
HANSEL, WILLIAM.....	CORPUS LUTEUM FUNCTION IN THE NONPREGNANT COW.....	3R01 HD06718-07S1	1,458
HANSEL, WILLIAM.....	CORPUS LUTEUM FUNCTION IN THE NONPREGNANT COW.....	5R01 HD06718-08	106,431
HEETDERKS, WILLIAM J.....	MULTIUNIT STUDY OF JOINT RECEPTORS.....	5R01 NS14462-02	50,693
HEPPEL, LEON A.....	MECHANISMS OF ACTIVE TRANSPORT AND MEMBRANE ENZYMES.....	2R01 AM11789-12	70,919
HESS, GEORGE P.....	RELATIONSHIPS BETWEEN PROTEIN STRUCTURE AND FUNCTION.....	5R01 GM04842-24	71,594
HESS, GEORGE P.....	CHEMICAL REACTIONS IN TRANSMISSION OF NERVE IMPULSES.....	5R01 NS08527-11	59,265
HINKLE, PETER C.....	ENERGY CONSERVATION IN HEART MITOCHONDRIA.....	5R01 HL14483-09	70,542
HOLMES, DOROTHY F.....	A MODEL FOR THE GUILLAIN-BARRE SYNDROME.....	5R01 NS14242-02	39,595
HORST, R KENNETH.....	REPLICATION MECHANISMS OF SMALL INFECTIOUS RNAS.....	5R01 A113647-03	46,684
HOWLAND, HOWARD C.....	REFRACTIVE STUDIES OF EYES.....	1R01 EY02994-01	22,661
HOY, RONALD R.....	NEUROLOGICAL & GENETIC ANALYSIS OF ACOUSTIC BEHAVIOR.....	5R01 NS11630-07	45,550
JACOBSON, RICHARD H.....	IMMUNOLOGY OF INTESTINAL NEMATODE INFECTIONS.....	5R01 A115075-02	56,579
JACENDORF, ANDRE T.....	MEMBRANE ASSOCIATED PHOSPHORYLATION.....	5R01 GM14479-14	88,705
KELLER, ELIZABETH B.....	THE BIOSYNTHESIS OF RNAS: MECHANISMS AND CONTROLS.....	5R01 GM10791-17	76,437
LEWIS, AARON.....	LASER RAMAN SPECTROSCOPY OF THE VISUAL PROCESSES.....	5R01 EY01377-06	91,250
LINDMARK, DONALD G.....	BIOCHEMICAL CYTOLOGY OF GIARDIA AND ENTAMOEBA.....	7R01 A116644-01	62,743
LIS, JOHN T.....	COORDINATE GENE REGULATION IN ANIMAL CELLS.....	5R01 GM25232-02	57,646
LUST, GEORGE.....	COLLAGEN METABOLISM IN OSTEOARTHRITIS.....	1R01 AM20665-01A2	69,822
MACINTYRE, ROSS J.....	NONSENSE MUTANTS AT THE α -GLYCEROPHOSPHATE DEHYDROGENASE.....	1R01 AG01811-01	73,528
MARMOR, MICHAEL.....	SEQUELAE TO CHILDHOOD LEAD EXPOSURE: A TWIN STUDY.....	1R01 ES02267-01	54,490
MC CORMICK, DONALD B.....	INVESTIGATIONS OF FLAVIN SYSTEMS.....	5R01 AM04585-19	39,912
MC GREGOR, DOUGLAS D.....	MEDIATOR OF CELLULAR IMMUNITY.....	5R01 A114482-03	85,086
MC GREGOR, DOUGLAS D.....	IMMUNITY TO PARASITIC INFECTION.....	5R01 A114490-02	98,630
MC LAFFERTY, FRED W.....	MASS SPECTROMETRY IN BIOMEDICAL RESEARCH.....	5R01 GM16609-11	219,747
MEINWALD, JERROLD.....	CHEMISTRY OF ARTHROPOD SECRETIONS.....	5R01 A112020-07	88,755
MEINWALD, JERROLD.....	PEDERIN SYNTHESIS VIA A CHIRAL PRECURSOR.....	5R01 CA23472-02	29,622
MELBY, EDWARD C, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05462-17	86,634
MINOR, RONALD R.....	HERITABLE DISEASES OF CONNECTIVE TISSUE.....	1R01 AM20793-01A2	93,832
MINOR, RONALD R.....	FACTORS IN LUNG DEVELOPMENT.....	5R01 HL20635-04	117,186
MOFFAT, JOHN K.....	CALCIUM BINDING PROTEINS: STRUCTURE AND FUNCTION.....	5R01 GM21453-02	50,206
MOFFAT, JOHN K.....	OXYGEN TRANSPORT: HEMOGLOBINS WITH MODIFIED HEMES.....	5R01 HL18309-05	47,126
MORRISON, GEORGE H.....	ION MICROSCOPY IN BIOLOGY AND MEDICINE.....	5R01 GM24314-03	61,686
MORSE, ROGER A.....	VEPID VENOM COLLECTION.....	1R01 A116011-01	35,369
MORTLOCK, ROBERT P.....	THE EVOLUTION OF ENZYMATIC ACTIVITIES.....	1R01 A115328-01	42,279
NELSON, MARGARET C.....	MECHANISMS OF SOUND COMMUNICATION IN A SIMPLE SYSTEM.....	7R01 NS16323-01	35,961
NEMETHY, GEORGE.....	AGING: CONFORMATIONAL CHANGES OF COLLAGEN.....	2R01 AG00322-04	50,850
PODLESKI, THOMAS R.....	SOLUBLE NERVE FACTORS REGULATING MUSCLE MATURATION.....	5R01 NS14679-02	65,228
QUE, LAWRENCE, JR.....	NON-HEME IRON DIOXYGENASES: STRUCTURE AND MECHANISM.....	5R01 GM25422-02	56,958
RACKER, EFRAIM.....	ENERGY METABOLISM IN NORMAL AND TUMOR CELLS.....	5R01 CA08964-13	318,187
RACKER, EFRAIM.....	MEMBRANES IN NORMAL AND CANCER CELLS.....	3P01 CA14454-06S1	175,434
RIVERS, JERRY M.....	ASCORBIC ACID: DEVELOPMENT OF AN ANIMAL MODEL.....	1R01 AM25996-01	48,019
ROBERTS, JEFFREY W.....	GENE CONTROL IN INFECTION & LYSOGENY BY PHAGE LAMBDA.....	5R01 GM21941-05	68,138
SALPETER, MIRIAM M.....	HIGH RESOLUTION AUTORADIOGRAPHY.....	2R01 GM10422-17	144,461
SALPETER, MIRIAM M.....	FUNCTIONAL ULTRASTRUCTURE OF THE NERVOUS SYSTEM.....	5R01 NS09315-10	102,058
SCHERAGA, HAROLD A.....	INTERACTIONS IN SYNTHETIC POLYAMINO ACIDS.....	2R01 AM08465-14	69,400
SCHERAGA, HAROLD A.....	INTERNAL BONDING IN PROTEINS.....	5R01 GM14312-25	90,318
SCHERAGA, HAROLD A.....	MOTION AND PROXIMITY RELATIONS IN POLYPEPTIDES.....	5R01 GM24893-10	49,286
SCHERAGA, HAROLD A.....	PROTEIN FOLDING.....	1R01 GM25138-01	79,123
SCHERAGA, HAROLD A.....	EQUILIBRIA IN THE FIBRINOGEN-FIBRIN CONVERSION.....	5R01 HL01662-26	71,888
SCHWARTZ, RUTH.....	STABLE 26MG AND 28MG IN MEASUREMENT OF MG UTILIZATION.....	2R01 AM18569-05	146,745
SCOTT, NORMAN R.....	THERMOREGULATION—THE ROLE OF VASOMOTON.....	5R01 GM19716-05	62,534

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SODERLUND, DAVID M.....	PHARMACOKINETICS AND MODE OF ACTION OF PYRETHROIDS.....	1R01 ES02160-01	38,349
SRB, ADRIAN M.....	DEVELOPMENTAL GENETIC STUDIES OF NEUROSPORA.....	5R01 GM12953-30	58,466
TURNBULL, BRUCE W.....	STATISTICAL METHODS FOR ENVIRONMENTAL HEALTH STUDIES.....	5R23 ES01714-02	48,495
TYE, BIK-KWOON.....	DNA REPLICATION AND REPAIR IN E. COLI.....	5R01 AI14980-02	41,148
USHER, DAVID A.....	TEMPLATE REACTIONS AND CHEMICAL EVOLUTION.....	1R01 GM26249-01	56,274
VAN TIENHOVEN, ARI.....	ROLE OF PROGESTERONE IN OVULATION IN THE FOWL.....	5R01 HD12101-02	60,428
VOGT, VOLKER M.....	STRUCTURE AND ASSEMBLY OF AVIAN ONCORNAVIRUSES.....	5R01 CA20081-03	52,351
WALLACE, BRUCE.....	DEVELOPMENTAL AND EVOLUTIONARY GENETICS OF DROSOPHILA.....	5R01 GM24850-02	44,845
WASSERMAN, ROBERT H.....	INTESTINAL ABSORPTION OF MINERAL IONS.....	2R01 AM04652-19	173,628
WEBB, WATT W.....	DYNAMICAL MICROSPECTROFLUORIMETRY SYSTEM.....	1P41 GM27533-01	91,000
WILKINSON, CHRISTOPHER F.....	MICROSOMAL ENZYMES IN INSECTS.....	5R01 ES00400-11	88,692
WILKINSON, CHRISTOPHER F.....	MODE OF ACTION OF INSECTICIDE SYNERGISTS.....	5R01 ES01902-02	38,441
WILSON, DAVID B.....	ISOLATION AND CHARACTERIZATION OF THE S GENE PRODUCT.....	5R01 GM25030-02	36,128
WU, RAY.....	SYNTHESIS AND CLONING OF HUMAN INSULIN GENE.....	5R01 AM21801-02	76,630
WU, RAY.....	SYNTHETIC CONNECTORS AND ADAPTORS FOR CLONING DNA.....	5R01 GM24904-02	80,837
ZILVERSMIT, DONALD B.....	FAT METABOLISM AND EXPERIMENTAL ATHEROSCLEROSIS.....	5R01 HL10933-14	121,798
ZILVERSMIT, DONALD B.....	LIPID TRANSPORT.....	5R01 HL10940-14	118,363
ORGANIZATION TOTAL	115	8,643,730	
ITHACA COLLEGE ZIP CODE 14850			
PASTERNAK, ROBERT F.....	FAST REACTIONS IN SOLUTION.....	2R01 GM17574-07A1	35,555
ORGANIZATION TOTAL	1	35,555	
LAKE PLACID			
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER ZIP CODE 12946			
CHAPPLE, PAUL J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05800-02	19,750
KINNERLEY, ALAN M.....	PLANT CELL CULTURES AS SOURCES OF CHEMICALS.....	1R01 GM25994-01	38,430
MC KEENAN, WALLACE L.....	ANDROGEN-RESPONSIVE PROSTATE EPITHELIAL CELLS.....	1R01 CA26110-01	115,508
SMITH, JAMES R.....	CLONAL ANALYSIS OF AGING HUMAN DIPLOID CELL CULTURES.....	5R01 AG00338-03	60,785
SMITH, JAMES R.....	FUSION OF ANIMAL CELL CLONES—LIFE SPAN OF HYBRID CELLS.....	1R01 AG01984-01	89,889
SMITH, JAMES R.....	EFFECTS OF AIR POLLUTANTS ON LUNG CELLS IN CULTURE.....	5R01 HL21009-03	77,747
ORGANIZATION TOTAL	6	402,109	
MANHASSET			
NORTH SHORE UNIVERSITY HOSPITAL ZIP CODE 11039			
WAPNIR, RAUL A.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09128-01A1	130,390
ORGANIZATION TOTAL	1	130,390	
NEW YORK			
AMERICAN ARBITRATION ASSOCIATION ZIP CODE 10020			
LADIMER, IRVING.....	SWINE FLU LIABILITY AND PUBLIC POLICY.....	5R01 LM03127-02	22,659
ORGANIZATION TOTAL	1	22,659	
AMERICAN ASSOCIATION FOR CANCER RESEARCH ZIP CODE 10021			
PHILIPS, FREDERICK S.....	PARTIAL SUBSIDY FOR THE JOURNAL OF CANCER RESEARCH.....	2R01 CA09247-27	268,409
ORGANIZATION TOTAL	1	268,409	
AMERICAN DIABETES ASSOCIATION ZIP CODE 10020			
WHITEHOUSE, FRED W.....	10TH CONGRESS INTERNATIONAL DIABETES FEDERATION.....	1R13 AM26182-01	26,250
WHITEHOUSE, FRED W.....	WORKSHOP CONFERENCE ON GESTATIONAL DIABETES.....	1R13 AM26774-01	15,000
ORGANIZATION TOTAL	2	41,250	
AMERICAN HEALTH FOUNDATION ZIP CODE 10017			
BOTVIN, GILBERT J.....	LIFE SKILLS TRAINING AND SMOKING PREVENTION.....	1R01 HD12849-01	86,016
FIALA, EMERICH.....	SINGLE RING ARYLAMINE CARCINOGENS: MECHANISM OF ACTION.....	1R01 CA26395-01	122,246
HECHT, STEPHEN S.....	METABOLISM OF THE CARCINOGEN NITROSOMONICOTINE.....	5R01 CA21393-03	90,026

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LA VOIE, EDMOND J.....	ENVIRONMENTAL POLYCYCLICS: METABOLISM AND ACTIVATION.....	1R01 ES02030-01	81,357
TONG, CHARLES C.....	MUTAGENICITY OF ENVIRONMENTAL CHEMICALS TO HUMAN CELLS.....	5R23 ES01724-02	44,984
WILLIAMS, CHRISTINE L.....	CORONARY RISK FACTOR INTERVENTION IN CHILDHOOD.....	1R01 HL21891-01A1	298,201
WYNDER, ERNST L.....	ENVIRONMENTAL CARCINOGENESIS.....	5P01 CA12376-08	587,179
WYNDER, ERNST L.....	CORE SUPPORT, CANCER CENTER PROGRAM.....	3P30 CA17613-04S1	184,998
WYNDER, ERNST L.....	CANCER CENTER SUPPORT (CORE) GRANT.....	2P30 CA17613-05	1,208,039
WYNDER, ERNST L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05775-04	86,835
ORGANIZATION TOTAL	10 2,789,881		
ANIMAL MEDICAL CENTER ZIP CODE 10021			
HURVITZ, ARTHUR I.....	MODEL FOR HUMAN BREAST CANCER IMMUNOTHERAPY.....	1R01 CA26287-01	232,314
ORGANIZATION TOTAL	1 232,314		
BANK STREET COLLEGE OF EDUCATION ZIP CODE 10025			
ROSEN, JACQUELINE L.....	RETIREMENT AND SELF CONCEPT IN WOMEN.....	3R01 AG01483-01S1	20,436
ORGANIZATION TOTAL	1 20,436		
BARNARD COLLEGE ZIP CODE 10027			
BRAINE, LILA G.....	PROCESSING OF ORIENTATION INFORMATION BY CHILDREN.....	5R01 HD09513-04	25,392
ORGANIZATION TOTAL	1 25,392		
BETH ISRAEL MEDICAL CENTER ZIP CODE 10003			
MOSBACH, ERWIN H.....	ROLE OF INTESTINAL BACTERIA IN STEROID METABOLISM.....	7R01 HL24061-01	194,151
ORGANIZATION TOTAL	1 194,151		
CENTER FOR POLICY RESEARCH ZIP CODE 10027			
ETZIONI, AMITAI.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05739-07	21,931
ORGANIZATION TOTAL	1 21,931		
CITY UNIVERSITY OF NEW YORK—BRONX COMMUNITY COLLEGE ZIP CODE 10468			
POLOWCZYK, CARL J.....	EXPERIENCES IN BIOMEDICAL RESEARCH.....	1S06 RR08174-01	235,625
ORGANIZATION TOTAL	1 235,625		
CITY UNIVERSITY OF NEW YORK—BROOKLYN COLLEGE ZIP CODE 11210			
ABRAMOV, ISRAEL.....	SPECTRAL PROPERTIES OF CELLS IN THE GOLDFISH RETINA.....	5R01 EY01697-04	59,639
COTTRELL, STEPHEN F.....	MOLECULAR AND CELLULAR AGING IN VOLVOX.....	5R21 AG01173-02	94,057
COTTRELL, STEPHEN F.....	MITOCHONDRIAL ASSEMBLY DURING THE YEAST CELL CYCLE.....	1R01 GM25901-01	49,627
HAIRLINE, LOUISE D.....	PATTERN PERCEPTION IN EARLY INFANCY.....	5R01 HD08706-05	54,331
HURST, DONALD.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07119-08	33,171
LUKTON, AARON.....	MEASUREMENT OF AMINO ACID MISINCORPORATION DURING AGING.....	1R01 AG00578-01A1	31,754
MADERSON, PAUL F.....	TISSUE INTERACTIONS IN EAR DEVELOPMENT AND HOMEOSTASIS.....	5R01 NS13924-02	65,425
NISHIURA, JAMES T.....	BIOCHEMICAL-GENETICS OF EUKARYOTIC RNA POLYMERASES.....	5R01 GM23456-03	30,597
OSMAN, ELI.....	DETECTION AND RECOGNITION IN AUDITION AND VISION.....	5R01 NS10843-05	62,700
PIZER, RICHARD D.....	THE DYNAMICS OF CRYPTATE FORMATION.....	1R01 GM24748-01	26,032
SCIAFANI, ANTHONY.....	INTESTINAL AND GASTRIC BYPASS IN OBESITY.....	1R01 AM23064-01	69,568
ORGANIZATION TOTAL	11 576,901		
CITY UNIVERSITY OF NEW YORK—CITY COLLEGE OF NEW YORK ZIP CODE 10031			
ALFANO, ROBERT R.....	THE FAST KINETICS OF THE PRIMARY VISUAL PROCESSES.....	5R01 EY02515-02	95,244
BIRKE, RONALD L.....	REDOX CHEMISTRY OF VITAMIN B12 DERIVATIVES.....	2R01 AM18440-04	50,466
CALLENDER, ROBERT H.....	RESONANCE RAMAN STUDY OF RHODOPSIN & RELATED PIGMENTS.....	1R01 EY03142-01	151,268
FISHMAN, MYER M.....	RESEARCH TRAINING FOR BIOMEDICAL CAREERS.....	1S06 RR08168-01A1	288,707
GORDON, MILDRED.....	CYCIC NUCLEOTIDES IN GUINEA PIG SPERMATOZOEA.....	1R01 HD13163-01	75,736
HAINES, THOMAS H.....	STRUCTURAL STUDIES ON FLAGELLAR MEMBRANES.....	1R01 GM25882-01	57,865
KRUPA, PAUL L.....	CYTOLOGY OF SNAIL-PARASITE INTERACTIONS.....	5R01 AI15117-02	49,645
LEVINE, LOUIS.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07132-08	22,798
SCHULZ, HORST H.....	FATTY ACID METABOLISM IN HEART AND ITS REGULATION.....	5R01 HL18089-05	65,464
SLOAN, DONALD L.....	ENZYMIC PHOSPHORIBOSYL TRANSFER REACTION IN YEAST.....	5R01 AM20183-02	46,251
WALLMAN, JOSHUA.....	ROLE OF VISION IN ETIOLOGY OF AXIAL MYOPIA.....	1R01 EY02727-01	62,308
WALLMAN, JOSHUA.....	ROLE OF ACCESSORY OPTIC SYSTEM IN OCULOMOTOR CONTROL.....	1R01 EY02937-01	68,892

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ORGANIZATION TOTAL	12	1,034,644	
CITY UNIVERSITY OF NEW YORK—COLLEGE OF STATEN ISLAND ST. GEORGE CAMPUS ZIP CODE 10301			
NAIDER, FRED R	PEPTIDE TRANSPORT IN MICROORGANISMS	5R01 GM22086-05	45,851
ORGANIZATION TOTAL	1	45,851	
CITY UNIVERSITY OF NEW YORK—GRADUATE SCHOOL AND UNIVERSITY CENTER ZIP CODE 10036			
GLASS, DAVID C	BEHAVIOR PATTERNS, STRESS, AND CATECHOLAMINES	5R01 HL22514-02	202,983
LEVITT, HARRY	ANALYSIS OF ACOUSTIC CHARACTERISTICS OF DEAF SPEECH	5R01 NS09252-08	79,876
LEVITT, HARRY	PRACTICAL METHODS OF ESTIMATING OPTIMUM AMPLIFICATION	1R01 NS15143-01	84,636
PARLEE, MARY B	SIGNIFICANCE OF MENSTRUATION FOR ADOLESCENT FEMALES	5R01 HD13270-02	39,090
PROSHANSKY, HAROLD M	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07126-08	43,603
ORGANIZATION TOTAL	5	450,188	
CITY UNIVERSITY OF NEW YORK—HUNTER COLLEGE ZIP CODE 10021			
BEVERIDGE, DAVID L	SOLVENT EFFECTS ON BIOMOLECULAR STRUCTURE AND PROCESS	5R01 GM24914-05	74,446
CECCARINI, COSTANTE	SURFACE GLYCOPETIDES, GROWTH REGULATION IN ANIMAL CELLS	5R01 GM24071-02	81,308
CHAPPELL, RICHARD L	NEURAL INTERACTIONS OF THE RETINA	3R01 EY07777-07S1	47,886
COHEN, WILLIAM D	MARGINAL BAND SYSTEM OF ERYTHROCYTES	5R01 HL20902-03	32,147
HANDLER, EUGENE S	HEMATOPOIETIC COLONY FORMATION IN VIVO	3R01 CA19487-03S1	7,822
HERSKOWITZ, IRWIN H	BIBLIOGRAPHY ON THE GENETICS OF DROSOPHILA	5R01 GM20705-05	20,742
KRAKOW, JOSEPH S	RNA SYNTHESIS BY BACTERIAL RNA POLYMERASE	2R01 GM18673-08	101,317
KRAKOW, JOSEPH S	STUDIES ON THE CYCLIC AMP RECEPTOR PROTEIN OF E. COLI	5R01 GM22619-04	45,900
KRAKOW, JOSEPH S	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07109-11	41,324
LICHTER, ROBERT L	NATURAL-ABUNDANCE 15N NMR OF BIOORGANIC COMPOUNDS	2R01 GM21148-04A1	76,739
OZER, HARVEY L	HOST FUNCTIONS RELATED TO TUMOR VIRUS INFECTION	5R01 CA23002-03	139,437
OZER, HARVEY L	REGULATION OF EXPRESSION OF VIRAL TRANSFORMATION	5R01 CA23003-03	86,782
PASTERNAK, BURTON	ECOLOGY, MARRIAGE, AND FERTILITY IN A CHINESE LOCALITY	1R01 HD13492-01	8,125
RUDNER, RIVKA	MACROMOLECULAR ASPECTS OF SYNCHRONOUS CELL DIVISION	2R01 GM16059-10	67,353
ORGANIZATION TOTAL	14	831,328	
CITY UNIVERSITY OF NEW YORK—MEDGAR EVERS COLLEGE ZIP CODE 11225			
PAUL, DENIS F	THE BIOMEDICAL RESEARCH ORIENTATION PROGRAM	1S06 RR08171-01	352,430
ORGANIZATION TOTAL	1	352,430	
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029			
ABRAMSON, RUTH G	MICROPUNCTURE STUDY OF URATE TRANSPORT IN RAT KIDNEY	5R01 AM12872-11	130,098
ACS, GEORGE	CHEMOTHERAPEUTIC DEOXYRIBONUCLEOSIDES	5R01 CA16890-06	102,827
ALTER, BLANCHE P	REGULATION OF HEMOGLOBIN SYNTHESIS	1R01 AM26956-01	38,838
ANDERSON, HENRY A	CANCER AMONG HOUSEHOLD CONTACTS OF ASBESTOS WORKERS	5R01 CA22792-02	86,268
BAHLER, ALAN S	COMPETITIVE CORONARY FLOW IN NATIVE AND GRAFT VESSELS	5R01 HL20163-03	89,050
BARKA, TIBOR D	LOCALIZATION OF POLYPEPTIDES IN SALIVARY GLAND	5R01 AM19753-02	96,453
BARKA, TIBOR D	ISOPROTERENOL AND CARCINOGENESIS	5R01 CA24005-02	34,398
BARKA, TIBOR D	TUMOR PROMOTERS, GROWTH AND DIFFERENTIATION	3R01 CA24023-01S1	23,667
BEATTIE, DIANA S	HEPATIC ALA SYNTHETASE AND ITS CONTROL IN AGING	5R01 AG00099-03	77,113
BEATTIE, DIANA S	CONTROL OF PROTEIN SYNTHESIS IN THE DIABETIC RAT	5R01 AM20953-02	43,793
BEATTIE, DIANA S	SYNTHESIS OF MITOCHONDRIAL PROTEIN	3R01 HD04007-09S1	14,092
BEATTIE, DIANA S	SYNTHESIS OF MITOCHONDRIAL PROTEIN	5R01 HD04007-10	53,795
BENTLEY, PETER J	PHARMACOLOGY OF LENTICULAR ION TRANSPORT	5R01 EY01278-06	63,384
BHUYAN, KAILASH C	MECHANISM OF CATARACTOGENESIS CAUSED BY AMINOTRIAZOL	5R01 EY03012-02	139,914
BODIS-WOLLNER, IVAN G	PARALLEL PATHWAYS IN HUMAN VISION	5R01 EY01708-03	78,241
BRODSKY, WILLIAM A	RENAL ION TRANSPORT MECHANISMS	5R01 AM16928-05	104,950
BROWN, W VIRGIL	STRUCTURE AND FUNCTION OF HEPARIN RELEASABLE LIPASES	5R01 HL22967-02	136,705
BUCHER, DORIS J	PRIMARY STRUCTURE OF INFLUENZA VIRUS HEMAGGLUTININ	1R01 AI16073-01	92,265
CALHOON, DAVID H	CONTROL OF GENE EXPRESSION BY AN ALLOSTERIC ENZYME	2R01 GM23182-04	69,446
CANDIA, OSCAR A	ELECTROLYTE AND FLUID TRANSPORT IN OCULAR MEMBRANES	5R01 EY00160-09	114,984
CANDIA, OSCAR A	INTERDISCIPLINARY RESEARCH CENTER FOR VISUAL SCIENCES	5P30 EY01867-03	127,275
CHALMERS, THOMAS C	TECHNICAL EVALUATION OF THE THERAPEUTIC LITERATURE	5R01 LM03116-02	123,644
CHRISTMAN, JUDITH K	RESPONSE OF PHAGOCYTTIC LEUKOCYTES TO TUMOR PROMOTORS	1R01 CA25985-01	127,023
CHURG, JACOB	RENAL, VASCULAR AND PULMONARY STRUCTURE IN DISEASE	5R01 AM00918-25	131,288

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
COHEN, BERNARD	VISUAL CONTROL OF THE OCULOMOTOR SYSTEM	5R01 EY02296-02	80,204
COHEN, BERNARD	THE OCULOMOTOR SYSTEM AND BODY POSTURAL MECHANISMS	5R01 NS00294-25	73,500
DESNIACK, ROBERT J.	THERAPY OF GENETIC DISEASES	5R01 GM25279-02	112,276
FLEISCHMAJER, RAUL	EFFECT OF LONG TERM PUVA ON THE DERMIS IN PSORIASIS	1R01 AM27120-01	76,514
FRANK, ARTHUR L.	MINERAL FIBER SIZE AND CARCINOGENICITY IN VITRO	5R23 CA24271-02	36,100
FRIEND, CHARLOTTE	FILTERABLE AGENTS AND TUMOR INDUCTION IN MICE	2R01 CA10000-14	156,521
FRIEND, CHARLOTTE	CONTROL MECHANISMS OF DIFFERENTIATION AND MALIGNANCY	5R01 CA13047-08	178,300
GARRO, ANTHONY J.	DETECTING ALKYL HALIDE MUTAGENICITY WITH ISOLATED DNA	5R01 CA22354-03	41,296
GARRO, ANTHONY J.	REGULATION OF LYSOGENY IN BACTERIOPHAGE PHI-105	2R01 GM21541-03A2	60,765
GINSBERG-FELLNER, FREDDA V.	GENETIC & GESTATIONAL INFLUENCES ON CHILDHOOD OBESITY	1R01 HD11583-01A1	127,442
GINSBERG, HENRY N.	REGULATION OF APOPROTEIN-B METABOLISM IN HUMANS	1R01 HL23077-01A1	81,061
GITLOW, STANLEY E.	CATECHOLAMINE METABOLISM IN HYPERTENSIVE DISEASES	3R01 HL12648-09S1	8,928
GLASS, JOHN D.	SOLID-PHASE PEPTIDE SYNTHESIS	2R01 GM18752-07	117,364
GREENGARD, OLGA	THE REGULATION OF MAMMALIAN ENZYME SYNTHESIS	2R01 CA25005-02	157,591
GREENGARD, OLGA	HUMAN LUNG NEOPLASMS: APPLICATIONS OF ENZYME-PATHOLOGY	5R01 CA25016-02	93,380
GREENGARD, OLGA	DEVELOPMENTAL BRAIN DEFECTS IN HYPERAMINOACIDEMIAS	5R01 HD12636-02	97,517
GURPIDE, ERLIO	STEROID DYNAMICS IN HUMAN ENDOMETRIAL CANCER	5R01 CA15648-06	134,992
GURPIDE, ERLIO	STEROID DYNAMICS IN ENDOCRINOLOGY	5R01 HD07197-08	174,357
HEIKKILA, RICHARD E.	MODE OF ACTION OF DIABETOGENIC AGENTS	5R01 AM21260-03	71,798
HENLEY, WALTER L.	COMMON HUMAN AND ANIMAL ANTIGENS IN CORNEA	3R01 EY01689-03S1	28,884
HOLLAND, JAMES F.	CANCER AND LEUKEMIA GROUP B	2R10 CA04457-20	250,996
HOLLAND, JAMES F.	CHEMOTHERAPY AND CHEMOIMMUNOTHERAPY OF CANCER	5P01 CA15936-05	1,361,072
HOLLAND, JAMES F.	CANCER AND LEUKEMIA GROUP B—CENTRAL OFFICE	2R10 CA16118-06	1,064,893
HOLLAND, JAMES F.	CANCER CENTER SUPPORT (CORE) GRANT	1P30 CA23102-01A1	592,594
HOLLAND, JAMES F.	DEVELOPMENTAL THERAPEUTICS OF CANCER	1P01 CA25865-01	466,312
HUANG, YUN PENG	CEREBRAL VEINS—ANATOMICAL & RADIOLOGICAL CORRELATIONS	5R01 HL09913-14	36,712
KATSOYANNIS, PANAYOTIS G.	SYNTHETIC INSULINS AND ANALOGS	5R01 AM12925-10	141,137
KILBOURNE, EDWIN D.	BIOLOGY AND BIOCHEMISTRY OF INFLUENZA VIRUSES	5R01 AI09304-11	224,443
KILBURN, KAYE H.	DETERMINE IN UTERO LUNG SENSITIVITY OF CHEMICAL TOXINS	5R01 ES01865-02	119,447
KIRCHBERGER, MADELEINE A.	C-AMP-DEPENDENT PROTEIN KINASE IN CARDIAC CONTRACTION	5R01 HL15764-06	46,422
KLEINERMAN, JEROME I.	NO ₂ , COLLAGEN AND ELASTIN: EXPERIMENTAL EMPHYSEMA	5R01 ES02110-02	87,342
KLEINERMAN, JEROME I.	EXPERIMENTAL EMPHYSEMA—DEPRESSION OF PROTEASE INHIBITOR	5R01 HL23595-02	62,766
KLEINERMAN, JEROME I.	AMINE PRECURSOR UPTAKE/DECARBOXYLATION—MAMMALIAN LUNGS	1R01 HL27475-01	58,156
KORITZ, SEYMOUR B.	ADRENAL METABOLISM POSSIBLY RELATED TO ACTH ACTION	5R01 AM13361-11	78,709
KRAKOFF, LAWRENCE R.	RENIN AND VASCULAR HYPER-REACTIVITY IN HYPERTENSION	2R01 HL13595-09	121,901
KRIEGER, DOROTHY T.	CENTRAL NERVOUS SYSTEM—PITUITARY-ADRENAL INTERRELATIONS	5R01 NS02893-17	139,026
KUPFER, SHERMAN	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00071-16	829,138
LI, HENG-CHUN	CARDIAC PHOSPHOPROTEIN PHOSPHATASES STUDIES	1R01 HL22962-01	52,594
LIEBER, CHARLES S.	EFFECTS OF ETHANOL AND MALNUTRITION ON THE LIVER	5R01 AM12511-11	105,751
MASUR, SANDRA K.	EXOCYTOSIS AND ENDOCYTOSIS IN RESPONSE TO VASOPRESSIN	1R01 AM25110-01	62,765
MC EVOY, ROBERT C.	DIFFERENTIATION/GROWTH OF PANCREAS IN VIVO/IN VITRO	5R01 AM25257-02	73,721
MILVY, PAUL	MUTAGENICITY OF SELECTED TEXTILE DYES AND COLORANTS	5R01 ES01867-02	42,357
MITTAG, THOMAS W.	DRUG EFFECTS ON IRIS AND CILIARY BODY ADENYLATE CYCLASE	5R01 EY02619-02	90,903
MITTAG, THOMAS W.	MEMBRANE-BOUND ENZYMES AND DRUG RECEPTORS IN MUSCLE	5R01 NS10124-08	74,932
NEMERSON, YALE R.	KINETIC AND MECHANISTIC STUDIES OF BLOOD COAGULATION	5R01 HL22980-02	243,680
NIEMETZ, JULIAN	ROLE OF LEUKOCYTES IN THROMBOSIS AND DEFIBRINATION	2R01 HL13155-09A1	63,836
ORLOWSKI, MARIAN	PITUITARY HORMONES: ENZYMIC FORMATION AND DEGRADATION	1R01 AM25377-01	74,931
ORLOWSKI, MARIAN	ORGAN SPECIFIC DRUGS: CARDIOVASCULAR AND RENAL EFFECTS	5R01 HL21105-03	76,347
PALESE, PETER M.	STUDIES WITH SYNTHETIC NEURAMINIDASE SUBSTRATES	5R01 AI11823-06	125,165
PASIK, TAUBA	MATURATION OF MONKEY VISUAL AND BASAL GANGLIA SYSTEMS	5R01 EY01926-02	71,736
PODOS, STEVEN M.	IN VIVO INHIBITORS OF OCULAR PROSTAGLANDIN SYNTHESIS	5R01 EY01661-05	55,353
POGO, BEATRIZ G.	DNASES DURING INFECTION BY VACCINIA AND SHOPE FIBROMA	3R01 AI15953-01S1	39,122
POGO, BEATRIZ G.	DNASES DURING INFECTION BY VACCINIA AND SHOPE FIBROMA	5R01 AI15953-02	118,587
PUSZKIN, SAUL	MICROSTRUCTURAL INTEGRITY OF STORED HUMAN PLATELETS	5R01 HL20718-03	82,936
PUSZKIN, SAUL	NEUROTRANSMITTERS, SYNAPTOSOMES AND CONTRACTILE PROTEINS	5R01 NS12467-05	123,427
RABIN, SHELDON	DEVELOPMENT OF OPTIMAL GLAUCOMA VISUAL FIELD PROTOCOLS	1R01 EY02836-01	59,631
RAYFIELD, ELLIOT J.	CARBOHYDRATE METABOLISM—INFECTION INTERRELATIONSHIPS	2R01 AM18522-04A1	87,505
REINACH, PETER S.	COUPLING BETWEEN METABOLISM/IONIC TRANSPORT IN CORNEAS	5R01 EY01976-03	48,336
SACHAR, DAVID B.	STUDIES OF THE ILEITIS GRANULOMA-TRANSMITTING AGENT	5R01 AM19695-03	85,122
SCHER, WILLIAM	MOLECULAR CONTROL OF FRIEND LEUKEMIA CELL MATURATION	5R01 CA24402-02	120,879

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SCHIAVI, RAUL C.....	DIABETES MELLITUS AND SEXUAL DYSFUNCTION.....	5R01 AM20845-03	74,557
SCHOOK, WILLIAM J.....	MEMBRANE, VESICLE AND CLATHRIN CYTOSKELETAL ACTIVITY.....	1R01 GM26829-01	47,730
SCHULMAN, JEROME L.....	BIOLOGICAL ASSAY OF DEFINED INFLUENZA A RECOMBINANTS.....	5R01 AI14053-03	75,151
SCHWARTZ, IRVING L.....	MECHANISM OF ACTION OF PEPTIDE HORMONES.....	2R01 AM10080-15	155,751
SCOTT, WALTER N.....	MECHANISM OF INSULIN'S ACTION UPON TRANSPORT.....	5R01 AM22038-02	57,481
SCOTT, WALTER N.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05653-12	201,413
SELIKOFF, IRVING J.....	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT.....	3P30 ES00928-06S1	223,128
SELIKOFF, IRVING J.....	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT.....	5P30 ES00928-07	1,291,930
SIEGAL, FREDERICK P.....	B CELL ACTIVATION IN HYPOGAMMAGLOBULINEMIAS.....	1R01 AI16186-01	59,379
SMITH-WRIGHT, MOYRA.....	STUDIES OF IG SYNTHESIS IN SOMATIC CELL HYBRIDS.....	5R01 AI14287-02	37,704
STEINMAN, CHARLES R.....	ETIOLOGY OF RHEUMATOID ARTHRITIS & LUPUS ERYTHEMATOSUS.....	5R01 AM15544-08	141,182
SUZUKI, YASUNOSUKE.....	PATHOGENESIS OF EXPERIMENTAL MALIGNANT MESOTHELIOMA.....	1R01 CA24311-01A1	99,795
TIMMERS, KIM I.....	SERUM FACTORS AND INSULIN-SENSITIVITY IN OBESITY.....	5R01 AM22183-02	105,382
ULICK, STANLEY.....	DISORDERS OF STEROID HORMONE BIOSYNTHESIS.....	2R01 AM14040-11	84,252
ULICK, STANLEY.....	ROLE OF THE ADRENAL CORTEX IN HUMAN HYPERTENSION.....	5R01 HL18102-03	58,320
VALCIUKAS, JOSE A.....	BEHAVIORAL INDICATORS OF LEAD NEUROTOXICITY.....	5R01 ES01933-02	30,995
VAN WOERT, MELVIN H.....	SEROTONIN METABOLISM IN MYOCLONUS AND EPILEPSY.....	2R01 NS12341-04A1	77,088
WASSERMAN, LOUIS R.....	COOPERATIVE STUDY OF POLYCYTHEMIA VERA.....	5R10 CA10728-12	471,172
WAXMAN, SAMUEL.....	FOLIC ACID BINDING PROTEIN IN FOLATE METABOLISM.....	5R01 AM16690-05	70,609
WERTHER, J LAWRENCE.....	ABSORPTION OF CARCINOGENS AND MUCOSAL BARRIER FUNCTION.....	5R01 CA15544-05	60,667
WETMUR, JAMES G.....	PHYSICAL MAPPING OF POINT MUTANTS OF PARAMYXOVIRUSES.....	5R01 AI14094-03	70,878
WETMUR, JAMES G.....	RENATURATION AND HYBRIDIZATION OF NUCLEIC ACIDS.....	5R01 GM22029-06	61,662
YAHR, MELVIN D.....	CLINICAL RESEARCH CENTER—PARKINSON'S & ALLIED DISEASES.....	2P50 NS11631-06	495,574
ORGANIZATION TOTAL	107 15,720,783		
CITY UNIVERSITY OF NEW YORK—QUEENS COLLEGE ZIP CODE 11367			
BITTMAN, ROBERT.....	PHOSPHOLIPID-CHOLESTEROL, PROTEIN INTERACTIONS.....	5R01 HL16660-07	76,289
BITTMAN, ROBERT.....	STRUCTURAL ORGANIZATION OF CHOLESTEROL IN SERUM LIPIDS.....	5R01 HL22052-02	29,143
BOYLAN, ELIZABETH S.....	FETAL EXPOSURE TO HORMONES AND MAMMARY CARCINOGENESIS.....	5R01 CA18458-04	62,276
FRUMKES, THOMAS E.....	ROD-CONE INTERRELATIONSHIPS IN HUMAN VISION.....	5R01 EY01802-03	69,498
MICHEL, CORINNE A.....	YEAST—A MODEL FOR STUDYING REGULATION IN CANCER CELLS.....	5R01 CA18394-05	65,620
SWICK, KENNETH E.....	AGE-DEPENDENT POPULATION DYNAMICS.....	5R01 GM24326-03	21,973
SZALAY, JEANNE.....	REGULATION OF IRIS BLOOD VESSEL REACTIVITY IN AGING.....	5R01 EY01631-03	99,347
TROPP, BURTON E.....	CHEMICAL REGULATORS OF PHOSPHOLIPID METABOLISM.....	5R01 GM21400-05	78,358
WASSERMAN, MARVIN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07064-12	39,392
ORGANIZATION TOTAL	9 541,896		
CITY UNIVERSITY OF NEW YORK—YORK COLLEGE ZIP CODE 11432			
COHN, DEIRDRE A.....	RESEARCH TRAINING FOR BIOMEDICAL CAREER DEVELOPMENT.....	2S06 RR08153-04	243,266
ORGANIZATION TOTAL	1 243,266		
COLUMBIA UNIVERSITY ZIP CODE 10027			
ABEL, GENE G.....	SEXUAL DISORDERS RESULTING FROM DIABETES.....	5R01 AM25630-02	156,844
ABRAMSON, MAXWELL.....	PATHOGENESIS AND BONE RESORPTION IN AURAL CHOLESTEATOMA.....	5R01 NS13951-03	122,181
AL-AWQATI, QAIS.....	ACTIVE H IONS TRANSPORT IN URINARY ACIDIFICATION.....	5R01 AM20999-02	73,282
AL-AWQATI, QAIS.....	CONTROL OF SODIUM TRANSPORT AND CELLULAR RESPIRATION.....	5R01 HL21849-03	54,938
AMBRON, RICHARD T.....	PROCESSING OF MEMBRANE GLYCOPROTEIN IN SINGLE NEURONS.....	5R01 NS14555-02	17,783
ANDERSON, ETHEL I.....	THE ANTERIOR EYE: STATE AND FUNCTION OF THIOL GROUPS.....	2R01 EY00699-09	99,026
ANDREWS, ALAN D.....	DNA REPAIR PROCESSES IN XERODERMA PIGMENTOSUM.....	1R23 CA26894-01	35,511
APRIL, ERNEST W.....	THE MYOFILAMENT LATTICE: MORPHOLOGY AND FUNCTION.....	2R01 AM15876-07	71,097
AXEL, RICHARD.....	MOLECULAR CONTROL OF CHROMATIN TRANSCRIPTION.....	5R01 CA16346-05	115,991
BALAZS, ENDRE A.....	KERATIN SULFATES AND AGING OF CARTILAGE AND CORNEA.....	1R01 AG01181-01	85,350
BALAZS, ENDRE A.....	HYALURONIC ACID AND ARTHRITIS.....	5R01 AM21826-02	114,867
BALAZS, ENDRE A.....	BASIC OPHTHALMIC RESEARCH PROGRAM.....	3P30 EY00396-10S3	53,023
BALAZS, ENDRE A.....	PHYSIOLOGY AND PATHOLOGY OF THE VITREOUS.....	3R01 EY01747-04S1	221,818
BANK, ARTHUR.....	NORMAL/ABNORMAL CELL GROWTH MULTIDISCIPLINARY STUDY.....	5R01 AM25274-14	188,532
BARRON, BRUCE A.....	STATISTICAL STUDIES OF GYNECOLOGICAL CANCERS.....	5R01 CA19145-04	51,290
BASSETT, C ANDREW.....	BIOELECTRIC PHENOMENA CONTROLLING BONE GROWTH.....	5R01 AM07822-16	133,692
BENESCH, REINHOLD.....	OXYGEN TRANSPORT IN THE PRESENCE OF CARBON MONOXIDE.....	5R01 ES01560-03	54,584
BENESCH, RUTH E.....	STRUCTURE AND FUNCTION IN HEMOGLOBINS.....	5R01 HL05791-19	89,437

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BENESCH, RUTH E.....	SICKLING INHIBITION BY MODIFICATION OF HEMOGLOBIN.....	2R01 HL17552-04A1	56,015
BERNE, BRUCE J.....	MOLECULAR DYNAMICS OF AQUEOUS SOLUTIONS.....	9R01 GM26588-04	61,240
BERSOHN, RICHARD.....	BIFUNCTIONAL STUDIES OF PROTEINS.....	2R01 GM19019-16	61,951
BEYCHOK, SHERMAN.....	PROTEINS OF PLASMA CELL CANCERS.....	5R01 CA13014-08	75,348
BEYCHOK, SHERMAN.....	SYNTHESIS OF HUMAN MYELOMA VARIABLE DOMAINS IN E. COLI.....	1P01 CA25319-01	342,321
BEYCHOK, SHERMAN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07060-14	201,413
BILEZIKIAN, JOHN P.....	THE BETA ADRENERGIC CATECHOLAMINE RECEPTOR.....	5R01 HL20859-03	42,046
BITO, LASZLO Z.....	OCULAR FLUID COMPOSITION AND OCULAR TISSUE PHYSIOLOGY.....	5R01 EY00333-13	197,612
BITO, LASZLO Z.....	THE CONTROL OF TISSUE SENSITIVITY TO AUTONOMIC AGENTS.....	2R01 EY00402-12	87,848
BLOOM, ARTHUR D.....	CHARACTERIZATION OF TWO NEW GENETIC DISEASES.....	1R01 GM25869-01A1	14,710
BRANDT, PHILIP W.....	CELL PHYSIOLOGY CORRELATED WITH ULTRASTRUCTURE.....	5R01 NS05910-13	67,775
BRASEL, JO ANNE.....	NUTRITION, PREGNANCY, LACTATION & MATERNAL FAT STORES.....	5R01 HD12109-02	75,393
BRESLOW, RONALD C.....	BIOCHEMICAL MODEL REACTIONS.....	5R01 GM18754-18	109,469
BRESLOW, RONALD C.....	MODEL AND MECHANISM STUDIES ON ZINC ENZYMES.....	1R01 GM25981-01	94,501
BRESLOW, RONALD C.....	PURCHASE OF A GC-LC-MASS SPECTROMETER SYSTEM.....	1P41 GM27417-01	172,065
BUTLER, VINCENT P. JR.....	DIGOXIN-SPECIFIC ANTIBODIES.....	2R01 HL10608-13	112,275
CALVIN, HAROLD I.....	PROTEINS OF MAMMALIAN SPERMATOZOIA.....	5R01 HD05316-08	109,706
CANFIELD, ROBERT E.....	CHEMICAL STUDIES OF HORMONES AND METABOLIC DISORDERS.....	5R01 AM09579-15	193,261
CANFIELD, ROBERT E.....	CHORIONIC GONADOTROPIN CHEMISTRY/REPRODUCTIVE BIOLOGY.....	1R01 HD13496-01	126,871
CANNON, PAUL J.....	CIRCULATORY FUNCTION AND ELECTROLYTE METABOLISM.....	2R01 HL10182-14	98,459
CANNON, PAUL J.....	THE REGIONAL CIRCULATIONS.....	5R01 HL14148-08	258,461
CANTOR, CHARLES R.....	NEW TECHNIQUES FOR COMPLEX MACROMOLECULAR ASSEMBLIES.....	5R01 GM14825-13	107,822
CANTOR, CHARLES R.....	FLUORESCENCE AND CHEMICAL STUDIES ON RIBOSOMES.....	5R01 GM19843-07	109,101
CANTOR, CHARLES R.....	NIGMS SHARED INSTRUMENTATION PROGRAM: FACS FACILITY.....	1P41 GM27576-01	150,121
CHALLENGER, BERNARD D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05449-18	95,428
CHANG, CHU H.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA14060-07	71,711
CHANG, HAI WON.....	FUNCTIONAL PROPERTIES OF ACETYLCHOLINE RECEPTOR.....	5R01 NS13744-02	37,949
CHASIN, LAWRENCE A.....	MITOTIC RECOMBINATION IN CULTURED MAMMALIAN CELLS.....	5R01 GM22629-05	76,626
CHEN, JOHN H.....	GENETICALLY LINKED CATARACT AND OTHER LENS DISORDERS.....	5R01 EY02309-02	9,216
CHESS, LEONARD.....	DIFFERENTIATION ANTIGENS ON HUMAN T CELL SUBCLASSES.....	5R01 AI14969-02	100,704
CHESS, LEONARD.....	IN VITRO SENSITIZATION OF HUMAN LYMPHOCYTES.....	1R01 AI15524-01	91,522
CHIEN, SHU.....	HUMAN RED CELL MEMBRANE IN HEALTH AND DISEASE.....	5P01 HL16851-05	322,547
CHIEN, SHU.....	HUMAN BLOOD CELL MEMBRANES IN HEALTH AND DISEASE.....	2P01 HL16851-06	1,091,167
CHIEN, SHU.....	RHEOLOGICAL FACTORS IN TRANSPORT ACROSS ARTERIAL WALL.....	5R01 HL19454-03	183,461
COTE, LUCIEN J.....	SENESCENCE-NEUROCHEMICAL AND CYTOLOGICAL STUDIES.....	5R01 AG00276-03	130,840
CRAWSHAW, LARRY I.....	TEMPERATURE REGULATION.....	5R01 NS15318-02	37,262
D'ALESSANDRO, PHILIP A.....	COMPARATIVE STUDY OF TRYPAANOSOMAL EXOANTIGENS.....	5R01 AI13394-01	95,047
D'ALESSANDRO, PHILIP A.....	SURFACE RECEPTORS IN VISCERAL LEISHMANIASIS.....	1R21 AI16314-01	135,662
DAILEY, BENJAMIN P.....	DEUTERIUM NMR AS A PROBE OF MOLECULAR STRUCTURE.....	5R01 GM22310-05	69,153
DANGMAN, KENNETH H.....	DRUG EFFECTS ON ABNORMAL AUTOMATICITY IN THE HEART.....	1R01 HL24354-01	41,622
DANIEL, SALHA S.....	HOMEOSTASIS DURING THE INTRAUTERINE AND PERINATAL PERIOD.....	1R01 HD12737-01	126,261
DANILO, PETER, JR.....	PERINATAL CARDIAC ELECTROPHYSIOLOGY.....	5R23 HL21368-03	39,461
DE VIVO, DARRYL C.....	SEIZURES, KETOSIS, AND CEREBRAL METABOLISM.....	7R01 NS15708-01	11,784
DE VIVO, DARRYL C.....	SEIZURES, KETOSIS, AND CEREBRAL METABOLISM.....	2R01 NS15708-02	83,029
DEN, HALINA.....	COMPOSITION OF GLYCONJUGATES IN MUSCLE MEMBRANE.....	1R01 GM25218-01	50,325
DESPOMMIER, DICKSON D.....	FUNCTIONAL ANTIGENS OF TRICHINELLA SPIRALIS.....	5R01 AI10627-09	96,073
DI MAURO, SALVATORE.....	STUDIES OF HUMAN METABOLIC MYOPATHIES.....	1R01 AM25599-01	33,095
DILLON, JAMES P.....	INVESTIGATION OF THE EFFECT OF LIGHT ON THE HUMAN LENS.....	5R01 EY02283-02	64,695
DOBELLE, WILLIAM H.....	HIGH YIELD ISOLATION ANIMAL/HUMAN PANCREATIC ISLETS.....	5R01 AM21861-02	131,363
DOBELLE, WILLIAM H.....	SIMPLE CARDIAC ASSIST (TALVB) DEVICES IN MAN.....	1R01 HL23941-01	111,546
EAKINS, KENNETH E.....	OCULAR EFFECTS OF PROSTAGLANDINS.....	5R01 EY00457-11	164,173
EDELMAN, ISIDORE S.....	CELL MEMBRANE DETERMINANTS OF NA ⁺ TRANSPORT.....	5R01 AM21698-02	50,164
EDELMAN, ISIDORE S.....	PURIFICATION AND PROPERTIES OF CORTICOSTEROID RECEPTORS.....	1R01 AM25536-01	126,114
EDELSON, RICHARD L.....	IMMUNOBIOLOGY OF CUTANEOUS T CELL LYMPHOMAS.....	5R01 CA20499-03	68,053
EGGERS, HOWARD M.....	ANIMAL MODEL OF HUMAN AMBLYOPIA.....	5R23 EY02634-02	12,956
EISENBERG, MAX A.....	BIOTIN, BIOGENESIS, TRANSPORT, AND THEIR REGULATION.....	2R01 AM14450-10	86,397
EISENTHAL, KENNETH B.....	PICOSECOND LASER STUDIES OF HEME-PROTEINS.....	5R01 HL19488-04	48,028
ELLISON, ROSE R.....	CANCER AND LEUKEMIA GROUP B.....	2R10 CA12011-07	110,513
ELLISON, SOLON A.....	SALIVARY IMMUNE FACTORS.....	1R01 DE05531-01	117,269
ELWYN, DAVID H.....	COMPOSITION OF WEIGHT GAIN IN SURGICAL PATIENTS.....	1R01 GM26396-01	79,060

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
EMMERS, RAIMOND.....	NEUROPHYSIOLOGICAL MECHANISMS OF SENSORY MODALITIES.....	5R01 NS03266-16	50,354
ENSINGER, MARCIA J.....	TEMPERATURE-SENSITIVE MUTANTS OF VACCINIA VIRUS.....	5R01 AI13790-03	86,231
ERLANGER, BERNARD F.....	IMMUNOCHEMICAL STUDIES OF NUCLEIC ACIDS.....	5R01 AI06860-14	99,683
ERLANGER, BERNARD F.....	IMMUNOCHEMICAL STUDIES ON LIGANDS OF THE ACETYLCHOLINE.....	1R01 NS15581-01	48,775
FARRIS, ROBERT L.....	MICROVOLUME TEAR ANALYSIS.....	1R01 EY02841-01	47,661
FEIGELSON, PHILIP.....	CONTROL OF GENE EXPRESSION: NORMAL AND NEOPLASTIC.....	2P01 CA22376-03	565,558
FERIN, MICHEL J.....	THE HYPOPHYSIS AND REPRODUCTION IN RHESUS MONKEYS.....	5R01 HD10873-03	56,920
FIGURSKI, DAVID H.....	REPRODUCTION OF EXTRACHROMOSOMAL ELEMENTS IN BACTERIA.....	1R01 GM26863-01	72,683
FISCHBARG, JORGE.....	BIOELECTRICAL PROPERTIES OF CORNEAL ENDOTHELIUM.....	2R01 EY01080-07	105,954
FLEISS, JOSEPH L.....	STATISTICAL METHODS IN DENTAL RESEARCH.....	5R01 DE04068-05	58,313
FRANTZ, ANDREW G.....	PROLACTIN STUDIES.....	5R01 CA11704-09	131,982
FRIEDMAN, NATHALIE S.....	ORIENTATION AND ADJUSTMENT OF WOMEN TO RETIREMENT.....	1R01 AG01627-01	63,239
GANGAT, YAKUB M.....	ANESTHETICS/CAMP SYSTEM—MODE OF ACTION, HEART EFFECT.....	5R23 GM24307-03	43,155
GERSHON, MICHAEL D.....	NEURAL CONTROL OF GASTROINTESTINAL ACTIVITY.....	5R01 NS12969-04	83,499
GHEZ, CLAUDE P.....	INPUT OUTPUT RELATIONS IN VOLUNTARY MOVEMENT.....	3R01 NS15750-01S1	865
GHEZ, CLAUDE P.....	INPUT OUTPUT RELATIONS IN VOLUNTARY MOVEMENT.....	5R01 NS15750-02	65,772
GINSBERG, HAROLD S.....	BIOCHEMICAL CHANGES—ADENO-INFECTED & TRANSFORMED CELLS.....	5R01 AI12052-07	150,306
GINSBERG, HAROLD S.....	STUDY OF THE MECHANISMS OF VIRAL ECLIPSE AND ASSEMBLY.....	5R01 AI12053-07	105,473
GLICKMAN, ROBERT M.....	CHYLOMICRONS—FORMATION, STRUCTURE, AND FUNCTION.....	2R01 AM21367-03	162,332
GODMAN, GABRIEL C.....	CYTOCHALASINS AND CELL MEMBRANE CONTRACTILE APPARATUS.....	5R01 CA20836-03	97,551
GOLDBERG, DANIEL J.....	STUDIES OF AXONAL TRANSPORT USING SINGLE NEURONS.....	5R01 NS14711-02	60,023
GOLDSTEIN, INGE F.....	ASTHMA EPIDEMICS AND ENVIRONMENT—WHEN, WHERE, AND WHY.....	1R01 HL25793-01	124,044
GOODMAN, DE WITT S.....	METABOLISM AND NUTRITION STUDIES.....	5R01 AM05968-19	273,481
GOODMAN, DE WITT S.....	SPECIALIZED CENTER OF RESEARCH IN ARTERIOSCLEROSIS.....	5P50 HL21006-03	948,317
GOURAS, PETER.....	NEUROPHYSIOLOGY OF PRIMATE VISION.....	3R01 EY02591-01S1	27,642
GREER, JONATHAN.....	STRUCTURE AND FUNCTION OF BLOOD PROTEINS.....	5R01 HL16601-06	66,768
GUMP, FRANK E.....	REGIONAL METABOLISM IN INJURY SEPSIS AND DEPLETION.....	1R01 GM26433-01	80,313
HALDAR, JAYA.....	MORPHINE, B-ENDORPHIN, NEUROHYPOPHYSIAL HORMONE RELEASE.....	1R01 AM25772-01	60,172
HALL, ERIC J.....	RADIOLOGICAL STUDIES RELATED TO HIGH LET RADIOTHERAPY.....	5R01 CA18506-04	123,264
HALL, ERIC J.....	RADIOBIOLOGICAL STUDIES AT LOW DOSE-RATE.....	3R01 CA24232-01S1	61,865
HARBER, LEONARD C.....	PHOTOSENSITIVITY: ENVIRONMENTAL AND OTHER FACTORS.....	5R01 ES01041-06	177,310
HARDING, JOHN D.....	STRUCTURE AND REGULATION OF MOUSE TRNA GENES.....	1R01 GM26884-01	60,696
HARVEY, REJANE M.....	LUNG DISEASE AND THE OXYGENATION OF BLOOD AND TISSUE.....	5P01 HL17813-05	609,694
HEIRD, WILLIAM C.....	ROLE OF COLOSTRUM IN INTESTINAL DEVELOPMENT.....	1R01 HD13284-01	85,524
HENDERSON, ANN S.....	HUMAN GENE SITE LOCALIZATION USING HYBRIDIZATION IN SITU.....	3R01 GM21833-04S1	4,837
HENDERSON, ANN S.....	NUCLEIC SEQUENCE LOCATION BY HYBRIDIZATION IN SITU.....	5R01 GM21833-05	51,109
HILAL, SADEK K.....	GUIDED VASCULAR OBLITERATION OF CNS VASCULAR LESIONS.....	2R01 HL15781-07	43,328
HILAL, SADEK K.....	CEREBRAL BLOOD FLOW WITH STABLE XEONON CMPTT TOMOGRAPHY.....	5R01 HL20761-03	33,229
HODES, DAVID S.....	PERSISTENT INFECTION BY PARAINFLUENZA VIRUS TYPE 3.....	1R01 AI15784-01	70,905
HOFFMAN, BRIAN F.....	CARDIAC CONDUCTIVITY AND AUTOMATICITY.....	5R01 HL08508-16	101,186
HOFFMAN, BRIAN F.....	PHYSIOLOGICAL PHARMACOLOGY AND ITS CLINICAL APPLICATIONS.....	2P01 HL12738-11	1,772,265
HOLTZMAN, ERIC.....	FORMATION, CIRCULATION AND FATE OF NEURONAL MEMBRANES.....	9R01 EY03168-10	95,527
HONIG, MARJORIE.....	THE LABOR MARKET BEHAVIOR OF OLDER PERSONS.....	1R01 AG01668-01	89,279
HOOD, DONALD C.....	CONE SATURATION AND LIGHT ADAPTATION IN HUMANS.....	5R01 EY02115-03	37,683
HUANG, CHENQ-CHUN.....	COLLAGENASE AND INVASION OF HEAD AND NECK TUMORS.....	5R01 CA22907-02	106,682
ISHII, DOUGLAS N.....	NEURONAL TUMORS NERVE GROWTH FACTOR & DIFFERENTIATION.....	5R01 NS14218-02	31,897
JAGIELLO, GEORGIANA M.....	ENDOCRINE CONTROL OF MAMMALIAN FEMALE MEIOSIS.....	3R01 HD05862-08S1	16,114
JAGIELLO, GEORGIANA M.....	ENDOCRINE CONTROL OF MAMMALIAN FEMALE MEIOSIS.....	2R01 HD05862-09	78,422
JAGIELLO, GEORGIANA M.....	CYTOGENETICS OF FEMALE MAMMALIAN MEIOSIS.....	2R01 HD10037-04	91,875
JAMES, I. STANLEY.....	FETAL HYPOXIA, MATERNAL SMOKING AND NEWBORN OUTCOME.....	1P50 HD13063-01	1,098,629
JAMES, I. STANLEY.....	SUPPORT FOR LUNG CENTER FOR NEWBORNS.....	5P50 HL14218-08	928,062
JOHNSON, WILLIAM G.....	BIOCHEMICAL GENETICS OF HEXOSAMINIDASE DEFICIENCIES.....	1R01 NS15281-01	49,362
KABAT, ELVIN A.....	GENETICS OF HUMAN CELL SURFACE (BLOOD GROUP) ANTIGENS.....	5R01 GM23457-02	60,314
KANDEL, ERIC R.....	CELLULAR ANALYSES OF BEHAVIOR.....	5P01 GM23540-04	403,919
KANDEL, ERIC R.....	PLASTICITY OF THE SIMPLEST NEURONAL PATHWAYS.....	5R01 NS12744-06	192,365
KANDEL, ERIC R.....	MARICULTURE OF APLYSIA.....	1R24 RR01215-01	80,509
KARLIN, ARTHUR.....	STRUCTURES OF ACETYLCHOLINE RECEPTORS.....	2R01 NS07065-13	145,851
KATZ, THOMAS J.....	SYNTHESIS OF RING SYSTEMS.....	5R01 GM19173-16	102,162
KAWAI, MASATAKA.....	CHEMOMECHANICAL PROCESSES IN CROSS-BRIDGE KINETICS.....	1R01 AM21530-01A1	54,089
KELLY, JAMES P.....	ANATOMICAL STUDIES OF THE AUDITORY CORTEX.....	5R01 NS13403-02	62,165

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
KHANNA, SHYAM M.....	MECHANICAL PROPERTIES OF THE EAR.....	2R01 NS03654-18	130,446
KILCOYNE, MARGARET M.....	ANGIOTENSIN II & VASOPRESSIN INTERACTION IN HYPERTENSION.....	1R01 HL24105-01	68,430
KINNEY, JOHN M.....	INFLUENCE OF ACUTE ILLNESS AND INJURY ON ENERGY EXCHANGE.....	5P50 GM14546-13	632,049
KINNEY, JOHN M.....	NON-INVASIVE SPIROMETRY AND GAS EXCHANGE.....	1R01 HL23975-01	96,261
KNOWLES, DANIEL M. II.....	EXTRA-NODAL LYMPHOMAS: IMMUNOLOGY AND ULTRASTRUCTURE.....	3R01 CA24679-01S1	27,534
KOESTER, JOHN.....	CELLULAR NEURONAL CONTROL OF BEHAVIOR.....	5R01 NS14385-02	31,136
KOOPMANS, HENRY S.....	THE SATIATION OF HUNGER.....	5R01 AM17926-05	51,083
KRASNA, ALVIN I.....	STRUCTURE AND MECHANISM OF ACTION OF HYDROGENASE.....	2R01 GM22283-04	70,867
KROOTH, ROBERT S.....	GENE ACTION IN CULTURED HUMAN AND OTHER MAMMALIAN CELLS.....	5R01 GM22103-04	295,298
KULKARNI, PRASAD S.....	PRE- AND POSTNATAL DEVELOPMENT OF VISUAL CONNECTIONS.....	1R01 EY02861-01	73,197
KUTSCHER, AUSTIN H.....	CLINICAL CANCER EDUCATION GRANT.....	5R25 CA19424-03	19,437
L'ESPERANCE, FRANCIS A, JR.....	INTRAOCULAR TUMOR VAPORIZATION BY CO2 LASER RADIATION.....	1R01 EY03076-01	93,613
LEVINTHAL, CYRUS.....	NEURAL DEVELOPMENT: GENETIC & ENVIRONMENTAL CONTROL.....	3R01 NS09821-08S1	19,635
LEVINTHAL, CYRUS.....	COMPUTER RESOURCE FOR IMAGE PROCESSING AND DISPLAY.....	2P41 RR00442-11	223,910
LI, LU-KU.....	SUBUNIT INTERACTIONS OF LENS PROTEIN.....	5R01 EY00032-08	82,211
LIEBERMAN, SEYMOUR.....	APPLICATION OF CHEMICAL METHODS TO STEROID METABOLISM.....	5R01 AM00110-28	97,534
LIEBERMAN, SEYMOUR.....	ENDOGENOUS LIPOIDAL DERIVATIVES OF ADRENAL STEROIDS.....	5R01 AM20846-02	99,384
LIEBERMAN, SEYMOUR.....	STUDIES OF REPRODUCTIVE BIOCHEMISTRY AND MEDICINE.....	3P01 HD05077-08S2	284,284
LIPOWSKY, HERBERT H.....	MICROVASCULAR FUNCTION IN SICKLE CELL DISEASE.....	1R01 HL25305-01	22,726
LIPPARD, STEPHEN J.....	METAL BINDING TO POLYNUCLEOTIDES: PROBES AND DRUGS.....	5R01 CA15826-06	86,203
LIPPARD, STEPHEN J.....	LIGAND-BRIDGED BINUCLEAR METAL COMPLEXES AND PROTEINS.....	5R01 GM16449-12	89,912
LITWAK, EUGENE.....	RETIREMENT, MIGRANTS & TASKS OF ORGANIZATIONS & FAMILY.....	5R01 AG00654-03	130,023
LO GERFO, PAUL.....	PURIFIED HOMOLOGOUS ANTIBODY: CARRIER FOR ISOTOPE.....	1R01 CA25854-01	70,747
LOEB, JOHN N.....	HORMONAL REGULATION OF GROWTH AND DIFFERENTIATION.....	5R01 HD05506-08	102,954
LOW, BARBARA W.....	STRUCTURE OF NEUROTOXINS.....	5R01 NS07747-10	62,975
MACAGNO, EDUARDO R.....	CELLULAR INTERACTIONS IN SYNAPTOGENESIS.....	1R01 NS14946-01	51,301
MANDEL, IRWIN D.....	HOST FACTORS IN CARIES RESISTANCE.....	5R01 DE01554-18	144,518
MANDEL, IRWIN D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05331-16	24,479
MANDL, INES.....	AGING CHANGES IN ELASTIN AND COLLAGEN COMPOSITION.....	5R01 AG00137-03	48,582
MANSKI, WLADYSLAW J.....	IMMUNOLOGICAL STUDY OF NORMAL & PATHOLOGIC OCULAR LENS.....	5R01 EY00189-24	175,611
MANSKI, WLADYSLAW J.....	EFFECTS OF ANTICULAR ANTIBODIES ON OCULAR TISSUES.....	2R01 EY00198-21	83,689
MARKS, PAUL A.....	CANCER CENTER CORE SUPPORT GRANT.....	2P30 CA13696-08	1,567,577
MARKS, PAUL A.....	LEUKEMIA CELL SYSTEMS: INDUCTION OF DIFFERENTIATION.....	2P01 CA18314-04	269,040
MATIN, LEONARD.....	EYE MOVEMENTS AND VISUAL DIRECTION.....	3R01 EY00375-08S1	20,485
MATTEO, RICHARD S.....	PHARMACOKINETICS, ACTION OF D-TUBOCURARINE, METOCURIVE.....	1R01 GM26745-01	64,409
MAYLIE-PFENNINGER, MARIE F.....	SURFACE CHEMISTRY OF TERATOCARCINOMA AND EMBRYOS.....	7R01 CA26836-01	66,351
MILLER, ORLANDO J.....	ANTIBODY PROBES OF CHROMOSOME STRUCTURE.....	5R01 GM25193-02	62,590
MILLER, RICHARD C.....	TRANSFORMATION IN VITRO WITH SPLIT DOSES OF RADIATION.....	5R23 CA23952-02	36,775
MORRISON, SHERIE L.....	GENETICS AND BIOCHEMISTRY OF MYELOMA IG PRODUCTION.....	3R01 CA16858-05S1	45,791
MORSE, JANE H.....	LIPOPROTEINS IN BIOREGULATION OF THE IMMUNE RESPONSE.....	5R01 HL22456-02	85,746
MOSS, MELVIN L.....	ADJUSTIVE CRANIAL SKELETAL GROWTH.....	1R01 DE05145-01	52,020
MOWSHOWITZ, DEBORAH B.....	CONTROL OF PERIODIC ENZYME SYNTHESIS IN EUKARYOTES.....	1R01 GM25137-01A1	45,734
NAKANISHI, KOJI.....	INSECT AND CRUSTACEAN HORMONES AND PHEROMONES.....	5R01 AI10187-09	109,625
NAKANISHI, KOJI.....	CHEMICAL AND BIOORGANIC STUDIES OF VISUAL PIGMENTS.....	2R01 EY01253-06	95,360
NASH, MARTIN A.....	NET ACID BALANCE IN RENAL ACIDOSIS.....	1R01 AM21127-01A1	41,103
NASTUK, WILLIAM L.....	FOUR SELECTED PROBLEMS IN NEUROMUSCULAR TRANSMISSION.....	5R01 NS14300-02	77,387
NELLANS, HUGH N.....	REGULATION OF INTESTINAL CALCIUM TRANSPORT.....	5R01 AM19945-03	179,015
NGAI, SHIH-HSUN.....	ANESTHESIOLOGY.....	3P50 GM09069-16S1	53,153
NIKIAS, MATA K.....	COMPLIANCE FACTORS IN CARIES PREVENTION.....	5R01 DE04303-03	119,547
NOSSEL, HYMIE L.....	STUDY OF THROMBOSIS.....	5P01 HL15486-07	832,845
NOWYGR0D, ROMAN.....	MODULATION OF HEART GRAFT ANTIGENICITY BY PERFUSION.....	5R23 HL22448-02	42,694
NUNEZ, ELADIO A.....	STUDIES OF THE PARAFOLLICULAR CELL OF THE THYROID GLAND.....	2R01 AM19743-04	81,706
OSSERMAN, ELLIOTT F.....	CLINICAL AND BASIC STUDIES OF PLASMA CELL DYSCRASIAS.....	2P01 CA21112-03	447,330
PANETH, NIGEL S.....	NEWBORN INTENSIVE CARE AND NEONATAL MORTALITY IN NYC.....	1R01 HD12626-01	137,460
PERNIS, BENVENUTO G.....	THE PHYSIOLOGY OF LYMPHOCYTE IMMUNOGLOBULIN RECEPTORS.....	5R01 AI14398-03	192,377
PFENNINGER, KARL H.....	SURFACE EVENTS DURING PLASMALEMMAL GROWTH IN NEURONS.....	5R01 NS13466-03	86,618
PHILLIPS, STEPHANIE G.....	PROLIFERATIVE POTENTIAL OF CULTURED EPITHELIAL CELLS.....	1R01 AG01986-01	96,784
PIOMELLI, SERGIO.....	THE MECHANISM OF RED CELL AGING - HEMOLYTIC ANEMIAS.....	7R01 AM26793-01	126,268
PIOMELLI, SERGIO.....	METABOLIC EFFECTS OF LEAD.....	7R01 ES02343-01	104,488
PIOMELLI, SERGIO.....	REDUCTION OF IRON OVERLOAD IN THALASSEMIA.....	1R01 HL24195-01	75,449

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
PIRANI, CONRAD L.	STUDIES OF HUMAN AND EXPERIMENTAL RENAL DISEASES.	9R01 AM25624-06	111,614
PITT, JANE	HUMAN MILK MACROPHAGE FUNCTION.	1R01 HD12611-01	84,656
POH, MAUREEN B.	ERYTHROPOIETIC PROTOPORPHYRIA: MECHANISM OF DISEASE	2R01 AM18549-04	115,587
POLLACK, ROBERT E.	ONCOGENIC VIRUS GENE CONTROL OF CELL GROWTH AND SHAPE.	5R01 CA25066-02	181,016
PRICE, JOHN B., JR.	CONTROL FACTORS IN HEPATIC REGENERATION.	5R01 AM07646-16	126,729
REEMTSMA, KEITH.	PANCREATIC ISLET TRANSPLANTATION—CORE FACILITIES.	5P01 AM19652-03	266,003
REEMTSMA, KEITH.	CARDIAC HETEROTRANSPLANTATION: IMMUNOLOGIC MODIFICATION.	5R01 HL14799-08	75,119
REUBEN, ROBERTA C.	MURINE ERYTHROLEUKEMIA CELLS INDUCED TO DIFFERENTIATE.	5R23 CA24394-02	34,773
ROBBINS, HERBERT E.	SEQUENTIAL CLINICAL TRIALS AND COMPETING RISKS	5R01 GM16895-10	59,169
ROSEN, MICHAEL R.	AGE-RELATED CHANGES IN CARDIAC-AUTONOMIC INTERACTIONS.	1R01 HL23358-01	124,617
ROSENBERY, TERRONE L.	ACETYLCHOLINESTERASE IN EXCITABLE MEMBRANES.	5R01 NS03304-17	22,019
ROSSI, HARALD H.	EFFECTS OF SMALL DOSES OF IONIZING RADIATION	3P01 CA12536-08S1	75,074
ROSSI, HARALD H.	EFFECTS OF SMALL DOSES OF IONIZING RADIATION	2P01 CA12536-09	506,869
ROSSI, HARALD H.	CELL IRRADIATIONS WITH MOLECULAR IONS.	5R01 CA15307-06	129,635
ROWLAND, LEWIS P.	CLINICAL RESEARCH CENTER FOR NEUROMUSCULAR DISEASE	2P50 NS11766-06	848,993
ROY, DEBOUTTA	LENS PLASMA MEMBRANE	1R01 EY03121-01	66,720
RUSH, DAVID.	SMOKING IN PREGNANCY AND SUBSEQUENT CHILD DEVELOPMENT.	1R01 HD13347-01	179,553
RUSH, DAVID.	SMOKING, NUTRITION, SOCIAL CLASS, AND PERINATAL LOSS.	1R01 HD13370-01	126,522
SAWYER, WILBUR H.	NEUROHYPOPHYSIAL REGULATION OF WATER EXCRETION	5R01 AM01940-22	158,111
SCHACHER, SAMUEL M.	DEVELOPMENT OF IDENTIFIED CNS NEURONS	1R01 NS15279-01	77,208
SCHACHTER, DAVID	THE TRANSPORT OF CALCIUM.	5R01 AM01483-23	139,236
SCHACHTER, DAVID.	DIABETES MELLITUS: INSULIN CONTROL OF HEXOSE TRANSFER.	5R01 AM21086-03	71,931
SCHACHTER, DAVID.	INTESTINAL MICROVILLUS MEMBRANES: MOLECULAR FUNCTION.	5R01 AM21238-02	59,965
SCHACHTER, STANLEY	SELF-CURE OF CIGARETTE SMOKING AND OBESITY.	1R01 HD12910-01	11,470
SCHWARTZ, JAMES H.	BIOCHEMICAL STUDIES IN IDENTIFIED NEURONS	5R01 NS12066-06	112,840
SILVERMAN, ANN J.	DEVELOPMENT OF THE ENDOCRINE HYPOTHALAMUS	5R01 HD10665-04	53,963
SILVERSTEIN, SAUL J.	MOLECULAR BIOLOGY OF HERPES VIRUS.	5R01 CA17477-05	64,749
SIMPSON, LANCE L.	PHARMACOLOGICAL STUDIES ON BOTULINUM TOXIN.	1R01 NS15409-01	126,408
SMITH, CASSANDRA L.	REGULATION OF DNA REPAIR AND RECOMBINATION.	1R01 GM26103-01	41,523
SORENSEN, MARTHA M.	ROLES OF CA BINDING AND CA GRADIENT IN PUMP REVERSAL.	1R01 AM25184-01	32,756
SPECTOR, ABRAHAM	OCULAR LENS STUDIES.	2R01 EY00423-11	308,378
SPECTOR, ABRAHAM	STUDIES OF THE EFFECTS OF AGING ON THE OCULAR LENS.	5R01 EY00759-08	155,321
SPIEGELMAN, SOL.	MOLECULAR VIROLOGY.	1P01 CA23767-01	387,919
SPOTNITZ, HENRY M.	TWO DIMENSIONAL ULTRASOUND AND CARDIAC SURGERY.	5R01 HL22894-02	208,125
SQUIRES, CATHERINE L.	FUSION OF THE RIBOSOMAL RNA PROMOTOR TO OTHER OPERONS	3R01 GM24751-02S1	2,058
SQUIRES, CATHERINE L.	FUSION OF THE RIBOSOMAL RNA PROMOTOR TO OTHER OPERONS	2R01 GM24751-03	76,645
SQUIRES, CATHERINE L.	TOTAL DNA SEQUENCES OF RIBOSOMAL RNA CISTRONS	5R01 GM25178-02	64,880
SRINIVASAN, B D.	CORNEAL REEPITHELIALIZATION.	5R01 EY01977-03	76,947
STALCUP, S ALEX.	ALTERED OXYGEN TENSION AND LUNG ENDOTHELIAL FUNCTION.	1R01 HL24997-01	73,015
STEIN, ZENA A.	EPIDEMIOLOGY OF EARLY REPRODUCTIVE LOSS.	1R01 HD12207-01	332,299
STEINBERG, BETTIE M.	REGULATION OF REVERSION IN SV40 TRANSFORMED RAT CELLS	5R23 CA25096-02	35,756
STERLING, KENNETH	THYROXINE BINDING PROTEIN AND HORMONE UTILIZATION.	5R01 AM10739-14	50,398
STILL, WILLIAM C, JR.	SYNTHESIS OF ANTITUMOR AGENTS.	5R01 CA23094-03	69,125
STORK, GILBERT	SYNTHESIS OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS.	5R01 GM05147-23	149,473
STORK, GILBERT	CARDIOACTIVE ALLOYOHIMBINES AND RELATED INDOLE ALKALOIDS	3R01 HL16471-05S1	23,548
STORK, GILBERT	CARDIOACTIVE ALLOYOHIMBINES AND RELATED INDOLE ALKALOIDS	2R01 HL16471-06	57,671
TALL, ALAN R.	STRUCTURE AND FUNCTION OF HIGH DENSITY LIPOPROTEIN.	5R01 HL22682-02	65,101
TAPLEY, DONALD F.	GENERAL CLINICAL RESEARCH CENTER—ADULTS & INFANTS	5M01 RR00645-08	373,536
TAPLEY, DONALD F.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05395-18	201,413
TORAN-ALLERAND, C D.	SEX HORMONES AND DEVELOPMENT OF THE GONADOTROPHIC AXIS	5R01 HD08364-06	43,391
TURINO, GERARD M.	CHEMICAL-STRUCTURAL PREDISPOSITIONS TO LUNG INJURY	5P01 HL15832-07	665,683
TURRO, NICHOLAS J.	LUMINESCENT PROBES OF MICELLES AND BIOMOLECULES.	5R01 GM25523-02	38,525
TZAGOLOFF, ALEXANDER A	BIOSYNTHESIS OF CYTOCHROME OXIDASE.	5R01 GM25250-03	47,712
TZAGOLOFF, ALEXANDER A	ASSEMBLY OF MEMBRANES IN HEART AND YEAST MITOCHONDRIA.	5R01 HL22174-02	111,292
VANDE WIELE, RAYMOND L.	REPRODUCTIVE BIOCHEMISTRY AND MEDICINE.	2P50 HD05077-09	456,739
VANDE WIELE, RAYMOND L.	INTERNATIONAL INSTITUTE FOR STUDY OF HUMAN REPRODUCTION.	3P30 HD06132-05S1	118,498
VOGEL, HENRY J.	ENZYME REPRESSION IN BACTERIA.	2R01 AI09297-11	84,022
VORA, SHOBHANA.	RED CELL PHOSPHOFRUCTOKINASE: MECHANISM OF HEMOLYSIS	7R01 AM26437-01	48,971
WEINSTEIN, I BERNARD	CLINICAL CANCER EDUCATION.	5R25 CA18180-05	90,035
WEINSTEIN, I BERNARD	MOLECULAR EVENTS IN CHEMICAL CARCINOGENESIS.	5P01 CA21111-03	560,294

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
WINICK, MYRON	NUTRITION AND CELL GROWTH DURING BRAIN DEVELOPMENT	2R22 HD06682-07	108,442
WINTERS, ROBERT W	METABOLIC STUDIES OF PARENTERAL NUTRITION IN INFANTS	5R01 HD08434-06	312,469
WOLFF, JAMES A	CHILDREN'S CANCER STUDY GROUP	5R10 CA03526-22	69,141
WORGUL, BASIL V	RADIATION CATARACTOGENESIS	5R01 EY02648-02	89,281
YANG, JOSEPH C	ANALGESICS IN EXPERIMENTAL AND CLINICAL PAIN	1R01 GM26461-01	52,102
YOUNG, CHARLES S	ADENOVIRUS RECOMBINATION: GENETIC CHARACTERISTICS	1R01 AI15451-01	73,395
ZIMMERMAN, EARL A	VASOPRESSIN PATHWAYS AND THE PITUITARY-ADRENAL SYSTEM	5R01 AM20337-03	80,206
ZIMMERMAN, EARL A	OXYTOCIN PATHWAYS AND REPRODUCTIVE MECHANISMS	1R01 HD13147-01	95,790
ZUBAY, GEOFFREY L	TRANSCRIPTIONAL CONTROL IN INFECTIOUS PLASMIDS	5R01 AI13277-03	68,483
ZUBAY, GEOFFREY L	CELL-FREE SYSTEMS FOR THE STUDY OF GENE REGULATION	5R01 GM16648-11	68,725
ORGANIZATION TOTAL	268 38,313,878		
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021			
ALONSO, DANIEL R	RADIONUCLIDE INFARCT SIZING AND THERAPY EVALUATION	5R01 HL21684-03	225,765
ANDERSEN, OLAF S	CHANNEL-MEDIATED ION TRANSPORT ACROSS LIPID BILAYERS	5R01 GM21342-06	90,389
BACHVAROVA, ROSEMARY F	ANALYSIS OF MOUSE EGG RNA AND ITS ROLE IN THE EMBRYO	2R01 HD06910-07	112,860
BARUCH, SULAMITA B	ORGANIC ANION TRANSPORT BY ISOLATED RENAL MEMBRANES	1R01 AM19328-01A2	77,045
BECKER, CARL G	ARTERIOSCLEROSIS, GLOMERULONEPHRITIS, RHEUMATIC FEVER	5R01 HL01803-24	126,432
BEDFORD, J MICHAEL	MATURATION AND INTERACTION OF MAMMALIAN GAMETES	5R01 HD07257-08	111,567
BLACK, IRA B	MATERNAL REGULATION OF INFANT DEVELOPMENT	5R01 HD12108-02	69,329
BLACK, IRA B	REGULATION OF NEURONAL GROWTH AND DEVELOPMENT	5R01 NS10259-08	66,716
BLASS, JOHN P	NEUROTRANSMITTER METABOLISM IN VITAMIN DEFICIENCY	5R01 NS15125-02	65,504
BLASS, JOHN P	DISORDERS OF THE HUMAN PYRUVATE DEHYDROGENASE COMPLEX	1R01 NS15696-01	76,672
BRESLOW, ESTHER M	INTERACTIONS OF PROTEINS	5R01 GM17528-23	106,506
BRESLOW, ESTHER M	REQUEST FOR CIRCULAR DICHROISM SPECTROMETER	1P41 GM27471-01	63,425
BROWN, WILLIAM T	A STUDY OF CO-CULTIVATED CELLS FROM PROGERIA	5R23 AG00632-03	44,800
CHAN, WALTER Y	UTERINE PHARMACOLOGY OF OXYTOCIN AND PROSTAGLANDINS	3R01 HD09031-03S1	25,857
CHAN, WALTER Y	OXYTOCIN AND PROSTAGLANDIN ACTION IN PARTURIENT UTERUS	1R01 HD13064-01	106,400
COLATSKY, THOMAS J	IONIC BASIS OF ANTIARRHYTHMIC DRUG ACTION IN HEART	1R01 HL24279-01	71,701
COLEMAN, D JACKSON	THERAPEUTIC ULTRASOUND IN OPHTHALMOLOGY	7R01 EY03174-01	73,842
COLEMAN, D JACKSON	ULTRASONIC EVALUATION OF OCULAR TISSUES	7R01 EY03183-01	109,521
COOPER, THEODORE	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00047-19	1,437,289
CURRERI, P WILLIAM	METABOLISM AND NUTRITION IN BURNS AND TRAUMA	5R01 GM24752-03	66,755
CURRERI, P WILLIAM	BURN AND TRAUMA RESEARCH CENTER	1P50 GM26145-01	457,495
DANES, BETTY S	GENETIC STUDIES OF HERITABLE COLORECTAL CANCER	5R26 CA15973-06	91,081
DANES, BETTY S	IN VITRO ASSAY FOR INCREASED RISK FOR PANCREATIC CANCER	1R26 CA25662-01A1	31,374
DARLINGTON, GRETCHEN J	ACTIVATION OF HEPATIC GENES IN CELL HYBRIDS	2R01 GM22372-04	112,921
DEVEREUX, RICHARD B	ETIOLOGIC HETEROGENEITY IN MITRAL VALVE PROLAPSE	1R01 HL22006-01A1	91,796
DUFFY, THOMAS E	PATHOGENESIS OF HEPATIC COMA	5R01 AM16739-07	85,246
ENGLE, MARY A	IMMUNOLOGIC STUDIES IN POSTPERICARDIOTOMY SYNDROME	2R01 HL16246-07	133,778
FAIRCLOUGH, GORDON F, JR	BIOSYNTHESIS OF LUNG SURFACTANT LIPID	5R01 HL21628-03	37,403
GAY, WILLIAM A, JR	TISSUE PROTECTION DURING CIRCULATORY INTERRUPTION	5R01 HL19030-04	129,466
GAZZANIGA, MICHAEL S	COGNITION AND PERCEPTION: SPLIT-BRAIN APPROACH	2R01 NS15053-02	84,600
GIBBS, JAMES G, JR	PHYSIOLOGICAL MECHANISMS OF SATIETY	5R01 AM17240-06	86,605
GIBSON, GARY E	NEUROTRANSMITTER METABOLISM	1R01 NS15649-01	40,615
GOIDL, EDMOND A	LYMPHOCYTE FUNCTION IN AGING HUMANS	5R23 AG00681-03	45,000
GOMEZ, DANIEL G	RADIOLOGIC ASPECTS OF CEREBROSPINAL FLUID ABSORPTION	5R01 NS13844-02	109,438
GRAFSTEIN, BERNICE	EFFECTS OF DARKNESS ON DEVELOPING VISUAL SYSTEM	1R01 EY02696-01	55,350
GRAFSTEIN, BERNICE	GROWTH OF AXONS IN DEVELOPMENT AND REGENERATION	5R01 NS09015-11	131,522
GRAFSTEIN, BERNICE	RECOVERY FROM AXONAL INJURY	1R01 NS14967-01	61,516
HASCHMEYER, RUDY H	2-GLUTAMYL TRANSPEPTIDASE: MEMBRANE BOUND ENZYME SYSTEM	1R01 GM25152-01	66,988
HASCHMEYER, RUDY H	BIOPHYSICAL STUDIES ON MACROMOLECULAR INTERACTIONS	5R01 HL11822-11	38,602
HEINZ, ERICH	ASCITES TUMOR CELLS PROTON PUMPS—MECHANISM/SIGNIFICANCE	5R01 GM26554-02	67,662
HILGARTNER, MARGARET W	DEFERIOXAMINE THERAPY IN THALASSEMIA	3R01 HL19898-03S1	7,415
HILGARTNER, MARGARET W	IMPROVED CLINICAL CARE OF THALASSEMIA	2R01 HL19898-04	127,127
HINKLE, LAWRENCE E, JR	THE DETERMINANTS OF RISK OF SUDDEN DEATH	5R01 HL18776-05	162,000
JAKOBIEC, FREDERICK A	OCULAR LYMPHOID TUMORS: IMMUNOLOGY AND ULTRASTRUCTURE	7R01 EY03357-01	87,455
JAVITT, NORMAN B	CHOLESTATIC LIVER DISEASE	5R01 AM16201-08	165,455
JOHNSON, WARREN D	DIFFERENTIATION OF HUMAN MONONUCLEAR PHAGOCYTES	5R01 CA25040-02	83,811
JONES, THOMAS C	INTERACTIONS OF PNEUMOCYSTIS, OPSONINS AND PHAGOCYTES	5R01 AI10821-06	91,291

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
JONES, THOMAS C.....	EFFECTS OF IMMUNITY ON INTRACELLULAR PARASITISM.....	5R01 AI12146-06	79,731
JONES, THOMAS C.....	BASIC AND APPLIED RESEARCH IN PROTOZOAN DISEASES.....	1P01 AI16282-01	606,329
KAPLAN, BARRY B.....	GENE ACTIVITY IN BRAIN DURING POSTNATAL DEVELOPMENT.....	1R01 HD11392-01A1	64,300
KARLIN, DAVID B.....	OCULAR TISSUE EFFECTS OF CO2 LASER ENERGY.....	1R01 EY02410-01	115,276
KIM, YOUNG T.....	EFFECT OF AGING ON B-LYMPHOCYTE FUNCTION IN MAN.....	1R01 AG00842-01A1	52,397
LARAGH, JOHN H.....	HYPERTENSION CENTER SUPPORT.....	5P50 HL18323-05	1,261,084
LE DOUX, JOSEPH E.....	LANGUAGE COMPREHENSION AND ITS DISORDERS.....	1R01 NS15572-01	99,914
LEE, CHIN O.....	ION ACTIVITIES AND TRANSPORT IN CARDIAC MUSCLE CELLS.....	5R01 HL21136-03	37,718
LEVI, ROBERTO.....	CARDIAC DYSFUNCTIONS CAUSED BY HISTAMINE RELEASE.....	5R01 GM20091-05	103,663
LIEBOW, CHARLES.....	ENTEROPANCREATIC CIRCULATION OF DIGESTIVE PROTEINS.....	5R01 AM20198-03	68,345
LIEBOW, CHARLES.....	PANCREATIC CONTROL BY HISTAMINE.....	5R01 AM21894-02	62,787
LITWIN, STEPHEN D.....	GENETIC CONTROL OF ALLOTYPE EXPRESSION OF HUMAN IG.....	5R01 CA24438-10	117,660
MAACK, THOMAS M.....	RENAL TRANSPORT AND METABOLISM OF PROTEINS.....	5R01 AM14241-09	84,213
MEISTER, ALTON.....	AMINO ACID AND PROTEIN METABOLISM.....	5R01 AM12034-13	224,786
NACHMAN, RALPH L.....	SPECIALIZED CENTER OF RESEARCH IN THROMBOSIS.....	5P50 HL18828-04	1,266,314
NEW, MARIA I.....	ANDROGEN METABOLISM IN CHILDHOOD.....	5R01 HD00072-16	122,304
NEW, MARIA I.....	ADRENOCORTICAL FACTORS IN HUMAN HYPERTENSION.....	2R01 HL17749-04A1	114,087
O'LEARY, WILLIAM M.....	SEPSIS IN CANCER SURGERY: BACTERIOIDES PATHOGENESIS.....	5R01 CA23705-03	60,019
PAPAVASILIOU, PAUL S.....	STUDIES OF EXTRAPYRAMIDAL AND RELATED DISORDERS.....	5P50 NS12776-04	403,712
PERRY, MALCOLM O.....	MUSCLE ENERGY METABOLISM WITH GRADED ISCHEMIA.....	1R01 HL23623-01	56,301
PETERSON, RALPH E.....	MALE PSEUDOHERMAPHRODITISM.....	5R01 HD09421-05	101,256
PLUM, FRED.....	RESEARCH CENTER IN CEREBROVASCULAR DISEASE.....	2P50 NS03346-19	1,098,112
QUEN, JACQUES M.....	DR ISAAC RAY: A BIOGRAPHY.....	5R01 LM02591-03	40,197
QUIMBY, FRED W.....	LABORATORY ANIMAL DIAGNOSTIC FACILITY.....	5P40 RR01181-02	49,958
REIDENBERG, MARCUS M.....	SPECIAL INITIATIVE FOR RESEARCH ON DRUGS AND AGING.....	1R21 AG01441-01	90,000
REIDENBERG, MARCUS M.....	AROMATIC AMINES AND LUPUS ERYTHEMATOSUS.....	1R01 AM25963-01	83,115
REIS, DONALD J.....	EXPERIMENTAL NEUROGENIC HYPERTENSION PROGRAM.....	5P01 HL18974-04	762,156
RIFKIND, ARLEEN B.....	MECHANISMS OF PCB TOXICITY IN DEVELOPING FETAL TISSUES.....	1R01 ES02165-01	45,000
RIKER, WALTER F, JR.....	GLUCOCORTICOIDS ON SYNAPTIC FUNCTION.....	5R01 NS01447-23	88,635
RUBINOW, SOL I.....	KINETICS OF NORMAL AND NEOPLASTIC HEMATOPOIETIC CELLS.....	5R01 CA20610-02	45,809
SAUDEK, CHRISTOPHER D.....	THE REGULATION OF CHOLESTEROL SYNTHESIS IN DIABETES.....	2R01 HL20488-04	107,543
SAXENA, BRIJ B.....	GONADOTROPIN RECEPTORS.....	5R01 CA13908-05	88,217
SAXENA, BRIJ B.....	PITUITARY GONADOTROPIC AND GROWTH HORMONES.....	5R01 HD06543-08	115,214
SCHNECKLOTH, ROLAND E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05396-18	201,413
SEALEY, JEAN E.....	PRORENIN: PHYSIOLOGICAL AND BIOCHEMICAL ANALYSIS.....	5R01 HL21274-02	43,628
SHIRES, GEORGE T.....	EVALUATION OF SALINE SOLUTIONS IN THERAPY OF SHOCK.....	5R01 GM23000-04	122,910
SILAGI, SELMA.....	GENE ACTION AND CELLULAR DIFFERENTIATION IN CULTURE.....	5R01 CA10095-12	182,540
SILAGI, SELMA.....	TUMOR REJECTION ANTIGENS FROM TREATED CANCER CELLS.....	5R01 CA22211-03	85,235
SILK, SUSAN T.....	STUDIES OF ENZYMES IN HUMAN PLATELET MEMBRANES.....	5R23 HL21490-03	44,658
SILVER, RICHARD T.....	CANCER AND LEUKEMIA GROUP B.....	2R10 CA07968-15	341,819
SISKIND, GREGORY W.....	STUDIES ON ANTIBODY AFFINITY AT THE CELLULAR LEVEL.....	5R01 AI11694-05	156,078
SISKIND, GREGORY W.....	ANTIBODY AFFINITY IN IMMUNE RESPONSE & TOLERANCE.....	3R01 CA20075-10S1	30,339
SISKIND, GREGORY W.....	ANTIBODY AFFINITY IN IMMUNE RESPONSE AND TOLERANCE.....	2R01 CA20610-01	186,252
SOFFER, RICHARD L.....	PULMONARY ANGIOTENSIN-CONVERTING ENZYME.....	5R01 HL21394-03	142,570
SOFFER, RICHARD L.....	MOLECULAR BASIS OF ANGIOTENSIN-MEDIATED VASCULOPATHY.....	1R01 HL25376-01	69,675
TATE, SURESH S.....	BIOSYNTHESIS OF HYPOTHALAMIC HORMONES: TERMINAL GROUPS.....	5R01 AM19074-04	47,950
TAYLOR, ANN G.....	MICROTUBULES AND MICROFILAMENTS IN VASOPRESSIN ACTION.....	2R01 AM19022-04	111,216
WEKSLER, MARC E.....	AGING AND IMMUNE REACTIVITY.....	5R01 AG00239-05	102,093
WEKSLER, MARC E.....	IMMUNOLOGICAL STUDIES IN AGING.....	5P01 AG00541-03	530,271
WEKSLER, MARC E.....	HOST DEFENSE AGAINST LYMPHOBLASTIC LEUKEMIA.....	2R01 CA13339-07	51,450
WEKSLER, MARC E.....	AUTOLOGOUS LYMPHOCYTE REACTIONS AND IMMUNE SURVEILLANCE.....	1R01 CA26344-01	49,783
WINDHAGER, ERICH E.....	ION AND WATER TRANSPORT ACROSS RENAL TUBULES.....	5R01 AM11489-13	138,191
WINTERKORN, JACQUELINE M.....	VISUAL BEHAVIOR FOLLOWING PARALYTIC STRABISMUS.....	5R01 EY02240-02	73,982
WOODRUFF, JACK F.....	IMMUNOLOGIC MECHANISMS IN HEART DISEASE.....	5R01 HL17404-06	78,588
ORGANIZATION TOTAL	101	16,318,180	
EYE BANK FOR SIGHT RESTORATION ZIP CODE 10021			
BHUYAN, KAILASH C.....	MECHANISM OF CATARACTOGENESIS CAUSED BY AMINOTRIAZOLE.....	3R01 EY01731-03S1	14,881
ORGANIZATION TOTAL	1	14,881	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
FORDHAM UNIVERSITY ZIP CODE 10458			
FRANCK, RICHARD W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07150-05	31,114
HERSKOVITS, THEODORE T.....	SUBUNIT STRUCTURE AND INTERACTIONS OF PROTEINS.....	1R01 AM20156-01A1	61,800
HERSKOVITS, THEODORE T.....	DESIGN OF NEW INHIBITORS FOR HEMOGLOBIN S GELATION.....	1R01 AM21888-01	68,329
ORGANIZATION TOTAL	3 161,243		
HEALTH INSURANCE PLAN OF GREATER NEW YORK ZIP CODE 10022			
RUBERMAN, WILLIAM.....	PSYCHOSOCIAL STRESS AND SUDDEN CORONARY DEATH.....	5R01 HL23078-02	125,071
ORGANIZATION TOTAL	1 125,071		
HOSPITAL FOR JOINT DISEASES AND MEDICAL CENTER ZIP CODE 10035			
HOLLANDER, VINCENT P.....	HORMONALLY SENSITIVE TUMORS.....	5R01 CA10064-17	89,850
HOLLANDER, VINCENT P.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA14194-06	401,172
HOLLANDER, VINCENT P.....	ENDOCRINE FACTORS IN THE DEVELOPMENT OF PLASMACYTOMA.....	1R01 CA26041-01	75,035
HOLLANDER, VINCENT P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05589-15	20,426
MONDER, CARL.....	NEW PATHWAYS OF CORTICOSTEROID METABOLISM.....	5R01 AM09006-14	111,521
MONDER, CARL.....	FETAL LIVER AND HEPATOMA IN ORGAN CULTURE.....	5R01 CA22472-02	36,276
STEVENS, JOHN J.....	MECHANISM OF CORTISOL-INDUCED LYMPHOMA REGRESSION.....	5R01 CA14987-06	72,960
ORGANIZATION TOTAL	7 807,240		
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021			
BOSKEY, ADELE L.....	MECHANISM OF HARD TISSUE MINERALIZATION.....	5R01 DE04141-05	32,353
BURSTEIN, ALBERT H.....	MECHANICAL FACTORS AFFECTING FLUID TRANSPORT IN JOINTS.....	5R01 AM19849-04	95,597
BURSTEIN, ALBERT H.....	MECHANICAL PROPERTIES OF NORMAL AND PATHOLOGIC BONE.....	5R01 AM20048-03	116,303
CHRISTIAN, CHARLES L.....	IMMUNOLOGICAL STUDIES OF CHRONIC ARTHRITIS.....	5R01 AM14627-10	172,074
CHRISTIAN, CHARLES L.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM22066-02	346,665
KAGEN, LAWRENCE J.....	IMMUNOLOGICAL STUDIES OF MUSCLE AND MYOGLOBIN.....	5R01 AM14650-09	93,807
KAGEN, LAWRENCE J.....	CELL GROWTH INHIBITOR PRODUCED BY SPINAL CORE CELLS.....	1R01 NS14859-01	48,180
LANE, JOSEPH M.....	MOLECULAR BIOLOGY OF FRACTURE, INJURY AND REPAIR.....	5R01 AM19776-03	39,902
MELLORS, ROBERT C.....	TYPE C RNA VIRUS AND IMMUNOPATHOLOGY.....	5R01 CA14928-15	144,015
MELLORS, ROBERT C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05495-17	50,083
POSNER, AARON S.....	ULTRASTRUCTURE OF BONE MINERAL.....	2R01 AM18412-04	140,538
ORGANIZATION TOTAL	11 1,279,517		
LENOX HILL HOSPITAL ZIP CODE 10021			
IOACHIM, HARRY L.....	TUMOR CELL ANTIGEN CHANGES.....	5R01 CA16997-06	49,463
ORGANIZATION TOTAL	1 49,463		
LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER ZIP CODE 11040			
BANK, SIMMY.....	ISO-ENZYMES OF AMYLASE IN HEALTH AND PANCREATIC DISEASE.....	1R01 AM21823-01	36,551
HSU, TONY C.....	ANTIGLOBULIN TESTS USING 125I-IgG ANTI-C3D.....	1R01 AM25508-01	26,029
KLAVINS, JANIS V.....	DIAGNOSTIC TEST FOR PANCREATIC CARCINOMA.....	3R26 CA20128-03S1	6,392
MULVIHILL, JAMES E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05496-17	27,526
SAWITSKY, ARTHUR.....	MULTIDISCIPLINARY THERAPY FOR MALIGNANT DISEASES.....	2R10 CA11028-12	131,752
ORGANIZATION TOTAL	5 228,250		
LONG ISLAND UNIVERSITY BROOKLYN CENTER ZIP CODE 11201			
ROGERS, DONALD W.....	HEATS OF HYDROGENATION OF LARGE MOLECULES.....	2R01 GM18035-07	18,420
ORGANIZATION TOTAL	1 18,420		
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021			
ANDERSON, LOWELL L.....	DOSIMETRY OF 125I FOR INTERSTITIAL BRACHY THERAPY.....	5R01 CA22383-02	31,178
BEATTIE, EDWARD J, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05753-07	95,768
BURCHENAL, JOSEPH H.....	CLINICAL CANCER RESEARCH CENTER.....	5P01 CA05826-18	1,675,198
LEPLEY, JAMES B.....	CLINICAL CANCER EDUCATION (DENTAL).....	5R25 CA20681-03	84,040
MELAMED, MYRON R.....	AUTOMATED URINARY CYTOLOGY FOR CANCER DETECTION.....	2R26 CA14134-07	149,844
MILLER, DENIS R.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA23742-02	68,086
MYERS, W P.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA20449-03	212,763
OETTGEN, HERBERT F.....	CLINICAL IMMUNOBIOLOGY PROGRAM PROJECT.....	2P01 CA19267-04	1,040,298

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SCHOTTENFELD, DAVID	CANCER RISK AFTER IRRADIATION AND/OR CHEMOTHERAPY	3R01 CA17028-03A1S1	1,621
SCHOTTENFELD, DAVID	CANCER RISK AFTER IRRADIATION AND/OR CHEMOTHERAPY	5R01 CA17028-04	71,493
WHITMORE, WILLET F. JR	CHEMOTHERAPY OF ADVANCED UROTHELIAL CANCER	5R26 CA20280-03	6,210
WINAWER, SIDNEY J.	DETECTION OF EARLY COLON CANCER	5R26 CA15429-06	247,326
ZANG, EDITH	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	5R10 CA21169-03	79,071
ORGANIZATION TOTAL	13 3,762,896		
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467			
ACKERMAN, SIGURD H.	PSYCHOBIOLOGIC MECHANISMS OF STRESS ULCER IN THE RAT	5R01 AM18804-04	65,714
BANK, NORMAN	FACTORS GOVERNING THE RENAL EXCRETION OF ACID	5R01 HL14720-09	120,686
BANK, NORMAN	RENAL STARLING FORCES IN EXPERIMENTAL CONDITIONS	3R01 HL19366-03S1	4,333
BANK, NORMAN	RENAL STARLING FORCES IN EXPERIMENTAL CONDITIONS	2R01 HL19366-04	83,731
BELLHORN, ROY W.	BLOOD-OCULAR PERMEABILITY BARRIERS OF DEVELOPING EYE	5R01 EY02038-03	85,305
BURNS-BELLHORN, MARGARET S.	ION LOCALIZATION IN EYE PHYSIOLOGY: NEW TECHNIQUES	5R01 EY02093-02	84,274
CASEY, JOAN I.	CELL MEDIATED IMMUNITY IN DIABETIC PATIENTS	5R01 AM21095-02	52,403
CHERKASKY, MARTIN	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00053-18	578,375
CHERKASKY, MARTIN	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05499-17	132,136
COHEN, MICHAEL V.	EFFECTS OF EXERCISE ON THE CORONARY VASCULATURE	5R01 HL17809-05	106,256
EMESON, EUGENE E.	ADOPTIVE IMMUNOTHERAPY OF CANCER BY ALLOGENEIC MARROW	2R01 CA17467-04A1	86,192
ESCHER, DORIS J.	TECHNOLOGY AND PHYSIOLOGY OF ARTIFICIALLY PACED HEARTS	3R01 HL04666-19S1	11,009
HATCHER, VICTOR B.	CELLULAR AGING AND HUMAN SKIN FIBROBLAST FIBRONECTIN	1R01 AG01732-01	59,470
HENKIND, PAUL	YOUNG VISION SCIENTIST TRAVEL SUPPORT	5R13 EY02143-03	10,403
HIRANO, ASAO	PATHOLOGY OF NEUROPATHY IN MUTANTS	5R01 NS14586-02	55,658
KOSS, LEOPOLD G.	AUTOMATION OF BLADDER CANCER CYTOLOGY BY TICAS	5R26 CA15803-07	123,750
LALEZARI, PARVIZ	NEUTROPHIL ANTIGENS; PATHOPHYSIOLOGY & CHEMISTRY	5R01 CA15318-05	89,449
LALEZARI, PARVIZ	BIOLOGY OF RED CELL ANTIGEN-ANTIBODY REACTION	5R01 HL10036-14	95,661
NORIN, ALLEN J.	CONTROL OF GROWTH IN QUIESCENT HUMAN CELLS	1R01 CA22088-01A1	56,346
PUSZKIN, ELENA G.	THE ROLE OF CONTRACTILE PROTEINS IN PLATELETS	5R01 HL18030-05	93,148
ROSEN, JOHN F.	THE DYNAMICS OF LEAD METABOLISM IN BONE	5R01 ES01060-05	137,250
ROSENBERG, LAWRENCE C.	STRUCTURE OF EPIPHYSEAL GROWTH PLATE CARTILAGE	5R01 AM21498-02	65,684
SAENGER, PAUL H.	NON-INVASIVE METHODS FOR STUDY OF DRUG METABOLISM	1R01 GM27259-01	73,755
SCHEUER, JAMES	EFFECTS OF PHYSICAL TRAINING ON THE HEART	3R01 HL15498-06S1	20,525
SCHEUER, JAMES	EFFECTS OF PHYSICAL TRAINING ON THE HEART	5R01 HL15498-07	137,345
SCHEUER, JAMES	CARDIAC FUNCTION AND METABOLISM IN DIABETES	5R01 HL21482-02	70,798
SHAPIRO, LAWRENCE E.	INSULIN AND GROWTH HORMONE CONTROL OF SOMATOMEDIN	1R01 AM26101-01	78,883
SMITH, CAROL A.	VIRAL ETIOLOGY OF RHEUMATOID ARTHRITIS	2R01 AM15796-06A1	99,285
SPAET, THEODORE H.	THE BLOOD VESSEL AND THROMBOGENESIS	5P01 HL16387-05	224,448
SPAET, THEODORE H.	THE BLOOD VESSEL AND THROMBOGENESIS	2P01 HL16387-06	588,683
SURKS, MARTIN I.	TRIIODOTHYRONINE RECEPTORS AND THYROTROPH NEOPLASIA	5R01 CA16463-05	94,224
SURKS, MARTIN I.	TRIIODOTHYRONINE RECEPTORS AND NONTHYROIDAL DISEASES	1R01 CA24604-01	67,768
VEITH, FRANK J.	EXPERIMENTAL LUNG TRANSPLANTATION	2P01 HL17417-06	387,845
WEINSTEIN, STEPHEN W.	SOURCES OF ENERGY FOR RENAL SODIUM TRANSPORT	3R01 AM16775-06S1	16,400
WEITZMAN, ELLIOT D.	PSYCHONEUROENDOCRINE RHYTHMS, AGING, & SLEEP DISORDERS	3R01 AG00792-02S1	8,446
WEITZMAN, ELLIOT D.	PSYCHONEUROENDOCRINE RHYTHMS, AGING, & SLEEP DISORDERS	2P01 AG00792-03	270,195
YIPINTSOI, TADA	REGIONAL MYOCARDIAL BLOOD FLOW AND METABOLISM	5R01 HL15983-05	56,513
ORGANIZATION TOTAL	37 4,392,346		
NATIONAL BUREAU OF ECONOMIC RESEARCH ZIP CODE 10016			
ROSEN, SHERWIN	SOCIOECONOMIC DETERMINANTS OF MORTALITY	5R01 AG00913-02	110,258
ORGANIZATION TOTAL	1 110,258		
NEW SCHOOL FOR SOCIAL RESEARCH ZIP CODE 10011			
MACK, ARIEN	PERCEPTION DURING PURSUIT EYE MOVEMENTS	5R01 EY01135-05	45,278
ORGANIZATION TOTAL	1 45,278		
NEW YORK ACADEMY OF MEDICINE ZIP CODE 10029			
JARCHO, SAUL	TRANSLATION OF MORGAGNI'S CONSULTI, WITH COMMENTARY	1R01 LM03307-01	23,454
ORGANIZATION TOTAL	1 23,454		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NEW YORK ACADEMY OF SCIENCES ZIP CODE 10021			
BRODSKY, WILLIAM A.....	ANION TRANSPORT IN EPITHELIA, CELLS AND CELL MEMBRANES.....	1R13 AM25618-01	10,000
KNEIP, THEODORE J.....	URBAN AND RURAL CHARACTERISTICS, SOURCE-TRANSPORT STUDY.....	1R13 ES02099-01	4,051
PALESE, PETER M.....	GENETIC VARIATION OF VIRUSES.....	1R13 AI16025-01	16,796
PARSONS, DONALD F.....	CONFERENCE ON ULTRASOFT X-RAY MICROSCOPY.....	1R13 CA27038-01	14,209
PARSONS, DONALD F.....	CONFERENCE ON ULTRASOFT X-RAY MICROSCOPY.....	1R13 GM26541-01	5,000
SCANU, ANGELO M.....	CONFERENCE ON THE STRUCTURE OF LIPOPROTEINS.....	1R13 GM26054-01	6,000
SCANU, ANGELO M.....	CONFERENCE ON THE STRUCTURE OF LIPOPROTEINS.....	1R13 HL24157-01	6,000
TOMETSKO, ANDREW M.....	PHOTOCHEMISTRY IN PROBING BIOLOGICAL TARGETS.....	1R13 GM26307-01	7,000
VILCEK, JAN T.....	CONFERENCE ON REGULATORY FUNCTIONS OF INTERFERONS.....	1R13 AI15998-01	24,312
ZIMMERMAN, MORRIS.....	PRECURSOR PROCESSING IN THE BIOSYNTHESIS OF PROTEINS.....	1R13 AM25619-01	10,000
ORGANIZATION TOTAL	10 103,368		
NEW YORK BLOOD CENTER ZIP CODE 10021			
GERMAN, JAMES L. III.....	CYTOLOGICAL STUDIES IN HUMAN GENETICS.....	5R01 HD04134-12	121,429
HOROWITZ, BERNARD.....	ISOLATION OF HUMAN PLASMA FIBRONECTIN.....	1R01 HL24894-01	106,890
KELLNER, AARON.....	RESEARCH AND RESOURCE BLOOD PROGRAM.....	3P01 HL09011-15S2	44,512
KELLNER, AARON.....	RESEARCH AND RESOURCE BLOOD PROGRAM.....	5P01 HL09011-16	2,265,864
KELLNER, AARON.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05688-11	54,704
REDMAN, COLVIN M.....	POLYSOME-MEMBRANE INTERACTIONS IN HEPATOMAS.....	5R01 AM20888-02	73,665
RUBINSTEIN, PABLO.....	MAJOR HISTOCOMPATIBILITY SYSTEMS OF MICE AND HUMANS.....	1R01 AI15413-01	82,275
RUBINSTEIN, PABLO.....	THE HL-A SYSTEM AND THE GENETICS OF JUVENILE DIABETES.....	5R01 AM19631-03	155,743
STEVENS, CLADD E.....	POST-TRANSFUSION HEPATITIS IN NEWBORN CHILDREN.....	5R01 HL22838-02	67,869
ORGANIZATION TOTAL	9 2,972,951		
NEW YORK BOTANICAL GARDEN ZIP CODE 10458			
CAREY, SUSAN T.....	BIOLOGICALLY ACTIVE METABOLITES FROM PYRENOMYCETES.....	2R01 AI13247-03	85,312
NAIR, RAMACHANDRAN M.....	NEW MOLD PRODUCTS: CHEMISTRY AND BIOLOGICAL ACTIVITY.....	2R01 AI13074-03	92,125
ORGANIZATION TOTAL	2 177,437		
NEW YORK CITY HEALTH SERVICES ADMINISTRATION-PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N Y ZIP CODE 10016			
DAY, LOREN A.....	PHYSICAL CHEMISTRY OF VIRUSES AND THEIR COMPONENTS.....	5R01 AI09049-11	138,428
DUBNAU, DAVID A.....	GENETIC RECOMBINATION IN BACILLUS SUBTILIS.....	5R01 AI10311-09	106,994
GREGORIADES, ANASTASIA.....	REPLICATION AND ASSEMBLY OF INFLUENZA VIRUS.....	2R01 AI12567-04A1	75,474
HIRST, GEORGE K.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05533-17	82,892
LUSTY, CAROL J.....	STRUCTURE-FUNCTION RELATIONS OF UREA CYCLE ENZYMES.....	5R01 AM18044-05	84,172
MANDEL, BENJAMIN.....	STUDIES OF VIRUS-CELL AND VIRUS-ANTIBODY INTERACTION.....	5R01 AI10429-08	75,523
MARGOLIN, PAUL.....	MUTATION AND SUPPRESSOR STUDIES OF A BACTERIAL GENE.....	3R01 GM15255-13S1	9,473
MARGOLIN, PAUL.....	MUTATION AND SUPPRESSOR STUDIES OF A BACTERIAL GENE.....	5R01 GM15255-14	123,792
MINDICH, LEONARD E.....	CELL MEMBRANE SYNTHESIS IN THE CONTROL OF GROWTH.....	5R01 AI09861-13	128,520
NOVICK, RICHARD P.....	MOLECULAR BIOLOGY OF BACTERIAL PLASMIDS.....	5R01 GM14372-13	127,602
OISHI, MICHIO.....	THE MOLECULAR MECHANISM OF GENETIC RECOMBINATION.....	2R01 GM21073-06	129,998
PENEFSKY, HARVEY S.....	MITOCHONDRIAL MEMBRANE AND OXIDATIVE PHOSPHORYLATION.....	5R01 GM21737-13	107,097
POINDEXTER, JEANNE S.....	CELL ENVELOPE STRUCTURE AND ASSEMBLY IN CAULOBACTER.....	1R01 AI15467-01A1	30,497
RATNER, SARAH.....	MECHANISMS OF NITROGEN TRANSFER AND UREA FORMATION.....	5R01 AM03428-20	81,517
SMITH, ISSAR.....	GENETICS OF RIBOSOMES AND ANTIBIOTIC RESISTANCE.....	5R01 AI14118-08	76,438
SMITH, ISSAR.....	REGULATORY MECHANISMS IN RIBOSOME BIOSYNTHESIS.....	2R01 GM19693-06	84,784
STERN, WILLIAM.....	LECITHIN SYNTHESIS IN A549 AND TYPE II LUNG CELLS.....	1R01 HL24630-01	68,659
ORGANIZATION TOTAL	17 1,531,860		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE-INSTITUTE FOR BASIC RESEARCH IN MENTAL RETARDATION ZIP CODE 10314			
BERATIS, NICHOLAS G.....	THE GENETIC DEFECTS IN GLYCOGENOSIS TYPE II.....	1R01 AM22198-01	54,161
BROCKERHOFF, HANS.....	ROLE OF CHOLESTEROL IN BIOLOGICAL MEMBRANES.....	2R01 GM21875-04A1	78,491
BROCKERHOFF, HANS.....	POLYPHOSPHOINOSITIDE METABOLISM IN MYELIN.....	5R01 NS14480-02	52,219
BROCKERHOFF, HANS.....	SYNTHESIS OF MEMBRANE-ANCHORED DRUGS.....	1R01 NS15379-01	27,323
GOULD, ROBERT M.....	COMPLEX LIPID METABOLISM IN THE AXON.....	5R01 NS13980-03	38,856
LOO, YEN H.....	BIOCHEMICAL AND BEHAVIORAL CHANGES IN PKU.....	5R01 HD06843-03	42,343
STURMAN, JOHN A.....	ROLE OF TAURINE IN DEVELOPING NEURAL TISSUE.....	1R01 HD11129-01	92,576
WISNIEWSKI, HENRYK M.....	IMMUNOGLOBULIN-CHRONIC RELAPSING EA ENCEPHALOMYELITIS.....	5R01 NS14406-02	54,501

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ORGANIZATION TOTAL	8	440,470	
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE-NEW YORK STATE PSYCHIATRIC INSTITUTE ZIP CODE 10032			
BODNAR, RICHARD J.	STRESS-PRODUCED ANALGESIA: A NEUROBEHAVIORAL ANALYSIS	5R01 NS14449-02	50,603
KUPFERMANN, IRVING	BEHAVIORAL AND NEURAL ANALYSIS OF LEARNING	5R01 NS12492-06	83,012
RAPPORT, MAURICE M.	IMMUNONEUROLOGICAL MODEL OF EPILEPSY	5R01 NS13762-03	105,509
SACHAR, EDWARD J.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05650-13	107,892
TAMIR, HADASSAH	BIOGENIC AMINE TRANSFER AND STORAGE MECHANISMS	5R01 NS12506-03	35,592
ORGANIZATION TOTAL	5	382,608	
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—RESEARCH INSTITUTE FOR NEUROCHEMISTRY & DRUG ADD ZIP CODE 10035			
LAUTH, ABEL	PROTEIN AND PEPTIDE BREAKDOWN IN THE BRAIN	2R01 NS03226-19	78,967
ORGANIZATION TOTAL	1	78,967	
NEW YORK UNIVERSITY ZIP CODE 10003			
ALBERT, ROY E.	FOLLOW-UP STUDY OF IRRADIATED TINEA CAPITIS CASES	3R01 CA17188-03S2	116,256
ALTSZULER, NORMAN	HORMONAL REGULATION OF METABOLISM	5R01 AM10188-13	136,579
ASKANAS, VALERIE	ULTRASTRUCTURE OF CULTURED DISEASED HUMAN MUSCLE	3R01 NS12187-03S1	36,640
AULL, FELICE B.	MEMBRANE PERMEABILITY OF THE ASCITES TUMOR CELLS	5R01 CA10625-10	72,897
BAKER, ROBERT G.	EYE MOVEMENT: PHYSIOLOGICAL ORGANIZATION	5R01 EY02007-04	47,175
BALDWIN, DAVID S.	CHRONICITY IN POSTSTREPTOCOCCAL GLOMERULONEPHRITIS	1R01 AM21817-01	48,533
BASCH, ROSS S.	DEVELOPMENT OF THYMIC LYMPHOCYTES	5R01 CA24472-05	89,788
BASILICO, CLAUDIO	CELLULAR AND VIRAL CONTROL OF ONCOGENIC TRANSFORMATION	5R01 CA11893-10	116,145
BASILICO, CLAUDIO	BIOSYNTHESIS IN NORMAL AND VIRUS-TRANSFORMED CELLS	5P01 CA16239-05	194,301
BASILICO, CLAUDIO	CONTROL OF CYCLE PROGRESSION IN ANIMAL CELLS	3R01 CA26070-01	123,298
BATTISTA, ARTHUR F.	NERVE FASCICLE LIGATION AND NEUROMA FORMATION	5R01 NS14362-02	64,426
BELMAN, SIDNEY	THE ROLE OF CYCLIC NUCLEOTIDES IN TUMOR PROMOTION	3R01 CA18536-03S1	24,335
BELMAN, SIDNEY	ROLE OF PROTEASES IN CARCINOGENESIS AND MUTAGENESIS	5R01 CA22890-02	45,841
BENNETT, IVAN L.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05399-18	201,413
BERLOWITZ, LAURENCE	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07062-14	61,217
BERNHIMER, ALAN W.	STAPHYLOCOCCAL AND STREPTOCOCCAL PROTEINS	2R01 AI02874-21	130,216
BLACK, VIRGINIA H.	AGING OF ADRENOCORTICAL CELLS	1R01 AG01468-01	36,173
BLACK, VIRGINIA H.	DIFFERENTIATION OF STEROID-SECRETING CELLS	2R01 HD04005-10A1	70,714
BLIZARD, DAVID A.	GENETICS, REACTIVITY TO STRESS AND BIOGENIC AMINES	1R01 GM26962-01	95,495
BRAKEL, CHRISTINE L.	DNA POLYMERASE OF DROSOPHILA EMBRYOS	1R01 HD13366-01	82,990
BREININ, GOODWIN M.	FINE STRUCTURE OF NORMAL AND PATHOLOGIC OCULAR MUSCLE	5R01 EY00309-14	141,588
BROWN, JASON W.	BASES OF IMPAIRED NAMING IN APHASIA	5R01 NS13740-02	80,379
BYSTRYN, JEAN-CLAUDE	ISOLATION OF TUMOR ANTIGENS OF HUMAN MELANOMA	3R01 CA13844-07S1	59,125
CARR, RONALD E.	CLINICAL CENTER FOR HEREDITARY RETINAL DEGENERATIONS	5P50 EY02179-02	127,651
CARROLL, ROBERT B.	BIOCHEMICAL AND FUNCTIONAL PROPERTIES OF SV40 T ANTIGEN	5R01 CA20802-03	63,478
CHAMBERS, ROBERT W.	MUTAGENESIS AND CARCINOGENESIS	5R01 CA16319-05	210,888
CHEN, JOHN H.	GENETICALLY LINKED CATARACT AND OTHER LENS DISORDERS	7R01 EY03173-01	91,114
CHIARANDINI, DANTE J.	PHYSIOLOGY AND PHARMACOLOGY OF EXTRAOCULAR MUSCLES	5R01 EY01297-06	105,918
COHEN, BERTRAM I.	EFFECTS OF STEROLS AND BILE ACIDS ON COLON CANCER	1R26 CA27438-01	108,311
CONVERSE, JOHN M.	CRANIOFACIAL ANOMALIES—ETIOLOGY AND TREATMENT	5P01 DE03568-05	579,607
COX, RODDY P.	MODULATION OF GENE EXPRESSION IN CELL CULTURE	1R01 GM26072-01	81,174
DAISEY, JOAN M.	PHOTODEGRADATION OF ADSORBED POLYCYCLIC ARENES	1R23 ES01691-01	24,912
DANCIS, JOSEPH	PHYSIOLOGY OF THE PLACENTA	5R01 HD00462-23	63,034
DANCIS, JOSEPH	INBORN ERRORS OF METABOLISM	5R01 HD04526-10	48,702
DEFENDI, VITTORIO	CANCER SUPPORT GRANT (COMPREHENSIVE)	3P30 CA16087-03S1	292,071
DILLER, LEONARD	FURTHER STUDIES ON REMEDIATION OF BRAIN DAMAGE	2R01 NS10236-07A1	151,763
DULAK, NORMAN C.	INHALATION CARCINOGENESIS BY DIRECT-ACTING COMPOUNDS	1R01 ES02249-01	115,093
ESLSBACH, PETER	MICROBICIDIAL ACTIVITY OF LEUKOCYTES: MEMBRANE FACTORS	5R01 AM05472-18	128,025
FOX, ARTHUR C.	RELEASE OF NUCLEOSIDES FROM THE ISCHEMIC HEART	5R01 HL16412-05	45,154
FRANKLIN, EDWARD C.	RHEUMATIC DISEASES—CHEMICAL IMMUNOLOGY	5P01 AM01431-23	192,433
FRANKLIN, EDWARD C.	STRUCTURE OF IMMUNOGLOBULINS AND RELATED PROTEINS	5R01 AM02594-22	156,557
FREEDMAN, MICHAEL L.	ROLE OF MITOCHONDRIAL PROTEIN SYNTHESIS IN AGING	1R21 AG01399-01	61,715
FREEDMAN, MICHAEL L.	CONTROL OF POLYRIBOSOMES IN HUMAN RETICULOCYTES	5R01 AM13532-10	43,763
FRENKEL, KRYSZYNA	EXCISION-REPAIR OF BENZO(A) PYRENE-MODIFIED DNA	1R23 ES02234-01	41,157
GALDSTON, MORTON	HUMORAL/LUNG PROTEASE-ANTI-PROTEASE-OBSTRUCTIVE DISEASE	5R01 HL14700-06	60,943

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GARDNER, ESTHER P.	NEURAL MECHANISMS OF CUTANEOUS SPATIAL INTEGRATION	2R01 NS11862-05	36,576
GARTE, SEYMOUR J.	BIOCHEMICAL MECHANISMS OF TUMOR PROMOTERS	1R23 CA23806-01A1	35,925
GEACINTO, NICHOLAS E.	CHARACTERIZATION OF CARCINOGEN-NUCLEIC ACID COMPLEXES	5R01 CA20851-03	87,524
GERSHENGORN, MARVIN C.	REGULATION OF TSH SYNTHESIS AND SECRETION IN VITRO	5R01 AM20249-03	49,756
GERSHON, ANNE A.	V-Z VIRUS: CLINICAL IMPLICATIONS OF IMMUNITY	2R01 AI12814-04A1	58,835
GIGLI, IRMA	ACTIVATION OF THE COMPLEMENT SYSTEM	5R01 AI13809-03	108,859
GIGLI, IRMA	WORKSHOP ON IMMUNE MECHANISMS IN CUTANEOUS DISORDERS	1R13 AM25445-01	36,250
GIGLI, IRMA	EPIDERMAL LANGERHANS CELLS: IN VITRO AND IN VIVO STUDY	1R01 AM26091-01	84,502
GILMOUR, DOUGLAS G.	CHICKEN LYMPHOCYTE ALLOANTIGENS AND VIRAL ONCOGENESIS	5R01 CA14061-07	190,521
GOLDBERG, BURTON D.	THE BIOSYNTHESIS AND METABOLISM OF PROCOLLAGEN	5R01 HL17551-05	102,016
GOLDFEDER, ANNA	CELL KINETICS OF IRRADIATED TUMORS	3R01 CA12076-07S1	54,304
GOLDSTEIN, BERNARD D.	BIOCHEMICAL EFFECTS OF OZONE AND NO2 IN THE LUNG	2R01 ES00673-07	59,377
GOLDSTEIN, BERNARD D.	RED CELL MEMBRANE EFFECTS DUE TO OXIDIZING AGENTS	5R01 HL18163-05	60,086
GOLDSTEIN, IRA M.	COMPLEMENT MEDIATED IMMUNOPATHOLOGY	3R01 AM18531-04S1	9,139
GOLDSTEIN, IRA M.	COMPLEMENT MEDIATED IMMUNOPATHOLOGY	5R01 AM18531-05	49,482
GOLDSTEIN, IRA M.	PANCREATITIS, COMPLEMENT AND LUNG INJURY	1R01 AM25374-01	53,385
GOLDSTEIN, MENEK	BIOGENIC AMINES AND EXTRAPYRAMIDAL DISORDERS	5R01 NS06801-13	120,757
GORDON, ALBERT S.	EXTRARENAL ERYTHROPOIETIN AND ITS PRODUCTION	5R01 HL03357-22	115,272
GREENE, LLOYD A.	NEUROCHEMICAL STUDIES ON CULTURED SYMPATHETIC NEURONS	7R01 NS16036-01	68,458
GROSSMAN, ALBERT	ROLE OF STEROIDS IN PANCREATIC FUNCTION	1R01 AM20084-01A2	99,995
GROVER-JOHNSON, NICOLA M.	DIABETIC NEUROPATHY AND PERIPHERAL VASCULAR DISEASE	5R01 HL20400-04	55,143
GUNNISON, ALBERT F.	DISTRIBUTION AND FATE OF INHALED SULFUR DIOXIDE	5R01 ES00613-08	90,662
GUTTENPLAN, JOSEPH B.	MECHANISM OF MUTAGENESIS AND CARCINOGENESIS	2R01 CA19023-04	68,539
HATTEN, MARY E.	SURFACE BIOCHEMISTRY OF EMBRYONIC CEREBELLAR CELLS	1R01 NS15429-01	72,670
HILLMAN, DEAN E.	CIRCUITRY MODIFICATIONS AND MATERNAL PROTEIN RESTRICTION	2R01 HD10934-03A1	72,364
HIRSCHHORN, ROCHELLE	ACTIVATION OF IMMUNOCOMPETENT LYMPHOCYTES	5R01 AI10343-08	110,786
HOCHWALD, GERALD M.	SPINAL FLUID PROTEINS AND BLOOD-SPINAL FLUID BARRIER	2R01 NS05024-13A2	104,258
HOCHWALD, GERALD M.	CEREBROSPINAL FLUID FORMATION/ABSORPTION-HYDROCEPHALUS	5R01 HL16290-04	153,548
HOFFSTEIN, SYLVIA T.	NEUTROPHIL DYSFUNCTION IN DIABETES	1R01 AM25776-01	40,631
HOLLANDER, CHARLES S.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00096-19	1,265,106
IMPARATO, ANTHONY M.	INTIMAL HYPERPLASIA IN ARTERIAL RECONSTRUCTIONS	5R01 HL16290-04	153,548
IMPARATO, ANTHONY M.	HEMODYNAMIC INDUCTION OF INTIMAL FIBROMUSCULAR LESION	5R01 HL22783-02	143,690
IMPARATO, ANTHONY M.	DUCTUS ARTERIOSUS CLOSURE: AN ARTERIAL LESION MODEL	5R01 HL22784-02	42,787
JAVID, JAMSHID	AN IMMUNOLOGIC STUDY OF HEMOGLOBIN VARIATION IN MAN	2R01 HL19646-04	64,290
JOHNSON, ALAN J.	COAGULATION, FIBRINOLYSIS, HEMOSTASIS AND HEPATITIS	3P01 HL15596-05S1	204,200
JOHNSON, ALAN J.	COAGULATION, FIBRINOLYSIS, PLATELETS AND HEMOSTASIS	2P01 HL15596-06A1	419,390
KAMBYSELLIS, MICHAEL P.	VITELLOGENIN GENES: ISOLATION AND EXPRESSION	1R01 AG01870-01	99,701
KARPATKIN, SIMON	BIOCHEMISTRY, PHYSIOLOGY, IMMUNOLOGY OF HUMAN PLATELETS	5R01 HL13336-10	120,475
KAUFMAN, LLOYD	NEUROMAGNETIC ANALYSIS OF THE VISUAL SYSTEM	1R01 EY02059-01A1	160,963
KAYDEN, HERBERT J.	SUPPORT FOR LIPID METABOLISM STUDIES	5R01 HL06481-16	91,382
KELKER, NORMAN E.	REGULATION OF ENZYME BIOSYNTHESIS IN BACTERIA	1R01 GM25319-01	49,591
KELLAR, LUCIA A.	PROSODY AND SYNTAX IN APHASIA	1R01 NS15257-01	57,690
KENNEDY, MICHAEL C.	NEURAL BASES OF AUDITORY COMMUNICATION	5R01 NS14156-02	39,226
KLEIN, RICHARD J.	EXPERIMENTAL ORO-FACIAL HERPES IN ANIMALS	5R01 DE04958-02	86,052
KLEINBERG, DAVID L.	THE ROLE OF PROLACTIN IN HUMAN BREAST CANCER	5R01 CA16149-05	52,738
KREIBICH, GERT	ORGANIZATION AND BIOSYNTHESIS OF ER MEMBRANE PROTEINS	5R01 GM21971-05	68,823
KROHN, DAVID L.	TRANSCORNEAL FLUX ENHANCEMENT OF PILOCARPINE	5R01 EY02428-02	102,188
KROHN, DAVID L.	CORNEAL PENETRATION OF PILOCARPINE VIA LIPOSOMES	5R01 EY02872-02	33,878
LAMM, MICHAEL E.	INDUCTION OF SECRETORY IMMUNITY	5R01 AI15071-02	93,191
LAMM, MICHAEL E.	SECRETORY IMMUNOGLOBULIN STUDIES	5R01 CA23885-08	107,340
LAVERS, GENE C.	LENS CATARACTS AND RNA MODIFICATION	5R01 EY02352-02	41,194
LAWRENCE, H. SHERWOOD	IMMUNOLOGIC RESISTANCE TO CANCER	5P01 CA16247-06	746,382
LE GROS, RACQUEL Z.	ENAMEL APATITES RELATING TO CARIES SUSCEPTIBILITY	5R01 DE04123-05	113,645
LEE-HUANG, SYLVIA	PURIFICATION OF ERYTHROPOIETIN	5R01 HL21683-03	54,765
LEVITZ, MORTIMER	ESTROGEN METABOLISM AND ACTION IN PREGNANCY AND CANCER	5R01 CA02071-26	139,640
LIEP, RONALD K.	BIOCHEMISTRY OF THE NEUROFILAMENT TRIPLET	1R01 NS15182-01	63,319
LIPPMANN, MORTON	REGIONAL DEPOSITION OF INHALED PARTICLES IN MAN	2R01 ES00881-07	82,823
LLINAS, RODOLFO R.	NEUROBIOLOGY OF THE CEREBELLAR-BRAIN STEM SYSTEM	3P01 NS13742-03S1	176,097
LLINAS, RODOLFO R.	ROLE OF CALCIUM IN SYNAPTIC TRANSMITTER RELEASE	5R01 NS14014-03	12,459
LO BUE, JOSEPH	PATHOPHYSIOLOGY OF A VIRALLY-INDUCED MURINE LEUKEMIA	5R01 CA12815-07	67,840

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
MAAS, WERNER K.....	REGULATION OF ENZYME SYNTHESIS IN BACTERIA.....	2R01 GM06048-21	87,194
MARGOLIS, RICHARD U.....	COMPLEX CARBOHYDRATES OF NERVOUS TISSUE.....	5R01 NS13876-02	82,023
MC FALL, ELIZABETH.....	CONTROL MECHANISMS IN ENZYME BIOSYNTHESIS.....	5R01 GM11899-16	72,803
MEISS, HARRIET K.....	ISOLATION AND ANALYSIS OF DNA MUTANTS OF BHK CELLS.....	5R01 CA16631-05	87,298
MERUELO, DANIEL.....	GENETIC CONTROL OF VIRUS-INDUCED LEUKEMIA.....	5R01 CA22247-03	51,985
MOOR-JANKOWSKI, JAN.....	BLOOD GROUPS IN PRIMATES.....	5P40 RR01082-03	205,852
MOVSHON, J. ANTHONY.....	QUANTITATIVE STUDIES OF THE CENTRAL VISUAL SYSTEM.....	5R01 EY02017-03	79,372
MUMMA, RICHARD D, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05332-18	14,874
NELSON, NORTON.....	RESEARCH IN ENVIRONMENTAL CANCER.....	2P30 CA13343-07	320,990
NELSON, NORTON.....	RESEARCH IN THE ENVIRONMENTAL HEALTH SCIENCES.....	5P30 ES00260-17	1,878,594
NUSSENZWEIG, RUTH S.....	SURFACE PROPERTIES OF SPOROZOITES OF PLASMODIA.....	2R01 AI13366-04	69,882
NUSSENZWEIG, VICTOR.....	CELL COOPERATION IN THE IMMUNE RESPONSE.....	5R01 AI08499-12	85,031
NUSSENZWEIG, VICTOR.....	C3, C3 RECEPTORS AND THE H-2 REGION.....	5R01 AI13224-04	118,202
ONG, ENG-BEE.....	FIBRINOLYSIS: STRUCTURE AND FUNCTION OF UROKINASE.....	1R01 HL23530-01	88,000
OPPENHEIM, JOEL D.....	THE I BLOOD GROUP ANTIGEN OF HUMAN ERYTHROCYTE MEMBRANE.....	5R23 HL21328-03	33,553
OVARY, ZOLTAN.....	IMMUNOLOGICAL MECHANISM OF ANAPHYLAXIS.....	5R01 AI03075-20	127,319
PEARLSTEIN, EDWARD.....	CELL ADHESION FACTOR: BIOLOGY AND CHEMISTRY.....	5R01 CA22085-03	29,319
PEARSON, JOHN.....	AUTONOMIC DEVELOPMENT IN SIDS AND DYSAUTONOMIA.....	5R01 HD12260-02	40,408
PENN, ARTHUR L.....	ENVIRONMENTAL AGENTS IN ATHEROGENESIS.....	1R01 ES02143-01	77,541
PESKIN, CHARLES S.....	COMPUTATIONAL METHODS IN CARDIAC FLUID DYNAMICS.....	5R01 HL17859-05	76,885
PHILLIPS-QUAGLIATA, JULIA.....	ANTIBODY MEDIATED CELL-CELL INTERACTIONS.....	2R01 CA20045-10	97,201
PIOMELLI, SERGIO.....	METABOLIC EFFECTS OF LEAD POISONING IN CHILDHOOD.....	5R01 ES00976-05	98,203
PIOMELLI, SERGIO.....	REDUCTION OF FE OVERLOAD IN THALASSEMIA.....	3R01 HL19946-03S2	4,356
POST, JOSEPH.....	TUMOR CELL PROLIFERATION.....	3R01 CA14432-06S1	35,504
PULLMAN, IRA.....	MINERAL-ORGANIC INTERACTIONS IN THE ORAL MILIEU.....	7R01 DE05518-01	126,030
QUARTERMAIN, DAVID.....	EFFECTS OF AGING ON MEMORY IN MICE.....	5R01 AG00760-02	84,682
RABINOVITCH, MICHEL P.....	MACROPHAGE SPREADING AND PARTICLE RECOGNITION.....	5R01 AI10969-09	55,323
RANSOHOFF, JOSEPH.....	HEAD INJURY CLINICAL CENTER RESEARCH PROGRAM.....	2P50 NS07366-11	238,641
RANSOHOFF, JOSEPH.....	CLINICAL RESEARCH CENTER FOR ACUTE SPINAL CORD INJURIES.....	3P50 NS10164-06S1	37,013
RANSOHOFF, JOSEPH.....	CLINICAL RESEARCH CENTER FOR ACUTE SPINAL CORD INJURIES.....	2P50 NS10164-07A1	607,097
REISBERG, BARRY.....	EFFECTS OF PIRACETAM IN THE COGNITIVELY IMPAIRED AGED.....	1R01 AG01344-01	81,572
RIFKIN, DANIEL B.....	MEMBRANE PROTEINS OF NORMAL AND MALIGNANT CELLS.....	5R01 CA23753-02	93,775
RIFKIN, DANIEL B.....	PRODUCTION OF PROTEASES BY LUNG CELLS IN CULTURE.....	5R01 HL22266-02	78,250
RIPPS, HARRIS.....	VISUAL ADAPTATION IN THE VERTEBRATE RETINA.....	5R01 EY00285-15	149,707
RIPPS, HARRIS.....	VISUAL SCIENCES RESEARCH CENTER (CORE FACILITY).....	5P30 EY01842-03	130,372
ROSENBLUTH, JACK.....	COMPARATIVE CYTOLOGY OF NERVE AND MUSCLE TISSUES.....	5R01 NS07495-11	60,763
RUBINSON, KALMAN.....	RETINAL DEVELOPMENT AND TRANSFORMATION OF THE LAMPREY.....	5R01 EY02288-02	43,241
RUDY, BERNARDO.....	ANALYSIS OF VOLTAGE-DEPENDENT CHANNELS IN VITRO.....	1R01 GM26976-01	91,220
SABATINI, DAVID D.....	ATTACHMENT OF RIBOSOMES TO MICROSOMAL MEMBRANES.....	5R01 GM20277-07	166,154
SAGER, NAOMI.....	FACT PROCESSING IN MEDICAL RECORDS AND LITERATURE.....	5R01 LM02616-05	99,117
SALTON, MILTON R.....	IMMUNOCHEMISTRY OF TRYPAANOSOMA CRUZI SURFACE ANTIGENS.....	1R01 AI16161-01	60,906
SAMUELS, HERBERT H.....	METABOLIC EFFECTS OF THYROID HORMONES IN CELL CULTURE.....	5R01 AM16636-07	83,364
SAMUELS, HERBERT H.....	REGULATION OF GROWTH HORMONE SYNTHESIS.....	5R01 AM21566-02	43,592
SCHAEFFER, BARRY E.....	TRANS-CORNEAL CHLORIDE TRANSPORT AND MEMBRANE FLUIDITY.....	1R01 EY03151-01	100,740
SCHREIBER, SIDNEY S.....	CARDIAC PROTEIN SYNTHESIS: OVERLOAD, ALCOHOL & ANOXIA.....	2R01 HL09562-15	86,726
SELIGMAN, MYRON L.....	CORTICOSTEROIDS IN FREE RADICAL DAMAGED MEMBRANES.....	5R01 NS13726-03	58,811
SELLAKUMAR, ARTHUR R.....	INHALATION CARCINOGENESIS BY FORMALDEHYDE AND HCL.....	1R01 ES02270-01	159,839
SHAPIRO, ROBERT.....	DAMAGE TO NUCLEIC ACIDS BY BISULFITE (SULFUR DIOXIDE).....	2R01 ES01033-08	98,036
SHAPIRO, ROBERT.....	DAMAGED DNA: THE STRUCTURE OF DNA CROSS-LINKS.....	5R01 GM20176-07	72,389
SHEAR, HANNAH L.....	MACROPHAGE ACTIVATION IN EXPERIMENTAL MALARIA.....	5R01 AI15235-02	46,577
SHELANSKI, MICHAEL L.....	PATHOLOGY AND BIOLOGY OF THE NEURONAL FIBROUS PROTEINS.....	5R01 NS15076-02	153,196
SHENKMAN, LOUIS.....	IMMUNE RESPONSES TO YERSINIA IN THYROID DISEASE.....	2R01 AM19668-03	49,978
SILBER, ROBERT.....	STUDIES OF LEUKOCYTE METABOLISM.....	5R01 CA11655-12	96,421
SILBER, ROBERT.....	EASTERN COOPERATIVE ONCOLOGY GROUP STUDIES.....	2R10 CA16395-04A1	60,428
SILBER, ROBERT.....	EASTERN COOPERATIVE ONCOLOGY GROUP STUDIES.....	5R10 CA16395-05	126,886
SMITH, PHILLIP R.....	BIOLOGICAL STRUCTURAL STUDIES USING IMAGE PROCESSING.....	1R01 GM26723-01	102,143
STERN, ARNOLD.....	OXYGEN TOXICITY IN THE RED CELL.....	5R01 HL19532-02	39,694
SZER, WLODZIMIERZ.....	REGULATORY MECHANISMS IN PROTEIN BIOSYNTHESIS.....	5R01 GM23705-07	73,658
TEEBOR, GEORGE W.....	REPARABILITY OF CHEMICAL CARCINOGENIC DAMAGE TO DNA.....	5R01 CA16669-05	72,502
THORBECKE, GEERTRUIDA J.....	LYMPHOID CELLS—PRODUCTION OF ANTIBODIES AND COMPLEMENT.....	5R01 AI03076-20	110,034

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
THORBECKE, GEERTUIDA J	SUPPRESSION, TOLERANCE, AND AGAMMAGLOBULINEMIA	5R01 AI14829-02	93,322
THORBECKE, GEERTUIDA J	PROPERTIES OF LYMPHOID TUMOR CELLS IN VIVO AND IN VITRO	5R01 CA14462-07	87,022
TRENNER, EKHART	INTERACTIONS DURING CEREBELLAR DEVELOPMENT	1R01 NS16070-01	56,858
TROLL, WALTER	INHIBITION OF TUMOR PROMOTION BY PROTEASE INHIBITORS	5R01 CA16060-08	118,368
TSAL, JIR-SHONG	EFFECT OF THYROID HORMONE ON CULTURED CARDIAC CELLS	5R01 HL18176-03	35,261
UNDERWOOD, GRAHAM R	STUDY OF ULTIMATE CARCINOGEN FROM AROMATIC AMINES	1R01 CA25073-01A1	35,949
VAIDYANATHAN, TRITALA K	DENTAL ALLOY CORROSION RESEARCH	1R23 DE05314-01	31,250
VALENTINE, FRED T	CELL-MEDIATED IMMUNITY IN HUMANS: MECHANISMS AND USES	2R01 CA19529-04	78,753
VAN DUUREN, BENJAMIN L	CARCINOGENIC ACYLATING AGENTS AND MODE OF ACTION	3R01 CA24124-01S1	36,368
VAN DUUREN, BENJAMIN L	CARCINOGENIC INTERMEDIATES OF VINYL CHLORIDE & ANALOGS	5R01 ES01150-05	68,396
VANDERBERG, JEROME P	STUDIES ON THE SPOOROZOITE OF PLASMODIUM	2R01 AI09560-09	84,401
VILCEK, JAN T	INTERFERON AND RESISTANCE TO VIRUS INFECTION	5R01 AI07057-14	79,244
VILCEK, JAN T	CHARACTERIZATION OF HUMAN INTERFERON	2R01 AI12948-04	74,359
WEISS, GERSON	PHYSIOLOGY OF HUMAN RELAXIN	1R01 HD12395-01	46,454
WEISSMANN, GERALD	MECHANISMS OF ARTHRITIS	5R01 AM11949-13	143,332
WEISSMANN, GERALD	LUNG INFLAMMATION: LYSOSOMAL PROTEASES AND LIPOSOMES	2R01 HL19721-04	105,499
WESSLER, STANFORD	ANTITHROMBOTIC ACTION OF HEPARIN	5R01 HL18333-06	148,262
WILLIAMSON, SAMUEL J	MAGNETIC DETECTION OF IRON DEPOSITED IN BODY TISSUE	1R01 AM26654-01	65,604
WOLMAN, SANDRA R	DIFFERENTIATION OF CULTURED LEUKEMIC CELLS	5R01 CA22942-02	121,028
YOUNG, WISE	ELECTROPHYSIOLOGY OF SPINAL CORD INJURY	1R01 NS15590-01	62,690
ZADUNAISKY, JOSE A	CORNEAL ELECTROPHYSIOLOGY AND OCULAR BARRIERS	5R01 EY01340-06	181,809
ZADUNAISKY, JOSE A	CHLORIDE TRANSPORT AND OSMOREGULATION	5R01 GM25002-02	65,173
ZUCKER-FRANKLIN, DOROTHEA	ULTRASTRUCTURE OF LEUKOCYTES AND PLATELETS	5R01 AM12274-12	123,200
ORGANIZATION TOTAL	188 21,617,476		
NEW YORK ZOOLOGICAL SOCIETY ZIP CODE 10460			
KALLMAN, KLAUS D	THE GENETIC CONTROL OF SEXUAL MATURITY IN FISH	5R01 GM19934-17	55,667
ORGANIZATION TOTAL	1 55,667		
POLYTECHNIC INSTITUTE OF NEW YORK ZIP CODE 11201			
BULKIN, BERNARD J	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07063-12	15,622
EMERT, JACK I	NOVEL MICROVISCOMETRIC PROBES OF AQUEOUS MICELLES	1R01 GM25999-01	41,794
EMERT, JACK I	MICELLES AS PROTECTIVE AGENTS FOR HEME COMPLEXES	1R01 HL24519-01	38,905
HOGGARD, PATRICK E	LUMINESCENCE OF AMINO ACID AND PEPTIDE COMPLEXES	1R01 GM26570-01	54,337
MORAWETZ, HERBERT	SYNTHETIC POLYMER STUDIES RELATED TO BIOLOGY	5R01 GM05811-19	70,762
TOONEY, NANCY M	STUDIES OF MICROCRYSTALLINE & CRYSTALLINE FIBRINOGEN	5R01 HL18533-04	40,313
WILSON, G EDWIN, JR	BINDING SITE STUDIES OF PROTEIN ELONGATION FACTORS	5R01 GM25668-02	55,919
WINTER, WILLIAM T	SHAPES AND INTERACTIONS OF CAPSULAR ANTIGENS	1R01 AI16258-01	54,740
ORGANIZATION TOTAL	8 372,392		
POPULATION COUNCIL ZIP CODE 10017			
BARDIN, CLYDE W	ANDROGENS IN REPRODUCTION: PRODUCTION AND ACTION	5R01 HD12974-02	119,375
DUNBAR, BONNIE S	ISOLATION AND CHARACTERIZATION OF ZONA PELLUCIDA ANTIGEN	1R01 HD12347-01	67,451
KOIDE, SAMUEL J	MEIOSIS AND POLY(ADPR) SYNTHESIS IN OOGENESIS	1R01 HD13184-01	89,974
MUSTO, NEAL A	SECRETORY PROTEINS OF TESTIS: STRUCTURE AND FUNCTION	5R01 HD12976-02	38,745
ORGANIZATION TOTAL	4 315,545		
RESEARCH INSTITUTE FOR THE STUDY OF MAN ZIP CODE 10021			
RUBIN, VERA	CROSS-CULTURAL COMPARISONS OF AGING AND LONGEVITY	1P01 AG01007-01	86,760
ORGANIZATION TOTAL	1 86,760		
RIVERSIDE RESEARCH INSTITUTE ZIP CODE 10023			
LIZZI, FREDERIC L	ULTRASONIC EVALUATION OF OCULAR TISSUES	5R01 EY01212-06	153,016
LIZZI, FREDERIC L	STUDY OF ULTRASONICALLY INDUCED OCULAR DAMAGE	5R01 EY01480-05	175,181
ORGANIZATION TOTAL	2 328,197		
ROCKEFELLER UNIVERSITY ZIP CODE 10021			
AGOSTA, WILLIAM C	ISOLATION AND IDENTIFICATION OF MAMMALIAN PHEROMONES	5R01 HD11164-03	34,843
ALLFREY, VINCENT G	NUCLEAR PROTEINS IN CARCINOGENESIS OF THE COLON	5R26 CA14908-06	148,710
ALLFREY, VINCENT G	CHEMISTRY AND METABOLISM OF DNA-ASSOCIATED PROTEINS	5R01 GM17383-09	101,872

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ASANUMA, HIROSHI.....	CEREBRAL CORTICAL CONTROL OF MOVEMENT.....	5R01 NS10705-08	102,192
BLOBEL, GUNTER K.....	FREE AND MEMBRANE BOUND POLYSOMES IN PROTEIN SYNTHESIS.....	5R01 CA12413-08	144,132
BOFFA, LIDIA C.....	SELECTIVE INHIBITION OF COLON TUMOR PROTEIN SYNTHESIS.....	5R26 CA22419-02	53,663
CERAMI, ANTHONY.....	THE IDENTIFICATION OF NEW IRON-CHELATING DRUGS.....	2R01 AM18894-04	57,087
CERAMI, ANTHONY.....	BIOCHEMICAL BASIS OF THE COMPLICATIONS OF DIABETES.....	5R01 AM19655-03	92,908
CERAMI, ANTHONY.....	CLINICAL MANAGEMENT OF THALASSEMIA: CHELATOR DEVELOPMENT.....	3R01 HL20016-03S1	18,454
CERAMI, ANTHONY.....	PROTEIN MODIFICATION AND DIABETIC SEQUELAE.....	3R01 HL20520-03S1	4,734
CHANG, KWANG-POO.....	LEISHMANIA-MACROPHAGE CELLULAR INTERACTIONS IN VITRO.....	1R01 AI15183-01	57,025
CHASE, MERRILL W.....	MECHANISMS OF DELAYED-TYPE HYPERSENSITIVITY.....	2R01 AI01258-23	141,489
CHOPPIN, PURNELL W.....	MYXOVIRUS STRUCTURE, REPLICATION, MEMBRANE INTERACTION.....	5R01 AI05600-17	189,194
CHUA, NAM-HAI.....	STRUCTURE AND BIOGENESIS OF THYALKALOID MEMBRANES.....	5R01 GM21060-06	69,283
CHUA, NAM-HAI.....	TRANSFER OF PROTEINS INTO ORGANELLES.....	5R01 GM25114-02	70,596
COHN, ZANVIL A.....	THE PHYSIOLOGY OF MACROPHAGES.....	5R01 AI07012-14	156,070
COWBURN, DAVID A.....	DYNAMIC CONFORMATIONS OF PEPTIDES.....	5R01 AM20357-03	102,443
CRANFIELD, PAUL F.....	MECHANISM AND PREVENTION OF CARDIAC ARRHYTHMIAS.....	5R01 HL14899-08	104,289
DARNELL, JAMES E, JR.....	RNA AND GROWTH CONTROL IN ANIMAL CELLS.....	3R01 CA16006-05S1	70,378
DARNELL, JAMES E, JR.....	RNA AND GROWTH CONTROL IN ANIMAL CELLS.....	2R01 CA16006-06	153,556
DARNELL, JAMES E, JR.....	CORRELATED PROGRAM IN VIRAL ONCOLOGY.....	2P01 CA18213-04	511,188
DE DUVE, CHRISTIAN R.....	SUBCELLULAR EVENTS IN ATHEROSCLEROSIS.....	2R01 HL18157-05	137,637
EDELMAN, GERALD M.....	STRUCTURE AND ACTIVITY OF ANTIBODY-RELATED PROTEINS.....	5R01 AI09273-11	149,562
EDELMAN, GERALD M.....	CELL BIOLOGY & CHEMISTRY OF LYMPHOCYTES & THEIR PRODUCTS.....	5P01 AI11378-07	450,252
EDELMAN, GERALD M.....	INTERACTION AND ENERGY TRANSFER IN BIOLOGICAL SYSTEMS.....	5R01 AM04256-20	98,146
ERICKSON, BRUCE W.....	SYNTHESIS OF ANTIBODY PEPTIDES THAT SIGNAL SECRETION.....	5R01 AI15301-02	82,235
ERICKSON, BRUCE W.....	SYNTHESIS OF ANTIBODY PEPTIDES THAT FIX COMPLEMENT.....	5R01 CA24435-02	99,404
ERICKSON, BRUCE W.....	SYNTHETIC ANAPHYLATOXINS AND PULMONARY INFLAMMATION.....	2R01 HL19795-04	87,017
FIELD, FRANK H.....	A MASS SPECTROMETRIC BIOTECHNOLOGY RESOURCE.....	5P41 RR00862-06	101,454
FISCHETTI, VINCENT A.....	PROPERTIES OF STREPTOCOCCAL M-PROTEIN.....	5R01 AI11822-06	52,341
FISHMAN, JACK.....	SPECIALIZED CENTER FOR CANCER ENDOCRINOLOGY.....	5P01 CA22795-02	838,845
FU, SHU MAN.....	IN VITRO STUDIES OF NORMAL AND NEOPLASTIC LYMPHOCYTES.....	3R01 CA24338-01S1	47,439
GILULA, NORTON B.....	CELL COMMUNICATION-MECHANISM AND ROLE.....	5R01 GM24753-02	71,222
GILULA, NORTON B.....	HEART CELL INTERACTIONS AND CELL JUNCTION BIOGENESIS.....	5R01 HL16507-05	77,805
GISIN, BALTHASAR F.....	STRUCTURE AND FUNCTION OF PEPTIDE INCLUSION COMPLEXES.....	5R01 GM24047-03	70,757
GOLDBERG, ALLAN R.....	RSV FUNCTIONS INVOLVED IN TRANSFORMATION.....	2R01 CA13362-08	86,132
GOTSCHLICH, EMIL C.....	IMMUNOCHEMICAL STUDIES ON GONOCOCCAL SURFACE ANTIGENS.....	2R01 AI10615-09	132,145
GOTSCHLICH, EMIL C.....	IMMUNOCHEMISTRY OF GRP. B STREPTOCOCCAL TYPE ANTIGENS.....	5R01 AI15220-02	68,478
GREGORY, JOHN D.....	BIOCHEMISTRY OF PROTEOGLYCANS OF THE DERMIS.....	2R01 AM18635-03A1	71,660
GREGORY, JOHN D.....	BIOSYNTHESIS AND TURNOVER OF PROTEOGLYCANS IN CORNEA.....	5R01 EY02600-02	52,129
HANAFUSA, HIDESABURO.....	CELLULAR ALTERATION INDUCED BY ROUS SARCOMA VIRUS.....	5R01 CA14935-07	205,484
HAYWARD, WILLIAM S.....	RNA TUMOR VIRUS GENE EXPRESSION.....	5R01 CA16668-06	68,280
HIRSCH, JULES.....	METABOLIC REGULATIONS IN HUMAN OBESITY.....	5R01 AM18325-15	180,675
HIRSCH, JULES.....	REGULATION OF ADIPOSE TISSUE GROWTH AND DEVELOPMENT.....	5R01 AM20508-03	136,644
HOTCHKISS, ROLLIN D.....	SEMI-STABLE STATES OF DNA DRUG RESISTANCE FACTORS.....	2R01 AI03170-20	72,928
HSU, MING-TA.....	GENE REGULATION IN MAMMALIAN CELLS.....	2R01 CA19073-04	71,294
HUANG, BESSIE P.....	GENETIC STUDIES OF FLAGELLAR DYNEIN ARMS.....	1R01 GM25965-01	101,662
HUH, MARTIN M.....	PHARMACOLOGY OF BIOGENIC AMINE METHYLTRANSFERASES.....	2R01 GM24844-03	76,435
JELINEK, WARREN R.....	GENE ORGANIZATION/MRNA FORMATION IN MAMMALIAN CELLS.....	1R01 GM26704-01	84,922
JOHNSON, EDWARD M.....	STRUCTURE AND ACTIVITY OF RIBOSOMAL GENES IN PHYSARUM.....	1R01 GM26170-01	26,975
KAPPAS, ATTALLAH.....	HEME AND CHLOROPHYLL BIOSYNTHESIS.....	3R01 GM04922-22S1	16,263
KAPPAS, ATTALLAH.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00102-16	1,364,823
KILEJIAN, ARAXIE.....	HOST-PARASITE INTERACTIONS IN MALARIA.....	5R01 AI13728-03	98,365
KING, TE PIAO.....	IMMUNOCHEMICAL STUDIES OF RAGWEE ANTIGEN E.....	5R01 AI14422-02	56,827
KNIGHT, BRUCE W, JR.....	MATHEMATICAL ANALYSES OF NEURAL NETWORKS.....	5R01 EY01428-06	87,525
KREY, LEWIS C.....	CELLULAR MECHANISMS AND GONADOTROPIN SECRETION.....	5R01 HD10168-03	43,485
KUNKEL, HENRY G.....	STUDIES OF MYELOMA PROTEINS AND ANTIBODIES.....	5R01 AI10811-14	107,846
KUNKEL, HENRY G.....	IMMUNOLOGICAL MECHANISMS IN RHEUMATOID ARTHRITIS.....	5R01 AM04761-19	104,819
LA BADIE, JON H.....	THE CELL SURFACE IN LYMPHOCYTE-MEDIATED CYTOTOXICITY.....	1R01 AI15867-01	70,139
LANDSBERGER, FRANK R.....	ENVELOPED VIRUSES/CELL INTERACTION BIOPHYSICAL STUDIES.....	5R01 AI14040-02	59,256
LAZAROW, PAUL B.....	BIOGENESIS OF RAT LIVER PEROXISOMES.....	2R01 AM19394-04	119,370
LAZAROW, PAUL B.....	CLOFIBRATE-ENHANCED LIPID OXIDATION BY PEROXISOMES.....	5R01 HL20909-03	57,164
LEDERBERG, JOSHUA.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07065-14	201,413

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LIPMANN, FRITZ	GLUCOSE TRANSPORT: POLYPEPTIDE SYNTHESIS	5R01 GM13972-14	193,480
LIZARDI, PAUL M.	BIOGENESIS OF SILK FIBROIN MESSENGER RNA	2R01 GM22865-04	97,015
LUCK, DAVID J.	BIOCHEMICAL GENETICS OF MICROTUBULES	5R01 GM17132-11	123,590
LUCK, DAVID J.	PURCHASE OF AN ELECTRON MICROSCOPE	1P41 GM27351-01	109,184
LUINE, VICTORIA N.	MAO AND REGULATION BY HORMONES OF SEXUAL BEHAVIOR	5R01 HD12011-02	63,189
MANNING, JAMES M.	STRUCTURE AND ROLE OF D-AMINO ACID TRANSAMINASE	1R01 AI16190-01	86,510
MANNING, JAMES M.	CHEMICAL STUDIES OF SICKLE CELL HEMOGLOBIN	5R01 HL18819-08	80,879
MAUZERALL, DAVID	CHARGE TRANSFER ACROSS INTERFACES OF BIOLOGICALS	5R01 GM25693-02	58,160
MC CARTY, MACLYN	CELL SURFACE OF STREPTOCOCCI	5R01 HL03919-21	98,981
MC EWEN, BRUCE S.	GENE EXPRESSION IN NERVOUS TISSUE	2R01 NS07080-14	119,751
MC NAMARA, DONALD J.	HUMAN STEROL SYNTHESIS MEASURED BY MEVALONATE KINETICS	1R01 HL24190-01	76,079
MERRIFIELD, ROBERT B.	SOLID PHASE SYNTHESIS OF PEPTIDES AND PROTEINS	2R01 AM01260-24	190,309
MERRIFIELD, ROBERT B.	SYNTHETIC ANALOGS OF GLUCAGON FOR DIABETES STUDIES	5R01 AM24039-02	61,250
MILLER, NEAL E.	CARDIOVASCULAR HOMEOSTASIS AND LEARNING	5R01 HL21532-03	150,818
MOORE, STANFORD	BIOCHEMISTRY OF NUCLEASES	5R01 GM25323-02	111,015
MULLER, MIKLOS	BIOCHEMICAL CYTOLOGY OF TRICHOMONAS VAGINALIS	5R01 AI11942-06	86,644
NATHAN, CARL F.	MONONUCLEAR LEUKOCYTES IN TUMOR IMMUNITY	5R01 CA22090-03	86,280
NEVINS, JOSEPH R.	MRNA BIOGENESIS USING ADENOVIRUS AS A MODEL	1R01 GM26765-01	61,380
NORGREN, RALPH E.	NEURAL SYSTEM OF INGESTIVE BEHAVIOR	2R01 NS10150-08	83,080
PETERSON, BARRY W.	PROPERTIES OF PREMOTOR NEURONS IN GAZE CONTROL SYSTEM	5R01 EY02249-02	58,032
PPAFF, DONALD W.	BRAIN MECHANISMS OF REPRODUCTIVE BEHAVIOR	5R01 HD05751-08	86,311
PPAFF, DONALD W.	CHARACTERIZATION OF HORMONE-CONCENTRATING NEURONS	5R01 HD10655-03	63,002
POOLE, BRIAN H.	PROTEIN DEGRADATION, LYSOSOME FUNCTION AND SENESENCE	5R01 AG00609-03	106,846
RATLIFF, FLOYD	ELECTRICAL ACTIVITY, SINGLE RECEPTORS, NEURONS OF EYE	5R01 EY00188-24	109,574
RATLIFF, FLOYD	VISUAL STIMULATOR/DATA ANALYZER FOR CLINICAL RESEARCH	5R01 EY02439-02	90,898
REEKE, GEORGE N, JR.	COMPUTING METHODS FOR MACROMOLECULAR CRYSTALLOGRAPHY	5R01 GM22663-05	48,395
REESE, ROBERT T.	IMMUNOLOGIC PROTECTION AGAINST MALARIA	1R01 AI15468-01A1	96,921
REICH, EDWARD	CHEMOTHERAPEUTIC DEOXYNUCLEOSIDES AND OTHER AGENTS	5R01 CA08290-14	336,388
RIFKIN, MARY R.	MECHANISM OF TRYPAKOCIDAL ACTION OF HUMAN SERUM	5R01 AI14045-03	70,985
RUTISHAUSER, URS S.	CELL-CELL ADHESION AMONG EMBRYONIC CELLS	5R01 HD09635-05	106,789
SAMUEL, PAUL	VALIDATION OF A CHOLESTEROL ABSORPTION METHOD IN MAN	5R01 HL22567-02	88,098
SCHHEEL, GEORGE A.	MOLECULAR BASIS OF SECRETION IN THE EXOCRINE PANCREAS	3R01 AM18532-04S1	10,114
SCHHEEL, GEORGE A.	MOLECULAR BASIS OF SECRETION IN THE EXOCRINE PANCREAS	5R01 AM18532-05	101,554
SCHHEEL, GEORGE A.	EXOCRINE PANCREATIC PROTEIN IN CANCER OF THE PANCREAS	5R26 CA22582-03	53,837
SCHOENFELD, ROBERT L.	A MICROPROCESSOR BIOTECHNOLOGY RESOURCE	5P41 RR01089-03	109,992
SEHGAL, PRAVINKUMAR B.	REGULATION OF HUMAN FIBROBLAST INTERFERON PRODUCTION	1R01 AI16262-01	67,965
SHAPLEY, ROBERT M.	SPATIAL SUMMATION AND DYNAMICS OF VISUAL NEURONS	3R01 EY01472-05S1	34,850
SILVERSTEIN, SAMUEL C.	ROLE OF MONONUCLEAR LEUCOCYTES IN IMMUNITY	2R01 AI08697-11	154,756
STARK, DENNIS M.	DIAGNOSTIC CLINICAL LABORATORY PROGRAM	5P40 RR01180-02	59,384
STEVENS, VICTOR J.	PROTEIN GLYCOSYLATION IN DIABETIC LENS AND NERVE	1R01 EY03257-01	40,203
STRICKLAND, SIDNEY	STUDIES OF PROSTATE AND EMBRYO PLASMINOGEN ACTIVATOR	5R01 HD11608-02	45,308
TAMM, IGOR	VIRUS-INDUCED ALTERATIONS IN ANIMAL CELLS	2R01 CA18608-20	141,937
TOMASZ, ALEXANDER	PENICILLIN TOLERANCE IN PATHOGENIC STREPTOCOCCI	1R01 AI16170-01	53,184
TRAGER, WILLIAM	HOST-PARASITE MEMBRANE INTERACTIONS IN LEISHMANIASIS	3R01 AI11916-04S1	2,555
TSUKAMOTO, TAKUJI	MEMBRANE PHOSPHORYLATION IN HUMAN RED CELL FUNCTIONS	1R01 HL25586-01	49,389
UNKLESS, JAY C.	THE FC RECEPTOR: GENETIC AND BIOCHEMICAL ANALYSIS	5R01 AI14603-02	83,654
VAN DE JIJN, IVO J.	IMMUNOCHEMISTRY OF STREPTOCOCCAL MEMBRANE PROTEINS	1R01 AI15686-01	61,021
WATTERSON, DANIEL M.	MOLECULAR BASIS OF CALCIUM ACTION IN CELL PROCESSES	1R01 GM26383-01	77,836
WEISS, JAY M.	PSYCHOLOGIC/BEHAVIORAL INFLUENCES ON HEART PATHOLOGY	2R01 HL19974-03	88,458
WILSON, VICTOR J.	MOTOR CONTROL STUDIES	5R01 NS02619-20	96,918
WINCHESTER, ROBERT J.	B CELL ALLOANTIGENS, MOLECULAR BASIS AND DISEASE ASPECTS	2R01 CA20107-04	108,913
WOOD, HENRY N.	TRANSFORMATION AND RECOVERY OF CROWN GALL TUMOR CELLS	5R01 CA13808-07	99,860
YOUNG, MICHAEL W.	GENE ORGANIZATION AND FUNCTION IN D. MELANOGASTER	5R01 GM25103-02	57,416
ZABRISKIE, JOHN B.	IMMUNOLOGICAL STUDIES IN STREPTOCOCCAL SEQUELAE	3R01 AI14361-02S1	3,000
ZABRISKIE, JOHN B.	IMMUNOLOGICAL STUDIES IN STREPTOCOCCAL SEQUELAE	5R01 AI14361-03	109,881
ZABRISKIE, JOHN B.	IMMUNOLOGICAL STUDIES IN GLOMERULONEPHRITIS	1R01 AM25145-01	48,313
ZIFF, EDWARD B.	STRUCTURAL STUDIES OF ADENOVIRUS-2 MRNA SYNTHESIS	5R01 GM21779-05	66,348
ORGANIZATION TOTAL	120	13,597,839	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ROOSEVELT HOSPITAL	ZIP CODE 10019		
FEIGELSON, MURIEL H.....	PERINATAL DEVELOPMENT IN OFFSPRING OF DIABETIC MOTHERS.....	5R01 AM21166-02	86,871
FEIGELSON, MURIEL H.....	MECHANISMS OF POSTNATAL ENZYME DEVELOPMENT.....	5R01 HD08712-06	122,128
HOCHBERG, RICHARD B.....	STEROID HORMONES IN BREAST CANCER.....	5R01 CA24512-02	67,168
PHILLIPS, GERALD B.....	ETIOLOGY OF MYOCARDIAL INFARCTION.....	5R01 HL20645-02	84,114
PHILLIPS, GERALD B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05663-12	44,462
ROSNER, WILLIAM.....	ESTROGEN BINDING IN HUMAN SERUM.....	5R01 AM11852-13	131,057
SPRINSON, DAVID B.....	REGULATION OF ERGOSTEROL AND CHOLESTEROL BIOSYNTHESIS.....	1R01 AM26006-01	80,569
WEISS, HARVEY J.....	PRIMARY DISORDERS OF PLATELET FUNCTION.....	5R01 HL14595-08	137,808
ORGANIZATION TOTAL	8 754,177		
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH	ZIP CODE 10021		
ABBOTT, JOAN.....	ONTOGENY OF B-LYMPHOCYTES IN VITRO.....	5R01 AI13759-03	92,840
ALBRECHT, ALBERTA M.....	MICROBIAL ENZYMES IN THE THERAPY OF NEOPLASIA.....	2R01 CA17839-04A2	54,738
ALBRECHT, ALBERTA M.....	ENZYMIC RESCUE IN HIGH DOSE METHOTREXATE THERAPY.....	1R01 CA24907-01	63,216
ANDERSON, LUCY M.....	CHEMICAL CARCINOGENESIS IN THE ATHYMIC MOUSE.....	5R01 CA22498-02	44,592
ANDERSON, LUCY M.....	CHEMICAL FACTORS IN FETAL ONCOGENESIS.....	5R01 CA22509-02	41,044
ARTZT, KAREN.....	MONOCLONAL ANTIBODY FOR IMMUNOGENETICS OF T/T COMPLEX.....	3R01 CA21651-03S1	105,786
AUGENLICHT, LEONARD H.....	PROCESSING OF NUCLEAR RNA IN COLON CARCINOGENESIS.....	5R26 CA22367-02	57,774
AUGENLICHT, LEONARD H.....	MAPPING GLOBIN SEQUENCES IN NUCLEAR RIBONUCLEOPROTEIN.....	1R01 CA26073-01	61,566
BALAZS, IVAN.....	RNA TUMOR VIRUS GENE EXPRESSION DURING THE CELL CYCLE.....	1R01 CA24008-01A1	94,214
BALIS, M EARL.....	ENZYMES OF NORMAL AND MALIGNANT INTESTINAL MUCOSA.....	3R26 CA14906-06S1	44,969
BALIS, M EARL.....	ENZYMES OF NORMAL AND MALIGNANT INTESTINAL MUCOSA.....	2R26 CA14906-07A1	123,997
BANCROFT, F CARTER.....	REGULATION OF GROWTH HORMONE MESSENGER RNA.....	5R01 GM24442-02	65,809
BENNETT, DOROTHEA.....	IMMUNOGENETICS OF SPERMATOZOA, EGGS, AND EMBRYOS.....	5R01 HD10668-04	58,835
BIEDLER, JUNE L.....	HUMAN GENE MAPPING IN NEUROBLASTOMA CELL HYBRIDS.....	1R01 NS15482-01	45,141
BIGLER, RODNEY E.....	VASCULAR CHANGES IN LUNG EXPOSED TO RADIATION.....	5R01 HL22371-02	54,938
BOCKMAN, RICHARD S.....	PROSTAGLANDINS AND IMMUNOSUPPRESSION IN CANCER.....	1R01 CA23500-01A1	83,972
BORENFREUND, ELLEN.....	IN VITRO CHEMICAL CARCINOGENESIS.....	2R01 CA20019-04	64,472
BOYSE, EDWARD A.....	IMMUNOGENETICS OF THE TLA REGION OF CHROMOSOME 17.....	5R01 CA20473-03	59,692
BOYSE, EDWARD A.....	IMMUNOGENETICS OF LY SYSTEMS.....	5R01 CA22131-03	222,982
BOYSE, EDWARD A.....	NATIONAL CONGENIC MOUSE SUPPLY—MULTICATEGORY RESEARCH.....	5P40 RR01001-04	233,344
BOXYMEYER, HAL E.....	INHIBITORY INTERACTIONS REGULATING HEMATOPOIESIS.....	5R01 CA23528-02	97,366
CAVALIERI, LIEBE F.....	A STUDY OF MUTAGENESIS BY CHEMICAL CARCINOGENS.....	5R01 ES01936-02	82,939
CHELLO, PAUL L.....	TRANSPORT VS ANTITUMOR EFFECTS OF NUCLEOSIDE ANALOGS.....	1R01 CA26318-01	66,515
CHOI, YONG S.....	IMMUNOBIOLOGY, IMMUNODEFICIENCY, AND CANCER.....	5P01 CA17404-05	499,894
CHOI, YONG SUNG.....	IMMUNOLOGICAL STUDIES OF AVIAN T LYMPHOCYTES.....	1R01 AI16115-01	71,237
CLARKSON, BAYARD D.....	CELL PROLIFERATION KINETICS IN HEMATOPOIETIC TUMORS.....	2R01 CA19117-04	147,714
CLARKSON, BAYARD D.....	HUMAN HEMATOPOIETIC TUMORS PROGRAM PROJECT.....	3P01 CA20194-03S1	70,016
DARZYNKIEWICZ, ZBIGNIEW.....	EFFECTS OF NEW ANTICANCER DRUGS ON THE CELL CYCLE.....	5R01 CA23296-02	119,316
DE HARVEN, ETIENNE.....	SCANNING EM FOR LYMPHOCYTES WITH MARKERS FOR SURFACE IG.....	5R01 CA22212-03	31,160
DE SOUSA, MARIA A.....	IMMUNOGENETICS OF THE ORGANIZATION OF LYMPHOCYTE SETS.....	1R01 AI15517-01	74,857
DONNER, DAVID B.....	ALLOSTERIC HORMONE BINDING RELATED TO BIOLOGIC EFFECT.....	5R01 AM19846-03	65,881
DUPONT, BO.....	IMMUNOGENETICS OF THE MAJOR HISTOCOMPATIBILITY COMPLEX.....	5P01 CA22507-02	491,116
FAANES, RONALD B.....	REGULATORY SIGNALS IN CYTOTOXIC T-CELL DEVELOPMENT.....	2R01 CA16271-04A2	90,542
FLEISSNER, ERWIN J.....	VIRAL AND MOUSE GENES IN LEUKEMIA VIRUS INFECTION.....	5R01 CA15297-06	133,271
FLEISSNER, ERWIN J.....	ONCOGENIC VIRUSES PROGRAM PROJECT.....	3P01 CA16599-04S1	164,442
FLEISSNER, ERWIN J.....	RNA TUMOR VIRUSES: BIOLOGY OF HOST-VIRUS INTERACTIONS.....	2P01 CA16599-05	862,874
FOX, JACK J.....	SYNTHETIC MASKED NUCLEOSIDES FOR ANTICANCER STUDIES.....	5R01 CA18601-04	189,678
FRIED, JERROLD.....	GROWTH KINETICS AND DRUG RESPONSE OF CELL POPULATIONS.....	5R01 CA16757-05	139,942
GOMATOS, PETER J.....	REOVIRUS: ASSEMBLY OF PARTICLES SYNTHESIZING RNA.....	5R01 AI14466-02	69,296
GOMATOS, PETER J.....	SYNTHESIS AND TRANSLATION OF ALPHAVIRUS 26S MRNA.....	1R01 AI15528-01	82,993
GOOD, ROBERT A.....	NONSPECIFIC RESISTANCE TO INFECTION AND INTOXICATION.....	5R01 AI11843-07	116,158
GOOD, ROBERT A.....	SUPPORT FOR CANCER RESEARCH PROGRAM.....	5P30 CA08748-14	6,492,620
GOOD, ROBERT A.....	MARROW TRANSPLANTATION IN APLASTIC ANEMIA & LEUKEMIA.....	5P01 CA23766-02	887,925
GOOD, ROBERT A.....	PATHOGENESIS OF CNS AND AUTOIMMUNE DISORDERS.....	5R01 NS11457-07	173,437
GOOD, ROBERT A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05534-07	201,413
GREEN, SAUL.....	TUMOR NECROSIS FACTOR: PURIFICATION AND MODE OF ACTION.....	5R01 CA23906-02	91,638
GUPTA, SOHAN L.....	IMMUNOCHEMICAL STUDIES ON THYMUS-LEUKEMIA ANTIGENS.....	5R01 CA20490-03	72,585

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
HADDEN, JOHN W.	MACROPHAGE PROLIFERATION AND ACTIVATION	5R01 CA20178-02	94,581
HAHN, ERIC W.	HEAT & RADIATION ON NEOPLASMS—OPTIMAL FRACTIONATION	5R01 CA17410-05	113,389
HAMILTON, JOHN A.	ENVIRONMENTAL DUSTS AND MACROPHAGE ACTIVATION	1R01 ES02014-01	67,259
HAMILTON, MARY G.	SUBFRACTIONATION OF RAT LIVER RIBOSOMAL SUBUNITS	1R01 GM24981-01	58,356
HAMMERLING, ULRICH G.	ONTOGENIC DEVELOPMENT OF B LYMPHOCYTES	5R01 AI14831-02	116,029
HAMMERLING, ULRICH G.	ONTOGENETIC RELATIONSHIP OF CR PLUS & CR- B LYMPHOCYTES	3R01 CA25508-01S1	29,944
HAWRYLYK, EUGENIA A.	BCG POTENTIATED ANTITUMOR RESPONSE—ESCAPE MECHANISMS	3R01 CA18351-03S1	18,767
HIRSHAUT, YASHAR	SEROLOGIC SCREENING FOR CONTAGION OF HUMAN SARCOMAS	5R01 CA23404-02	82,268
HOFFMANN, MICHAEL K.	REGULATION OF IMMUNITY BY ANTIBODY AND B-CELLS	5R01 CA17673-05	95,309
INCEFY, GENEVIEVE S.	T-LYMPHOCYTE DIFFERENTIATION	5R01 CA24476-02	92,877
KIM, JAE H.	CELLULAR RESPONSE TO HEAT AND RADIATION	1R01 CA24791-01	74,514
KIM, YOON B.	NATURAL AND ANTIBODY-DEPENDENT CELLULAR CYTOTOXICITY	1R01 CA25384-01	55,619
KIM, YOON B.	EFFECT OF MATERNAL IMMUNITY ON NEONATAL IMMUNE SYSTEM	1R01 HD12097-01	84,557
KINCADE, PAUL W.	EARLY EVENTS IN MAMMALIAN B-CELL DIFFERENTIATION	5R01 AI12741-05	89,597
KLEIN, ROBERT S.	SYNTHESIS OF C-NUCLEOSIDES FOR ANTICANCER STUDIES	1R01 CA24634-01	146,712
KOO, GLORIA C.	DIFFERENTIATIVE IMMUNOGENETICS: THE T/T LOCUS	5R01 CA22462-03	70,882
KOO, GLORIA C.	IMMUNOGENETICS OF NK-1 PLUS NATURAL KILLER CELLS	1R01 CA25416-01	89,784
KOPELOVICH, LEVY.	SV40 TRANSFORMATION OF GARDNER'S SYNDROME FIBROBLASTS	2R26 CA19259-04	89,538
KOURIDES, IONE A.	REGULATION OF ALPHA AND BETA SUBUNITS OF TSH	2R01 CA23185-03	69,715
KREIS, WILLI	TUMOR THERAPY BY L-METHIONINE DEPRIVATION	3R01 CA19050-03S1	16,264
KROWN, SUSAN E.	BONE MARROW TRANSPLANTATION AFTER LY SUBSET ELIMINATION	1R01 CA23602-01A1	77,368
KRUG, ROBERT M.	REPLICATION OF INFLUENZA VIRUS	5R01 AI11772-06	143,123
KUNIO, YAMAZAKI	THE IMMUNOGENETICS OF SELF IDENTIFICATION	5R01 CA23676-02	103,233
LATTIME, EDMUND C.	THYMIC ANTIGENS, TOLERANCE AND SELF-RECOGNITION	1R23 CA25932-01	36,684
LAUGHLIN, JOHN S.	CANCER STUDIES WITH NEW RADIOACTIVE SCANNING COMPOUNDS	2R01 CA18153-04	159,899
LEVINE, PHILIP	MUTANT A, P1 ANTIGENS IN MALIGNANCY, CYTOTOXICITY	5R01 CA20660-03	29,278
LITMAN, GARY W.	PHYSICO-CHEMICAL STUDIES OF CRYOIMMUNOGLOBULINS	2R01 AI13528-04	72,816
LITMAN, GARY W.	LOWER VERTEBRATE IMMUNOGLOBULIN AND B2-MICROGLOBULIN	5R01 AI14454-02	53,941
LITMAN, GARY W.	INTERACTION OF BENZOAPYRENE WITH NUCLEAR PROTEINS	1R01 CA24861-01	55,874
LLOYD, KENNETH O.	ANTIGENS OF HUMAN MALIGNANT MELANOMA	5R01 CA21445-03	52,067
LLOYD, KENNETH O.	ANTIGENS OF HUMAN OVARIAN TUMORS	1R01 CA26184-01	80,602
LOPEZ, CARLOS	GENETICS OF RESISTANCE TO HSV-1 IN THE MOUSE	5R01 AI14832-02	65,865
MARCUS, STUART L.	RAUSCHER LEUKEMIA VIRUS DNA POLYMERASE: BIOCHEMISTRY	2R01 CA18369-04A1	92,064
MC DONALD, JOSEPH C.	CALORIMETRIC DOSIMETRY FOR NEUTRON RADIOTHERAPY	5R01 CA22038-02	52,458
MEHTA, BIPIN M.	PHARMACOKINETICS OF CANCER CHEMOTHERAPEUTIC AGENTS	5R01 CA23512-02	53,258
MELERA, PETER W.	CHROMOSOMAL MANIFESTATIONS OF GENE EXPRESSION	1R01 CA24635-01	152,596
MERLUZZI, VINCENT J.	IMMUNOPHARMACOLOGICAL STUDIES OF CYCLOPHOSPHAMIDE	1R23 CA26335-01	37,430
MIKE, VALERIE	STATISTICAL CENTER FOR NAT'L BLADDER CANCER CONFERENCE	5R26 CA24567-02	59,225
MODAK, MUKUND J.	IN VIVO AND IN VITRO STUDIES OF DNA SYNTHESIS	5R01 CA21404-03	64,583
MOORE, MALCOLM A.	MARROW CULTURE STUDIES IN HUMAN MYELOID LEUKEMIA	5R01 CA17353-05	113,750
MOORE, MALCOLM A.	DEVELOPMENT AND FUNCTION OF ACTIVATED MACROPHAGES	2R01 CA19052-04	89,832
MURPHY, MARTIN J. JR.	IDENTITY AND CHARACTERISTICS OF ERYTHROID STEM CELLS	5R01 AM19741-03	14,542
O'NEILL, GEOFFREY J.	GENETIC CONTROL OF COMPLEMENT C4 AND LINKAGE TO HLA	1R01 AI16093-01	47,482
OLD, LLOYD J.	HUMAN CANCER SEROLOGY	3P01 CA19765-03S1	240,016
OLD, LLOYD J.	ANTI-LEUKEMIA ACTIVITY OF CIG	1R01 HL24884-01	113,455
OTTER, BRIAN A.	NUCLEOSIDE CONFORMATION AND ANTITUMOR ACTIVITY	1R01 CA24821-01A1	89,455
PARHAM, JAMES C.	N-AMINOHETEROCYCLES AS CANCER CHEMOTHERAPEUTIC AGENTS	5R01 CA23622-02	48,711
POSNER, JEROME B.	POSITRON EMISSION TOMOGRAPHY OF THE CNS	1P01 NS15665-01	1,564,679
PRICE, RICHARD W.	HERPES SIMPLEX VIRUS INFECTION OF AUTONOMIC GANGLIA	2R01 NS12396-04	79,135
RALPH, PETER	MECHANISMS OF MACROPHAGE ACTIVATION AND TOXICITY	1R01 AI15811-01	62,534
RALPH, PETER	FUNCTIONAL ANALYSIS AND REGULATION OF LEUKEMIC CELLS	5R01 CA24300-02	105,722
ROBERTS, JOSEPH	A PROGRAM FOR DEVELOPMENT OF NEW ANTITUMOR ENZYMES	5R01 CA15860-06	75,539
ROBERTS, JOSEPH	THERAPY BY ENZYMIC DEPLETION OF ESSENTIAL AMINO ACIDS	2R01 CA18844-04	72,435
RUSS, GERALD A.	SELECTIVE IRRADIATION OF OSSEOUS TUMORS WITH 33P-HEDP	3R01 CA18873-03S1	13,891
SALSER, JOSEPHINE S.	METABOLIC CONTROLS OF THYMYDLATE IN MALIGNANT GROWTH	3R01 CA19608-03S1	8,519
SARKAR, NURUL H.	COMPONENTS OF THE MOUSE MAMMARY TUMOR VIRUS	5R01 CA17129-05	105,073
SCHEID, MARGRIT P.	LYMPHOCYTE SUBSETS IN IMMUNE-DEFICIENCY STATES	5R01 CA22241-03	85,111
SCHEID, MARGRIT P.	T CELL DIFFERENTIATION: MOLECULAR MECHANISMS	5R01 CA25738-04	63,841
SCHEID, MARGRIT P.	INDUCTION OF T-LYMPHOCYTE DIFFERENTIATION	5R01 HD08415-06	90,583
SHAPIRO, WILLIAM R.	HUMAN GLIOMA HETEROGENEITY AND CHEMOTHERAPY	1R01 CA25956-01	112,881

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SHERMAN, MERRY R.	RENAL CORTICOSTEROID RECEPTOR STRUCTURE, PURIFICATION	5R01 AM20505-02	94,566
SILVER, DONALD M.	TOLERANCE AND DOMINANT NONRESPONSIVENESS TO F-ANTIGEN	7R01 AI16652-01	88,791
SILVERSTONE, ALLEN E.	PROGRAMS OF NORMAL AND MALIGNANT LYMPHOCYTES	5R01 CA22599-02	52,925
SIROTNAK, FRANCIS M.	SELECTIVE ANTITUMOR ACTION ANTIFOLATES	5R01 CA22764-02	90,750
SIROTNAK, FRANCIS M.	APPROACH TO DRUG TRANSPORT/RESPONSE IN HUMAN CANCER	5R01 CA24153-02	45,579
SKIPSKI, VLADIMIR P.	BLOOD SERUM GLYCOPHINGOLIPIDS AND MALIGNANCY	5R01 CA15169-06	64,173
SKIPSKI, VLADIMIR P.	ROLE OF GLYCOCONJUGATES IN FORMATION OF METASTASIS	5R01 CA24419-02	70,184
SNYDER, HARRY W, JR.	CHEMICAL NATURE OF LEUKEMIA ANTIGENS	5R23 CA24357-02	37,430
SONENBERG, MARTIN.	CELL SURFACE ALTERATIONS BY GROWTH HORMONES	5R01 AM18759-04	79,960
SONENBERG, MARTIN.	ION TRANSPORT IN HORMONAL RESPONSIVENESS	9R01 GM27612-05	97,748
SPIEGELMAN, MARTHA	CELL SURFACE ARCHITECTURE OF EMBRYOS AND SPERM	5R01 HD10669-04	108,540
STACKPOLE, CHRISTOPHER W.	PLASMA-MEDIATED LEUKEMIA CELL LYSIS AND MODULATION	5R01 CA16168-05	73,658
STAVNEZER, EDWARD	SYNTHESIS AND PROCESSING OF AVIAN RETROVIRUS RNAS	3R01 CA24163-01S1	49,423
STAVNEZER, JANET M.	STRUCTURE AND DIFFERENTIATION OF IMMUNOGLOBULIN GENES	5R01 AI14617-02	136,591
STEWART, WILLIAM E, II.	CHARACTERIZATION OF INTERFERONS AND THEIR ACTIONS	9R01 AI16439-04	85,241
STOCK, C CHESTER	AN EXPERIMENTAL CANCER CHEMOTHERAPY PROGRAM	5P01 CA18856-04	885,937
STOHRER, GERHARD	METABOLIC AND CHEMICAL STUDIES OF CARCINOGENESIS	1R01 CA22458-01A1	52,240
STOHRER, GERHARD	PURINE DERIVATIVES AND OTHER CHEMICAL CARCINOGENS	3R01 CA22609-01S1	2,333
STOHRER, GERHARD	PURINE DERIVATIVES AND OTHER CHEMICAL CARCINOGENS	5R01 CA22609-02	74,782
STUTMAN, OSIAS	IMMUNE SURVEILLANCE AND CANCER	5R01 CA15988-06	99,649
STUTMAN, OSIAS	TUMOR IMMUNITY AND TUMOR-HOST INTERACTIONS	2R01 CA17818-04	107,889
WACHTEL, STEPHEN S.	SEROLOGICAL ANALYSIS OF EPIDERMAL CELL ANTIGENS	5R01 AI11982-06	66,210
WACHTEL, STEPHEN S.	H-Y ANTIGEN IN HUMANS WITH SEX-CHROMOSOMAL ANOMALIES	2R01 HD10065-04	83,655
WARFEL, ALWIN H.	KILLING OF CANCER CELLS BY BCG ACTIVATED CELLS	2R01 CA18893-03A1	78,606
WILLIAMS, NEIL T.	REGULATION OF MEGAKARYOPOIESIS	1R01 HL22451-01A1	82,336
ZEDECK, MORRIS S.	A MODEL SYSTEM FOR STUDIES OF COLON CARCINOGENESIS	5R26 CA15637-06	71,741
ORGANIZATION TOTAL	133	22,201,194	
SOCIAL SCIENCE RESEARCH COUNCIL ZIP CODE 10016			
PREWITT, KENNETH	LIFE-COURSE PERSPECTIVES ON MIDDLE AND OLD AGE	5R01 AG01144-02	95,047
PREWITT, KENNETH	BIOLOGICAL BASES OF PARENTING AND OFFSPRING DEVELOPMENT	5R13 HD11777-02	10,300
ORGANIZATION TOTAL	2	105,347	
ST. JOHN'S UNIVERSITY ZIP CODE 11439			
CARTER, TIMOTHY H.	THE REGULATION OF ADENOVIRUS GENE EXPRESSION	5R01 CA25757-02	47,830
ORGANIZATION TOTAL	1	47,830	
ST. LUKE'S HOSPITAL CENTER ZIP CODE 10025			
GREENWOOD, MARY R.	BEHAVIORAL & METABOLIC CORRELATES OF GENETIC OBESITY	1R01 AM25141-01	78,281
ORGANIZATION TOTAL	1	78,281	
ST. LUKE'S INSTITUTE FOR HEALTH SCIENCES ZIP CODE 10025			
BERNSTEIN, ROBERT S.	REGULATION OF ADIPOCYTE INSULIN SENSITIVITY	5R01 AM25661-02	125,244
BERTLES, JOHN F.	GENETIC CONTROL OF HEMOGLOBIN SYNTHESIS	5R01 AM27116-03	115,578
BERTLES, JOHN F.	BIOMEDICAL SCIENCES SUPPORT GRANT	5S07 RR05802-03	76,641
BOKKENHEUSER, VICTOR D.	BIODEGRADATION OF CORTICOIDS AND SEX HORMONES IN MAN	1R01 AM25324-01	88,673
BOKKENHEUSER, VICTOR D.	BACTERIA AND STEROID METABOLISM	5R01 CA25763-05	121,935
CASE, ROBERT B.	CONTROL OF CORONARY FLOW BY PCO2	5R01 HL23982-02	78,011
FAIRCHILD, BEATRICE M.	SICKLE CELL HEMOGLOBIN: INTERACTIONS & AGGREGATION	5R01 HL23984-03	97,386
HASHIM, SAMI A.	MEDIUM CHAIN FATS: PHYSIOLOGY & CLINICAL IMPLICATIONS	5R01 AM26796-03	100,474
RYAN, STEPHEN F.	EXPERIMENTAL ACUTE ALVEOLAR INJURY	5R01 HL23981-03	118,147
VAN ITALLIE, THEODORE B.	OBESITY RESEARCH CENTER	5P50 AM26517-03	669,396
VAN ITALLIE, THEODORE B.	BODY NUTRIENT RESERVES AND FEEDING BEHAVIOR	5R01 AM26532-03	85,572
ORGANIZATION TOTAL	11	1,677,057	
ST. VINCENT'S HOSPITAL AND MEDICAL CENTER OF NEW YORK ZIP CODE 10011			
BARTFELD, HARRY	CAUSE AND MECHANISMS OF AMYOTROPHIC LATERAL SCLEROSIS	5P50 NS11605-05	241,933
MORENO, AUGUSTO H.	ARTERIAL CHARACTERISTIC INPUT IMPEDANCE IN CIRRHOSIS	5R01 AM19508-03	47,123
SCHWARZ, GEORGE	X-RAY DOSE RATE EFFECTS ON CELL KINETICS	5R01 CA17582-05	65,278
SCHWARZ, GEORGE	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05502-15	24,590

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ORGANIZATION TOTAL	4	378,924	
STATE UNIVERSITY OF NEW YORK-DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
ALTURA, BURTON M.	PHARMACOLOGIC STUDIES ON VASCULAR SMOOTH MUSCLE	5R01 HL18015-04	72,225
BIANCO, CELSO	REGULATION OF MACROPHAGE MOTILITY BY COMPLEMENT	5R01 AI15221-02	51,824
BRODY, NEIL I.	STUDIES OF THE IMMUNOBIOLOGY OF B-16 MELANOMA	5R01 CA24244-01	56,846
CRACCO, ROGER Q.	EVOKED SPINAL RESPONSE	5R01 NS12039-04	48,966
DEBONS, ALBERT F.	HYPOTHALAMIC REGULATION OF FOOD INTAKE	5R01 AM12479-12	47,915
DETWILER, THOMAS C.	REACTIONS OF THROMBIN AND COLLAGEN WITH PLATELETS	5R01 HL16355-06	70,904
DETWILER, THOMAS C.	STIMULUS RESPONSE COUPLING IN PLATELETS	5R01 HL17729-05	46,810
DURKIN, HELEN G.	THYMUS CORTEX AS SITE OF ORIGIN OF SUPPRESSOR T CELLS	1R01 AI15603-01	52,440
ERLIU, DAVID J.	ACTIVATION OF MEMBRANE PROCESSES BY INSULIN	5R01 AM24064-02	52,613
ETLINGER, JOSEPH D.	MYOFIBRILLAR ASSEMBLY AND BREAKDOWN IN CARDIAC MUSCLE	5R01 HL21970-02	44,758
FEINMAN, RICHARD D.	MECHANISM OF THROMBIN ACTION	5R01 HL14992-08	53,190
FURCHGOTT, ROBERT F.	FACTORS INFLUENCING RESPONSES TO ADRENERGIC DRUGS	5R01 HL21860-19	80,449
GAETJENS, ERIC	STEROID BINDING IN BREAST CANCER BY IMMUNOFLOUORESCENCE	5R01 CA23623-02	49,964
GARDNER, BERNARD	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA12033-08	37,234
GIDARI, ANTHONY S.	REGULATORY ASPECTS OF ERYTHROID PROLIFERATION	5R01 AM21602-02	33,084
GOOTMAN, PHYLLIS M.	POSTNATAL MATURATION OF CARDIOVASCULAR REGULATORY SYSTEM	5R01 HL20864-02	53,357
HALPERN, MIMI N.	FUNCTIONAL STUDIES OF THE VOMERONASAL SYSTEM	5R01 NS11713-06	43,904
HERBERT, VICTOR D.	VITAMIN B12 AND FOLIC ACID METABOLISM	3R01 AM20526-02S1	30,958
HERBERT, VICTOR D.	VITAMIN B12 AND FOLATE METABOLISM	2R01 AM20526-03	78,583
HOWE, MICHAEL L.	SENSITIZATION OF LYMPHOCYTES TO VIRUS TRANSFORMED CELLS	5R01 CA20163-03	64,961
IQBAL, KHALID	MOLECULAR PATHOLOGY OF NEUROFILAMENTS AND NEUROTUBULES	3R01 NS14495-02S1	5,882
JAFFE, BERNARD M.	SEROTONIN AND SUBSTANCE P IN GASTROINTESTINAL PHYSIOLOGY	7R01 AM26522-01	117,292
KAO, CHIEN-YUAN	BIOELECTRIC PROPERTIES OF UTERINE MUSCLE	5R01 HD00378-20	49,348
KAPLAN, DAVID	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20625-02	444,145
KAUFFMAN, SHIRLEY L.	LUNG PRENEOPLASTIC HYPERPLASIA AND CHEMICAL CARCINOGENS	3R01 CA17569-04S2	684
KAUFFMAN, SHIRLEY L.	LUNG PRENEOPLASTIC HYPERPLASIA AND CHEMICAL CARCINOGENS	5R01 CA17569-05	52,340
KAUFFMAN, SHIRLEY L.	PULMONARY GROWTH IN MICE EXPOSED TO DEXAMETHASONE	5R01 HD12008-02	35,538
KAVALER, FREDERIC	IONIC COUPLING IN ACTIVATION OF CARDIAC MUSCLE	5R01 HL12774-09	62,535
KIRPEKAR, S. M.	FACTORS INFLUENCING TRANSMISSION AT ADRENERGIC SYNAPSES	5R01 HL22170-02	68,193
KOIZUMI, KIYOMI	MECHANISM OF FUNCTION OF INTEGRATIVE CENTERS	5R01 NS00847-24	56,011
LANKS, KARL W.	SPONTANEOUS REACTIVATION OF ACETYLCHOLINESTERASE	5R01 ES01530-03	27,781
LANKS, KARL W.	MECHANISMS OF NORMAL AND NEOPLASTIC CELL ATTACHMENT	5R01 GM24592-02	42,463
LEE, KWANG S.	MECHANISM OF THE INOTROPIC ACTION OF CARDIAC GLYCOSIDES	5R01 HL21014-02	81,007
LEE, KWANG S.	ACTIVE TRANSPORT & EFFECT OF CA/IONS IN SICKLE CELL	5R01 HL21469-02	53,160
LEE, STANLEY L.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00318-13	215,438
LEE, STANLEY L.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05401-18	148,476
LEWIS, JOHN A.	SYNTHESIS OF MEMBRANE PROTEINS BY CULTURED MOUSE CELLS	1R01 GM26375-01	45,230
MARGOLIS, RENEE K.	GLYCOPROTEINS IN BRAIN	5R01 NS09348-09	58,415
MARSH, WALTON H.	PANCREAS DIFFERENTIATION IN ORGAN CULTURE	5R01 AM21769-02	31,949
MC GOWAN, ELEANOR B.	PLATELET CALCIUM-BINDING PROTEIN STRUCTURE & FUNCTION	5R23 HL21413-03	43,195
MORSE, STEPHEN I.	BIOLOGICAL ACTIVITIES OF B. PERTUSSIS	5R01 AI09683-10	117,529
MOSESSON, MICHAEL W.	MECHANISMS OF HEMOSTASIS—FIBRINOGEN ANALYSIS	5P01 HL17419-05	367,397
MOSESSON, MICHAEL W.	SEPARATION OF FIBRONECTIN-RICH PLASMA FRACTIONS	1R01 HL24834-01	71,690
OJAKIAN, GEORGE K.	FREEZE-ETCH STUDIES OF DEVELOPING TIGHT JUNCTIONS	5R01 GM25125-02	43,606
PARSA, ISMAIL	AN IN VITRO MODEL OF HUMAN PANCREAS CARCINOGENESIS	5R26 CA22682-02	51,289
PEMRICK, SUZANNE M.	REGULATION OF TENSION AND ACTIVE STATE IN THE HEART	5R01 HL22401-02	80,434
PERTSCHUK, LOUIS P.	PROSTATE STEROID RECEPTORS BY FLUORESCENCE MICROSCOPY	1R26 CA25760-01	73,569
QUIGLEY, JAMES P.	PROTEASES IN GROWTH CONTROL AND MALIGNANT TRANSFORMATION	5R01 CA1-6740-05	87,577
RAFLA, SAMEER	CANCER AND LEUKEMIA GROUP B	1R10 CA25119-01	73,118
RANCK, JAMES B., JR.	ELECTROPHYSIOLOGY OF LIMBIC NEURONS	5R01 NS14497-02	26,451
RIEDER, RONALD F.	PROTEIN SYNTHESIS IN ERYTHROID PRECURSORS	5R01 AM12401-13	95,522
ROSENTHAL, CONSTANTIN J.	SERUM AMYLOID A PROTEIN IN NEOPLASTIC DISEASES	5R01 AM20080-03	62,056
SILVERSTEIN, EMANUEL	ENZYME MECHANISM AND CONTROL	5R01 GM18453-06	68,397
STRACHER, ALFRED	CHARACTERIZATION OF CONTRACTILE PROTEINS IN PLATELETS	2R01 HL14020-07A1	66,408
STRACHER, ALFRED	CELL BIOLOGY OF PLATELET PRESERVATION	5R01 HL20666-03	70,104
SULTZER, BARNET M.	MITOGENIC ACTIVITY OF PPD-TUBERCULIN	2R22 AI11807-04	40,668
VASSALLE, MARIO	DIGITALIS EFFECTS ON CARDIAC AUTOMATICITY MECHANISMS	5R01 HL17451-06	62,480

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
VROMAN, LEO.....	FLOW AND FLEXING AT BLOOD/BIOMATERIAL INTERFACES.....	5R01 HL23899-02	50,981
WAKADE, ARUN R.....	REGULATION OF NEUROTRANSMITTER RELEASE BY ADENOSINE.....	5R01 HL18601-02	46,524
WOODRUFF, JUDITH J.....	IMMUNOLOGY AND PHYSIOLOGY OF RECIRCULATING LYMPHOCYTES.....	5R01 AI10080-10	163,254
ORGANIZATION TOTAL	60 4,429,121		
STATE UNIVERSITY OF NEW YORK—STATE COLLEGE OF OPTOMETRY ZIP CODE 10010			
POLA, JORDAN R.....	THE MECHANISM OF SMOOTH PURSUIT EYE MOVEMENTS.....	1R01 EY02878-01	63,042
YAGER, C DEAN.....	BEHAVIORAL ASSESSMENT OF RECOVERY OF VISUAL FUNCTION.....	1R01 NS14876-01	39,532
ORGANIZATION TOTAL	2 102,574		
TEACHERS COLLEGE ZIP CODE 10027			
BLACKMAN, LEONARD S.....	COGNITIVE STRATEGIES IN THE MENTALLY RETARDED.....	5P01 HD07329-07	377,404
LEE, PATRICK C.....	DEVELOPMENT OF MEANING OF SMOKING AND HEALTH PRACTICE.....	1R01 HD13352-01	38,050
ORGANIZATION TOTAL	2 415,454		
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—PHS HOSPITAL ZIP CODE 10304			
KACHADORIAN, WILLIAM A.....	MEMBRANE STRUCTURE IN TOAD BLADDER AND RAT KIDNEY.....	5R01 AM18710-04	31,671
ORGANIZATION TOTAL	1 31,671		
UNITED ENGINEERING TRUSTEES ZIP CODE 10017			
MELAMED, MYRON R.....	ENGINEERING FOUNDATION CONFERENCE ON AUTOMATED CYTOLOGY.....	1R13 CA27479-01	34,000
ORGANIZATION TOTAL	1 34,000		
YESHIVA UNIVERSITY ZIP CODE 10033			
ADAMANY, ANTHONY M.....	SMOOTH MUSCLE CELL MEMBRANE GLYCOPROTEIN BIOSYNTHESIS.....	2R01 HL19011-04	115,289
AISEN, PHILIP.....	IRON-BINDING PROTEINS AND CONTROL OF IRON METABOLISM.....	2R01 AM15056-09	203,410
ARIAS, IRWIN M.....	THE MECHANISM OF BILE PIGMENT EXCRETION.....	5R01 AM02019-22	264,837
ARIAS, IRWIN M.....	HEPATITIS CIRRHOSIS CENTER.....	5P50 AM17702-06	665,505
ARONSON, RONALD S.....	THE ELECTROPHYSIOLOGY OF CARDIAC HYPERTROPHY.....	5R23 HL21167-03	56,747
ATKINSON, PAUL H.....	SURFACE MEMBRANES IN NORMAL AND CANCER CELLS.....	2R01 CA13402-07	145,955
BAEZ, SILVIO.....	BIOGENIC-MECHANICAL FACTORS IN MICROCIRCULATION.....	3R01 HL06736-18S1	17,385
BAEZ, SILVIO.....	BIOGENIC-MECHANICAL FACTORS IN MICROCIRCULATION.....	5R01 HL06736-19	126,282
BARNETT, HENRY L.....	PEDIATRIC NEPHROLOGY: DRUG TRIALS AND CLINICAL SURVEYS.....	5R10 AM18234-05	397,180
BASES, ROBERT E.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18009-04A1	161,459
BAUM, GILBERT.....	ULTRASOUND MAMMOGRAPHY.....	5R01 CA19019-03	274,319
BAUM, GILBERT.....	OCULAR TUMOR DIAGNOSIS.....	5R01 EY01804-03	105,486
BAUM, STEPHEN G.....	INTERACTION OF ONCOGENIC VIRUSES (ADENOVIRUS & SV40).....	2R01 CA10945-10A1	94,282
BENNETT, MICHAEL V.....	FUNCTION OF ELECTRICAL COUPLING IN EMBRYONIC TISSUES.....	5R01 HD04248-11	98,462
BENNETT, MICHAEL V.....	SYNAPTIC TRANSMISSION IN THE CNS.....	2R01 NS12627-04	82,803
BHARGAVA, MADHU M.....	LIGAND-STRUCTURE, REGULATION, ROLE IN HEPATOCARCINOMA.....	1R01 CA24842-01	70,770
BIENKOWSKI, ROBERT S.....	INTRACELLULAR DEGRADATION OF NEWLY SYNTHESIZED COLLAGEN.....	5R01 HL22729-02	77,881
BIRSSTEIN, BARBARA K.....	CELLULAR AND STRUCTURAL STUDIES OF MYELOMA MUTANTS.....	3R01 AI13509-03S1	6,653
BIRSSTEIN, BARBARA K.....	CELLULAR AND STRUCTURAL STUDIES OF MYELOMA MUTANTS.....	2R01 AI13509-04	73,984
BLOODGOOD, ROBERT A.....	MEMBRANE-ASSOCIATED MOTILITY.....	5R01 GM25040-02	63,419
BLOOM, BARRY R.....	THE BIOCHEMICAL BASIS OF DELAYED HYPERSENSITIVITY.....	2R01 AI07118-14	121,293
BLOOM, BARRY R.....	THE CELLULAR BASIS OF DELAYED-TYPE HYPERSENSITIVITY.....	5R01 AI09807-10	133,269
BLUMENFELD, OLGA O.....	PROTEINS OF THE CELL MEMBRANE.....	2R01 GM16389-10A1	110,544
BOOKCHIN, ROBERT M.....	STUDIES OF SICKLING MECHANISMS & HEMOGLOBIN INTERACTION.....	3R01 AM12597-11S1	10,945
BOOKCHIN, ROBERT M.....	STUDIES OF SICKLING MECHANISMS & HEMOGLOBIN INTERACTIONS.....	5R01 AM12597-12	165,337
BORNSTEIN, MURRAY B.....	ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS.....	5P50 NS11920-05	958,102
BREWER, CURTIS F.....	NMR STUDIES OF SACCHARIDE BINDING TO CONCAVALIN A.....	5R01 CA16054-05	74,219
BRIEHL, ROBIN W.....	STRUCTURE AND OXYGEN-COMBINING FUNCTION OF HEMOGLOBIN.....	5R01 HL07451-17	187,193
BUCKLEY, NANCY M.....	NEONATAL DEVELOPMENT OF ADRENERGIC RECEPTOR MECHANISMS.....	3R01 HL15444-06S1	5,059
BUCKLEY, NANCY M.....	POSTNATAL DEVELOPMENT OF PERIPHERAL CIRCULATORY FUNCTION.....	1R01 HL21865-01A1	78,545
CAMMER, WENDY.....	CARBONIC ANHYDRASE AND CNP IN MYELIN AND CNS CELLS.....	1R01 NS12890-01A3	92,353
CHASE, JOHN W.....	BIOCHEMICAL STUDIES OF E. COLI EXONUCLEASE VII.....	5R01 GM23451-02	39,339
COLOMBINI, MARCO.....	ANALYSIS OF MEMBRANE SYSTEMS IN PLANAR LIPID BILAYERS.....	5R01 GM23578-03	57,701
CONDEELIS, JOHN S.....	STUDY OF CYTOPLASMIC MOTILITY USING MODEL SYSTEMS.....	5R01 GM25290-02	99,312
CONDEELIS, JOHN S.....	INTERACTIONS OF ACTIN CYTOSKELETON WITH PLASMA MEMBRANE.....	1R01 GM25813-01	76,880
COSTANTINO-CECCARINI, E.....	ROLE OF CEREBROSIDE SYNTHESIS IN DEVELOPING BRAIN.....	5R01 NS12807-03	63,426

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
CRAIN, STANLEY M.	DEVELOPMENT OF ORGANOTYPIC CNS NETWORKS IN CULTURE	1R01 NS14990-01	95,140
DAS, KIRON M.	PATHOGENESIS OF INFLAMMATORY BOWEL DISEASE	5R01 AM21832-02	131,295
DAVIES, PETER	AGING & DEMENTIA: CHOLINERGIC NEURON BIOCHEMISTRY	1R01 AG01066-01A1	102,166
DIAMOND, BETTY	PROPERTIES OF FUNCTIONAL MACROPHAGE CELL LINES	1R01 AI16166-01	99,689
DINA, DINO	REGULATION OF MURINE RNA TUMOR VIRUS GENE EXPRESSION	5R01 CA24223-02	104,513
DURAN-REYNALS, MARIA L.	POSSIBLE NEOPLASTIC EFFECTS OF NON-NEOPLASTIC VIRUSES	5R01 CA07160-15	177,777
DUTTAGUPTA, CHANDRALEKHA	CYCLIC GMP LEVELS IN GYNECOLOGIC NEOPLASMS	1R01 CA25357-01	67,060
EAGLE, HARRY	CANCER CENTER CORE GRANT	3P30 CA13330-07S2	194,754
EAGLE, HARRY	CORE SUPPORT FOR CANCER RESEARCH CENTER	5P30 CA13330-08	3,179,090
EDELMANN, CHESTER M., JR.	ACIDOSIS IN NEONATAL AND DEVELOPING ANIMALS	5R01 HD12170-02	79,240
EDELMANN, CHESTER M., JR.	BICARBONATE TRANSPORT BY THE MATURING PROXIMAL TUBULE	1R01 HD13232-01	146,698
EDER, HOWARD A.	METABOLISM OF PLASMA LIPOPROTEINS	5R01 HL02965-23	250,752
EISENSTADT, MAURICE	STUDY OF MEMBRANE PERMEABILITY BY NMR RELAXATION	2R01 HL17571-04A1	113,639
ENGLAND, SASHA	HYDROXYLATION REACTIONS IN BIOSYNTHESIS OF CARNITINE	5R01 AM21197-02	115,029
FIELDS, KAY	NEUROIMMUNOLOGY: SURFACE ANTIGENS OF NEURONS AND GLIA	1R01 NS14580-01	117,556
FINKELSTEIN, ALAN	MODEL SYNAPTIC VESICLES INTERACTION WITH LIPID BILAYER	5R01 NS14246-02	131,197
FLEISCHER, NORMAN S.	PITUITARY HORMONE AND INSULIN SECRETION AND PRODUCTION	5R01 AM17326-07	136,416
FLEISCHER, NORMAN S.	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20541-03	896,007
FRIEDMAN, EPHRAIM	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05397-18	201,413
GARTNER, LAWRENCE M.	PATHOGENESIS OF NEONATAL JAUNDICE AND KERNICTERUS	5R01 HD03783-11	207,580
GASKIN, FELICIA A.	BIOPHYSICAL STUDIES ON NEUROFIBROUS PROTEINS IN AGING	5R01 NS12418-05	52,683
GOSSEIN, NEMETALLAH A.	COLORRECTAL CANCER TREATMENT-POSTOPERATIVE RADIOTHERAPY	5R01 CA17251-05	88,268
GLUECKSOHN-WAELSCH, SALOME	GENETIC CONTROL OF GROWTH AND DIFFERENTIATION	5R01 HD00193-24	125,111
GOLDFISCHER, SIDNEY L.	VASCULAR DISEASE-CYTOCHEMISTRY AND ULTRASTRUCTURE	5R01 HL21756-12	142,905
GOLDSMITH, DAVID I.	NEONATAL & MATURATIONAL PATTERN OF NA/IONS HOMEOSTASIS	5R01 HD10559-03	121,454
HALL, LINDA M.	ANALYSIS OF A TETRODOTOXIN-SENSITIVE MUTANT	7R01 NS16204-01	103,714
HAYS, RICHARD M.	CONTROL OF WATER AND SOLUTE MOVEMENT ACROSS THE CELL	5R01 AM03858-19	152,708
HEHRE, EDWARD J.	SCOPE AND MECHANISM OF ENZYME-CATALYZED GLYCOSYLATION	1R01 GM25478-01	77,030
HENRY, SUSAN A.	GENETICS AND DEVELOPMENT OF YEAST MEMBRANE MUTANTS	5R01 GM19629-08	102,021
HIGHSTEIN, STEPHEN M.	MORPHOPHYSIOLOGY OF PRE-NUCLEAR OCULOMOTOR NEURONS	3R01 EY01670-04S1	1,200
HIGHSTEIN, STEPHEN M.	MORPHOPHYSIOLOGY OF PRE-NUCLEAR OCULOMOTOR NEURONS	5R01 EY01670-05	50,839
HIGHSTEIN, STEPHEN M.	VESTIBULAR AFFERENT AND EFFERENT ACTIVITY	1R01 NS15218-01	9,920
HORWITZ, MARSHALL S.	ADENOVIRUS DNA SYNTHESIS AND POLYPEPTIDE ASSEMBLY	2R01 CA11512-10	115,037
HORWITZ, SUSAN B.	BIOCHEMICAL PHARMACOLOGY OF ANTITUMOR DRUGS	3R01 CA15714-05S1	76,265
HORWITZ, SUSAN B.	NEW ANTITUMOR AGENTS: MECHANISM OF ACTION	5R01 CA23187-02	100,571
HURWITZ, JERARD	CARCINOGENS ON PRO- AND EUKARYOTIC DNA REPLICATION	5R01 CA21622-03	63,181
HURWITZ, JERARD	STUDIES OF MACROMOLECULAR ALTERATION AND SYNTHESIS	5R01 GM13344-14	201,091
JAFFE, ERNST R.	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00050-18	788,909
KAPLAN, BARRY H.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA14958-05	89,119
KARMEN, ARTHUR	MICROANALYSIS USING GAS CHROMATOGRAPHY	2R01 GM19478-05A1	91,453
KATZ, IRA R.	OXYGEN AND NEUROTTRANSMITTERS IN SYNAPTOSOMES	1R01 AG01478-01	53,575
KATZMAN, ROBERT	SPECIAL INITIATIVES RELATED TO DEMENTIA	5R21 AG01184-02	100,544
KATZMAN, ROBERT	NEUROLOGICAL CENTER: METABOLIC/DEGENERATIVE DISORDERS	5P50 NS03356-19	1,018,094
KATZMAN, ROBERT	BIOGENIC AMINES AND NEUROLOGICAL DISORDERS	2P50 NS09649-08A1	350,486
KEISER, HAROLD D.	STRUCTURE AND IMMUNOLOGY OF CARTILAGE PROTEOGLYCAN	1R01 AM25711-01	178,128
KERN, HAROLD L.	CHARACTERIZATION OF TRANSPORT-PROTEINS IN THE LENS	5R01 EY00268-15	135,884
KIRK, EDWARD S.	CORONARY COLLATERAL CIRCULATION IN MYOCARDIAL ISCHEMIA	5R01 HL23171-02	222,034
KLINGER, HAROLD P.	GENE REGULATION & INTERACTION-NORMAL & MALIGNANT CELLS	2R01 CA16720-06	184,494
KLINGER, HAROLD P.	CONTRACEPTIVES AND THE CONCEPTUS	5R01 HD10509-02	35,560
KRUEGER, JOHN W.	SARCOMERE KINEMATICS IN CARDIAC CONTRACTION	5R23 HL21325-03	46,557
LEDEEN, ROBERT W.	STUDY OF NERVOUS SYSTEM GANGLIOSIDES AND RELATED LIPIDS	2R01 NS04834-16	169,455
LEVENSON, STANLEY M.	BURN DEBRIDEMENT: CHEMICAL, ENZYMATIC	2R01 GM19328-08	104,799
LEVINE, WALTER G.	ROLE OF METABOLISM IN THE BILIARY EXCRETION OF DRUGS	5R01 CA14231-08	109,612
LILLY, FRANK	GENETIC CONTROL OF RESISTANCE TO FRIEND VIRUS DISEASE	5R01 CA19873-03	119,796
LILLY, FRANK	MECHANISM OF THE H-2 EFFECT ON VIRAL LEUKEMOGENESIS	5R01 CA19931-03	110,469
LILLY, FRANK	GENETIC RESISTANCE TO SPONTANEOUS LEUKEMIA IN MICE	1R01 CA26010-01	163,200
LISTOWSKY, IRVING	CONFORMATION OF FERRITIN AND ITS ROLE IN IRON METABOLISM	5R01 HL11511-11	106,559
MAIO, JOSEPH J.	DNA TRANSCRIPTION CONTROL IN NORMAL AND CANCER CELLS	5R01 CA16790-05	165,560
MAITRA, UMADAS	ENZYME SYNTHESIS OF BIOLOGICALLY ACTIVE MACROMOLECULES	2R01 GM15399-11	151,120
MAKMAN, MAYNARD H.	AGING AND BRAIN MONOAMINE RECEPTORS AND DRUG RESPONSE	1R01 AG01400-01	73,625

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
MARCUS, DONALD M.	ANTIBODY INTERACTIONS WITH HAPTENS AND GLYCOLIPIDS	5R01 AI05336-16	139,036
MARIANS, KENNETH J.	STUDIES OF DNA REPLICATION	1R01 GM26410-01	62,405
MARMUR, JULIUS	THE ROLE OF YEAST MITOCHONDRIA AND CANCER	5R01 CA12410-09	196,761
MC CONN, RITA	BLOOD STORAGE: THE PRODUCTION OF CARDIOTOXIC MATERIAL	5R01 HL17479-05	81,264
MIDELFORT, CHRISTIAN F.	OXYGEN LABELING STUDIES OF COUPLED ATP DEPENDENT ENZYMES	5R01 GM24667-02	75,121
MODEL, PATRICIA G.	MAUTHNER NEURON DEVELOPMENT AND SYNAPTIC TRANSMISSION	5R01 NS13587-02	62,687
MORRILL, GENE A.	ROLE OF STEROID AND CALCIUM IN MEIOTIC MATURATION	5R01 HD10463-03	112,543
NADAL-GINARD, BERNARDO	MYOSIN HEAVY CHAIN EXPRESSION IN A MUSCLE CELL LINE	1R01 GM26358-01	74,100
NAGEL, RONALD L.	SICKLE CELL ANEMIA AND OTHER HEMOGLOBINOPATHIES	5P01 HL21016-03	659,810
NATHENSON, STANLEY G.	BIOCHEMICAL STUDIES ON HISTOCOMPATIBILITY ANTIGENS	5R01 AI07289-14	188,760
NITOWSKY, HAROLD M.	SUPPORT FOR GENETICS RESEARCH CENTER	5P50 GM19100-07	731,367
NORTON, WILLIAM T.	THE CHEMISTRY OF CELLS AND CELL PORTIONS FROM THE CNS	5R01 NS02476-20	236,252
NOVIKOFF, ALEX B.	BIOCHEMICAL CYTOLOGY OF NORMAL AND MALIGNANT TISSUES	5R01 CA06576-17	400,331
NOVIKOFF, PHYLLIS M.	GOLGI APPARATUS & GERL IN NORMAL AND PATHOLOGIC LIVER	1R01 AM23078-01	92,425
PALDINO, ALBERT M.	GOLGI STUDY OF NEURONS IN IMMATURE CORTEX	5R01 NS13832-02	62,978
PEISACH, JACK	HEME PROTEIN STRUCTURE AND FUNCTION	5R01 HL13399-17	199,243
PETERSON, EDITH R.	NEUROMUSCULAR RELATIONS IN ORGANOTYPIC CULTURES	5R01 NS08770-08	84,357
PICCIANO, PAUL T.	ISOLATION, GROWTH AND METABOLISM OF TYPE 1 PNEUMOCYTES	5R23 HL21396-03	45,261
POLLACK, SIMEON	SIDEROSIS: CHELATION THERAPY AND MECHANISMS	1R01 HL21560-01	73,198
PURPURA, DOMINICK P.	SUPPORT FOR MENTAL RETARDATION RESEARCH CENTER	5P30 HD01799-15	993,859
PURPURA, DOMINICK P.	NEURONAL DEVELOPMENT, INTERACTION AND ORGANIZATION	3P01 NS07512-11S1	11,627
PURPURA, DOMINICK P.	NEURONAL DEVELOPMENT, INTERACTION AND ORGANIZATION	5P01 NS07512-12	499,579
RAINE, CEDRIC S.	EM CYTOPATHOLOGY OF ORGANIZED CNS & PNS CULTURES	5R01 NS08952-11	179,778
RICHARDSON, STEPHEN A.	GROWING UP AS A MENTALLY SUBNORMAL YOUNG PERSON	3R01 HD07907-04S1	37,108
RITTER, WALTER P.	ELECTROPHYSIOLOGICAL CORRELATES OF COGNITIVE PROCESSES	5R01 HD10804-03	86,429
ROBINSON, THOMAS F.	STRUCTURE-FUNCTION OF LINKS AMONG HEART MUSCLE CELLS	1R01 HL24336-01	32,091
ROSEN, ORA M.	PROTEINS INVOLVED IN THE ACTION OF CYCLIC AMP	5R01 AM09038-15	119,476
ROSEN, ORA M.	HORMONAL REGULATION OF ADIPOCYTE DEVELOPMENT IN VITRO	3R01 AM21248-02S1	9,000
ROSEN, ORA M.	HORMONAL REGULATION OF ADIPOCYTE DEVELOPMENT IN VITRO	5R01 AM21248-03	77,364
RUBEN, ROBERT J.	EMBRYOLOGY OF THE INNER EAR	5R01 NS08365-12	155,406
RUBIN, MERYL S.	REGULATION OF MEMBRANE PERMEABILITY: MOLECULAR BASIS	5R01 AM18128-05	61,694
RUBINSTEIN, ARYE	MUCOSAL CHANGES INDUCED BY VIRUSES	5R01 HL23589-02	85,681
RUFF, HOLLY A.	THE DEVELOPMENT OF OBJECT PERCEPTION IN HUMAN INFANTS	5R01 HD11916-02	38,929
SATIR, BIRGIT H.	MEMBRANES PRIOR TO AND DURING FUSION	5R01 GM24724-03	126,039
SATIR, BIRGIT H.	EM FACILITY FOR CELL BIOLOGY STUDIES	1P41 GM27343-01	172,250
SATIR, PETER	STRUCTURE AND MOTION OF CILIA	2R01 HL22560-03	182,418
SCARPELLI, EMILE M.	GENERATION & DEVELOPMENT OF FETAL BREATHING MOVEMENT	1R01 HL23995-01	201,814
SCHARFF, MATTHEW D.	SYNTHESIS AND ASSEMBLY OF IMMUNOGLOBULINS	5R01 AI05231-16	102,744
SCHARFF, MATTHEW D.	CELL BIOLOGY OF LYMPHOID CELLS	5P01 AI10702-08	637,737
SCHARRER, BERTA V.	BIBLIOGRAPHIA NEUROENDOCRINOLOGICA	5R01 NS15064-05	18,153
SCHAUMBURG, HERBERT H.	A TOXICOLOGICAL STUDY OF THE PRIMATE CNS	1R01 ES02168-01	96,314
SCHILDKRAUT, CARL L.	DNA OF NORMAL AND MALIGNANT CELLS	5R01 GM22332-05	139,466
SCHLONDORFF, DETLEF O.	PATHOPHYSIOLOGY OF CYCLIC NUCLEOTIDES IN THE KIDNEY	3R01 AM22036-01S1	2,366
SCHLONDORFF, DETLEF O.	PATHOPHYSIOLOGY OF CYCLIC NUCLEOTIDES IN THE KIDNEY	5R01 AM22036-02	90,949
SCHUBART, ULRICH K.	CYCLIC AMP-DEPENDENT PHOSPHOPROTEINS AND INSULIN RELEASE	5R01 AM25326-02	76,379
SCHULMAN, LA DONNE H.	PROTEIN-NUCLEIC ACID INTERACTIONS	5R01 GM16995-11	132,085
SEIFTER, SAM	BIOCHEMICAL ASPECTS OF AGING IN VITRO AND IN VIVO	5P01 AG00374-08	640,202
SHAFRITZ, DAVID A.	PROTEIN SYNTHESIS IN NORMAL AND REGENERATING LIVER	5R01 AM17609-06	104,852
SHAPIRO, LUCILLE	GENETIC CONTROL OF CELL GROWTH AND DEVELOPMENT	5P01 GM11301-17	556,640
SHIELDS, DENNIS	IN VITRO BIOSYNTHESIS OF INSULIN AND GLUCAGON	5R01 AM21860-02	76,153
SHIN, SEUNG-IL	DIABETES AND PANCREATIC TUMORS	1R01 AM26106-01	58,733
SHIN, SEUNG-IL	GENETIC ANALYSIS OF MALIGNANT TRANSFORMATION	5R01 CA21054-04	77,655
SHULMAN, KENNETH M.	THE BIOMECHANICS OF BRAIN EDEMA & INTRACRANIAL PRESSURE	2R01 NS07871-11	143,340
SKOULTCHI, ARTHUR I.	CONTROL OF DIFFERENTIATION OF ERYTHROLEUKEMIC CELLS	5R01 CA16368-06	106,377
SODEIRO, RUY	PROCESSING OF RNA IN HUMAN CANCER HELA CELLS	5R01 CA10993-11	97,302
SONNENBLICK, EDMUND H.	MECHANISMS OF HEART FAILURE IN THE MYOPATHIC HAMSTER	2R01 HL18824-04	295,030
SONNENBLICK, EDMUND H.	MYOCARDIAL FUNCTION IN DIABETES MELLITUS	2R01 HL20426-04	166,040
SONNENBLICK, EDMUND H.	HYPERTENSIVE HYPERTROPHY: EFFECTS OF CARDIAC MECHANICS	5R01 HL21993-02	146,743
SPENCER, PETER S.	CONTROL OF MYELINATION IN PATHOLOGIC STATES	2R01 NS13106-04	73,570
SPITZER, ADRIAN	THE DEVELOPING KIDNEY IN HEALTH AND DISEASE	5R01 AM25291-02	113,436

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SPITZER, ADRIAN.....	THE KIDNEY AND PHOSPHATE HOMEOSTASIS IN THE NEONATE.....	1R01 AM26004-01	62,279
STANLEY, EVAN R.....	HORMONE-DEPENDENCE AND AUTONOMY IN TUMOR GROWTH.....	5R01 CA21605-03	71,899
STANLEY, EVAN R.....	REGULATION OF GRANULOCYTE AND MACROPHAGE PRODUCTION.....	1R01 CA26504-01	151,194
STEINMAN, HOWARD M.....	SUPEROXIDE DISMUTASES: STRUCTURE, FUNCTION, EVOLUTION.....	2R01 GM24527-03	96,788
STEINMAN, HOWARD M.....	A PROTEIN-PEPTIDE SPINNING CUP SEQUENCER FACILITY.....	1P41 GM27374-01	117,198
SUZUKI, KINUKO.....	EXPERIMENTAL PATHOLOGY OF DEVELOPING NERVOUS SYSTEM.....	5R01 NS10803-08	89,213
SUZUKI, KUNIIHIKO.....	CHEMICAL PATHOLOGY OF NEUROLOGICAL DISORDERS.....	2R01 NS10885-08	214,658
SUZUKI, KUNIIHIKO.....	CHOLESTEROL ESTER METABOLISM IN THE BRAIN.....	5R01 NS13578-03	78,938
SWANEY, JOHN B.....	STRUCTURE OF THE HUMAN PLASMA LIPOPROTEINS.....	1R01 HL21202-01A1	82,102
TAKAHASHI, SHIZUKO.....	ALPHA-GLUTAMYLTRANSFERASE OF CELL IN CULTURE.....	1R01 AG00637-01A1	81,773
TAKAHASHI, SHIZUKO.....	COLLAGENASE FUNCTION AND ACTIVITY IN FIBROTIC LIVER.....	1R01 AI15631-01	68,633
TERRY, ROBERT D.....	THE AGING NERVOUS SYSTEM: STRUCTURE AND FUNCTION.....	2R01 NS02255-21	89,880
VAUGHAN, HERBERT G, JR.....	CEREBRAL DYSFUNCTION IN LOW-BIRTH-WEIGHT INFANTS.....	5R01 HD11562-02	130,441
VOLK, HERBERT.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA12040-08	78,444
WARNER, JONATHAN R.....	RIBOSOMAL PROTEIN GENES OF SACCCHAROMYCES SEREVISIAE.....	5R01 GM25532-02	93,456
WITTENBERG, BEATRICE A.....	INTRACELLULAR OXYGEN SUPPLY TO HEART MUSCLE CELLS.....	2R01 HL19299-04	128,051
WITTNER, MURRAY.....	TRYPANOSOMA CRUZI: MECHANISMS OF IMMUNE RESISTANCE.....	5R01 AI12770-04	140,315
WITTNER, MURRAY.....	LUNG EPITHELIAL CELL INTERACTIONS IN VITRO.....	5R01 HL22883-02	101,101
WOLINSKY, HARVEY.....	STRUCTURE-FUNCTION RELATIONS OF BLOOD VESSELS.....	5R01 HL12766-10	155,494
WOLKOFF, ALLAN W.....	HEPATIC ORGANIC ANION UPTAKE AND TRANSPORT.....	1R01 AM23026-01	89,685
WU, CHENG-WEN.....	MECHANISM AND REGULATION OF GENE TRANSCRIPTION.....	5R01 GM19062-08	132,350
YELLIN, EDWARD L.....	DYNAMIC DETERMINANTS OF LEFT VENTRICULAR FILLING.....	2R01 HL19391-04	92,337
YEN, SHU-HUI C.....	THE AGING BRAIN. IMMUNOHISTOLOGY AND BIOCHEMISTRY.....	5R01 AG01136-02	47,641
YORAN, CHAIM.....	DYNAMIC DETERMINANTS OF ACUTE MITRAL REGURGITATION.....	1R01 HL24638-01	126,109
ORGANIZATION TOTAL	180 31,196,352		
OLD WESTBURY			
NEW YORK INSTITUTE OF TECHNOLOGY ZIP CODE 11568			
NAGLER, ARNOLD L.....	STUDIES ON SHOCK: CARDIOTOXIN IN SHOCK.....	7R01 GM27788-01	103,632
ORGANIZATION TOTAL	1 103,632		
ORANGEBURG			
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE-ROCKLAND PSYCHIATRIC CENTER ZIP CODE 10962			
KLINE, NATHAN S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05651-13	28,357
MARKS, NEVILLE.....	CONVERSION AND INACTIVATION OF PEPTIDYL HORMONES.....	2R01 NS12578-04	42,787
ORGANIZATION TOTAL	2 71,144		
PLATTSBURGH			
STATE UNIVERSITY OF NEW YORK-COLLEGE AT PLATTSBURGH ZIP CODE 12901			
HEINTZ, ROGER L.....	MECHANISM OF RIBOSOMAL GTP HYDROLYSIS.....	5R01 AM21666-03	37,158
MOORE, RICHARD D.....	MECHANISM OF INSULIN ACTION UPON SODIUM PUMP.....	5R01 AM17531-05	35,770
MOORE, RICHARD D.....	ROLE OF SODIUM PUMP IN CELLULAR ACTION OF INSULIN.....	5R01 AM21059-03	56,636
ORGANIZATION TOTAL	3 129,564		
POTSDAM			
CLARKSON COLLEGE OF TECHNOLOGY ZIP CODE 13676			
GREEN, MARK M.....	DYNAMIC STEREOCHEMISTRY.....	1R01 GM24490-01	62,670
KRATOCHVIL, JOSIP P.....	STUDIES OF AGGREGATION OF BILE SALTS.....	5R01 AM21495-02	17,732
PATEL, RAMESH C.....	THERMODYNAMIC KINETIC STUDIES ON LAC OPERATOR SEQUENCES.....	5R01 GM24523-02	69,434
PETHICA, BRIAN A.....	DIETARY FIBER-THE PHYSICAL CHEMISTRY OF LIGNINS.....	1R01 CA26379-01	113,315
ZEPPETELLA, ANTHONY J.....	STUDY OF THE ADAPTING BUMP MODEL OF THE EYE OF LIMULUS.....	1R01 EY02161-01A1	23,583
ORGANIZATION TOTAL	5 286,734		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
POUGHKEEPSIE			
VASSAR COLLEGE	ZIP CODE 12601		
GREENWOOD, MARY R.....	NUTRITION AND ADIPOCYTE GROWTH AND DEVELOPMENT.....	5R01 HD12637-02	87,973
JOHNSON, PATRICIA R.....	GROWTH OF ZUCKER RAT PREADIPOCYTES AND FETAL HEPATOCYTES.....	2R01 AM19382-04	93,603
ORGANIZATION TOTAL	2 181,576		
PURCHASE			
STATE UNIVERSITY OF NEW YORK—COLLEGE AT PURCHASE	ZIP CODE 10577		
WOLF, GEORGE.....	NEURAL MECHANISMS OF A MODEL DRIVE SYSTEM.....	5R01 NS12514-04	39,549
ORGANIZATION TOTAL	1 39,549		
ROCHESTER			
EASTMAN DENTAL CENTER	ZIP CODE 14620		
CURZON, MARTIN E.....	STRONTIUM AND DENTAL CARIES.....	5R01 DE04330-05	87,340
HANDELMAN, STANLEY L.....	EFFECT OF FISSURE SEALANT ON PROGRESS OF DENTAL CARIES.....	2R01 DE03713-04A1	96,009
JENSEN, OIVIND E.....	ASSESSMENT OF WEAR OF FOUR DIFFERENT SEALANTS IN VIVO.....	1R23 DE05042-01	28,215
ORGANIZATION TOTAL	3 211,564		
GENESEE HOSPITAL	ZIP CODE 14607		
CHANG, TA-MIN.....	HYBRID PROTEINS FOR RECEPTOR-MEDIATED TRANSPORT STUDY.....	1R01 GM26489-01	50,512
CHEY, WILLIAM Y.....	PHYSIOLOGY AND THE PATHOPHYSIOLOGY OF SECRETIN.....	1R01 AM25962-01	69,521
ORGANIZATION TOTAL	2 120,033		
UNIVERSITY OF ROCHESTER	ZIP CODE 14627		
ABRAHAM, GEORGE N.....	AUTOIMMUNE RESPONSE AND MONOCLONAL IGG CRYOGLOBULINS.....	2R01 AI11550-04A1	81,083
ADER, ROBERT.....	BEHAVIORALLY CONDITIONED IMMUNOSUPPRESSION.....	5R01 NS15071-04	80,445
AMATRUDA, JOHN M.....	INSULIN ACTION IN LIVER AND ADIPOSE TISSUE.....	5R01 AM20948-02	43,939
ANDERSON, CLARK L.....	FG RECEPTOR STRUCTURE AND FUNCTION.....	5R01 CA24067-02	44,180
ANGERER, ROBERT C.....	INDIVIDUAL EMBRYO MRNAS: TIME AND SITE OF EXPRESSION.....	5R01 GM25553-02	93,078
BAKEMEIER, RICHARD F.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17988-05	198,900
BALDUZZI, PIERO C.....	GENETIC STUDIES OF RNA TUMOR VIRUSES.....	5R01 CA151716-06	70,952
BALLARD, DANA H.....	ANATOMICAL MODELS IN COMPUTER-AIDED IMAGE ANALYSIS.....	5R23 HL21253-02	47,522
BAMBARA, ROBERT A.....	ENZYMATIC MECHANISMS OF DNA SYNTHESIS.....	1R01 GM24441-01A1	57,530
BANERJEE, SHAILESH P.....	CARDIAC GLYCOSIDES AND DIURETICS—ROLE OF NA/IONS PUMP.....	5R01 HL18185-05	114,447
BEECHAM, JACKSON B.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA12482-09	40,133
BEGENISICH, TED B.....	IONIC PERMEABILITY MECHANISMS IN NERVE.....	5R01 NS14138-02	43,645
BENNETT, JOHN M.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA11083-12	476,395
BENTLEY, DAVID W.....	PNEUMOCOCCAL VACCINE IN THE INSTITUTIONALIZED ELDERLY.....	1R01 AI15778-01	57,258
BERNHARD, WILLIAM A.....	EFFECTS OF IONIZING RADIATION ON NUCLEIC ACIDS.....	5R01 GM20688-05	32,595
BLAIR, MARTHA L.....	NEURAL CONTROL OF RENIN SECRETION.....	5R23 HL22728-02	42,047
BOSMANN, H BRUCE.....	GLYCOPROTEIN SHEDDING AND METASTASIS.....	5R01 CA19757-03	70,097
BOWEN, DONNELL.....	POLYGLUTAMATE AND ANTIFOLATE TOXICITY.....	5R23 CA24192-02	1,249
BOYD, ELEANOR H.....	CORTICAL UNIT RESPONSES DURING M-WAVE AND CNV.....	5R01 NS12999-02	46,819
BRENNAN, JAMES K.....	MODULATORS OF GRANULOPOIESIS FROM HUMAN CELL LINES.....	1R01 CA25512-01	71,762
BRODOWS, R G.....	CONTROL OF BASAL INSULIN SECRETION IN MAN.....	5R01 AM21664-03	53,599
BURGNER, FRANCIS A.....	PORTAL HYPERTENSION: RADIOLOGIC DIAGNOSIS & TREATMENT.....	1R01 AM19474-01A1	116,354
CAMPBELL, ROBERT G.....	STUDIES OF HUMAN FEEDING BEHAVIOR.....	5R01 AM20494-03	102,554
CARSTENSEN, EDWIN L.....	INTERACTION OF ULTRASOUND WITH BIOLOGICAL MATERIAL.....	5R01 GM09933-17	96,682
CHAPMAN, ROBERT M.....	VISUAL SCIENCE RESEARCH CENTER SUPPORT.....	5P30 EY01319-06	166,867
CHOI, BEN H.....	EFFECTS OF METHYLMERCURY ON FETAL BRAIN.....	5R01 ES01722-02	112,621
CHRISTENSEN, J ROGER.....	MECHANISM BY WHICH N GENE OF LAMBOA EXCLUDES PHAGE T1.....	1R01 GM26147-01	45,978
CLARKSON, THOMAS W.....	TRACE CONTAMINANTS: ENVIRONMENTAL HEALTH HAZARDS TO MAN.....	5P30 ES01247-05	1,120,117
CLARKSON, THOMAS W.....	HEAVY METALS AS ENVIRONMENTAL HAZARDS TO MAN.....	2P01 ES01248-04	775,450
CLARKSON, THOMAS W.....	ANTIDOTES TO HEAVY METAL POISONING.....	5R01 GM25329-02	115,110
COHEN, JULIUS J.....	RENAL SUBSTRATE UTILIZATION IN RELATION TO FUNCTION.....	5R01 AM03602-21	95,397
COHEN, NICHOLAS.....	COMPARATIVE AND DEVELOPMENTAL IMMUNOBIOLOGY.....	5R01 HD07901-12	104,102

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
COKELET, GILES R.....	THE RHEOLOGY AND CAPILARY FLOW OF BLOOD.....	1R01 HL23355-01	83,689
COLEMAN, PAUL D.....	COMPUTER AIDED STUDY OF DENDRITES IN AGING HUMAN BRAIN.....	5R01 AG01121-02	45,867
CONNETT, RICHARD J.....	ENDOCRINE AND SUBSTRATE CONTROLS ON CARBON FLOW.....	5R01 AM22124-02	38,064
COOPER, ROBERT A, JR.....	CORE CANCER CENTER SUPPORT GRANT.....	5P30 CA11198-11	1,435,081
CORWIN, THOMAS R.....	PSYCHOPHYSICAL DIAGNOSIS OF RETINITIS PIGMENTOSA.....	5R01 EY02366-02	39,467
DAHNEKE, BARTON E.....	SIZE/CHEMICAL MEASUREMENTS OF ATMOSPHERIC PARTICLES.....	5R01 ES01107-05	131,111
DAVIDSON, PHILIP W.....	REHABILITATION OF HAPTIC PERCEPTION IN THE BLIND.....	3R01 EY01790-03S1	3,861
DEL CERRO, MANUEL.....	PATHOGENESIS OF RETINAL IMMUNOPATHOLOGIES.....	5R01 EY02632-02	48,992
DISTEFANO, VICTOR.....	CARBON DISULFIDE TOXICITY: EFFECTS ON CATECHOLAMINES.....	1R01 ES02039-01	59,574
DRLICA, KARL A.....	STRUCTURE OF THE BACTERIAL CHROMOSOME.....	5R01 GM24320-03	94,304
DRUCKER, WILLIAM R.....	METABOLIC BASIS FOR HOMEOSTASIS IN SHOCK.....	5R01 GM25043-03	109,137
EDDY, HUBERT A.....	THERAPEUTIC AGENTS AND TUMOR INDUCED VESSELS.....	1R01 CA22999-01A1	51,195
FEIBEL, JOHN H.....	CARDIAC ABNORMALITIES AFTER BRAIN DAMAGE IN HUMANS.....	5R01 NS14178-02	32,299
FORBES, GILBERT B.....	LEAN BODY MASS IN PREGNANT WOMEN.....	5R01 HD11502-02	67,384
FRANCE, ROBERT R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07069-14	111,064
GASH, DON M.....	NEURAL TRANSPLANTS: GROWTH, REINNERVATION IN THE BRAIN.....	1R01 NS15109-01	52,872
GATES, ALLEN H.....	OOCYTE AND MATERNAL AGING AND CHROMOSOMAL DEFECTS.....	5R01 HD11238-02	73,210
GOROVSKY, MARTIN A.....	REPEATED GENES: AMPLIFICATION, EVOLUTION AND FUNCTION.....	5R01 GM21793-05	107,506
GOROVSKY, MARTIN A.....	CONTROL OF GENE ACTIVITY AND ORGANELLE BIOGENESIS.....	1R01 GM26973-01	99,293
GRAMIAK, RAYMOND.....	NEW CONCEPTS IN CARDIAC ULTRASOUND TECHNOLOGY.....	5R01 HL15016-08	102,871
GRAMIAK, RAYMOND.....	DEVELOPMENT OF CLINICAL ULTRASOUND CINECARDIOGRAPHY.....	5R01 HL16260-05	108,406
GRIFFITHS, T DANIEL.....	DNA SYNTHESIS AND AGING IN HUMAN FIBROBLASTS.....	1R01 AG01412-01	65,996
GUNTER, THOMAS E.....	ION TRANSPORT: MECHANISM AND SIGNIFICANCE.....	1R01 AM20359-01A1	74,099
HATTMAN, STANLEY M.....	DNA MODIFICATION/RESTRICTION IN PRO- AND EUKARYOTES.....	5R01 AI10864-08	89,605
HATTMAN, STANLEY M.....	ANALYSIS OF DNA MODIFICATION BY MASS SPECTROMETRY.....	1R01 GM26892-01	157,781
HAYWOOD, ANNE M.....	INTERACTIONS OF VIRAL MEMBRANES WITH LIPOSOMES.....	1R01 AI15540-01	74,346
HENSHAW, EDGAR C.....	INTERMEDIARY METABOLISM IN ANIMALS AND IN MAN.....	5R01 CA21663-04	176,521
HERNDON, ROBERT M.....	STUDIES IN REMYELINATION.....	1R01 NS15283-01	73,694
HILF, RUSSELL.....	ROLE OF INSULIN IN HORMONAL CONTROL OF BREAST CANCER.....	5R01 CA16660-05	86,012
HILF, RUSSELL.....	GORDON RESEARCH CONFERENCE ON MAMMARY GLAND BIOLOGY.....	1R13 CA25689-01	3,308
HINKLE, DAVID C.....	ENZYMATIC MECHANISM OF DNA REPLICATION.....	2R01 GM21782-04	52,140
HINKLE, PATRICIA M.....	MODULATION OF RECEPTOR NUMBER IN CULTURED CELLS.....	5R01 AM19974-03	62,807
HOFFMAN, GLORIA E.....	IMMUNOCYTOCHEMISTRY OF LH-RH AND OTHER NEUROPEPTIDES.....	5R01 NS13725-03	29,585
HOMIG, CARL R.....	CONTROLS OF O ₂ TRANSPORT IN HEART AND SKELETAL MUSCLE.....	5R01 HL03290-23	112,709
HOROWICZ, PAUL.....	PROPERTIES OF THE INWARD RECTIFIER OF SKELETAL MUSCLE.....	5R01 NS14128-02	80,248
HYDE, RICHARD W.....	LUNG TISSUE AND WATER VOLUME.....	5R01 HL16784-04	92,599
IZZO, JOSEPH L.....	EXPERIMENTAL STUDIES—INSULIN, GLUCAGON, PROINSULIN.....	3R01 AM03556-18S1	41,311
IZZO, JOSEPH L.....	EXPERIMENTAL STUDIES—INSULIN, GLUCAGON, PROINSULIN.....	2R01 AM03556-19A1	58,987
JACOBS, LAURENCE S.....	STORAGE AND SECRETION OF PEPTIDE HORMONES.....	5R01 AM21783-02	74,348
JOSEPH, SHIRLEY A.....	HUMAN FETAL NEUROENDOCRINOLOGY.....	5R01 HD07926-05	57,116
JOYNT, ROBERT J.....	AGING AND THE MAGNOCELLULAR NEUROSECRETORY SYSTEM.....	1R21 AG01456-01	88,720
KAPPLER, JOHN W.....	REGULATORY MECHANISMS IN THE IMMUNE RESPONSE.....	5R01 AI11558-06	63,287
KASS, ROBERT S.....	TRANSIENT CURRENTS INDUCED BY STROPHANTHIDIN IN HEART.....	5R01 HL21922-02	18,899
KENDE, ANDREW S.....	ANTHRACYCLINE AND CHROMOMYCIN ANTITUMOR AGENTS.....	5R01 CA11326-11	88,811
KENDE, ANDREW S.....	TAXANE ANTITUMOR AGENTS.....	2R01 CA18846-04	100,647
KIMMICH, GEORGE A.....	MECHANISM OF SODIUM-DEPENDENT METABOLITE TRANSPORT.....	5R01 AM15365-08	83,163
KIRKPATRICK, FRANCIS H, JR.....	SPECTRIN, ACTIN, LIPID AND RED CELL MEMBRANE STRUCTURE.....	3R01 HL18551-03S1	1,653
KLEMPERER, MARTIN R.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA11174-10	69,305
KNIGGE, KARL M.....	FORMATION AND DELIVERY OF NEUROHORMONES.....	5R01 AM22029-02	51,748
KNIGGE, KARL M.....	BASIC NEUROENDOCRINOLOGY: CENTRALLY ACTING PEPTIDES.....	1P01 NS15345-01	333,290
KRAUS, ALAN L.....	STUDIES OF LABORATORY ANIMAL DISEASES.....	5P40 RR00658-08	76,892
KRELICK, ROBERT W.....	LOCAL STRUCTURE OF BIOLOGICAL METAL COMPLEXES.....	5R01 GM22793-04	68,695
KRUGH, THOMAS R.....	MOLECULAR BASIS OF ANTICANCER DRUG-DNA INTERACTIONS.....	2R01 CA14103-07	120,623
KRUGH, THOMAS R.....	PHYSICOCHEMICAL STUDIES OF INTERCALATING DRUGS.....	5R01 CA17865-05	86,520
LA CELLE, PAUL L.....	DETERMINANTS OF RBC DEFORMABILITY AND CAPILLARY FLOW.....	2R01 HL16421-09	54,112
LA CELLE, PAUL L.....	CENTER FOR THE STUDY OF BLOOD CELL RHEOLOGY.....	5P01 HL18208-05	418,308
LAWRENCE, CHRISTOPHER W.....	RADIATION MUTAGENESIS AND REPAIR IN SACCCHAROMYCES.....	5R01 GM21858-05	107,629
LEDDY, JOHN P.....	INTERDISCIPLINARY RESEARCH CENTER IN IMMUNOLOGIC DISEASE.....	3P50 AI15372-01S1	3,000
LEDDY, JOHN P.....	INTERDISCIPLINARY RESEARCH CENTER IN IMMUNOLOGIC DISEASE.....	5P50 AI15372-02	289,528
LEDDY, JOHN P.....	IMMUNOLOGIC ACTIVATION OF HUMAN PLATELETS.....	1R01 AI16089-01	69,923

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LICHTMAN, MARSHALL A.	SUBSTRATE AND CATION TRANSPORT IN HUMAN LEUKOCYTES	5R01 CA12790-08	93,955
LINDAHL, LASSE A.	COORDINATION OF E. COLI RIBOSOMAL PROTEIN SYNTHESIS	5R01 AI15286-02	75,827
LIVINGSTON, JAMES N.	INSULIN BINDING SITES AND INSULIN ACTION	5R01 AM25116-02	34,079
LOCKWOOD, DEAN H.	INSULIN ACTION IN NORMAL AND RESISTANT STATES	2R01 AM20129-04	135,127
LOVE, BRUCE B.	FLUORESCENCE ANALYSIS OF PHOSPHOLIPID EXCHANGE PROTEIN	1R01 GM24484-01	47,425
LU, SHIN-TSU	EFFECTS OF MICROWAVES ON NEUROENDOCRINE FUNCTION	1R01 ES02313-01	88,923
MANILOFF, JACK	CELLULAR AND MOLECULAR BIOLOGY OF MYCOPLASMAS	5R01 AI07939-12	77,477
MANILOFF, JACK	BIOLOGY OF MYCOPLASMA VIRUSES	5R01 AI10605-08	95,906
MARDER, VICTOR J.	STRUCTURE OF FACTOR VIII-VON WILLEBRAND PROTEIN	5R01 HL21379-02	127,756
MARDER, MATTHEW G.	RESPIRATORY TRACT SECRETION OF IONS, WATER AND MUCUS	5R01 HL21314-03	63,752
MAYEWSKI, RAYMOND J.	HYPERINFLATION AND CHEST MECHANICS IN QUADRIPLEGIA	1R01 HL23197-01	76,676
MC LENDON, GEORGE L.	HEME GROUP PROTEIN INTERACTIONS IN HEMOPROTEINS	5R01 HL21461-02	55,072
MENGUY, RENE	INFLUENCE OF SHOCK ON ENERGY METABOLISM	5R01 GM24514-06	62,873
MERIGAN, WILLIAM H.	ENVIRONMENTAL TOXICITY EXPRESSED IN VISUAL DYSFUNCTION	5R01 ES01885-02	118,445
MERIN, ROBERT G.	EFFECT OF INHALATION ANESTHESIA ON MYOCARDIAL METABOLISM	5R01 HL13257-10	110,995
MERRITT, THURMAN A.	HUMAN NEWBORN TRACHEAL ASPIRATES	1R01 HD13279-01	86,415
MILLER, LEON L.	NET SYNTHESIS OF PLASMA PROTEINS BY PERFUSED LIVER	5R01 AM11029-14	63,909
MILLER, LEON L.	DIABETES MELLITUS AND PLASMA GLYCOPROTEIN SYNTHESIS	5R01 AM21225-03	30,216
MILLER, MORTON W.	CONFERENCE: POLLUTED ACID RAIN	1R13 ES02269-01	5,000
MILLER, MORTON W.	BIOLOGICAL RESPONSES TO BIOMEDICAL ULTRASOUND	5R01 GM22680-05	96,676
MILLER, RICHARD K.	TRANSPLENTAL CARCINOGENESIS	5R01 CA22335-02	84,407
MOORE, CAROL W.	MODES OF ACTION OF ANTICANCER DRUGS	1R01 CA25609-01	75,605
MORRIS, THOMAS W.	VENOUS STRUCTURE AND FUNCTION	2R01 HL19677-04	66,070
MORRIS, THOMAS W.	FACTORS PROMOTING FIBRILLATION IN CORONARY ARTERIOGRAPHY	1R01 HL22744-01	65,035
MOSS, ARTHUR J.	FOLLOW-UP STUDY OF ACUTE CORONARY HEART ATTACKS	5R01 HL15790-07	83,774
MOSS, ARTHUR J.	MULTICENTER POSTCORONARY RISK STRATIFICATION PROGRAM	5R01 HL22982-02	362,776
MOXLEY, RICHARD T. III	ALTERED INSULIN SENSITIVITY IN MYOTONIC DYSTROPHY	5R01 AM22048-02	73,512
NEUMAN, WILLIAM F.	THE ROLE OF BONE MEMBRANES IN CALCIUM REGULATION	2R01 AM17074-05	102,166
NICHOLSON, MARY L.	PROTEIN MEDIATORS OF LETHAL GLUCOCORTICOID EFFECTS	1R23 CA25655-01	35,978
NOTIDES, ANGELO C.	THE UTERINE ESTROGEN-BINDING PROTEINS	2R01 HD06707-08	168,981
NUR, UZI	THE CONTROL OF HETEROCHROMATIZATION IN INSECTS	1R01 HD13132-01	37,024
OHLSSON-WILHELM, BETSY M.	RADIATION SENSITIVE HAPLOID FROG CELLS	1R01 CA25731-01	58,578
OLMSTED, JOANNA B.	CELLULAR CONTROL OF NEURONAL CYTOSKELETON ASSEMBLY	2R01 GM22214-04A1	89,095
OLMSTED, JOANNA B.	NGIMS SHARED INSTRUMENTATION PROGRAM ELECTRON MICROSCOPE	1P41 GM27521-01	122,644
ORBISON, J. LOWELL	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00044-19	715,579
PACKMAN, CHARLES H.	RED CELL MEMBRANE-COMPLEMENT INTERACTIONS	5R23 HL22742-02	42,793
PASTERNAK, TATIANA	DEVELOPMENT OF VISION IN STROBOSCOPIC ILLUMINATION	3R01 EY01875-02S1	3,144
PASTERNAK, TATIANA	DEVELOPMENT OF VISION IN STROBOSCOPIC ILLUMINATION	5R01 EY01875-03	33,404
PERACCHIA, CAMILLO	STRUCTURE & FUNCTION IN LOW RESISTANCE JUNCTIONS	5R01 GM20113-06	93,519
PIEKUT, DIANE T.	NEW APPROACHES TO STUDY OF PINEAL STRUCTURE-FUNCTION	1R01 HD12956-01	47,662
PRAKASH, LOUISE	REPAIR OF DAMAGED DNA AND MUTAGENESIS IN YEAST	5R01 GM19261-08	58,921
PRAKASH, SATYA	GENE VARIATION IN NATURAL POPULATIONS	2R01 GM19217-07	63,280
PUSKIN, JEROME S.	SPECTROSCOPIC STUDIES OF MEMBRANE STRUCTURE	2R01 GM21664-03A1	49,576
RICHTER, GOETZ W.	IRON IN CELL PATHOLOGY	5R01 AM12381-12	119,836
ROBERTS, NORBERT J. JR.	VIRAL INFECTION AND CELL-MEDIATED IMMUNITY	1R23 AI15547-01	43,388
ROWLEY, PETER T.	CONTROL OF FETAL HEMOGLOBIN SYNTHESIS	5R01 AM16847-07	72,011
ROWLEY, PETER T.	BETA-THALASSEMIA SCREENING AND GENETIC COUNSELING	5R01 HL17465-05	70,596
RUBIN, PHILIP	CLINICAL RADIATION RESEARCH CENTER	5P01 CA11051-11	520,955
RUBIN, PHILIP	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA12262-08	119,603
SCHLESSINGER, RICHARD H.	THE SYNTHESIS OF PENTALENE-DERIVED NATURAL PRODUCTS	2R01 CA21469-03	72,660
SCHLESSINGER, RICHARD H.	THE SYNTHESIS OF CYTOTOXIC LACTONE SYSTEMS	5R01 CA23257-02	90,053
SCHLESSINGER, RICHARD H.	A PRACTICAL TOTAL SYNTHESIS OF THE PROSTAGLANDINS	5R01 HL17341-04	67,994
SCHLOERB, PAUL R.	KINETICS OF WATER AND ELECTROLYTES IN SHOCK	7R01 HL25175-01	76,069
SCHNEIDER, MARTIN F.	EXCITATION-CONTRACTION COUPLING IN CUT MUSCLE FIBERS	5R01 NS13842-02	68,283
SCHWARTZ, SEYMOUR I.	PULMONARY PLATELETS IN SHOCK, TRAUMA AND EMBOLIZATION	2R01 HL13466-09	94,346
SCOTT, DAVID A.	EYE DEVELOPMENT: GROWTH CONE STRUCTURE IN DROSOPHILA	5R01 EY02475-02	41,189
SCOTT, DAVID E.	STRUCTURE CORRELATION OF PERINATAL NEUROENDOCRINOLOGY	1R01 NS13717-01A3	53,363
SEGEL, GEORGE B.	CATION FLUX AND ENERGY METABOLISM IN LYMPHOCYTES	5R01 CA14576-07	57,212
SELANDER, ROBERT K.	BIOCHEMICAL GENETICS OF NATURAL POPULATIONS	5R01 GM22126-04	123,672
SENIOR, ALAN E.	TIGHTLY-BOUND NUCLEOTIDES AND MG IN THE PROTON-ATPASE	5R01 GM25349-02	92,755

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SHAIKH, ZAHIR A.....	METALLOTHIONEIN IN METABOLISM AND TOXICITY OF CADMIUM.....	5R01 ES01448-03	45,026
SHERMAN, FRED.....	GENETIC CONTROL OF CYTOCHROME C IN YEAST.....	5R01 GM12702-15	212,158
SHRAGER, PETER G.....	BIOCHEMICAL PROBES OF EXCITABLE MEMBRANES.....	2R01 NS10500-07	37,474
SLADEK, CELIA D.....	NEUROLOGICAL MECHANISMS IN VASOPRESSIN SECRETION.....	5R01 AM19761-03	33,723
SLADEK, JOHN R, JR.....	AGING: EFFECTS ON PEPTIDERGIC AND AMINERGIC NEURONS.....	1R01 AG00847-01A1	60,639
SMITH, DAVID H.....	PATHOGENIC ROLE OF H. INFLUENZAE SURFACE PROTEINS.....	5R01 AI14411-03	99,349
SOBELL, HENRY M.....	PURINE-PYRIMIDINE CRYSTALLINE COMPLEXES.....	5R01 GM13939-14	112,000
STERNBERGER, LUDWIG A.....	FUNCTION OF INTRACELLULAR NEUROHORMONE RECEPTORS.....	1R01 HD12932-01	134,235
SUTHERLAND, ROBERT M.....	COMBINED RADIOTHERAPY-CHEMOTHERAPY STUDIES.....	5R01 CA20329-04	204,422
TANG, FRANK Y.....	REGULATION OF MAMMARY GLAND GROWTH AND REGRESSION.....	1R01 CA25455-01	70,739
TANG, LORETTA K.....	STEROID REGULATION OF GONADOTROPINS IN CELL CULTURES.....	5R01 HD10837-02	49,268
TAYLOR, DAVID A.....	EVOLUTION OF MENTAL ACTIVITY.....	1R01 HD13343-01	78,741
TURNER, DOUGLAS H.....	KINETIC AND SPECTROSCOPIC STUDIES OF NUCLEIC ACIDS.....	2R01 GM22939-04	76,760
TUTTLE, JOHN R.....	QUANTITATIVE ANALYSIS OF NECTURUS RETINAL NETWORK.....	5R01 EY02598-02	49,387
WATERHOUSE, CHRISTINE.....	HEPATIC SYNTHESIS AND RELEASE OF TRIGLYCERIDE.....	3R01 CA07123-14S1	25,120
WEITKAMP, LOWELL R.....	CHOLINESTERASE GENOTYPES IN HUNTINGTON'S DISEASE.....	1R01 NS14897-01	49,155
WHEELER, KENNETH T, JR.....	BRAIN TUMOR THERAPY: RADIATION, DRUGS & DNA REPAIR.....	5R01 CA21662-03	45,826
WHEELLESS, LEON L, JR.....	PROGRAM FOR CELL ANALYSIS AND SORTING IN BIOMEDICINE.....	5P01 GM23088-02	492,466
WILHELM, JAMES M.....	PROTEIN SYNTHESIS ERRORS IN EUKARYOTIC CELLS.....	5R01 GM25168-02	45,161
WOODARD, ELIZABETH D.....	SCREENING FOR NEOPLASMS IN IRRADIATED POPULATIONS.....	5R01 CA21452-03	41,111
YOUNG, DONALD A.....	MECHANISMS OF ACTION OF STEROID HORMONES.....	5R01 AM16177-08	112,791
YOUNG, FRANK E.....	BIOLOGY OF GONORRHEA.....	5R01 AI11709-06	78,258
YOUNG, FRANK E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05403-18	201,413
ZAIN, SAYEEDA B.....	TRANSCRIPTION CONTROL & MRNA PROCESSING IN ADENOVIRUS2.....	1R01 AI16127-01	94,662
ZIGMAN, SEYMOUR.....	NEAR ULTRAVIOLET LIGHT EFFECTS ON OCULAR TISSUES.....	5R01 EY00459-10	100,565
ORGANIZATION TOTAL	177	19,586,580	

SARANAC LAKE

TRUDEAU INSTITUTE ZIP CODE 12983

CARTER, PHILIP B.....	HOST RESPONSE TO INTESTINAL FLORA.....	5R01 AM18530-05	68,968
COLLINS, FRANK M.....	A MOUSE INFECTION MODEL OF LEPROMATOUS LEPROSY.....	5R22 AI14065-03	108,674
HAVELL, EDWARD A.....	CHARACTERIZATION OF HUMAN INTERFERONS.....	1R01 AI15348-01	114,970
LEFFORD, MAURICE J.....	CELLULAR DEFENSE MECHANISMS.....	2R01 AI07015-14	108,420
LEFFORD, MAURICE J.....	CELLULAR DEFENSES OF THE LUNG.....	5R01 AI12404-05	108,256
NORTH, ROBERT J.....	PRODUCTION & DEPLOYMENT OF MEDIATORS OF CELL IMMUNITY.....	5R01 AI10351-08	153,820
NORTH, ROBERT J.....	IMMUNOLOGICAL BASIS OF TUMOR REGRESSION.....	5R01 CA16642-05	105,354
NORTH, ROBERT J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05705-10	62,135
PATEL, PARSOTTAM J.....	THE EFFECT OF AGING ON CELL-MEDIATED IMMUNITY.....	1R01 AG01234-01	102,893
POULTER, LEONARD W.....	MECHANISMS OF IMMUNITY TO LEISHMANIASIS.....	5R01 AI14383-03	120,018
SPITALNY, GEORGE L.....	SUBVERSION OF IMMUNE MECHANISMS IN MALIGNANT TUMORS.....	5R01 CA21360-02	108,508
SUNDSMO, JOHN S.....	COMPLEMENT MEMBRANE ATTACK PROTEINS BINDING/BIOSYNTHESIS.....	7R01 CA27452-01	44,270
ORGANIZATION TOTAL	12	1,206,286	

SCHENECTADY

UNION COLLEGE AND UNIVERSITY-UNION COLLEGE ZIP CODE 12308

SCHMIDT, MARIE L.....	CLB-A MORPHOLOGICAL CORRELATE OF VISUAL FUNCTION.....	1R01 EY02892-01	53,564
ORGANIZATION TOTAL	1	53,564	

STONY BROOK

STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794

ALTMAN, LAWRENCE J.....	FACILITY FOR BIOMEDICAL NMR ON RADIOACTIVE SAMPLES.....	5P41 RR01039-03	73,885
ARNHEIM, NORMAN.....	GENETIC AND MOLECULAR STUDIES OF HUMAN AND MOUSE DNA.....	1R01 GM25365-01	86,363
BAUER, WILLIAM R.....	VIRAL AND PLASMID DNA STRUCTURE, PROTEIN INTERACTIONS.....	5R01 GM21176-06	65,573
BENJAMIN, WILLIAM B.....	RELATION OF PROTEIN PHOSPHORYLATION TO INSULIN ACTION.....	5R01 AM18905-05	61,299
BRINK, PETER R.....	COUPLED AND UNCOUPLED JUNCTIONAL MEMBRANES.....	1R01 GM24905-01	62,440
BROACH, JAMES R.....	GENE EXPRESSION OF THE YEAST PLASMID, 2MU CIRCLE.....	1R01 GM27929-01	85,895

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BROWN, JOEL E.	VISUAL RECEPTOR POTENTIALS.	5R01 EY01914-04	57,059
BROWN, JOEL E.	ANATOMY AND PHYSIOLOGY OF VISION.	5R01 EY01915-04	29,229
CABOT, JOHN B.	NEURAL MECHANISMS OF CENTRAL CARDIOVASCULAR CONTROL.	1R01 HL24103-01	51,841
CARTER, CAROL A.	COVALENT MODIFICATIONS & ACTIVATION OF REOVIRUS ENZYMES.	1R01 AI15377-01	59,221
COHEN, IRA S.	CARDIAC ELECTROPHYSIOLOGY: EFFECTS OF IONS AND DRUGS.	5R01 HL20558-03	19,198
COHEN, SEYMOUR S.	POLYAMINES IN VIRUS INFECTION OF CHLOROPLASTS.	1R01 GM25522-01	76,151
COLLER, BARRY S.	BIOPHYSICS BIOCHEMISTRY—I DEGREE PLATELET AGGREGATION.	2R01 HL19278-04	63,721
DEWEY, MAYNARD M.	THE EFFECT OF FILAMENT LENGTH ON STRIATED MUSCLE TENSION.	5R01 AM18750-04	82,247
DEWEY, MAYNARD M.	LIMULUS THICK FILAMENT STRUCTURE.	1R01 GM26392-01	46,526
DUDOCK, BERNARD S.	SEQUENCE ANALYSIS OF BIOLOGICALLY ALTERED tRNA.	5R01 GM25254-10	58,041
ENGBRETSON, GUSTAV A.	VISUAL INFORMATION PROCESSING BY THE PARIETAL EYE.	3R01 EY02587-01S1	2,559
FINCH, STEPHEN J.	LONGITUDINAL STUDY OF AIR POLLUTION ON MORTALITY.	5R23 ES01686-02	37,047
FLEAGLE, JOHN G.	GROWTH AND DEVELOPMENT IN EXPERIMENTAL MALNUTRITION.	5R01 HD10626-03	20,809
FLICK, MICHAEL R.	GRANULOCYTES IN LUNG CAPILLARY PERMEABILITY EDEMA.	1R23 HL25507-01	42,148
FREUNDLICH, MARTIN.	MOLECULAR MECHANISMS IN MULTIVALENT REPRESSION.	5R01 GM17152-11	72,475
FRIEDMAN, HAROLD L.	ANTIBIOTIC-ION INTERACTIONS.	5R01 HL16474-06	73,044
FROOM, JACK.	A DICTIONARY AND GLOSSARY FOR PRIMARY CARE RESEARCH.	1R01 LM03289-01	39,245
GARANT, PHILIAS R.	ULTRASTRUCTURE OF EXPERIMENTAL PERIODONTITIS.	2R01 DE03745-08	103,975
GARANT, PHILIAS R.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05778-04	34,042
GODFREY, HENRY P.	ISOLATION OF MACROPHAGE AGGLUTINATION FACTOR.	1R01 CA26019-01	101,510
GOLUB, LORNE M.	GINGIVAL COLLAGEN METABOLISM IN HEALTH AND DISEASE.	5R01 DE03987-05	93,144
GROLLMAN, ARTHUR P.	MOLECULAR PHARMACOLOGY OF TUMOR AND VIRUS INHIBITORS.	5R01 CA17395-05	195,234
GWINNETT, A. JOHN.	A MICROSCOPIC AND CLINICAL STUDY OF CERVICAL EROSION.	1R01 DE05137-01	31,389
HABICHT, GAIL S.	IMMUNOLOGICAL TOLERANCE AND AGING.	5R01 AG00801-02	85,421
HELQUIST, PAUL M.	SYNTHESIS OF ANTICANCER AGENTS.	2R01 CA20701-03	24,257
HELQUIST, PAUL M.	SYNTHESIS OF PHYSIOLOGICALLY ACTIVE RING SYSTEMS.	1R01 CA22741-01A1	50,981
HULTIN, MAE B.	THROMBOGENICITY OF HUMAN FACTOR IX CONCENTRATES.	1R01 HL24893-01	39,443
INOUE, MASAYORI.	CELL DIVISION AND MEMBRANE PROTEINS.	5R01 GM19043-08	84,853
JACOBSON, ANN B.	STRUCTURAL STUDIES ON RNA-CONTAINING VIRAL GENOMES.	5R01 AI15273-02	47,191
JANOFF, AARON.	HUMAN LEUKOCYTE PROTEASES AND THEIR LUNG TARGETS.	5R01 HL14262-08	82,524
JESTY, JOLYON.	CONTROL MECHANISMS IN COAGULATION.	5R01 HL21113-02	38,696
JOHNSON, FRANCIS.	SYNTHESIS AND CHEMISTRY OF THE ANTIBIOTIC, THERMORUBIN.	5R01 AI13988-03	37,808
JOHNSON, FRANCIS.	TOTAL SYNTHESIS OF THE ANTITUMOR ANTHRACYCLINE AGLYCONES.	5R01 CA20197-03	50,813
JONES, RAYMOND F.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR07067-14	99,526
KAPLAN, ALLEN P.	PATHOGENESIS OF URTICARIA, ANGIOEDEMA AND VASCULITIS.	1P50 AI16337-01	71,305
KAPLAN, ALLEN P.	INITIATION OF COAGULATION AND FIBRINOLYSIS IN MAN.	1R01 HL23714-01	104,364
KARTEN, HARVEY J.	ANATOMICAL ORGANIZATION OF THE BRAIN.	5R01 NS12078-06	43,659
KATZ, EUGENE R.	DEVELOPMENTAL GENETIC STUDIES ON CELLULAR SLIME MOLDS.	5R01 GM18476-07	81,284
KLEINBERG, ISRAEL.	EFFECT OF SALIVA ON THE METABOLISM OF DENTAL PLAQUE.	5R01 DE03993-05	146,345
KOEHN, RICHARD K.	BIOCHEMICAL GENETICS OF CORRELATED ALLOZYME VARIATION.	5R01 GM21133-05	54,963
KRANTZ, ALLEN.	MODES OF REACTIVITY OF FLAVINS AND FLAVOPROTEINS.	5R01 NS13220-02	51,332
KUSCHNER, MARVIN.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05736-07	136,168
LAUTERBUR, PAUL C.	APPLICATION OF NMR ZEUGMATOGRAPHY IN CANCER RESEARCH.	5R01 CA15300-06	162,103
LAUTERBUR, PAUL C.	CARDIOVASCULAR NMR ZEUGMATOGRAPHY.	1R01 HL19851-01A1	149,367
LEVINE, ARNOLD J.	CELL SURFACE ANTIGENS OF TRANSFORMED CELLS—TERATOMAS.	7R01 CA27511-01	66,592
LEVINE, ARNOLD J.	DIFFERENTIATION OF TERATOCARCINOMA CELLS.	7R01 CA28106-01	85,625
LIDSKY, THEODORE I.	TRIGEMINAL INPUT TO THE BASAL GANGLIA.	1R01 NS15328-01	5,000
LUCAS, JOSEPH J.	ANALYSIS OF GENE REGULATION BY NUCLEAR TRANSPLANTATION.	5R01 CA22302-03	58,714
MALBON, CRAIG C.	HORMONE REGULATION OF HEPATOCYTE CARBOHYDRATE METABOLISM.	1R01 AM25410-01	44,011
MARCU, KENNETH B.	REGULATION OF EXPRESSION OF EUKARYOTIC GENE FAMILIES.	1R01 GM26939-01	70,746
MC LAUGHLIN, STUART G.	DIVALENT CATIONS AND MEMBRANES.	5R01 GM24971-02	49,335
MILLER, FREDERICK.	CYTOSKELETAL STRUCTURE OF NORMAL AND NEOPLASTIC TISSUES.	5R01 CA21930-03	43,085
MOORE, ROBERT Y.	HISTOCHEMICAL STUDIES OF BIOGENIC AMINES IN BRAIN.	1R01 NS16303-01	61,955
MOORE, ROBERT Y.	CENTRAL MECHANISMS IN CIRCADIAN RHYTHM REGULATION.	1R01 NS16304-01	59,865
OHTSUBO, EIICHI.	MOLECULAR BIOLOGY ON GENETIC FUSION IN THE E. COLI.	5R01 GM22007-05	56,794
OHTSUBO, HISAKO H.	DNA REPLICATION OF E. COLI PLASMID R 100.	1R01 GM26779-01	78,008
PALATNIK, CARL M.	DEVELOPMENTALLY REGULATED MRNAS IN DICTYOSTELIUM.	1R01 GM27652-01	68,610
POLLOCK, JERRY J.	LYSOZYME-CELL SURFACE INTERACTIONS AND ORAL DEFENSE.	5R01 DE04296-05	131,321
RAISFELD, ILENE H.	DRUG INTERACTIONS IN THE ELDERLY.	1R01 AG02033-01	75,309
RAISFELD, ILENE H.	ROLE OF DRUG STRUCTURE IN DRUG INDUCED LUNG FIBROSIS.	1R01 HL23874-01A1	74,617

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
RAMIREZ, FAUSTO.....	SUPERPHOSPHORYLATING AGENTS.....	5R01 GM20672-19	106,397
RAMIREZ, FAUSTO.....	PHOSPHOLIPIDS: SYNTHESIS AND MEMBRANE PROPERTIES.....	1R01 HL23126-01	63,212
RAPAPORT, FELIX T.....	INDUCTION OF UNRESPONSIVENESS TO ALLOGRAFTS.....	5R01 AI14453-03	180,701
RAPAPORT, FELIX T.....	MECHANISMS OF CELL DAMAGE IN SEVERE BURNS.....	5R01 GM24481-03	109,861
RILEY, MONICA.....	EVOLUTION OF THE TRYPTOPHANASE GENE IN E. COLI.....	5R01 GM21316-06	71,409
SACHS, JOHN R.....	PHYSIOLOGICAL ASPECTS OF MEMBRANE CATION TRANSPORT.....	5R01 AM19185-05	78,974
SADOGLU, PERIHAN.....	EYE DEVELOPMENT AND CATARACT FORMATION.....	5R01 EY01892-03	80,925
SARMA, RAGHUPATHY.....	X-RAY CRYSTAL STRUCTURE AND FUNCTION OF PROTEINS.....	5R01 CA25048-07	51,095
SARMA, RAGHUPATHY.....	EM AND DIFFRACTION STUDIES OF A MEMBRANE LIPOPROTEIN.....	1R01 GM25883-01	31,856
SHERMAN, S MURRAY.....	EFFECTS OF VISUAL DEPRIVATION ON THE VISUAL SYSTEM.....	1R01 EY03038-01	138,827
SILVERBERG, SIDONIE A.....	KINETICS OF PROTHROMBIN ACTIVATION.....	5R01 HL22955-02	18,594
SIMON, SANFORD R.....	MECHANISMS OF PESTICIDE INHIBITION OF NA-K ATPASE.....	1R01 ES02162-01	39,195
SIMPSON, MELVIN V.....	MITOCHONDRIA: NUCLEIC ACID SYNTHESIS AND ROLE OF DNA.....	2R01 GM22333-13	63,064
SOKOLOFF, LEON.....	IN VITRO CULTURE OF ARTICULAR CHONDROCYTES.....	5R01 AM17258-05	71,372
STRUB, SIEGWARD O.....	CONTROL MECHANISMS OF CELL RE-COMMITMENTS; DROSOPHILA.....	1R01 HD13400-01	55,085
TAICHMAN, LORNE B.....	STABILITY OF DIFFERENTIATION: CRANIOFACIAL STUDY.....	2R01 DE04511-04	63,110
TEGTMEYER, PETER J.....	MECHANISMS OF VIRAL ONCOGENESIS—SV40 PROTEIN FUNCTION.....	2R01 CA18808-05	98,563
TEWARSON, REGINALD P.....	NUMERICAL SOLUTION OF RENAL TRANSPORT EQUATIONS.....	2R01 AM17593-04A2	45,028
TRUNCA, CAROLYN.....	THE MEIOTIC BEHAVIOR OF RECIPROCAL TRANSLOCATIONS.....	1R01 GM25057-01A1	25,376
TSENG, LINDA.....	ESTRADIOL DEHYDROGENASE INDUCTION IN HUMAN ENDOMETRIUM.....	5R01 HD10933-03	38,304
UYEMURA, DENNIS G.....	ROLE OF ACTIN METHYLATION IN DICTYOSTELIUM DISCOIDEUM.....	5R01 GM25447-02	42,208
VAN DER KLOOT, WILLIAM G.....	TRANSMITTER RELEASE BY NERVE TERMINALS.....	2R01 NS10320-08	72,985
WEITZMAN, STEPHEN.....	DEFECTS IN IMMUNOGLOBULIN PRODUCTION IN MOUSE MYELOMA.....	1R01 CA25166-01	70,912
WHITE, RICHARD R.....	ELASTASE SECRETION BY MACROPHAGES.....	1R23 HL24186-01	42,913
WILLIAMS, DAVID L.....	HORMONAL REGULATION OF VITELLOGENIN SYNTHESIS.....	5R01 AM18171-05	66,026
WIMMER, ECKARD A.....	VIRAL ONCOLOGY: RETROVIRUSES AND POLIOVIRUS.....	5R01 AI15122-06	136,829
WITKOVSKY, PAUL.....	RETINAL SYNAPTOGENESIS AND ADAPTATION.....	5R01 EY01762-04	109,404
YAZULLA, STEPHEN.....	SYNAPTIC TRANSMISSION IN THE RETINA.....	2R01 EY01682-04	79,297
ORGANIZATION TOTAL	94	6,548,822	
SYRACUSE			
STATE UNIVERSITY OF NEW YORK—COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY ZIP CODE 13210			
FLASHNER, MICHAEL.....	STRUCTURAL BIOCHEMISTRY OF BACTERIAL NEURAMINIDASES.....	2R01 AI12532-04A1	59,419
NAKATSUGAWA, TSUTOMU.....	ORGANOPHOSPHATE-BIOMACROMOLECULE INTERACTIONS.....	5R01 ES01019-05	56,326
SCHUERCH, CONRAD.....	SYNTHETIC CARBOHYDRATE ANTIGENS AND HAPTENS.....	5R01 AI12509-05	89,977
SCHUERCH, CONRAD.....	STEREOSPECIFIC SYNTHESIS OF POLYSACCHARIDES.....	5R01 GM06168-20	64,481
SILVERSTEIN, ROBERT M.....	PHEROMONES IN DISEASE TRANSMITTING TICKS.....	2R01 AI10987-06	38,745
TANENBAUM, STUART W.....	BIOCHEMISTRY OF CYTOTOXIC FUNGAL METABOLITES.....	2R01 AI11902-06	65,511
TANENBAUM, STUART W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07174-03	21,946
ORGANIZATION TOTAL	7	396,405	
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210			
ANDERSON, GUNNAR H, JR.....	ROLE OF ANGIOTENSIN SENSITIVITY IN RENIN RELEASE.....	5R01 HL19428-04	83,558
ARGYRIS, BERTIE F.....	CELL INTERACTIONS IN TUMOR IMMUNITY.....	5R01 CA15462-05	83,997
ARGYRIS, THOMAS S.....	EFFECTS OF AGING ON EPIDERMAL REGENERATION.....	1R01 AG01324-01	44,601
ARGYRIS, THOMAS S.....	RIBOSOMAL RNA SYNTHESIS IN EPIDERMAL REGENERATION.....	5R01 AM18219-05	61,819
AUST, JOHN C.....	INTERDISCIPLINARY CANCER EDUCATION PROGRAM.....	5R25 CA19434-02	114,474
BEACH, DAVID H.....	LIPIDS IN A PSEUDOPHYLLIDAE LIFE-CYCLE.....	5R01 AI13479-03	38,589
BLUMENTHAL, STANLEY A.....	REGULATION OF HEPATIC PRODUCTION AND UPTAKE OF GLUCOSE.....	5R01 AM21246-02	35,907
BORTOFF, ALEXANDER.....	COORDINATION OF VISCERAL SMOOTH MUSCLE ACTIVITY.....	3R01 AM06958-14S1	8,377
COULSON, RICHARD.....	RENAL RESPONSES TO CYCLIC NUCLEOTIDE ANALOGUES.....	1R01 AM25926-01	23,379
DEAVER, THOMAS F.....	NUCLEAR DIAGNOSTIC METHODS FOR RENAL DISEASES.....	5R01 GM18248-09	65,705
DUBROFF, LEWIS M.....	MOLECULAR MECHANISMS IN LUPUS ERYTHEMATOSUS.....	1R01 AM25893-01	89,632
DUDGEON, DAVID L.....	EFFECTS OF STRESS ON NEONATAL INTESTINAL HEMODYNAMICS.....	1R01 HD12933-01	62,029
FLASHNER, MARCIA S.....	BIOCHEMICAL STUDIES OF THE NA, K-ATPASE ENZYME.....	5R01 GM25033-02	45,914
FROMM, DAVID G.....	GASTRIC MUSCOSAL PERMEABILITY AND ION TRANSPORT.....	5R01 AM25227-03	50,880
GOODMAN, DONALD C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05402-18	124,156
GOTTLIEB, ARLAN J.....	PARTICIPATION IN CANCER AND LEUKEMIA GROUP B.....	3R10 CA21060-02S1	9,495

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GOTTLIEB, ARLAN J.....	PARTICIPATION IN CANCER AND LEUKEMIA GROUP B.....	2R10 CA21060-03	176,267
GROSSMAN, ZACHARY D.....	PULMONARY ARTERIAL OCCLUSION DIAGNOSIS—COMPUTER TOMOG.....	1R01 HL24230-01	53,345
HAMERNIK, ROGER P.....	AUDITORY EFFECT OF COMBINED IMPULSE & CONTINUOUS NOISE.....	5R01 ES00969-06	52,128
HODGE, CHARLES J.....	SUPRASEGMENTAL CONTROL OF SENSORY EVENTS.....	5R01 NS12761-03	42,844
HOLZ, GEORGE G, JR.....	LIPIDS OF LEISHMANIAS.....	2R01 AI05802-16	86,914
HSU, ROBERT Y.....	MECHANISM OF FATTY ACID SYNTHESIS IN ANIMALS.....	2R01 AM13390-12	94,310
JONES, DAVID B.....	FINE STRUCTURE OF DISEASED GLOMERULI.....	5R01 HL04300-21	47,716
KEATING, E GREGORY.....	RECOVERY FROM CORTICAL BLINDNESS.....	5R01 EY02941-02	47,329
KRIEBEL, MAHLON E.....	TRANSMITTER RELEASE AT THE NEUROMUSCULAR JUNCTION.....	5R01 NS11996-05	68,881
LUCAS, JOHN J.....	MEMBRANE GLYCOPROTEIN CHANGES DURING DIFFERENTIATION.....	5R01 HD09046-05	49,057
MARINO, ANDREW A.....	BIOLOGICAL EFFECTS OF 60 HERTZ ELECTRIC FIELDS.....	5R01 ES01621-03	29,157
MARTONOSI, ANTHONY N.....	STUDIES ON SARCOPLASMIC RETICULUM AND MYOSIN.....	7R01 AM26832-01	58,382
MEYER, FRANZ D.....	STUDIES OF THE LIPID METABOLISM IN PARASITIC HELMINTHS.....	2R01 AI07486-12	77,862
MILLER, DEAN G.....	STRESS AND MYOCARDIAL INJURY: A SYSTEMATIC STUDY.....	1R01 HL22810-01	84,253
MOZELL, MAXWELL M.....	THE ELECTROPHYSIOLOGY OF OLFACTORY DISCRIMINATION.....	5R01 NS03904-16	82,284
MUELLER, JUSTUS F.....	STUDIES ON SPARGANOSIS AND CESTODE BIOLOGY.....	5R01 AI01876-22	21,921
NORD, SAMUEL G.....	BRAIN STEM MECHANISMS OF TRIGEMINAL NOCICEPTION.....	5R01 NS10814-06	68,337
PACKARD, DAVID S, JR.....	CONTROL OF AVIAN SOMITE FORMATION.....	1R01 HD13396-01	56,839
PRESTON, JAMES B.....	SUPRASEGMENTAL INFLUENCES ON SPINAL MOTONEURONS.....	2R01 NS02957-19	85,480
RAY, TUSHAR K.....	BIOCHEMICAL ASPECTS OF H IONS TRANSPORT FROM STOMACH.....	5R01 AM25544-02	54,531
ROBINSON, JOSEPH D.....	CHANGES IN BRAIN MICROSOMAL STRUCTURE AND COMPOSITION.....	5R01 NS05430-14	50,291
ROSS, CHARLES R.....	RENAL TRANSPORT CARRIER FOR ORGANIC COMPOUNDS.....	2R01 HL02835-22	81,813
SCHROEDER, EDWARD T.....	RENIN, PROSTAGLANDINS AND RENAL FUNCTION IN CIRRHOSIS.....	1R01 AM26085-01	46,933
SCHWARTZ, SHELDON E.....	EFFECT OF SULFASALAZINE ON SODIUM FLUX IN THE COLON.....	5R01 AM21088-02	52,435
SMITH, PHILLIP H.....	NEURAL CONTROL OF ISLET MASS IN OBESE/DIABETIC RATS.....	5R01 AM25325-02	34,405
SPITZER, ROGER E.....	THE ROLE OF PROPERDIN IN THE BIOLOGY OF COMPLEMENT.....	5R01 AI12721-05	89,240
STACH, ROBERT W.....	INVESTIGATIONS ON THE NERVE GROWTH FACTOR.....	5R01 NS12325-05	61,435
STELZNER, DENNIS J.....	FACTORS IN CNS REGENERATION.....	5R01 NS14096-02	52,221
STOCKMAN, JAMES A, III.....	THE ANEMIA OF PREMATURITY, ADAPTIVE MECHANISMS.....	5R01 HD12019-02	99,998
STONER, LARRY C.....	TRANSPORT ACROSS SINGLE PROXIMAL TUBULE CELLS.....	5R01 AM19521-03	31,509
STREETEN, BARBARA W.....	THE FIBER-GEL STRUCTURE OF THE OCULAR ZONULE.....	5R01 EY01602-05	60,131
STREETEN, DAVID H.....	ROLE OF ANGIOTENSIN II IN VASOPRESSIN RELEASE.....	5R01 HL22051-02	85,649
TEPPERMAN, JAY.....	ADAPTATION OF MEMBRANE-ASSOCIATED FUNCTIONS.....	5R01 AM05410-18	103,431
TERJUNG, RONALD L.....	SKELETAL MUSCLE ADAPTATIONS INDUCED BY TRAINING.....	5R01 AM21617-03	66,416
WEINER, IRWIN M.....	BIOCHEMICAL ASPECTS OF RENAL ELECTROLYTE TRANSPORT.....	5R01 AM20533-15	106,561
WILLIAMS, WILLIAM J.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RO00229-14	421,271
YNTEMA, CHESTER L.....	DEVELOPMENT STUDIES OF THE TURTLE.....	5R01 HD03484-12	42,713
ORGANIZATION TOTAL	53	3,766,801	
SYRACUSE RESEARCH CORPORATION ZIP CODE 13210			
SIKKA, HARISH C.....	THE FATE AND ACTION OF DICHLOROBENZIDINE IN MAMMALS.....	1R01 ES02015-01	97,379
ORGANIZATION TOTAL	1	97,379	
SYRACUSE UNIVERSITY ZIP CODE 13210			
BARLOW, ROBERT B, JR.....	FUNCTIONAL ORGANIZATION OF THE VISUAL SYSTEM.....	5R01 EY00667-07	153,387
CHAN, SAMUEL H.....	ADENINE NUCLEOTIDE TRANSLOCATION IN TUMOR MITOCHONDRIA.....	5R01 CA20454-03	60,589
CONTURE, EDWARD G.....	LARYNGEAL BEHAVIOR DURING STUTTERING.....	5R01 NS14351-02	42,389
CROUCH, WAYNE W.....	EVALUATION OF THE PRESEARCH INTERVIEW.....	1R01 LM03074-01	130,487
DABROWIAK, JAMES C.....	THE MECHANISM OF ACTION OF BLEOMYCIN.....	1R01 CA25112-01	66,756
DAVIS, LOWELL E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07068-14	101,071
DOSA, MARTA L.....	DEVELOPMENT/EVALUATION OF HEALTH INFORMATION SHARING.....	2R01 LM02800-03	173,209
ENGBRETSON, GUSTAV A.....	VISUAL INFORMATION PROCESSING BY THE PARIETAL EYE.....	7R01 EY03359-01	49,713
FALK, DARREL R.....	TISSUE DYNAMICS OF PYRIMIDINE SYNTHESIS IN DROSOPHILA.....	5R01 GM24049-03	65,571
FLORINI, JAMES R.....	EFFECT OF AGING ON LEVELS AND ACTION OF SOMATOMEDINS.....	5R01 AG00629-03	87,866
FLORINI, JAMES R.....	RNA AND PROTEIN SYNTHESIS IN REPAIR OF HEART INJURY.....	2R01 HL11551-12	88,410
FONDY, THOMAS P.....	ANALOG ALTERATION OF MEMBRANES IN CANCER CHEMOTHERAPY.....	5R01 CA10250-12	70,147
FONDY, THOMAS P.....	GLYCEROL-P SHUTTLE ISOENZYMES IN CANCER CHEMOTHERAPY.....	5R01 CA21640-03	18,787
GARVEY, JUSTINE S.....	ANTIGEN METABOLISM IN MATURING AND SENESCENT ANIMALS.....	5R01 AG00111-03	82,454
HARTH, ERICH.....	NEW APPROACHES IN VISION RESEARCH.....	2R01 EY01215-06	100,724
LEVY, H RICHARD.....	MECHANISMS OF CONTROL OF ENZYMATIC ACTIVITY.....	5R01 AM07720-14	89,459

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LIPSON, EDWARD D.....	SYSTEM ANALYSIS OF PHYCOMYCES PHOTOMUTANTS.....	5R01 GM24367-03	64,785
NAFIE, LAURENCE A.....	VIBRATIONAL OPTICAL ACTIVITY.....	5R01 GM23567-02	54,148
NEGISHI, EI-ICHI.....	SELECTIVE SYNTHESIS OF OLEFINS VIA METAL CATALYSIS.....	1R01 GM25756-01	76,254
ROTHENBERG, MARTIN.....	VOICE QUALITY AND LARYNGEAL FREQUENCY.....	2R01 NS08919-09	59,066
STARMER, WILLIAM T.....	GENETICS OF LONGEVITY IN DROSOPHILA POPULATIONS.....	1R01 AG02064-01	74,269
STURR, JOSEPH F.....	MECHANISMS OF VISUAL SENSITIVITY.....	5R01 EY01571-05	43,090
SULLIVAN, DAVID T.....	STRUCTURE AND FUNCTION OF THE GDPH LOCUS OF DROSOPHILA.....	1R01 GM26830-01	86,977
TUPPER, JOSEPH T.....	ROLE OF SERUM AND CATIONS IN MALIGNANT CELL GROWTH.....	2R01 CA17203-04	66,086
VERRILLO, RONALD T.....	CUTANEOUS MECHANORECEPTOR SYSTEMS.....	5R01 NS09940-08	91,301
VOURNAKIS, JOHN N.....	SECONDARY STRUCTURE OF EUKARYOTIC MESSENGER RNA.....	5R01 GM22280-05	69,300
WANG, CHIU-SEN.....	DEPOSITION OF HYGROSCOPIC AEROSOLS.....	2R01 HL19700-04	72,075
WARE, BENNIE R.....	AUTOMATED ELECTROPHORETIC ANALYSIS OF LIVING CELLS.....	7R01 GM27633-01	68,641
WARNER, FRED D.....	MACROMOLECULAR BASIS FOR CILIARY MOTION.....	5R01 GM20690-06	69,140
WAYNER, MATTHEW J.....	A STUDY OF CHEMOSENSITIVE HYPOTHALAMIC NEURONS.....	5R01 NS13543-02	70,570
ZWISLOCKI, JOZEF J.....	SENSORY PROCESSES.....	2R01 NS03950-18	272,246
ORGANIZATION TOTAL	31	2,618,967	
TROY			
RENSSELAER POLYTECHNIC INSTITUTE ZIP CODE 12181			
ARCHER, SYDNEY.....	THIOXANTHENONES AND ANTHRAQUINONES AS ANTITUMOR DRUGS.....	5R01 CA19674-03	57,914
BRUNSKI, JOHN B.....	IN VIVO FORCES ON ENDOSSEOUS DENTAL IMPLANTS.....	1R23 DE05418-01	18,718
COWARD, JAMES K.....	RATIONAL DRUG DESIGN BASED ON CHEMICAL MECHANISMS.....	7R01 CA28097-01	65,454
DIWAN, JOYCE J.....	MITOCHONDRIAL SOLUTE TRANSPORT MECHANISMS.....	5R01 GM20726-05	48,235
FERRIS, JAMES P.....	PHOTOSYNTHESIS OF ANTIVIRAL AND ANTITUMOR DRUGS.....	3R01 CA14511-06S1	13,972
KORETZ, JANE F.....	A COMPUTER MODEL FOR LENS ACCOMMODATION.....	5R01 EY02195-02	18,007
KORETZ, JANE F.....	STUDIES OF NATURAL AND SYNTHETIC MYOSIN FILAMENTS.....	5R01 NS14377-02	40,469
MC DANIEL, CARL N.....	AMINO ACID TRANSPORT SYSTEMS AND MUTANTS.....	1R01 GM25838-01	59,715
MOW, VAN C.....	BIOMECHANICS OF AGING AND OSTEOARTHRITIC CARTILAGE.....	5R01 AM19094-04	102,245
NEWELL, JONATHAN C.....	PULMONARY HEMODYNAMICS IN ATELECTASIS AND HYPOXIA.....	2R01 HL18630-04	49,982
OSTRANDER, LEE E.....	TISSUE ANALYSIS BY MASS SPECTROMETER.....	5R01 HL20607-03	39,834
POTTS, KEVIN T.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07104-13	48,393
SCHULTZ, ARTHUR G.....	SYNTHESIS OF VERNOLEPIN AND DAUNOMYCIN.....	5R01 CA25787-02	71,125
SCHULTZ, ARTHUR G.....	SYNTHESIS OF ASPIDOSPERMA AND HASUBANAN ALKALOIDS.....	5R01 GM26568-02	91,576
WARDEN, JOSEPH T.....	ESR STUDIES OF ELECTRON TRANSPORT IN PHOTOSYSTEM 2.....	1R01 GM26133-01	41,882
ZELMAN, ALLEN.....	ELECTROSMOTIC PROCESSING OF CRYOPRESERVED RBC.....	1R01 HL24466-01	80,334
ORGANIZATION TOTAL	16	847,855	
UPTON			
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY ZIP CODE 11973			
ATKINS, HAROLD L.....	MELANOMA DETECTION WITH RADIOPHARMACEUTICALS.....	1R01 CA24597-01	71,545
ATKINS, HAROLD L.....	DIAGNOSIS OF MYOCARDIAL INFARCTION BY RADIOISOTOPES.....	5R01 HL16553-06	73,412
BIELSKI, BENON H.....	STUDIES ON BIOLOGICAL SUPEROXIDE RADICAL MECHANISMS.....	5R01 GM23656-03	74,328
BURR, BENJAMIN.....	STORAGE PROTEIN SYNTHESIS IN MAIZE ENDOSPERM.....	5R01 GM24057-03	50,843
COHN, STANTON H.....	GERONTOLOGICAL CHANGES IN SKELETAL MASS.....	5R01 AG00918-02	185,951
COHN, STANTON H.....	IN VIVO MEASUREMENT OF BODY IRON BY NUCLEAR RESONANCE.....	1R01 HL24177-01	106,410
CRONKITE, EUGENE P.....	NEUTROPHILIC GRANULOCYTOPOIESIS IN NORMALS & LEUKEMICS.....	5R01 CA14742-06	81,370
CRONKITE, EUGENE P.....	HEMOPOIETIC REGULATORS FORMED IN CELL CULTURE.....	5R01 HL15685-06	131,451
CRONKITE, EUGENE P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05731-08	93,632
ELZINGA, MARSHALL.....	STRUCTURE-FUNCTION STUDIES ON ACTIN AND MYOSIN.....	2R01 HL21471-03	118,380
FAIRCHILD, RALPH G.....	BORON EPITHERMAL NEUTRON CAPTURE THERAPY.....	5R01 CA22749-02	100,312
HOUGH, PAUL V.....	FLUORESCENCE ELECTRON MICROSCOPY.....	5R01 GM24799-02	57,970
IWAI, JUNICHI.....	HYPERTENSION—GENETIC INFLUENCE OF KIDNEY.....	3R01 HL14913-06S1	94,396
LACKS, SANFORD A.....	DNA MISMATCH REPAIR IN TRANSFORMATION AND MUTAGENESIS.....	5R01 AI14885-02	58,167
MILLER, MARILYN E.....	REGULATORY MECHANISMS OF ERYTHROPOIETIN PRODUCTION.....	5R01 HL22650-02	100,605
STUDIER, F WILLIAM.....	REPLICATION OF T7 DNA.....	5R01 GM21872-05	65,576
SUTHERLAND, BETSY M.....	DNA REPAIR—HUMAN E. COLI PHOTOREACTIVATING ENZYMES.....	5R01 CA23096-03	96,289
SUTHERLAND, BETSY M.....	UV TRANSFORMATION, DNA REPAIR IN HUMAN CELLS AND SKIN.....	1R01 CA26492-01	152,215

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
WALL, JOSEPH S.....	SUPPORT FOR ELECTRON MICROSCOPE FACILITY.....	2P41 RR00715-07	261,390
WILLIAMS, GRAHEME J.....	STRUCTURES OF DIHYDROFOLATE REDUCTASE AND INHIBITORS.....	1R01 GM24385-01	33,000
WOLF, ALFRED P.....	A PROGRAM IN SUPPORT OF NUCLEAR MEDICINE.....	9R01 NS15380-04	181,989
WOLF, ALFRED P.....	POSITRON EMITTERS & PETT IN METABOLIC & NEUROLOG SCIENCE.....	1P01 NS15638-01	1,158,816
ORGANIZATION TOTAL	22	3,348,047	
UTICA			
MASONIC FOUNDATION FOR MEDICAL RESEARCH AND HUMAN WELFARE ZIP CODE 13501			
MOE, GORDON K.....	CARDIAC ACTIONS OF DIGITALIS.....	5R01 HL19487-04	162,107
TUTTLE, RICHARD S.....	EFFECT OF PROPRANOLOL ON CAROTID SINUS NERVE ACTIVITY.....	1R01 HL22600-01	24,933
WULF, VERNER J.....	A STUDY OF VISUAL COUPLING REACTIONS.....	5R01 EY00236-17	27,927
ORGANIZATION TOTAL	3	214,967	
VALHALLA			
AMERICAN HEALTH FOUNDATION ZIP CODE 10595			
CHEN, CHI-HONG B.....	CHEMOPREVENTION IN ENVIRONMENTAL CARCINOGENESIS.....	1R23 ES02236-01	42,080
FIALA, EMERICH S.....	MECHANISM OF ACTION OF COLON CARCINOGENESIS.....	2R26 CA15400-07	147,023
HECHT, STEPHEN S.....	ENVIRONMENTAL NITROSAMINES—METABOLISM & CARCINOGENESIS.....	3R01 CA23901-01S1	29,453
REDDY, BANDARU S.....	METABOLIC EPIDEMIOLOGY OF COLON CANCER.....	5R26 CA16382-05	103,919
WEISBURGER, JOHN H.....	CARCINOGENS AND MUTAGENS IN COLON CANCER.....	5R26 CA24217-02	68,491
ORGANIZATION TOTAL	5	390,966	
NEW YORK MEDICAL COLLEGE ZIP CODE 10595			
BLACK, MAURICE M.....	SPECIFIC IMMUNITY AND PROGNOSIS IN BREAST CANCER.....	1R01 CA25165-01	240,402
DANISHEFSKY, ISIDORE.....	HEPARIN, BLOOD COAGULATION AND LIPID METABOLISM.....	5R01 HL16955-06	92,142
DANISHEFSKY, ISIDORE.....	BLOOD COAGULATION COMPONENTS: CARBOHYDRATE STRUCTURES.....	1R01 HL23847-01	41,670
ELSEVIERS, DIRK.....	ACCURACY IN GENE EXPRESSION.....	5R01 GM24576-02	59,145
GORDON, EDWIN E.....	INSULIN AND GLUCAGON INTERACTION WITH KIDNEY CELLS.....	5R01 AM20184-02	64,246
GUIDERI, GIANCARLO.....	VENTRICULAR FIBRILLATION BY DRUG-DRUG INTERACTION.....	1R01 HL20052-01A2	63,525
GUTSTEIN, WILLIAM H.....	NEURAL FACTORS IN ATHEROGENESIS.....	3R01 HL18085-03S1	16,487
GUTSTEIN, WILLIAM H.....	NEURAL FACTORS IN ATHEROGENESIS.....	2R01 HL18085-04	110,802
HOCHSTADT, JOY.....	CARCINOGENESIS/MEMBRANE ENZYME & PERMEABILITY MUTANTS.....	5R01 CA23095-02	112,799
HOROWITZ, MARTIN I.....	BIOCHEMISTRY OF GASTRIC SULFATED GLYCOPROTEINS.....	5R01 AM15475-09	115,185
HOROWITZ, MARTIN I.....	BIOCHEMISTRY OF LIPIDS IN NORMAL AND ULCERATED STOMACHS.....	3R01 AM15565-07S1	32,046
KIKAWA, YUTAKA.....	ALVEOLAR TYPE II EPITHELIAL CELLS IN HEALTH & DISEASE.....	5R01 HD10366-04	158,025
LASKER, SIGMUND E.....	CHEMISTRY AND ACTIVITY OF HOMOLOGOUS HEPARIN FRACTIONS.....	5R01 HL18068-03	92,882
LERNER, ROBERT G.....	THE ROLE OF LEUKOCYTES IN THROMBOTIC DISEASE.....	5R01 HL14739-07	114,819
LEVERE, RICHARD D.....	CONTROL MECHANISMS IN HEME SYNTHESIS.....	5R01 AM21682-02	72,164
LOUD, ALDEN V.....	HYPOTHERMIA AND THE HEART.....	2R01 HL14713-07A1	129,317
MADDEN, ROBERT E.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17944-05	132,064
MC GIFF, JOHN C.....	REGULATION OF RENAL CIRCULATION AND SALT EXCRETION.....	7R01 HL25394-01	165,732
MOHOS, STEVEN C.....	PATHOGENESIS OF GLOMERULAR MICROANGIOPATHY.....	5R01 AM20766-03	89,567
NEWMAN, STUART A.....	NUCLEOSOME CONFORMATION AND GENE CONTROL.....	7R01 GM27674-01	38,075
ROTHBALLER, ALAN B.....	CNS CONTROL OF FLUID AND ELECTROLYTE METABOLISM.....	5R01 NS06624-14	100,389
ROTHENBERG, SHELDON P.....	KINETICS OF B12, INTRINSIC FACTOR, AND OTHER PROTEINS.....	2R01 AM06045-16	84,541
ROTHENBERG, SHELDON P.....	FOLATE REDUCTASE: INDUCTION, SUPPRESSION, THERAPEUTICS.....	5R01 CA08976-13	93,371
ROTMAN, MARVIN.....	GYNCOLOGIC ONCOLOGY GROUP.....	5R10 CA12483-09	106,572
ROTMAN, MARVIN.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA18358-04	86,103
RUBIN, SAMUEL H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05398-18	138,190
SHARMA, SANSAR C.....	GENESIS OF NEURAL SPECIFICITY IN THE VISUAL SYSTEM.....	5R01 EY01426-05	76,132
SLOMIANY, AMALIA.....	BIOCHEMISTRY OF NEUTRAL AND SULFATED GLYCOSPHINGOLIPIDS.....	1R01 AM25372-01	121,173
SLOMIANY, BRONISLAW L.....	BIOCHEMISTRY OF GLYCOLIPIDS IN GASTRIC SECRETION.....	5R01 AM21684-02	109,947
SMITH, FRED.....	METABOLISM OF NEUTRAL LIPIDS IN THE PULMONARY ALVEOLUS.....	5R23 HL21251-02	43,560
SOUTHREN, A LOUIS.....	CORTISOL METABOLISM IN GLAUCOMA AND CATARACT.....	3R01 EY01313-04S1	27,949
SOUTHREN, A LOUIS.....	CORTISOL METABOLISM IN GLAUCOMA.....	2R01 EY01313-05	158,313
SOUTHREN, A LOUIS.....	STUDIES OF GLUCOCORTICOID INDUCED CATARACT.....	5R01 EY02652-02	100,544
SPRINGER, ALAN D.....	NEUROPEPTIDE FACILITATION OF MEMORY IN SENESCENCE.....	7R01 AG02150-01	32,152

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SZABO, ANDREW J	INSULIN-SENSITIVE GLUCOREGULATOR IN THE C N S	2R01 AM17347-07	113,783
TERRAGNO, ALICIA D	PROSTAGLANDINS: RENAL FUNCTION AND BLOOD PRESSURE	1R01 HL24811-01	92,179
TERRAGNO, NORBERTO A	HORMONAL REGULATION OF BLOOD PRESSURE AND BLOOD FLOW	7R01 HL25406-01	148,809
THEIS, GAIL A	RESPONSES OF LYMPHOCYTES TO AN ONCOGENIC HERPES VIRUS	2R01 CA18904-04	108,294
VILLANUEVA, GERMAN B	STUDIES ON ANTITHROMBIN III-THROMBIN-HEPARIN REACTIONS	1R01 HL23265-01	71,968
WALLACE, SUSAN S	MODIFICATION OF X-RAY INDUCED DAMAGES IN PHAGE T4	5R01 CA21342-04	90,187
WALLACE, SUSAN S	RADIATION REPAIR IN DROSOPHILA MELANOGASTER	1R01 CA24953-01A1	28,757
WONG, PATRICK Y	PROSTAGLANDINS AND THROMBOXANE IN PERIODONTAL DISEASES	7R23 DE05601-01	34,882
WONG, PATRICK Y	METABOLISM OF ARACHIDONIC ACID IN BLOOD VESSELS	7R23 HL25158-01	44,232
WONG, PATRICK Y	PROSTACYCLIN, THROMBOXANE, BLOOD VESSELS & HYPERTENSION	1R01 HL25316-01	139,632
ORGANIZATION TOTAL	44 4,092,753		
WILLIAMSVILLE			
ERIE COMMUNITY COLLEGE	ZIP CODE 14221		
NINAN-ADANGAPURAM, THAMBY	HOST-MEDIATED ASSAY OF CARCINOGENIC & MUTAGENIC AGENTS	5R01 CA18478-03	35,665
ORGANIZATION TOTAL	1 35,665		
STATE TOTAL	2,446 285,212,331		
NORTH CAROLINA			
CHAPEL HILL			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514			
BACHENHEIMER, STEVEN L	TRANSCRIPTION OF THE HERPES SIMPLEX VIRUS GENOME	5R01 AI14377-02	47,367
BARROW, EMILY S	GENETIC LINKAGE IN VON WILLEBRAND'S DISEASE	1R01 HL24207-01	57,342
BAWDEN, JAMES W	F BINDING BY EARLY ENAMEL MATRIX PROTEINS	1R01 DE05289-01	59,804
BLAUROCK, ALLEN E	LOCATING PROTEINS IN THE MYELIN MEMBRANE	1R01 NS15658-01	60,447
BONDURANT, STUART	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00046-19	817,917
BONDURANT, STUART	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05406-18	201,413
BOTT, KENNETH F	CHARACTERIZATION OF THE B SUBTILIS CHROMOSOME ORIGIN	1R01 GM26399-01	55,821
BOUCHER, RICHARD C	THE AIRWAY MUCOSAL BARRIER	5R01 HL22924-02	53,027
BOULDIN, THOMAS W	THE BLOOD-NERVE BARRIER IN PERIPHERAL NEUROPATHIES	1R23 ES02083-01	43,455
BREESE, GEORGE R	NEUROPSYCHOPHARMACOLOGY OF DEVELOPMENTAL DISORDERS	5P01 HD10570-03	519,755
BRIGGAMAN, ROBERT A	UTILIZATION OF EPIDERMAL CELL MODEL FROM HUMAN SKIN	5R01 AM10546-14	70,205
BRINKHOUS, KENNETH M	BLOOD COAGULATION AND HEMOPHILIA	5R01 HL01648-32	92,015
BROOKS, FREDERICK P, JR	REGIONAL GRAPHICS RESOURCE FOR MOLECULAR STUDIES	3P41 RR00898-05S1	173,084
BROOKS, FREDERICK P, JR	GRAPHICS RESOURCE FOR MOLECULAR STRUCTURE STUDIES	2P41 RR00898-06	248,258
BUTLER, THOMAS C	STEREOCHEMISTRY OF METABOLISM OF SOME ANTIEPILEPTICS	1R01 NS14852-01	55,447
CAPLOW, MICHAEL	BIOCHEMICAL MECHANISMS RELEVANT TO DENTISTRY	5R01 DE03246-10	70,665
CARDENAS, JANET M	INBORN ERRORS AND PYRUVATE KINASE ISOZYMES	5R01 AM25247-02	44,503
CARTER, CHARLES W, JR	STRUCTURAL STUDIES OF PROTEIN-TO-NUCLEIC ACID BINDING	5R01 GM21991-04	52,328
CARTER, CHARLES W, JR	TRP-TRNA LIGASE AND SUBSTRATE COMPLEXES: X-RAY STUDY	1R01 GM26203-01	65,609
CHAE, CHI-BOM	ROLE OF CHROMOSOMAL PROTEASE IN AGING	5R01 AG00103-05	37,217
CHAE, CHI-BOM	ROLE OF CHROMOSOMAL PROTEASE IN NUCLEAR FUNCTIONS	5R01 GM21846-04	45,650
CHANDROSS, RONALD J	MOLECULAR ORGANIZATION OF PRIMITIVE STRUCTURAL PROTEINS	1R01 AM24071-01A1	72,422
CHANEY, STEPHEN G	ANTINEOPLASTIC PROTEIN SYNTHESIS INHIBITORS	1R01 CA26466-01	61,776
CHENG, YUNG-CHI	DEVELOPMENT AND STUDY OF NEW ANTICANCER AGENTS	1R01 CA27364-01	81,591
CHENG, YUNG-CHI	CANCER CHEMOTHERAPY AND DEOXYNUCLEOTIDE METABOLISM	7R01 CA27448-01	42,066
CLYDE, WALLACE A, JR	PULMONARY SCOR: LUNG INJURY BY CHILDHOOD INFECTIONS	5P50 HL19171-03	549,229
COOPER, CARY W	CALCIUM, CALCEMIC HORMONES AND GASTRIN	5R01 AM17743-05	78,928
DOMBROSE, FREDERICK A	THROMBOGENIC PHOSPHOLIPID SURFACES	5R01 HL22771-02	74,700
DUDLEY, KENNETH H	STUDIES RELEVANT TO RATIONAL ANTIEPILEPTIC THERAPY	5R01 NS12791-02	75,652
DYKSTRA, LINDA A	SIGNAL DETECTION ANALYSIS OF NARCOTIC ANALGESICS	5R01 GM22683-05	41,080
EARP, H SHELTON, III	THE REGULATION AND SIGNIFICANCE OF HEPATIC CYCLIC GMP	5R01 AM19796-03	48,096
ELDRIDGE, FREDERIC L	NEUROPHYSIOLOGICAL STUDIES OF RESPIRATORY CONTROL	5R01 HL17689-07	67,469
ELSTON, ROBERT C	GENETIC ANALYSIS OF MULTIFACTORIAL TRAITS	2R01 GM16697-10	94,063

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
FAUST, ROBERT G.	INTESTINAL AND RENAL MEMBRANE TRANSPORT SYSTEMS	5R01 AM21063-02	109,432
FINN, ARTHUR L.	TRANSPORT AND ELECTROPHYSIOLOGY IN ISOLATED EPITHELIA	5R01 AM17854-06	107,042
FINN, ARTHUR L.	CONTROL OF CELL VOLUME IN NA-TRANSPORTING EPITHELIA	1R01 AM25483-01	125,100
FONSECA, RAYMOND J.	OSSEOUS HEALING IN RIDGE AUGMENTATION PROCEDURES	5R01 DE04918-02	49,392
FORDHAM, CHRISTOPHER, III	CHILD DEVELOPMENT AND MENTAL RETARDATION	5P30 HD03110-13	586,093
FOWLER, WESLEY C, JR.	GYNCOLOGIC ONCOLOGY GROUP	5R10 CA23073-02	33,959
FREEDLENDER, ELIZABETH F.	STRUCTURE-FUNCTION RELATIONSHIPS OF ANTITUMOR LECTINS	1R01 CA26055-01	75,224
FREEDLENDER, ELIZABETH F.	SEGREGATION OF CHROMOSOMAL PROTEINS	1R01 GM25864-01	75,784
FRENCH, FRANK S.	DEVELOPMENT OF MALE REPRODUCTIVE FUNCTION	5R01 HD04466-09	109,162
FRIEDMAN, MITCHELL	HYPOXEMIC RESPIRATORY FAILURE. PHYSIOLOGIC EVALUATION	5R23 HL21168-02	32,418
GATZY, JOHN T, JR.	AIRBORNE METALS AND LUNG PERMEABILITY	5R01 HL16674-06	46,576
GERATZ, J DIETER	SPECIFIC INHIBITORS OF COAGULATION AND FIBRINOLYSIS	5R01 HL21540-03	68,455
GETTES, LEONARD S.	EFFECT OF DRUGS ON ISCHEMIC CARDIAC CELLS	5R01 HL23624-02	126,942
GOTTSCHALK, CARL W.	MICROPUNCTURE STUDY OF KIDNEY FUNCTION	5R01 HL02334-24	277,114
GOZ, BARRY	IDURO AND ALKALINE PHOSPHATASE IN HUMAN CANCER CELLS	5R01 CA16460-05	54,545
GRAHAM, JOHN B.	HEMOSTASIS RESEARCH PROGRAM-GENETICS	2P01 HL06350-18	514,406
GRAY, T KENNEY	HORMONAL CONTROL OF CALCIUM AND PHOSPHATE ABSORPTION	5R01 AM17835-06	41,507
GREENBERG, B G.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR03450-18	23,015
GRIGGS, THOMAS R.	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	1R01 HL24609-01	88,732
GRISHAM, JOE W.	TOXICITY IN DNA REPAIR DEFICIENT AND PROFICIENT CELLS	5R01 CA24144-02	82,144
GULICK, JOHN	LIFE COURSES OF FEMALE YOUTH IN SHIRAZ, IRAN	1R01 HD12403-01	90,727
GWYNNE, JOHN T.	SERUM LIPOPROTEINS AND CELL CHOLESTEROL METABOLISM	5R01 HL20061-03	58,272
HADLER, NORTIN M.	HYALURONATE MATRIX STRUCTURE AND SOLUTE MOVEMENT	1R01 AM19992-01A2	61,320
HANKER, JACOB S.	SALIVARY GLANDS AND THEIR INNERVATION IN DIABETES	5R01 DE04730-02	70,306
HARDEN, T KENDALL	NEUROTRANSMITTER RECEPTORS OF CULTURED HEART CELLS	5R23 HL22490-02	38,484
HARPER, CURTIS	ENVIRONMENTAL ORGANOHALOGENS LUNG TOXICITY	5R01 CA21705-02	65,710
HARRIS, ALBERT K.	CONTROL AND GUIDANCE OF TISSUE CELL LOCOMOTION	2R01 GM24251-03	86,302
HARRISON, JOHN H.	STRUCTURAL PROPERTIES OF MALATE DEHYDROGENASE	2R01 HL12585-11	62,510
HASKILL, JOHN S.	IMMUNITY TO HUMAN OVARIAN TUMORS AND CHEMOTHERAPY	5R01 CA23648-02	135,683
HASSELL, THOMAS M.	ORAL MANIFESTATIONS OF PHENYTOIN THERAPY	1R13 DE05433-01	9,528
HAUGHTON, GEOFFREY	ANTIGEN INDUCED LYMPHOMA OF MICE	1R01 CA23770-01	38,458
HAYWARD, JAMES N.	CENTRAL NEURAL REGULATION OF BODY FLUIDS	5R01 NS13411-04	74,806
HEIZER, WILLIAM D.	INTESTINAL PEPTIDASES: PROPERTIES AND FUNCTIONS	5R01 AM15119-09	108,225
HENSON, O'DELL W, JR.	MECHANISMS OF ACOUSTIC PERCEPTION AND ORIENTATION	5R01 NS12445-05	60,999
HERMANS, JAN	ASSEMBLY, STRUCTURE AND INTERACTIONS OF FIBRIN	5R01 HL20319-03	86,108
HIRSCH, PHILIP F.	REGIONAL DENTAL RESEARCH CENTER	5P50 DE02668-13	1,400,600
HISKEY, RICHARD G.	GAMMA-CARBOXYGLUTAMIC ACID ROLE IN BLOOD COAGULATION	5R01 HL20161-03	111,195
HOLCOMB, GEORGE R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07072-14	107,999
HUANG, ENG-SHANG	ANALYSIS OF HUMAN CYTOMEGALOVIRUSES	5R01 AI12717-05	77,389
HUANG, ENG-SHANG	CYTOMEGALOVIRUSES AND HUMAN MALIGNANCY	1R01 CA21773-01A1	59,703
HUTCHISON, CLYDE A, III	GENETICS AND DNA CHEMISTRY OF PHAGE PHI X-174	5R01 AI08998-11	94,386
HUTCHISON, CLYDE A, III	EUKARYOTIC GENE ORGANIZATION	5R01 GM21313-05	128,789
HUTT, LINDSEY M.	FUNCTIONS OF ATYPICAL LYMPHOCYTES	5R01 CA22093-03	57,967
IBRAHIM, MICHEL A.	PILOT EVALUATION STUDIES OF HIGH BLOOD PRESSURE CONTROL	1R01 HL24003-01	243,644
IRVIN, J LOGAN	CHANGES IN NUCLEAR PROTEINS IN SPERMATOGENESIS	5R01 HD05277-08	58,938
JENKINS, DAVID B.	ANATOMICAL INVESTIGATION OF THE INNER EAR	1R01 NS14961-01	44,002
JOHNSON, CHARLES S, JR.	HEMOGLOBIN S GELS: FACTORS INFLUENCING AGGREGATION	2R01 AM17823-04A1	64,361
JONES, MARY E.	CARBAMYL ENZYMES AND DIFFERENTIATION	2R01 HD12787-02	122,162
KAER, ENID R.	EFFECTS OF ANESTHESIA AND LOADING ON RESPIRATION	5R01 HL17314-05	37,608
KAUFMAN, DAVID G.	CHEMICAL CARCINOGENESIS AND CELL PROLIFERATION	5R01 CA20658-03	64,084
KIERSZENBAUM, ABRAHAM L.	HORMONE-CYCLIC NUCLEOTIDES IN SERTOLI CELL CULTURES	5R01 HD11884-02	104,558
KINGDON, HENRY S.	CHEMISTRY AND BIOLOGY OF FACTOR IX ACTIVATOR	5R01 HL16633-05	32,560
KLAPPER, DAVID G.	RAGWEED POLLEN ALLERGEN ANTIGEN E	5R23 AI14908-02	40,179
KOCH, WILLIAM E.	IN VITRO ANALYSIS OF DEVELOPING ORAL-FACIAL TISSUES	5R01 DE04580-03	82,235
KOEHLER, KARL A.	STRUCTURAL REQUIREMENTS FOR FRAGMENT-1 FUNCTION	1R01 HL23881-01	61,395
KOEPE, JOHN K.	MOLECULAR AND ENVIRONMENTAL EFFECTS OF ALTOSID (TM)	5R01 ES01563-03	38,706
KRIGMAN, MARTIN R.	NEUROBIOLOGY OF ENVIRONMENTAL POLLUTANTS	5P01 ES01104-05	637,042
KUNO, MOTYO	INDUCTIVE INTERACTIONS OF MOTONEURON AND MUSCLE	5R01 NS10319-09	102,545
KUSY, ROBERT P.	SELF-ACTIVATING DEVICES FOR CLEFT-PALATE CHILDREN	5R23 DE04707-03	10,502
LA LONE, BRIAN J.	PULSATILE REGULATION OF FLOW IN THE MICROCIRCULATION	7R23 HL25401-01	45,776

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
LANGER, ALAN W.	BLOOD PRESSURE CONTROL AND PSYCHOLOGICAL STRESS	1R23 HL24643-01	44,310
LAUDER, JEAN M.	HORMONAL AND HUMORAL INFLUENCES ON BRAIN DEVELOPMENT	7R01 NS15706-01	49,386
LAUSON, EDWARD E.	NEUROPHYSIOLOGIC CONTROL OF CENTRAL APNEA IN NEWBORNS	1R01 HD13280-01	56,618
LEE, KUO-HSIUNG	PLANT ANTITUMOR AGENTS	5R01 CA17625-05	67,270
LEE, KUO-HSIUNG	ANTI-LEUKEMIC BRUCEANTIN ANALOGS	5R01 CA22929-02	60,477
LEINFELDER, KARL F.	CORROSION OF PRECIOUS METAL ALLOYS	5R01 DE04101-05	73,140
LIGHT, KATHLEEN A.	BLOOD PRESSURE DURING STRESS—LABORATORY & FIELD STUDY	1R23 HL23718-01	42,838
LOCKWOOD, ARTHUR H.	MICROTUBULE ASSEMBLY IN NORMAL AND TRANSFORMED CELLS	5R01 GM25558-02	53,116
LUCCHESI, JOHN C.	GENETIC REGULATION IN DROSOPHILA: DOSAGE COMPENSATION	2R01 GM15691-12	152,556
MAILMAN, RICHARD B.	INFANTILE LEAD TREATMENT ALTERS DRINKING BEHAVIOR	1R23 ES02087-01	40,845
MARONI, GUSTAVO P.	REGULATION OF ALCOHOL DEHYDROGENASE IN DROSOPHILA	1R01 GM26207-01	44,508
MATTHYSSE, ANN G.	THE MECHANISM OF TUMORIGENESIS BY A. TUMEFACIENS	2R01 CA18604-04	43,230
MC DONAGH, JAN M.	MOLECULAR BIOLOGY OF FACTOR XIII	5R01 HL21139-03	80,319
MC DONAGH, RICHARD P, JR.	MOLECULAR PATHOLOGY OF FIBRINOGEN AND FACTOR XIII	5R01 HL22505-02	47,442
MC ILWAIN, DAVID L.	BULK ISOLATION OF LARGE SPINAL NEURONS	5R01 NS12103-05	49,832
MECHANIC, GERALD L.	PHYSIOLOGY AND CHEMISTRY OF BONE: VITAMIN D NUTRITION	1R01 AM19969-01A1	43,077
MEISSNER, GERHARD W.	SARCOPLASMIC RETICULUM FUNCTION AND REASSEMBLY	5R01 AM18687-04	47,757
MINKOFF, ROBERT	ANALYSIS OF PRIMARY PALATE FORMATION	5R01 DE04731-03	78,236
MORELL, PIERRE	ASSEMBLY AND MAINTENANCE OF BRAIN MEMBRANES	5R01 NS11615-07	118,299
MUNSON, PAUL L.	PEPTIDE HORMONES AFFECTING CALCIUM METABOLISM	5R01 AM10558-14	74,872
NEWSOME, JAMES F.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17973-05	231,803
O'KEEFE, EDWARD J.	EPIDERMAL GROWTH FACTOR IN PROLIFERATIVE SKIN DISEASE	1R01 AM25871-01	87,509
O'TUAMA, LORCAN A.	REGULATION OF NEURAL DISTRIBUTION OF HEAVY METALS	5R01 ES01151-05	91,369
OBRIEN, PAUL A.	BLOOD PRESSURE CONTROL: RELATION TO BEHAVIORAL STRESS	5R01 HL18976-04	127,995
ONTJES, DAVID A.	HORMONE RECEPTORS AND ADENYLATE CYCLASE IN THE ADRENAL	2R01 AM19288-04	85,376
ORNSTEIN, PETER A.	THE DEVELOPMENT OF CHILDREN'S MNEMONIC SKILLS	5R01 HD08459-05	39,057
PAGANO, JOSEPH S.	CANCER CENTER SUPPORT GRANT	5P30 CA16086-05	457,764
PAGANO, JOSEPH S.	DNA VIRUS GENOMES, ONCOGENESIS AND LATENCY	3P01 CA19014-03S1	105,720
PARKER, JOHN C.	ION TRANSFER AND METABOLISM IN MAMMALIAN RED BLOOD CELLS	5R01 AM11356-13	88,265
PARR, ROBERT G.	THE QUANTUM THEORY OF MOLECULAR ISOELECTRONIC CHANGES	3R01 GM22028-05S1	22,675
PEARLMAN, WILLIAM H.	ADRENOCORTICAL HORMONE METABOLISM BY LACTATING BREAST	5R01 HD11950-02	20,089
PENG, TAI-CHAN	C-CELLS AND CALCITONIN IN GOITER AND AGING	5R01 AG00686-03	56,241
PENNIALL, RALPH	MITOCHONDRIAL CHANGES IN DEVELOPMENT AND AGING	5R01 AG00256-03	64,879
PERKINS, JOHN P.	CHARACTERISTICS OF PGE-SENSITIVE ADENYLATE CYCLASES	5R01 GM25163-02	72,932
PERL, EDWARD R.	SPINAL AND PROJECTION MECHANISMS RELATED TO PAIN	5R01 NS10321-09	127,211
PIMMEL, RUSSELL L.	MEASUREMENT OF AIRWAYS MECHANICS	5R01 HL19118-04	63,118
PIMMEL, RUSSELL L.	FORCED RANDOM NOISE RESPIRATORY MECHANICS IN CHILDREN	1R01 HL23822-01	66,052
POWELL, DON W.	MECHANISMS OF INTESTINAL SECRETION	2R01 AM15350-08	58,960
POWELL, DON W.	THE ESOPHAGEAL MUCOSAL BARRIER	1R01 AM21873-01	89,059
PROFFIT, WILLIAM R.	INFLUENCES ON STABILITY FOLLOWING ORTHOGNATHIC SURGERY	1R01 DE05215-01	113,901
RAJ, MADHWA H.	INHIBITION OF FOLLICLE STIMULATING HORMONE IN THE MALE	1R01 HD12254-01	92,150
RAMEY, CRAIG T.	LONGITUDINAL INTERVENTION FOR HIGH-RISK CHILDREN	3P01 HD09130-04S1	4,877
RAMEY, CRAIG T.	LONGITUDINAL INTERVENTION FOR HIGH-RISK CHILDREN	5P01 HD09130-05	530,763
REISNER, HOWARD M.	GENETIC HETEROGENEITY IN HEMOPHILIA A	1R01 HL23698-01	37,942
RHEINGOLD, HARRIET L.	SOCIAL AND EXPLORATORY BEHAVIOR OF THE INFANT	2R01 HD01107-15	66,936
ROSS, GORDON D.	MEMBRANE COMPONENTS OF NORMAL AND LEUKEMIC LEUKOCYTES	5R01 CA25613-02	137,289
RUSSELL, STEPHEN W.	MACROPHAGE-MEDIATED INJURY CAUSING TUMOR REGRESSION	2R01 CA23586-02	91,561
RUSTIONI, ALDO	ASCENDING PATHS & INTRINSIC SYNAPTOLOGY OF RELAY NUCLEI	5R01 NS12440-05	49,497
SALMON, EDWARD D.	MECHANISMS OF MITOTIC SPINDLE ASSEMBLY AND FUNCTION	5R01 GM24364-02	38,001
SCARBOROUGH, GENE A.	ENERGY TRANSDUCTION IN NEUROSPORA PLASMA MEMBRANES	5R01 GM24784-03	68,456
SCARBOROUGH, GENE A.	MEMBRANE POTENTIAL AND NEUROSPORA ADENYLATE CYCLASE	1R01 GM26500-01	40,357
SCHWAB, JOHN H.	BACTERIAL CELL WALLS IN RELAPSING EROSIVE SYNOVITIS	3P01 AI13464-03S1	103,463
SEALOCK, ROBERT W.	MECHANISMS OF ACETYLCHOLINE RECEPTOR LOCALIZATION	1R01 NS15293-01	65,485
SILVERMAN, LAWRENCE M.	CREATINE KINASE BB AS A MARKER OF PROSTATIC CARCINOMA	7R26 CA28112-01	46,999
SOBSEY, MARK D.	VIRUS CONTAMINATION OF SHELLFISH AND THEIR HABITAT	2R01 ES01349-04	54,714
SPARLING, PHILIP F.	NORTH CAROLINA PROGRAM ON SEXUALLY TRANSMITTED DISEASE	5P01 AI15036-02	499,751
SPITZNAGEL, JOHN K.	METABOLIC ASPECTS OF BACTERIAL ECOLOGY IN HOST TISSUE	5R01 AI02430-21	90,419
SPREMULLI, LINDA L.	MECHANISM OF PROTEIN BIOSYNTHESIS IN CHLOROPLASTS	5R01 GM24963-02	57,542
SPREMULLI, LINDA L.	MECHANISM OF A EUKARYOTIC RIBOSOME DISSOCIATION FACTOR	1R01 GM26731-01	37,142
STAFFORD, DARREL W.	CONTROL OF RRNA TRANSCRIPTION IN MOUSE MYELOMA CELLS	1R01 GM24233-01A1	75,782

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
STEINER, ALTON L.....	PHYSIOLOGIC ROLES OF CYCLIC GMP AND CYCLIC AMP.....	2R01 AM17438-07	147,368
STUART, ANN E.....	NEURAL MECHANISMS IN PROCESSING VISUAL INFORMATION.....	7R01 EY03347-01	105,184
STUMPF, WALTER E.....	HEART RECEPTOR SITES FOR DIGITALIS AND STEROID HORMONES.....	5R01 HL22079-02	48,060
STUMPF, WALTER E.....	HORMONE RECEPTORS IN THE BRAIN.....	5R01 NS09914-08	91,325
SWIFT, MICHAEL R.....	NEOPLASIA-PREDISPOSING GENES OF MAN.....	5R01 CA14235-08	132,457
SWIFT, MICHAEL R.....	NEOPLASIA-PREDISPOSING GENES IN CELL CULTURE.....	5R01 CA15207-06	71,257
TALMAGE, ROY V.....	7TH PARATHYROID CONFERENCE (CALCIUM-REGULATING HORMONES).....	1R13 AM26463-01	5,000
TAULBEE, JOHN D.....	SURVIVAL ANALYSIS OF COHORT STUDIES WITH COVARIABLES.....	1R23 ES01710-01A1	33,278
TAYLOR, DUANE F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05333-18	54,866
THURMAN, RONALD G.....	PHARMACOLOGY OF CARCINOGEN ACTIVATION IN INTACT CELLS.....	5R01 CA23080-03	55,998
TOPAL, MICHAEL D.....	MOLECULAR BASIS OF ENVIRONMENTALLY INDUCED MUTATIONS.....	1R01 GM24798-01A2	70,889
TOVERUD, SVEIN U.....	ACID PHOSPHATASES IN DEVELOPING BONES AND TEETH.....	1R01 DE05210-01	34,310
UDRY, J RICHARD.....	SUPPORT FOR POPULATION CENTER.....	3P30 HD05798-05S1	80,768
UDRY, J RICHARD.....	PUBERTAL AND SOCIAL FACTORS OF ADOLESCENT SEXUALITY.....	1R01 HD12806-01	211,245
UNDERWOOD, LOUIS E.....	THE HORMONAL CONTROL OF FETAL GROWTH.....	5R01 HD08299-06	45,389
UTIGER, ROBERT D.....	THYROID STIMULATING HORMONES IN PLASMA.....	7R01 AM26112-01	69,292
VAN WYK, JUDSON J.....	ROLE OF ENDOCRINE SECRETIONS IN GROWTH AND DEVELOPMENT.....	5R01 AM01022-24	128,890
VIG, PETER S.....	SPEECH ADAPTATIONS TO ORTHOGNATHIC SURGERY.....	1R01 DE05203-01	28,828
WALKER, DAVID H.....	PATHOGENESIS OF CELL INJURY IN SPOTTED FEVER.....	1R01 AI16023-01	56,815
WARREN, DONALD W.....	CLEFT PALATE, MALOCCLUSION AND LINGUAL ARTICULATION.....	2R01 DE04267-04	88,220
WEAKLY, JAMES N.....	SYNAPTIC DISTRIBUTION AND EFFICACY IN SKELETAL MUSCLE.....	1R01 NS15136-01	41,805
WERTZ, GAIL T.....	STUDIES OF VIRAL RIBONUCLEIC ACID REPLICATION.....	5R01 AI12464-04	69,281
WERTZ, GAIL T.....	PROTEINS INVOLVED IN REGULATION OF VIRAL RNA SYNTHESIS.....	5R01 AI15134-02	22,415
WHITE, JAMES R.....	STREPTONIGRIN: MECHANISMS OF ACTION.....	5R01 AI14962-02	54,079
WHITSEL, BARRY L.....	INFORMATION PROCESSING BY S-I AND S-II/R NEURONS.....	2R01 NS10865-06A2	75,382
WHITTEN, DAVID G.....	PHOTOCHEMICAL STUDIES OF MOLECULAR COMPLEXES.....	5R01 GM15238-12	64,843
WOLFENDEN, RICHARD V.....	CHEMICAL MECHANISMS OF BIOSYNTHESIS.....	5R01 GM18325-09	66,777
WYRICK, PRISCILLA B.....	VIRULENCE FACTORS OF CHLAMYDIAE.....	1R01 AI13446-01A2	60,685
ORGANIZATION TOTAL	181 19,203,141		
CHARLOTTE			
JOHNSON C. SMITH UNIVERSITY	ZIP CODE 28216		
CAIN, WILBERT.....	RESEARCH METHODS FOR PRE- AND PARA-MEDICAL STUDENTS.....	2S06 RR08022-08	257,548
ORGANIZATION TOTAL	1 257,548		
CULLOWHEE			
UNIVERSITY OF NORTH CAROLINA SYSTEM—WESTERN CAROLINA UNIVERSITY	ZIP CODE 28723		
LUMB, ROGER H.....	PHOSPHOLIPID EXCHANGE PROTEINS IN LUNG TISSUE.....	5R01 HL21176-03	50,158
ORGANIZATION TOTAL	1 50,158		
DURHAM			
DUKE UNIVERSITY	ZIP CODE 27706		
ABOU-DONIA, MOHAMED B.....	DELAYED NEUROTOXICITY OF ORGANOPHOSPHORUS PESTICIDES.....	5R01 ES01186-03	54,359
ABOU-DONIA, MOHAMED B.....	MODEL FOR ORGANOPHOSPHORUS NEUROTOXICITY.....	1R01 ES02211-01	95,284
ADAMS, DOLPH O.....	TUMORICIDAL EFFECTS OF MACROPHAGES: PATHOLOGIC STUDY.....	5R01 CA16784-05	44,532
AMOS, D BERNARD.....	IMMUNOLOGIC STUDY OF HUMAN HLA AND MOUSE H-2 ANTIGENS.....	5R01 AI08897-11	295,193
AMOS, D BERNARD.....	CELL-MEDIATED IMMUNITY TO ASCITES TUMORS.....	5R01 CA14049-08	237,895
AMOS, D BERNARD.....	F.A.C.S. OF IMMUNOLOGIC COMPONENTS.....	1R01 CA28099-01	93,742
AMOS, D BERNARD.....	STUDIES OF THE IMMUNOGENETICS OF MAN.....	5R01 GM10356-16	300,396
ANDERSON, NELS C, JR.....	ELECTROPHYSIOLOGY OF PARATHYROID AND CALCITONIN CELLS.....	5R01 AM21779-02	43,246
ANDERSON, PAGE A.....	DEVELOPING HEART: BIOPHYSICAL ASPECTS.....	5R01 HL20749-02	49,292
ANLYAN, WILLIAM G.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00030-18	796,613
ANLYAN, WILLIAM G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05405-18	201,413
BALDWIN, STEVEN W.....	PHOTOANNEALATIONS IN NATURAL PRODUCTS SYNTHESIS.....	1R01 GM26266-01	61,172
BELL, ROBERT M.....	REGULATION OF TRIACYLGLYCEROL SYNTHESIS IN ADIPOCYTES.....	5R01 AM20205-03	58,043
BELL, ROBERT M.....	REGULATION OF MEMBRANE PHOSPHOLIPID SYNTHESIS.....	5R01 GM20015-06	65,377

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
BENNETT, PETER B.....	ENVIRONMENTAL BIOMEDICAL RESEARCH PROGRAM.....	5P01 HL07896-16	916,143
BIGNER, DARELL D.....	BRAIN TUMORS: VIROLOGICAL AND IMMUNOLOGICAL STUDIES.....	5R01 CA11898-09	113,076
BIGNER, DARELL D.....	CELL SURFACE ANTIGENS GLIAL BRAIN TUMOR CELLS.....	5R01 CA22790-02	42,908
BJORNSSON, THORIR D.....	CLINICAL PHARMACOLOGY OF HEPARIN.....	1R01 HL24343-01	50,194
BLUM, JACOB J.....	CONTROL OF METABOLISM IN TETRAHYMENA.....	5R01 HD01269-17	120,115
BOLOGNESI, DANI P.....	CHARACTERIZATION OF HUMAN BREAST CANCER GLYCOPROTEINS.....	5R01 CA19905-03	59,715
BONAR, ROBERT A.....	RNA IN NORMAL AND NEOPLASTIC UROTHELIAL CELLS.....	5R26 CA14930-07	55,551
BONAVENTURA, JOSEPH.....	MARINE BIOMEDICAL CENTER (NIEHS).....	5P30 ES01908-02	91,635
BONAVENTURA, JOSEPH.....	MOLECULAR ADAPTATION: HEMOGLOBIN SYSTEMS OF FISH.....	2R01 HL15460-07	92,871
BOSSEN, EDWARD H.....	COMPARATIVE STEREOLOGY OF THE MYOCARDIUM.....	3R01 HL15888-05S1	3,756
BOYNTON, JOHN E.....	HEREDITARY CONTROL OF ORGANELLE STRUCTURE AND FUNCTION.....	5R01 GM19427-08	152,662
BRIGHT, DONALD S.....	TISSUE INJURY, REVASCULARIZATION, AND TRANSPLANTATION.....	5R01 GM25666-02	130,916
BRUMLEY, GEORGE W.....	PULMONARY SURFACTANT-FACTORS INFLUENCING PRODUCTION.....	1R01 HL21299-01A2	57,499
BUCKLEY, REBECCA H.....	STUDIES OF CELL-MEDIATED RESPONSES IN ATOPIC DISEASES.....	5P50 AI12026-06	73,648
BUCKLEY, REBECCA H.....	HUMAN LYMPHOCYTE RESPONSES TO POLLEN ALLERGENS.....	5R01 AI14314-03	63,643
BURNS, RICHARD O.....	MOLECULAR MECHANISMS OF BIOLOGICAL CONTROL.....	5R01 GM12551-15	77,774
CAMBIER, JOHN C.....	MOLECULAR BIOLOGY OF B-CELL TOLERANCE.....	1R01 AI16128-01	34,368
CANT, NELL.....	NEUROANATOMY OF THE AUDITORY SYSTEM.....	5R01 NS14655-02	61,724
CASSEDAY, JOHN H.....	NEURAL MECHANISMS RELATED TO BINAURAL HEARING.....	5R01 NS12322-05	107,814
COBB, FREDERICK R.....	REGIONAL BLOOD FLOW AFTER ACUTE MYOCARDIAL INJURY.....	5R01 HL18537-05	63,500
COHEN, HARVEY J.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA05634-19	105,789
CONN, PAUL M.....	REGULATION OF PITUITARY RESPONSIVENESS DURING AGING.....	1R23 AG01204-01	46,771
CONN, PAUL M.....	GONADOTROPIN RELEASING HORMONE ACTION-ROLE OF CA ²⁺ IONS.....	1R01 HD13220-01	57,392
COOPER, RALPH L.....	HORMONAL AND BEHAVIORAL CONSEQUENCES OF AGING.....	5R01 AG00566-03	55,589
CORLESS, JOSEPH M.....	RETINAL ROD PHOTORECEPTOR MEMBRANE STRUCTURE/FUNCTION.....	2R01 EY01659-04	132,931
COX, EDWIN B.....	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL.....	5R10 CA21192-03	81,394
CRAPPO, JAMES D.....	SUPEROXIDE DISMUTASE IMMUNOCYTOCHEMISTRY/OXYGEN TOXICITY.....	1R01 HL23805-01	117,446
CRAPPO, JAMES D.....	OXYGEN INDUCED INJURY TO THE PULMONARY ENDOTHELIUM.....	1R01 HL25044-01	95,194
CREASMAN, WILLIAM T.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA12534-09	80,330
CRESSWELL, PETER.....	MOLECULAR STUDIES OF THE MIXED LYMPHOCYTE RESPONSE.....	5R01 AI14016-03	96,889
CRESSWELL, PETER.....	SUBCLASS-SPECIFIC ANTIGENS OF HUMAN T-CELLS.....	1R01 AI15775-01	60,095
DANIELS, CHARLES A.....	THE INFLAMMATORY RESPONSE IN VIRAL INFECTION.....	5R01 DE04609-02	46,574
DAY, EUGENE D.....	STUDIES OF GLIAL CELL MEMBRANES AND MYELIN.....	5R01 NS10237-08	86,498
DENNIS, VINCENT W.....	TRANSPORT AND METABOLISM IN PROXIMAL RENAL TUBULES.....	1R01 AM26201-01	115,109
ECKERMAN, CAROL O.....	THE SOCIAL INTERACTIVE SKILLS OF THE HUMAN INFANT.....	1R01 HD12635-01	69,470
EISENBARTH, GEORGE S.....	CHARACTERIZATION OF ISLET CELL SURFACE MOLECULES.....	1R23 AM25778-01	43,400
ENDOW, SHARYN A.....	ISOLATION AND CHARACTERIZATION OF DROSOPHILA ACTIN GENE.....	5R01 GM25583-02	68,140
ERICKSON, CARL J.....	ENDOCRINE FACTORS IN THE SOCIAL BEHAVIOR OF ANIMALS.....	5R01 HD04482-10	54,930
ERICKSON, HAROLD P.....	IMMUNO-ELECTRON MICROSCOPY OF FIBRINOGEN AND FIBRIN.....	1R01 HL23454-01	73,666
EVANS, EVAN A.....	RBC AND ENDOTHELIAL MEMBRANE MATERIAL CHARACTERISTICS.....	5R01 HL16711-06	54,665
FALLETTA, JOHN M.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA15525-06	41,462
FAY, JOSEPH W.....	HUMAN LEUKEMIA MARROW.....	1R23 CA26401-01	38,860
FRIDOVICH, IRWIN.....	THE BIOLOGICAL FUNCTIONS OF SUPEROXIDE DISMUTASES.....	5R01 GM10287-17	120,158
FUCHS, JAMES C.....	ARTERIAL BYPASS SURGERY: STRUCTURE AND METABOLISM.....	5R01 HL17369-05	83,863
GALLAGHER, JOHN J.....	PHYSIOLOGICAL BASIS OF ARRHYTHMIAS AND THEIR THERAPY.....	2R01 HL15190-08	107,679
GILBERT, DAVID B.....	ATHEROSCLEROSIS, AND DIABETES MELLITUS.....	3R01 HL20471-03S1	5,989
GOLDSMITH, LOWELL A.....	STRUCTURAL PROTEINS IN GENETIC DEFECTS OF EPIDERMIS.....	5R01 AM17253-07	87,699
GOLDSMITH, LOWELL A.....	FETAL-MATERNAL NUTRITION DETERMINED BY HAIR ANALYSIS.....	3R01 AM17977-05S1	13,340
GOODING, LINDA R.....	MEMBRANE ANTIGEN ORGANIZATION IN TUMOR IMMUNITY.....	1R01 CA26476-01	153,062
GREENE, RONALD C.....	BIOCHEMISTRY OF SULFONIUM COMPOUNDS.....	5R01 GM10317-17	52,100
GREENFIELD, JOSEPH C, JR.....	THE DISTRIBUTION OF FLOW IN THE MYOCARDIUM.....	3R01 HL18468-03S1	58,178
GREENFIELD, JOSEPH C, JR.....	THE DISTRIBUTION OF FLOW IN THE MYOCARDIUM.....	5R01 HL18468-04	147,604
GRUBB, BARBARA R.....	CARDIAC FUNCTION DURING EXERCISE.....	1R23 HL24269-01	44,021
GRUFFERMAN, SEYMOUR.....	THE EPIDEMIOLOGY OF MULTIPLE MYELOMA.....	5R01 CA22104-03	50,628
GUILD, WALTER R.....	PNEUMOCOCCAL PHAGE AS GENETIC TOOLS.....	2R01 GM21887-04	63,653
HACKEL, DONALD B.....	HEART PATHOLOGIC, METABOLIC AND PHYSIOLOGIC STUDIES.....	5R01 HL05875-19	74,859
HAGEN, PER-OTTO F.....	SURGICAL AND METABOLIC ASPECTS OF VENOUS GRAFTS.....	5R01 HL15448-07	132,732
HALL, WILLIAM C.....	STRUCTURE AND FUNCTION OF NEOCORTEX.....	5R01 NS09623-08	48,224
HANDWERGER, STUART.....	THE CHEMISTRY AND PHYSIOLOGY OF PLACENTAL LACTOGEN.....	5R01 HD07447-05	100,854
HARRIS, ROBERT H.....	URINARY FACTORS INFLUENCING RENAL FUNCTION AND GROWTH.....	1R01 AM26202-01	87,644

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
HAYES, EDWARD C. III.....	REPLICATION AND ENCAPSIDATION OF REOVIRUS RNA.....	5R01 AI10132-08	36,402
HEMPEL, FRANKLIN G.....	CYTOCHROME REDOX STATES IN FUNCTIONING RETINA.....	5R01 EY01953-03	43,368
HERSHFIELD, MICHAEL S.....	A LYMPHOBLAST MODEL FOR DISEASES OF PURINE METABOLISM.....	5R01 AM20902-02	34,540
HERSHFIELD, VICKERS.....	STREPTOCOCCUS PLASMIDS: MOLECULAR GENETIC ANALYSIS.....	1R01 AI15619-01	78,478
HEYMAN, ALBERT.....	CASE-CONTROL STUDY OF PRESENILE AND SENILE DEMENTIA.....	5R21 AG01186-02	78,383
HEYMAN, ALBERT.....	SUPPORT FOR CEREBROVASCULAR RESEARCH CENTER.....	5P50 NS06233-14	311,982
HEYMAN, ALBERT.....	DETECTION OF TIA IN AN ELDERLY COMMUNITY.....	5R01 NS13643-03	90,588
HILL, ROBERT L.....	STRUCTURE AND FUNCTION OF PROTEINS.....	5R01 GM25766-19	203,563
HOCHMUTH, ROBERT M.....	DISSIPATION IN RED CELL MEMBRANE AND LIPID BILAYERS.....	1R01 HL23728-01	90,121
HOLMES, EDWARD W. JR.....	PURINE METABOLISM IN GOUT.....	2R01 AM12413-12	115,574
HYLANDER, WILLIAM L.....	STRAIN IN THE FACIAL BONES.....	5R01 DE04531-03	21,962
JENNINGS, ROBERT B.....	MYOCARDIAL ISCHEMIA.....	5R01 HL23138-02	173,136
JIRTLE, RANDY L.....	SURVIVAL AND CARCINOGENESIS IN TRANSPLANTED HEPATOCYTES.....	1R01 CA25951-01	37,986
JOBSIS, FRANS F.....	IN VIVO REDOX RELATIONS OF BRAIN FUNCTION.....	1R01 NS15682-01	115,498
JOHNSON, EDWARD A.....	FUNCTIONS AND MECHANISM OF CELL MEMBRANE ION TRANSPORT.....	5P01 HL12157-12	641,528
JOHNSON, G. ALLAN.....	NEW FLUORESCENT X-RAY TUBES FOR MAMMOGRAPHY.....	1R23 CA25372-01	34,950
JOKLIK, WOLFGANG K.....	MACROMOLECULAR SYNTHESIS IN VIRUS-INFECTED CELLS.....	2R01 AI08909-12	236,332
JOKLIK, WOLFGANG K.....	VIRUS- AND CELL-INHIBITORY ACTIVITY OF INTERFERON.....	1R01 CA24987-01	59,111
JONES, RAYFORD S.....	CONTROL OF CANALICULAR AND DUCTULAR BILE PRODUCTION.....	2R01 AM16421-06	70,790
JONES, ROBERT H.....	RADIONUCLIDE STUDIES IN CONGENITAL HEART DISEASE.....	5R01 HL20677-03	103,646
KAMIN, HENRY.....	BIOLOGICAL OXIDATIONS IN MITOCHONDRIA AND MICROSOMES.....	2R01 GM21226-18	139,983
KEENE, JACK D.....	REPLICATIVE MECHANISMS OF THE NEGATIVE STRAND VIRUSES.....	1R01 AI16099-01	77,152
KILLENBERG, PAUL G.....	ENZYMOLGY OF BILE ACID CONJUGATION.....	5R01 AM17786-06	103,648
KIM, SUNG-HOU.....	CRYSTALLINE COMPLEXES OF RNA WITH SMALL MOLECULES.....	5R01 CA15802-06	31,683
KIRSHNER, NORMAN.....	BIOCHEMISTRY OF THE ADRENAL MEDULLA.....	5R01 AM05427-18	75,205
KIRSHNER, NORMAN.....	BIOGENESIS OF CHROMAFFIN VESICLES.....	5R01 AM16811-06	62,058
KLINTWORTH, GORDON K.....	EXPERIMENTAL APPROACH TO DISEASES OF THE CORNEA.....	5R01 EY00146-08	148,545
KOREN, HILLEL S.....	NATURAL TUMOR CELL KILLING IN HUMANS.....	1R01 CA23354-01A1	106,301
KREDICH, NICHOLAS M.....	REGULATION OF SULFUR METABOLISM.....	5R01 AM12828-12	86,021
KYLSTRA, JOHANNES A.....	HIGH PRESSURE NERVOUS SYNDROME/LIQUID & HELIUM BREATHING.....	1R01 HL24049-01	58,887
LACK, LEON.....	PHARMACOLOGY OF INTESTINAL BILE SALT TRANSPORT.....	5R01 AM09582-16	106,748
LANG, DAVID J.....	LEUKEMIA AND CYTOMEGALOVIRUSES: RECIPROCAL EFFECTS.....	5R01 CA21772-03	101,562
LASZLO, JOHN.....	MECHANISMS OF DRUG INHIBITION OF HUMAN LEUKEMIC CELLS.....	5R01 CA08800-13	111,967
LASZLO, JOHN.....	GENERAL CLINICAL CANCER RESEARCH CENTER.....	5P01 CA11265-10	534,141
LAZARUS, GERALD S.....	THE ROLE OF PROTEINASES IN CUTANEOUS CATABOLISM.....	2R01 AM19067-05	168,507
LAZARUS, GERALD S.....	ANTI-CELL SURFACE PEMPHIGUS ANTIBODY.....	5R01 AM21848-02	85,584
LEBOVITZ, HAROLD E.....	HORMONES AND INTERMEDIARY METABOLISM.....	5R01 AM01324-23	110,317
LEFKOWITZ, ROBERT J.....	MOLECULAR PROPERTIES OF CARDIAC ADRENERGIC RECEPTORS.....	5R01 HL16037-07	144,386
LEFKOWITZ, ROBERT J.....	VASCULAR ALPHA-ADRENERGIC RECEPTOR MOLECULAR PROPERTIES.....	5R01 HL20339-03	59,240
LEVY, NELSON L.....	IMMUNITY TO HUMAN CANCER—FUNCTIONAL COMPONENTS.....	5R01 CA13070-08	106,652
LYNN, WILLIAM S.....	MOLECULAR CONTROL OF ADIPOCYTE METABOLISM BY INSULIN.....	5R01 AM16385-06	51,427
LYNN, WILLIAM S.....	SILICATE, PULMONARY SECRETIONS AND LUNG DISEASE.....	5P01 ES01581-02	249,737
LYNN, WILLIAM S.....	STRUCTURE, SOURCE AND FUNCTIONS OF ALVEOLAR GLYCOPROTEIN.....	5R01 HL21480-02	72,599
MACHEMER, ROBERT.....	VITRECTOMY THROUGH THE PARS PLANA.....	5R01 EY02903-02	106,724
MADDOX, GEORGE L.....	AN INTEGRATED INVESTIGATION OF AGING AND THE AGED.....	5P01 AG00364-21	284,115
MADDOX, GEORGE L.....	RESEARCH SUPPORT SERVICES FOR GERONTOLOGY CENTER.....	5P30 AG00371-07	331,906
MANDEL, LAZARO J.....	MECHANISMS OF ACTIVE AND PASSIVE SOLUTE TRANSPORT.....	5R01 AM16024-08	58,805
MANTON, KENNETH G.....	A DEMOGRAPHIC STUDY OF MULTIPLE CAUSES OF DEATH.....	5R01 AG01159-03	112,640
MARCHASE, RICHARD B.....	LIGATIN: A BASEPLATE PROTEIN IN RETINOCTAL ADHESION.....	1R01 EY02845-01	156,394
MC CLAY, DAVID R. JR.....	CELL SURFACE MOLECULES IN EMBRYONIC CELL ADHESION.....	2R01 GM22477-04	49,314
MC KEE, PATRICK A.....	STRUCTURE-FUNCTION STUDIES OF HUMAN FACTOR VIII/VWF.....	5R01 HL15615-07	123,786
MC KINNEY, JOHN C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07070-14	115,920
MC PHAIL, ANDREW T.....	SYNTHESIS AND ANTIARTHRITIC ACTIVITY OF BORON ANALOGS.....	1R01 AM26016-01	41,031
MENDELL, LORNE M.....	MECHANISMS OF PLASTICITY IN NEURONAL CONNECTIONS.....	5R01 NS08411-11	86,578
MENZEL, DANIEL B.....	ABSORPTION OF INHALED SUB-MICRON TRACE METALS.....	1R01 ES01859-01	81,078
MENZEL, DANIEL B.....	SYNTHETIC PEROXIDES IN THROMBOTIC MECHANISMS.....	1R01 HL22284-01A1	103,463
METZGAR, RICHARD S.....	IMMUNOLOGICAL STUDIES OF PRIMATE MEMBRANE ANTIGENS.....	5R01 AM08054-16	98,996
METZGAR, RICHARD S.....	HUMAN LEUKEMIA ASSOCIATED ANTIGENS.....	5R01 CA08975-13	115,816
MICHALOPOULOS, GEORGE.....	IN VITRO STUDIES IN CHEMICAL HEPATOCARCINOGENESIS.....	5R01 CA23398-02	62,369
MICKEY, DON D.....	DETECTION AND ISOLATION OF HUMAN BLADDER ANTIGENS.....	5R26 CA15292-06	99,677

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
MICKEY, DON D.	DETECTION OF RNA TUMOR VIRAL ANTIGENS IN HUMAN PROSTATE	3R26 CA19840-03S1	3,098
MILLER, JOHN N.	EARLY INTERSTITIAL LUNG WATER CHANGES IN ACUTE TRAUMA	5R01 GM25688-02	106,779
MILLS, ELLIOTT	PHARMACOLOGY OF CENTRAL CARDIOVASCULAR CONTROL	9R01 HL22861-02A1	55,444
MODRICH, PAUL L.	ENZYMATIC BASIS OF TYPE II RESTRICTION AND MODIFICATION	5R01 GM23719-04	63,597
MOORE, JOHN W.	PHYSIOLOGY OF EXCITABLE MEMBRANES	5R01 NS03437-19	94,281
MOORE, JOHN W.	COMPUTER METHODS FOR PHYSIOLOGICAL PROBLEMS	5R01 NS11613-05	65,574
MOSES, MONTROSE J.	CHROMOSOME ANALYSIS IN LEMURIFORM PRIMATES	5R01 GM23047-04	72,215
MOSES, MONTROSE J.	CYTOGENETIC ANALYSIS WITH THE SYNAPTONEMAL COMPLEX	5R01 HD12225-02	56,046
MYERS, GEORGE C.	CERTIFICATION OF CANCER RELATED DEATHS	5R01 CA23399-02	182,972
NICKLAS, R BRUCE	ANALYSIS AND CONTROL OF CHROMOSOME MOVEMENT	5R01 GM13745-14	61,314
NICKLAS, R BRUCE	SHARED ELECTRON MICROSCOPE FACILITY	1P41 GM27569-01	103,440
O'RAND, ANGELA M.	THE DETERMINANTS OF RETIREMENT AMONG OLDER WOMEN	1R01 AG02136-01	39,999
OWNBY, DENNIS R.	BIOCHEMICAL CORRELATES OF HUMAN LYMPHOCYTE FUNCTION	5R23 AI14323-02	48,553
PALMER, RICHARD A.	PHOTOACOUSTIC SPECTROSCOPY OF THE AGING LENS	3R01 EY02577-01S1	7,500
PALMER, RICHARD A.	PHOTOACOUSTIC SPECTROSCOPY OF THE AGING LENS	5R01 EY02577-02	42,374
PARMENTIER, JAMES L.	MODE OF ACTION OF VOLATILE ANESTHETICS	5R01 GM24936-02	51,954
PAULSON, DAVID F.	TISSUE CULTURE OF MAMMALIAN UROTHELIUM	2R26 CA15972-06	102,685
PETROW, VLADIMIR	STERIODS FOR PROSTATIC CANCER	1R26 CA27374-01	87,846
PINNELL, SHELDON R.	COLLAGEN BIOSYNTHESIS IN CONNECTIVE TISSUE DISEASE	5R01 AM17128-07	113,558
PINNELL, SHELDON R.	CHARACTERIZATION OF HEART VALVE COLLAGEN	3R01 HL18593-03S1	4,652
PIZZO, SALVATORE V.	CELL RECEPTORS IN COAGULATION AND ATHEROGENESIS	1R01 HL24066-01	74,812
PORTER, NED A.	PEROXY RADICALS TO PROSTAGLANDINS IN VESSELS & LUNG	5R01 HL17921-05	106,041
PORTER, NED A.	PROTACLYCIN & PEROXIDES IN BLOOD & MEMBRANE DISEASE	5R01 HL22219-02	49,806
PRITCHETT, EDWARD L.	ACCESSORY PATHWAYS AND SUPRAVENTRICULAR TACHYCARDIA	5R23 HL21347-03	47,303
RAJAGOPALAN, K V.	STRUCTURE AND FUNCTION OF ENZYMES—ROLE OF METALS	5R01 GM00091-34	124,090
RAMON, FIDEL	A MODEL SYSTEM FOR CARDIAC ACTION POTENTIALS	5R01 HL22767-02	31,284
REEDY, MICHAEL K.	MYOFIBRILLAR FINE STRUCTURE IN STRIATED MUSCLE	2R01 AM14317-10	147,270
REISNER, EMILY G.	ANALYZING HUMAN ALLOANTISERA BY ISOELECTRIC FOCUSING	5R01 AI13723-03	42,253
RICHARDSON, DAVID C.	CRYSTALLOGRAPHIC ANALYSIS OF PROTEIN STRUCTURES	5R01 GM15000-10	184,051
ROBERTSON, J DAVID	BIOPHYSICAL AND BIOCHEMICAL STUDIES OF CELLULAR MEMBRANE	5P01 GM23911-08	543,344
ROBINSON, ROSCOE R.	THE KIDNEY IN HEALTH AND DISEASE	3P01 AM17195-05S1	58,614
ROCHE, JAMES K.	AUTOIMMUNE PHENOMENA INDUCED BY SALIVARY MUCINS IN THE RAT	5R01 AM20201-03	36,323
ROSATI, ROBERT A.	STUDY OF ISCHEMIC HEART DISEASE	5P50 HL17670-05	1,343,167
ROSE, MARY C.	BRONCHIAL SECRETIONS: PHYSICAL AND CHEMICAL STUDIES	1R01 HL24896-01	65,615
ROSEN, GERALD M.	HEPATIC METABOLIC DYSFUNCTION ASSOCIATE WITH TRAUMA	5R01 GM25188-02	57,454
ROSEN, GERALD M.	POST TRAUMATIC FATTY ACID METABOLISM AND CELLULAR INJURY	1R01 GM25753-01	117,461
ROSES, ALLEN D.	BIOCHEMICAL STUDIES OF MEMBRANE PROTEINS IN DUCHENNE MD	5R01 NS13455-03	73,246
ROSES, ALLEN D.	ISOLATED MEMBRANE GLYCOPROTEINS	1R01 NS15060-01	83,395
ROSSE, WENDELL F.	IMMUNOLOGICAL LYSIS IN NEOPLASTIC DISEASE	5R01 CA10267-13	88,995
SABISTON, DAVID C, JR.	CORONARY INSUFFICIENCY AND MYOCARDIAL REVASCULARIZATION	5R01 HL09315-16	111,872
SALZANO, JOHN V.	REGULATION OF AIRWAY SMOOTH MUSCLE TONE	1R01 HL23812-01	78,983
SCHACHAT, FREDERICK H.	MOLECULAR BIOLOGY OF MUSCLE	1R01 NS15269-01	93,565
SCHIFFMAN, SUSAN S.	GUSTATORY AND OLFACTORY QUALITY CHANGES WITH AGE	5R01 AG00443-07	76,888
SCHMIDT-NIELSEN, KNUT	RESPIRATION, CIRCULATION, & HEAT REGULATION IN EXERCISE	5R01 HL02228-25	174,514
SCHOMBERG, DAVID W.	GONADOTROPIN RECEPTOR REGULATION IN VITRO AND IN VIVO	5R01 HD11827-02	91,183
SCOTT, DAVID W.	MECHANISM OF IMMUNOLOGIC TOLERANCE IN VIVO AND IN VITRO	3R01 AI10716-07S1	14,464
SCOTT, DAVID W.	MECHANISM OF IMMUNOLOGIC TOLERANCE IN VIVO AND IN VITRO	5R01 AI10716-08	111,246
SCOTT, DAVID W.	IMMUNE RESPONSE TO MODIFIED SELF AND TUMOR ANTIGENS	5R01 CA22845-02	100,628
SEALY, WILL C.	EXPANDING THE ROLE OF SURGERY OF ATRIAL DYSRHYTHMIAS	5R01 HL13920-08	94,991
SEIGLER, HILLIARD F.	IMMUNODIAGNOSIS OF MELANOMA	5R01 CA20364-03	116,067
SHAND, DAVID G.	TREATMENT OF VENTRICULAR ARRHYTHMIAS WITH PROPRANOLOL	5R01 HL23726-02	123,087
SHAW, BARBARA R.	STRUCTURE AND HETEROGENEITY OF CHROMATIN CORE PARTICLES	5R01 GM23681-03	48,692
SHINGLETON, WILLIAM W.	COMPREHENSIVE CANCER CENTER SUPPORT GRANT	2P30 CA14236-07	2,013,064
SHINGLETON, WILLIAM W.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17987-05	143,298
SHRIVASTAV, BRIJ B.	EFFECTS OF NEURO-ACTIVE AGENTS ON NERVE CONDUCTION	5R01 GM21724-05	71,107
SIEDOW, JAMES N.	ELECTRON CARRIERS IN CYANIDE-RESISTANT RESPIRATION	1R01 GM26095-01	43,526
SILBERMAN, HAROLD R.	COOPERATIVE STUDIES IN CANCER THERAPY	5R10 CA03177-23	197,128
SLOTKIN, THEODORE A.	DRUGS AND DEVELOPMENT OF ADRENERGIC NERVOUS SYSTEM	2R01 HD09713-04	81,251
SLOTKIN, THEODORE A.	DEVELOP CARDIOVASCULAR REGULATION/CENTRAL/SYMPATHETIC NS	1R01 HL24115-01	80,950
SMITH, RALPH E.	BIOCHEMISTRY OF RNA TUMOR VIRUS REPLICATION	5R01 CA12323-08	76,531

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
SNYDERMAN, RALPH	HUMORAL AND CELLULAR MEDIATORS OF INFLAMMATION	5R01 DE03738-07	112,891
SOMJEN, GEORGE G.	CELLULAR SEIZURE MECHANISMS	5R01 NS11933-06	63,956
SOMMER, JOACHIM R.	STRUCTURE-FUNCTION CORRELATION IN THE ATRIUM	5R01 HL12486-11	248,634
SPACH, MADISON S.	BIOPHYSICAL STUDIES IN PEDIATRIC CARDIOLOGY	5P01 HL11307-13	607,580
STARMER, C FRANK	MEDICAL DATA BASES AND CLINICAL INVESTIGATION	1P01 LM03373-01	253,014
STEEGE, DEBORAH A.	LAC REPRESSOR MRNA TRANSLATION INITIATION CONTROLS	5R01 AI14882-02	44,472
STEVENS, ROBERT D.	STABILITY AND STRUCTURE OF LIPID AGGREGATES IN BILE	1R01 AM21501-01	60,237
STRAUSS, HAROLD C.	CHARACTERIZATION OF CARDIAC PACEMAKER ACTIVITY	5R01 HL19216-04	59,843
SURWIT, RICHARD S.	BEHAVIORAL TREATMENT OF RAYNAUD'S DISEASE	5R01 HL22547-02	82,543
SWITZER, MARY E.	STRUCTURE-FUNCTION RELATIONSHIPS OF HUMAN FACTOR VIII	5R23 HL21208-03	48,673
SYLVIA, AVIS L.	BRAIN FUNCTION AND OXIDATIVE METABOLISM DURING AGING	2R01 AG00517-04	116,690
TANFORD, CHARLES	PROTEIN INTERACTIONS AND BIOLOGICAL FUNCTION	2R01 AM04576-20	142,470
THURSTONE, FREDRICK L.	DYNAMIC CARDIOVASCULAR MEASUREMENT USING ULTRASOUND	5R01 HL12715-11	253,844
TISHER, C CRAIG	WATER AND ELECTROLYTE MOVEMENT IN RENAL TUBULES	2R01 AM13845-10	228,492
TURNER, STEPHEN R.	FACTORS AFFECTING PHAGOCYTE RESPONSES TO LIPIDS	5R01 CA23681-02	70,163
VANAMAN, THOMAS C.	THE ROLE OF BRAIN SPECIFIC PROTEIN IN NERVE FUNCTION	5R01 NS10123-08	87,648
VOGEL, F STEPHEN	ANTIMELANOMA ACTION OF NATURAL AND SYNTHETIC QUINONES	2R01 CA19013-04	83,371
WEBB, KAREN S.	SERODETECTION OF NEOANTIGENS IN UROGENITAL MALIGNANCIES	5R01 CA22902-02	37,009
WEBSTER, ROBERT E.	BIOSYNTHESIS OF A MEMBRANE PROTEIN	5R01 GM18305-08	88,346
WECHSLER, ANDREW S.	CARDIAC BYPASS AND CORONARY COLLATERAL PHYSIOLOGY	5R01 HL20226-03	70,696
WEINBERG, JOE B.	MACROPHAGE TUMOR CELL KILLING AND RED CELL CATABOLISM	1R01 CA27070-01	28,241
WILLIAMS, REDFORD B, JR.	PSYCHOSOCIAL FACTORS AND OUTCOME IN CORONARY DISEASE	5R01 HL18589-04	63,438
WILLIAMS, REDFORD B, JR.	BEHAVIOR AND CARDIOVASCULAR DISEASE: BASIC MECHANISMS	5R01 HL22740-02	111,257
WILSON, WILKIE A.	CONTROL OF NEURONAL FIRING BY ADAPTATION	1R01 NS15212-01	35,566
WOODBURY, MAX A.	DATA ANALYSIS IN LONGITUDINAL STUDIES OF AGING	1R01 AG01023-01	41,557
WOODBURY, MAX A.	QUANTITATIVE METHODOLOGIES FOR HLA SPECIFICITIES	1R01 AI15513-01	145,981
WOODBURY, MAX A.	MIXED CONTINUOUS-DISCRETE DISEASE STATE MODELS	2R01 GM16725-10	92,706
YARGER, WILLIAM E.	RENAL FUNCTION IN THE DISEASED KIDNEY	1R01 AM25704-01	87,615
YOUNG, STEPHEN L.	LUNG METABOLISM AND ALVEOLOCAPILLARY PERMEABILITY	5R23 HL21853-02	35,689
ORGANIZATION TOTAL	223 27,203,912		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 27705			
PAULSON, DAVID F.	COOPERATIVE STUDY, RADIOTHERAPY OF PROSTATIC CANCER	3R10 CA14940-05S1	207,975
ORGANIZATION TOTAL	1 207,975		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA CENTRAL UNIVERSITY ZIP CODE 27707			
PATILLO, WALTER H, JR.	MINORITY SCHOOLS BIOMEDICAL SUPPORT PROGRAM	5S06 RR08049-09	157,635
ORGANIZATION TOTAL	1 157,635		
WHITEHEAD MEDICAL RESEARCH INSTITUTE ZIP CODE 27710			
REYNOLDS, JACQUELINE A.	ASSEMBLY OF CIRCULATING SERUM LIPOPROTEINS	2R01 HL22570-02A1	60,945
ORGANIZATION TOTAL	1 60,945		
ELIZABETH CITY			
UNIVERSITY OF NORTH CAROLINA SYSTEM—ELIZABETH CITY STATE UNIVERSITY ZIP CODE 27909			
TURNAGE, CURTIS D.	RESEARCH IMPROVEMENT AND DEVELOPMENT	3S06 RR08087-05S1	7,474
TURNAGE, CURTIS D.	RESEARCH IMPROVEMENT AND DEVELOPMENT	2S06 RR08087-06	119,507
ORGANIZATION TOTAL	2 126,981		
GREENSBORO			
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY ZIP CODE 27411			
BENNETT, RICHARD, JR.	SUPPORT FOR BIOMEDICAL SCIENCES DEVELOPMENT	5S06 RR08019-09	108,817
ORGANIZATION TOTAL	1 108,817		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
GREENVILLE			
UNIVERSITY OF NORTH CAROLINA SYSTEM—EAST CAROLINA UNIVERSITY ZIP CODE 27834			
BURDEN, HUBERT W.....	OVARIAN NERVES AND REPRODUCTIVE FUNCTION.....	2R01 HD06899-04A1	64,372
DOHM, GERALD L.....	CONTROL OF MUSCLE PROTEIN METABOLISM DURING EXERCISE.....	3R01 AM19116-03S1	4,372
ENGLISH, LEONARD S.....	REGULATION OF THE IMMUNE RESPONSE IN VIVO.....	1R01 AI15401-01	74,767
FLETCHER, PAUL L, JR.....	EFFECT OF SCORPION VENOM ON THE EXOCRINE PANCREAS.....	1R01 AM27114-01	70,727
GRANOFF, DAN M.....	SURFACE ANTIGENS OF HEMOPHILUS INFLUENZAE TYPE B.....	1R01 AI15936-01	64,009
HUNTER, ANDREA L.....	HEPATOTOXIC EFFECTS OF THIONO-SULFUR COMPOUNDS.....	1R01 GM24569-01	44,307
THOMAS, JUDITH M.....	ACTION OF RABBIT ANTI-HUMAN THYMOCYTE GLOBULIN.....	1R01 AI16930-01	80,326
THOMAS, JUDITH M.....	CELLULAR IMMUNITY IN RENAL TRANSPLANT RECIPIENTS.....	7R01 AM27109-01	33,347
VOLKMAN, ALVIN.....	POLYARTHROPATHY IN SALMONELLA-INFECTED RATS.....	5R01 AM21360-03	80,588
ORGANIZATION TOTAL	9 516,815		
MORGANTON			
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES—WESTERN CAROLINA CENTER ZIP CODE 28655			
FAVELL, JAMES E.....	DEVELOPMENTAL ENVIRONMENT FOR THE PROFOUNDLY RETARDED.....	5R01 HD10853-03	60,347
ORGANIZATION TOTAL	1 60,347		
RALEIGH			
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES ZIP CODE 27611			
GOTTLIEB, GILBERT.....	SENSORY AND PERCEPTUAL DETERMINANTS OF IMPRINTING.....	5R01 HD00878-18	35,298
ORGANIZATION TOTAL	1 35,298		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH ZIP CODE 27607			
BEWLEY, GLENN C.....	GENETIC CONTROL OF THE SYNTHESIS OF CATALASE.....	1R01 AG01739-01	58,431
BEWLEY, GLENN C.....	GENETIC REGULATION OF ENZYME EXPRESSION IN DROSOPHILA.....	5R01 GM23617-03	41,983
COCKERHAM, C CLARK.....	QUANTITATIVE GENETICS RESEARCH PROGRAM.....	5P01 GM11546-16	483,169
DROESSLER, EARL G.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07071-14	88,232
EISEN, EUGENE J.....	PHYSIOLOGICAL BASIS OF POLYGENIC OBESITY.....	1R01 AM21950-01	59,275
HODGSON, ERNEST.....	MECHANISMS OF PESTICIDE TOXICITY.....	5P01 ES00044-15	342,829
JOHNSTON, ROBERT E.....	EARLY EVENTS IN THE REPLICATION OF SINDBIS VIRUS.....	5R23 AI15196-02	38,371
JONES, EVAN E.....	ORNITHINE TRANSCARBAMYLASE: REGULATION AND INHIBITION.....	1R01 HD12082-01	35,200
LONGMUIR, IAN S.....	GRADIENT AND TRANSPORT OF OXYGEN IN TISSUE AND ORGANS.....	5R01 HL16828-05	116,652
MILLER, WILLIAM L.....	PITUITARY CELL CULTURE: ESTROGEN CONTROL OF FSH.....	5R01 HD10773-02	48,383
SCANDALIOS, JOHN G.....	CONTROL OF GENE EXPRESSION IN EUKARYOTE DEVELOPMENT.....	2R01 GM22733-04	64,400
SEDEROFF, RONALD R.....	GENETIC ANALYSIS OF SIMPLE SEQUENCE DNA.....	5R01 GM26267-02	79,849
SHIH, JASON C.....	BIOSYNTHESIS OF LIPOIC ACID AND ATHEROSCLEROSIS.....	5R01 HL21912-02	23,113
THEIL, ELIZABETH C.....	DEVELOPMENTAL REGULATION OF RED CELL FERRITIN CONTENT.....	3R01 AM20251-02S1	13,964
THEIL, ELIZABETH C.....	DEVELOPMENTAL REGULATION OF RED CELL FERRITIN CONTENT.....	5R01 AM20251-03	57,681
ORGANIZATION TOTAL	15 1,551,532		
RESEARCH TRIANGLE PARK			
RESEARCH TRIANGLE INSTITUTE ZIP CODE 27709			
CHASALOW, FRED I.....	ANDROGEN AND 16-ANDROSTENE BIOCHEMISTRY IN TESTIS.....	5R01 HD11678-03	60,035
COOK, CLARENCE E.....	THERAPEUTIC IRON CHELATING AGENT METABOLISM.....	1R01 AM26175-01	152,546
COOK, CLARENCE E.....	STEREOSELECTIVE RIA FOR ANALYSIS IN PHARMACOLOGY.....	2R01 GM23197-04	97,883
KOLBER, ALAN R.....	TOXICITY TESTING OF ENVIRONMENTAL AGENTS.....	1R13 ES02195-01	14,240
MC CARTNEY, MICHAEL L.....	ENGINEERING DEVELOPMENT OF AN ULTRASONIC VENTILOMETER.....	7R01 HL25078-01	57,496
WALL, MONROE E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05791-03	24,571
ORGANIZATION TOTAL	6 406,771		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
WINSTON-SALEM			
UNIVERSITY OF NORTH CAROLINA SYSTEM—WINSTON-SALEM STATE UNIVERSITY		ZIP CODE 27102	
ATKINSON, WILVERIA B.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08040-09	158,030
ORGANIZATION TOTAL	1	158,030	
WAKE FOREST UNIVERSITY		ZIP CODE 27109	
BASS, DAVID A.....	EOSINOPHIL FUNCTION IN PULMONARY GRANULOMAS.....	1R01 AI14929-01A1	30,033
BUCKALEW, VARDAMAN M, JR.....	STUDIES OF A HUMORAL INHIBITOR OF SODIUM TRANSPORT.....	2R01 AM17341-06	74,212
CLARKSON, THOMAS B.....	A/S SCOR—COMPARATIVE AND EXPERIMENTAL ATHEROSCLEROSIS.....	5P50 HL14164-08	1,205,274
CLARKSON, THOMAS B.....	A RESOURCE FOR THE STUDY OF NONHUMAN PRIMATES.....	5P40 RR00919-05	89,691
COOPER, M ROBERT.....	CANCER AND LEUKEMIA GROUP B.....	2R10 CA03927-22	182,019
DE CHATELET, LAWRENCE R.....	PATHOPHYSIOLOGY AND METABOLISM OF THE LEUKOCYTE.....	2R01 AI10732-08	101,749
DODGE, WILLIAM H.....	NORMAL AND LEUKEMIC GRANULOPOIESIS.....	5R01 CA19275-04	70,920
DOELLGAST, GEORGE J.....	TUMOR IMMUNOLOGY; PHOSPHATASE ISOENZYMES.....	5R01 CA23533-02	51,104
DOELLGAST, GEORGE J.....	PLACENTAL PHOSPHATASE, GENETICS AND BIOCHEMISTRY.....	5R01 HD11569-02	36,805
EVANS, DONALD L.....	IMMUNOBIOLOGICAL PROPERTIES OF EMBRYONIC ANTIGENS.....	3R01 CA19358-03S1	12,331
GREEN, HAROLD D.....	VASOMOTOR TONE AND VENOUS RETURN.....	5R01 HL00487-30	43,505
GREISS, FRANK C, JR.....	UTERINE BLOOD FLOW AND CHANGES IN PREGNANCY.....	2R01 HD11339-19A1	97,308
HALE, ARTHUR H.....	MODELS FOR IDENTIFICATION OF ANTIGEN-CTL INTERACTIONS.....	1R01 AI15785-01	60,105
HERNDON, C NASH.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05404-18	134,161
HOMESLEY, HOWARD D.....	GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA21946-02	116,197
HUTCHINS, PHILLIP M.....	MICROVASCULAR RESPONSES IN HYPERTENSION.....	2R01 HL13936-07A1	86,822
JACKSON, DON V, JR.....	MODIFICATION OF VINCRISTINE-INDUCED NEUROTOXICITY.....	1R01 CA24740-01A1	36,603
KREGER, ARNOLD S.....	PATHOGENESIS OF BACTERIAL INFECTIONS OF THE CORNEA.....	5R01 EY01104-07	46,535
KREMKAU, FREDERICK W.....	ABSORPTION OF ULTRASOUND IN PROTEIN SOLUTIONS.....	5R01 GM24677-02	58,894
KUHN, RAYMOND E.....	IMMUNOSUPPRESSION IN CHAGAS' DISEASE.....	2R01 AI13128-04	75,353
KUHN, RAYMOND E.....	IMMUNE REJECTION OF TRYPANOSOMA CRUZI.....	5R01 AI14841-02	68,982
KUTE, TIMOTHY E.....	TUMOR CELL CHARACTERIZATION BY FLUORESCCEIN ESTRADIOL.....	1R01 CA26359-01	55,992
LANDFIELD, PHILIP W.....	HORMONAL-PHARMACOLOGICAL STUDIES OF BRAIN AGING.....	1R01 AG01552-01	73,133
LANDFIELD, PHILIP W.....	NEUROPHYSIOLOGICAL STUDIES OF BRAIN AGING.....	7R01 AG01737-01	34,603
LIU, MAW-SHUNG.....	METABOLISM OF DIABETIC HEART MYOCYTES IN SHOCK.....	5R01 AM25270-03	53,588
LIU, MAW-SHUNG.....	SUBSTRATE METABOLISM IN ISOLATED MYOCYTES IN SHOCK.....	5R01 HL23618-02	57,472
LYLES, DOUGLAS S.....	FUSION OF VIRUS ENVELOPE WITH CELL MEMBRANES.....	1R01 AI15892-01	56,621
MC CALL, CHARLES E.....	FUNCTIONAL & METABOLIC PROPERTIES OF TOXIC NEUTROPHILS.....	2R01 AI09169-07A1	85,340
MC CORMICK, JAMES G.....	DEAFNESS AND ATHEROSCLEROSIS.....	5R01 NS12013-05	80,058
MILLER, INGLIS J, JR.....	GUSTATORY CHEMOSENSITIVITY OF THE ORAL PALATE.....	1R01 DE05259-01	48,703
MORRIS, MARIANA.....	NEUROENDOCRINE INVOLVEMENT IN HYPERTENSION.....	5R01 HL22411-02	37,702
MYRVIK, QUENTIN N.....	PATHOBIOLOGIC AND HOST DEFENSE REACTIONS IN THE LUNG.....	2P01 HL16769-06A1	381,893
O'STEEN, WENDALL K.....	REPRODUCTIVE HORMONES AND RETINAL DEGENERATION.....	5R01 EY02359-03	45,648
RESNICK, MARTIN I.....	URINARY MACROMOLECULES AND RENAL LITHIASIS.....	5R01 AM20066-03	41,587
ROSE, JAMES C.....	PRENATAL AND NEONATAL PITUITARY ADRENAL FUNCTION.....	5R01 HD11210-02	56,540
ROTHBERGER, HENRY.....	PROCOAGULANT ACTIVITY PRODUCTION BY LEUKOCYTES.....	1R01 AM21940-01	48,263
RUDEL, LAWRENCE L.....	RISK FACTOR RELATIONSHIPS OF PRIMATE ATHEROSCLEROSIS.....	5R01 HL21260-03	53,799
RUDEL, LAWRENCE L.....	NUTRITIONAL EFFECTS ON NONHUMAN PRIMATE HDL.....	1R01 HL24736-01	134,670
SMITH, PETER B.....	SARCOLEMMA MEMBRANE ALTERATIONS IN DIABETES.....	5R01 AM21264-02	32,662
SMITH, PETER B.....	BIOCHEMICAL DEVELOPMENT OF THE SARCOLEMMA MEMBRANE.....	1R01 HD12562-01	34,324
SPURR, CHARLES L.....	CANCER AND LEUKEMIA GROUP B.....	3R10 CA03927-21S1	28,042
SPURR, CHARLES L.....	CANCER CENTER SUPPORT GRANT (SPECIALIZED).....	3P30 CA12197-07S1	573,067
SPURR, CHARLES L.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA19439-04	164,883
STRANDHOY, JACK W.....	INTRARENAL EFFECTS OF DOPAMINE.....	1R23 HL22443-01A1	45,738
SUNDBERG, DAVID K.....	HYPOTHALAMIC LHRH BIOSYNTHESIS AND SECRETION.....	5R01 HD10900-02	55,867
TOOLE, JAMES F.....	CEREBROVASCULAR RESEARCH CENTER.....	2P50 NS06655-14	528,536
TURNER, JAMES E.....	CENTRAL NERVOUS SYSTEM REGENERATION-NERVE GROWTH FACTOR.....	5R01 NS12070-05	39,607
WAITE, B MOSELEY.....	METABOLISM AND FUNCTION OF MEMBRANE PHOSPHOLIPIDS.....	5R01 AM11799-12	75,791
WAITE, B MOSELEY.....	CHANGES IN CELL MEMBRANES BY ONCOGENIC HERPES SIMPLEX.....	5R01 CA22146-03	62,410
WITCOFSKI, RICHARD L.....	ULTRASONIC ENHANCEMENT OF CANCER RADIOOTHERAPY.....	2R01 CA17581-04A1	50,850
ORGANIZATION TOTAL	50	5,715,992	
STATE TOTAL	495	55,821,897	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH DAKOTA			
FARGO			
NORTH DAKOTA STATE UNIVERSITY	ZIP CODE 58103		
BEATTY, WILLIAM W.....	HORMONAL ORGANIZATION OF SOCIAL PLAY.....	1R01 HD12620-01	28,654
KLEPAC, ROBERT K.....	PAIN TOLERANCE IN THE TREATMENT OF DENTAL FEAR.....	5R01 DE04976-02	62,478
MC CAUL, KEVIN D.....	PERSONALIZED RISK AND PREVENTION OF ADOLESCENT SMOKING.....	1R01 HD13335-01	43,501
ORGANIZATION TOTAL	3 134,633		
GRAND FORKS			
UNIVERSITY OF NORTH DAKOTA	ZIP CODE 58201		
DUERRE, JOHN A.....	BRAIN HISTONE METHYLASES.....	2R01 NS09725-07A1	65,315
LAMBETH, DAVID O.....	SYNTHESIS AND PROPERTIES OF S-ALKYLISOTHIAZOLIDINES.....	2R01 GM25252-02	25,838
LOW, FRANK N.....	FINE STRUCTURAL LINING OF THE SUBARACHNOID SPACE.....	5R01 NS09363-08	63,230
LOW, FRANK N.....	MICROAPPENDAGES OF THE PLASMALEMMMA.....	5R01 NS12106-05	41,082
LOW, FRANK N.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05407-18	14,441
NORDLIE, ROBERT C.....	LIVER PYROPHOSPHATE-PHOSPHOTRANSFERASE ACTIVITIES.....	5R01 AM07141-17	76,349
RAY, PAUL D.....	HORMONE AND DIET CONTROL OF GLUCONEOGENESIS.....	2R01 AM12705-10A1	41,146
STEWART, JAMES A.....	IONIC STRENGTH AND DIELECTRIC EFFECTS ON CHYMOTRYPSIN.....	5R01 GM16167-10	20,388
ORGANIZATION TOTAL	8 347,789		
STATE TOTAL	11 482,422		
OHIO			
AKRON			
CHILDREN'S HOSPITAL MEDICAL CENTER OF AKRON	ZIP CODE 44308		
AGAMANOLIS, DIMITRIS P.....	VITAMIN B12 DEFICIENCY IN RHESUS MONKEYS.....	5R01 EY02899-02	23,990
ORGANIZATION TOTAL	1 23,990		
ATHENS			
OHIO UNIVERSITY	ZIP CODE 45701		
FINLAY, ROGER W.....	BASIC PHYSICAL DATA FOR NEUTRON DOSIMETRY.....	1R01 CA25193-01	54,123
GRIFFITHS, PETER R.....	FT-IR CIRCULAR DICHROISM SPECTROMETRY.....	5R01 GM25691-02	34,226
JOHNSON, PETER.....	PULMONARY ARTERY INTERMEDIATE FILAMENT STRUCTURE.....	5R01 HL23233-02	46,027
PATTERSON, MICHAEL M.....	STUDIES OF SPINAL RESPONSE PLASTICITY.....	5R01 NS14545-02	28,119
SULLIVAN, PAUL D.....	ANTIOXIDANTS INTERACTION WITH BENZOPYRENE & DERIVATIVES.....	1R01 CA22209-01A2	54,486
WAGNER, THOMAS E.....	MATURE SPERM CHROMOSOMES: STRUCTURE AND RELEASE MODE.....	5R01 HD09042-05	43,535
ORGANIZATION TOTAL	6 260,516		
BOWLING GREEN			
BOWLING GREEN STATE UNIVERSITY	ZIP CODE 43404		
FIORAVANTI, CARMEN F.....	ANAEROBIC ENERGY METABOLISM OF PARASITIC HELMINTHS.....	1R01 AI15597-01	63,479
HEBERLEIN, GARY T.....	ANIMAL RESOURCE FACILITY IMPROVEMENT.....	1P40 RR01145-01A1	137,270
HOEMANN, HARRY W.....	COMMUNICATION SKILLS IN DEAF AND HEARING CHILDREN.....	2R01 NS09590-07	60,561
MC KEEVER, WALTER F.....	LATERAL DOMINANCE AND LATERAL WORD RECOGNITION.....	2R01 NS10214-08	28,378
NECKERS, DOUGLAS C.....	STUDIES OF FUSED CYCLOBUTENES AS BENZODIAZEPINE ANALOGS.....	1R01 NS14883-01	43,378
PANKSEPP, JAAK.....	MEDIAL HYPOTHALAMIC REGULATION OF BODY ENERGY BALANCE.....	5R01 AM17157-06	47,469
ORGANIZATION TOTAL	6 380,535		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
CINCINNATI			
CHILDREN'S HOSPITAL MEDICAL CENTER	ZIP CODE 45229		
AKESON, RICHARD A	NERVE AND MUSCLE SURFACE MACROMOLECULE INTERACTION	5R01 NS13241-03	24,306
CAMERON, BRUCE F	CINCINNATI COMPREHENSIVE SICKLE CELL CENTER	5P60 HL15996-07	946,017
CLARK, LELAND C, JR	EVALUATION OF NEW FLUOROCARBONS FOR BLOOD SUBSTITUTES	1R01 HL23526-01	47,794
DIGNAN, PETER	CORE PROGRAM FOR MENTAL RETARDATION RESEARCH	5P30 HD05221-10	532,395
DONALDSON, VIRGINIA H	HYDROLYTIC ENZYMES OF BLOOD IN HEALTH AND DISEASE	5R01 HL15690-08	126,954
GANSCHOW, ROGER E	GENETIC CONTROL OF MAMMALIAN ENZYME EXPRESSION	5R01 AM14770-10	107,335
HUNT, MELANIE M	SAFFLOWER OIL IN TREATMENT OF EFA DEFICIENCY	1R01 AM22158-01A1	24,236
JAMES, FREDERICK W	MAXIMAL EXERCISE TESTING IN HYPERLIPIDEMIC CHILDREN	5R01 HL18454-04	74,973
LAMPKIN, BEATRICE C	DRUG EFFECT IN ACUTE LEUKEMIA	5R01 CA21435-03	128,028
LAMPKIN, BEATRICE C	CLINICAL CANCER EDUCATION PROGRAM	1R25 CA25557-01	83,468
LAMPKIN, BEATRICE C	CHILDREN'S CANCER STUDY GROUP	1R10 CA26126-01	39,379
NEELY, JOHN E	DETAILED CELL KINETIC ANALYSES OF HUMAN NEUROBLASTOMA	1R23 CA26956-01	31,543
O'GRADY, DONALD J	NEUROPSYCHOLOGICAL CONSEQUENCES OF REYE'S SYNDROME	1R01 NS14696-01A1	36,879
PRATT, EDWARD L	GENERAL CLINICAL RESEARCH CENTER (CHILDREN)	5M01 RR00123-16	583,919
SCHUBERT, WILLIAM K	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05535-17	73,029
SCOTT, WILLIAM J, JR	BASES OF CELLULAR SENSITIVITY TO TERATOGENIC AGENTS	2R01 HD09951-04	104,222
SOUKUP, SHIRLEY W	EARLY CHANGES IN POTENTIAL BRAIN TUMOR TISSUE	5R01 CA18588-04	27,186
SPEHLING, MARK A	STUDIES WITH LIPOSOME ENTRAPPED INSULIN	5R01 AM25251-02	51,441
ZIMMERMAN, ERNEST F	TERATOGENS ON CLEFT PALATE FORMATION	5R01 DE03469-08	133,668
ZIMMERMAN, ERNEST F	MOLECULAR ASPECTS OF NEURAL RELATED BIRTH DEFECTS	1P01 HD12285-01	203,237
ORGANIZATION TOTAL	20	3,380,009	
CHRIST HOSPITAL	ZIP CODE 45219		
KRUEGER, ROBERT G	VARIABLE REGIONS OF BICLONAL IMMUNOGLOBULINS	5R01 CA20818-02	62,429
PONS, MARCEL W	STUDIES ON RESPIRATORY SYNCYTIAL VIRUS	5R01 AI14133-02	58,290
PONS, MARCEL W	BIOCHEMICAL STUDIES OF INFLUENZA VIRUS INFECTED CELLS	2R01 AI14225-03A1	77,163
ROCHOVANSKY, OLGA M	INFLUENZA VIRAL RNA SYNTHESIS IN VITRO	1R01 AI14733-01A1	71,940
SCHIFF, GILBERT M	CONTINUED EVALUATION OF RUBELLA VACCINES	1R01 AI15949-01	68,635
SCHIFF, GILBERT M	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09127-02	56,675
ORGANIZATION TOTAL	6	395,132	
JEWISH HOSPITAL OF CINCINNATI	ZIP CODE 45229		
WEXLER, BERNARD C	HYPERADRENOCORTICISM AND ACCELERATED AGING	5R01 AG00585-03	40,818
WEXLER, BERNARD C	EXPERIMENTAL MYOCARDIAL INFARCTION	5R01 HL21418-03	44,173
ORGANIZATION TOTAL	2	84,991	
UNIVERSITY OF CINCINNATI	ZIP CODE 45221		
ALEXANDER, J WESLEY	HOST DEFENSE MECHANISMS: CONTROL OF SURGICAL INFECTION	2R01 AI12936-03	243,124
ARMENTROUT, RICHARD W	EFFECTS OF PARVOVIRUS AND ANIMAL CELL DNA SYNTHESIS	5R01 CA16517-05	51,480
ARMENTROUT, RICHARD W	REGULATION OF DNA SYNTHESIS IN HUMAN TUMOR CELLS	5R01 CA21508-03	55,159
ASHRAF, MUHAMMAD	ISCHEMIC HEART ULTRASTRUCTURE: MODIFICATION BY THERAPY	1R01 HL23597-01	126,974
BALDWIN, DAVID M	EFFECTS OF GLUCOCORTICOID ON GONADOTROPIN RELEASE	5R01 HD11160-02	27,178
BANKS, ROBERT O	THE ROLE OF OXYTOCIN IN VOLUME REGULATION	1R01 HD12160-01A1	64,098
BAXTER, C STUART	CELL CULTURE STUDIES OF ENVIRONMENTAL PROMOTERS	1R01 CA24022-01A1	77,241
BAXTER, C STUART	IN VITRO STUDY OF PROMOTION IN CHEMICAL CARCINOGENESIS	1R01 ES02066-01	43,991
BEHNKE, WILLIAM D	INTERACTION OF LECTINS WITH NORMAL, DISEASED FIBROBLASTS	1R01 HL23741-01	51,441
BELL, MARY	CYTOPATHOLOGIC EFFECTS OF POLYCHLORINATED BIPHENYLS	5R01 ES01890-02	44,308
BJORNSSON, ANN B	HUMORAL FACTORS OF HOST DEFENSE AGAINST BACTERIOIDES	2R01 AI13688-03	60,280
BJORNSSON, ANN B	HOST DEFENSE AGAINST S PNEUMONIAE IN SICKLE CELL DISEASE	5R01 HL20314-03	54,964
BJORNSSON, HENRY S	THE ROLE OF BACTEROIDACEAE IN THROMBOEMBOLIC DISEASE	1R01 HL23693-01	34,491
BLUMENTHAL, KENNETH M	STRUCTURE AND ACTION OF POLYPEPTIDE AXONAL TOXINS	5R01 NS14368-02	50,530
BOBST, ALBERT M	SPIN ASSAY FOR NUCLEIC ACID BINDING PROTEINS	9R01 GM27002-04	53,963
BONVENTRE, PETER F	NEOPHASM AND RESISTANCE TO INFECTIONS	5R01 CA22957-02	106,635
BROOKS, STUART M	MECHANISMS RESPONSIBLE FOR DISEASE SEVERITY IN ASTHMA	5R01 HL22415-02	83,299
BROWN, RONALD D	GENERATION OF ANTIBODY DIVERSITY DURING DEVELOPMENT	2R01 GM22766-04	58,531
BRYANT, SHIRLEY H	ELECTROPHYSIOLOGY AND PHARMACOLOGY OF MYOTONIC MUSCLE	2R01 NS03178-17	70,972

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
CARDELL, ROBERT R. JR.	SUBCELLULAR EFFECTS OF METABOLIC HORMONES ON RAT LIVER	7R01 AM27097-01	71,199
CLARK, KENNETH E.	MATERO-FETAL RESPONSE TO REDUCED UTERINE BLOOD FLOW	1R01 HD13490-01	74,358
CLYNE, DAVID H.	MYELOMA KIDNEY-PROTEIN NEPHROTOXICITY	2R01 AM18466-04	42,733
COATS, EUGENE A.	RESPIRATORY INHIBITORS AS ANTINEOPLASTIC AGENTS	5R01 CA16253-06	47,273
COATS, EUGENE A.	SYNTHESIS OF SELECTIVE DEHYDROGENASE INHIBITORS	1R01 CA26946-01	37,386
COLLINS, JOHN H.	SEQUENCE STUDIES ON CALCIUM BINDING PROTEINS	5R01 AM20875-03	81,140
COOPER, GARY P.	CADMIUM: NEUROBEHAVIORAL AND TRACE METAL STUDIES	5R01 ES01494-03	99,401
DANIELS, ROBERT S.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05408-18	173,180
DEUTSCH, EDWARD A.	DEVELOPMENT OF 99-MTC MYOCARDIAL IMAGING AGENTS	5R01 HL21276-03	51,047
DI SALVO, JOSEPH.	REGULATION OF CORONARY ARTERIAL SMOOTH MUSCLE	2R01 HL20196-03	48,618
FISCHER, JOSEF E.	NEUROTRANSMITTERS AND HEPATIC COMA	5R01 AM25638-02	114,171
FISCHER, JOSEF E.	A CENTRAL MECHANISM FOR ANOREXIA IN CANCER	1R01 CA25786-01	79,492
FRANKLIN, DEAN	PATHOPHYSIOLOGY OF PROGRESSIVE CORONARY OCCLUSION	1R01 HL23571-01	111,372
FREISHEIM, JAMES H.	STRUCTURE-FUNCTION STUDIES OF DIHYDROFOLATE REDUCTASE	2R01 CA11666-10	128,797
GARFIELD, SANFORD A.	STRUCTURE AND FUNCTION OF HEPATIC CELLULAR COMPONENTS	7R01 AM26873-01	71,961
GRUENSTEIN, ERIC I.	MEMBRANE DEFECTS IN FAMILIAL HYPERCHOLESTEROLEMIA	3R01 HL18553-03S1	3,450
HALSALL, HALLEN B.	PROGESTERONE BINDING TO OROSOMUCOID	1R01 HD13207-01	39,219
HAMMOND, PAUL B.	BEHAVIORAL EFFECTS OF LEAD EXPOSURE IN CHILDREN	1P01 ES01566-01A1	529,567
HERMAN, JEROME H.	IMMUNOBIOLOGY OF CARTILAGE	2R01 AM16894-07	96,662
HESS, EVELYN V.	MULTIPURPOSE ARTHRITIS CENTER FOR THE TRI-STATE AREA	1P60 AM20615-01A1	158,442
HESS, EVELYN V.	IMMUNOLOGIC FACTORS IN HUMAN INFERTILITY	1R01 HD11416-01A1	59,104
HIGHSMITH, ROBERT F.	VASCULAR-DERIVED PLASMINOGEN ACTIVATOR	1R01 HL23926-01	51,973
HITZEMANN, ROBERT J.	SYNAPTIC MEMBRANES, GLYCOPROTEINS AND DEVELOPMENT	7R01 NS16061-01	25,678
JACKSON, RICHARD L.	STRUCTURE AND FUNCTION OF HUMAN PLASMA APOLIPOPROTEINS	1R01 HL23019-01	209,154
JACKSON, RICHARD L.	EFFECT OF DIET ON PLASMA HIGH DENSITY LIPOPROTEINS	1R01 HL24744-01	166,088
JACOBSON, EUGENE D.	INTESTINAL ISCHEMIA	3R01 AM20540-02S1	23,148
JOHNSON, CARL L.	HISTAMINE RECEPTORS AND CARDIAC ADENYLATE CYCLASE	3R01 HL22136-02S1	20,437
KANESHIRO, EDNA S.	MEMBRANE ALTERATIONS IN BEHAVIORAL MUTANTS	2R01 GM20910-04A2	76,111
KARP, RICHARD D.	THE ORIGINS OF ADAPTIVE IMMUNITY	1R01 AI15601-01	54,704
KASHYAP, MOTI L.	ROLE OF APOLIPOPROTEINS IN HYPERTRIGLYCERIDEMIA	5R01 HL22618-02	57,397
KLINE, DANIEL L.	BIOCHEMISTRY AND PHYSIOLOGY OF PLASMINOGEN ACTIVATORS	5R01 HL11172-13	51,179
KNOWLES, HARVEY C. JR.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00068-17	746,382
KRUEGER, ROBERT C.	STRUCTURE AND TEMPLATE ACTIVITY OF CHROMATIN	2R01 GM23030-04	44,185
KYRIAZIS, ANDREAS P.	CHEMOTHERAPY OF HUMAN BLADDER CANCER IN ATHYMIC MICE	1R26 CA26693-01	119,918
LAMPERTI, ALBERT A.	NEUROENDOCRINE ASPECTS OF ARCULATE NUCLEUS LESIONS	5R01 HD11591-02	36,905
LINGREL, JERRY B.	MECHANISM OF THE SWITCH FROM FETAL TO ADULT HEMOGLOBIN	5R01 AM20119-03	83,486
LINGREL, JERRY B.	MAMMALIAN MESSENGER RNA AND ITS SYNTHESIS	5R01 GM10999-15	62,653
LIPICKY, RAYMOND J.	DRUG EFFECTS ON ELECTRICALLY EXCITABLE MEMBRANES	5R01 NS12635-02	63,728
LOWENHAUPT, ROSALIN W.	BIOCHEMISTRY OF HUMAN PLATELET CHEMOTAXIS	5R01 HL21988-02	42,414
MANSON, JEANNE M.	TERATOGENICITY OF CHLORINATED HYDROCARBON SOLVENTS	5R01 ES01601-03	82,029
MANSON, JEANNE M.	IN VITRO TERATOLOGIC ASSAY SYSTEM WITH P-450 METABOLISM	5R01 HD10868-03	56,802
MANSON, JEANNE M.	HERBICIDE-INDUCED RESPIRATORY DISTRESS IN NEONATES	1R01 HD13299-01	111,045
MARTELO, ORLANDO J.	PROTEIN KINASES IN NORMAL AND LEUKEMIC LYMPHOCYTES	1R01 CA26036-01	67,864
MARTIN, ANNE F.	CONTROL OF PROTEIN METABOLISM IN HEART MUSCLE	5R01 HL22651-02	44,719
MEYER, RALPH R.	REGULATION OF DNA SYNTHESIS IN THE NOVIKOFF HEPATOMA	5R01 CA17723-05	78,999
MICHAEL, JACOB G.	REAGINIC ANTIBODY FORMATION TO BACTERIAL ANTIGENS	5R01 AI13877-02	55,759
MICHAEL, JACOB G.	MODULATION OF IMMUNE RESPONSE BY PROTEIN FRAGMENTS	1R01 AI15520-01A1	70,136
MICHAELS, JOHN E.	EFFECTS OF DIAZOONORLEUCINE ON COLON SURFACE CELLS	1R01 GM24604-01	32,255
MILLARD, RONALD W.	COLLATERAL FLOW IN ISCHEMIC MYOCARDIUM	1R01 HL23558-01	93,116
MORRIS, RANDAL E.	CELL SURFACE ANTIGENS ON MALIGNANT LYMPHOCYTES	1R01 AI14173-01A2	54,709
MOULTON, BRUCE C.	ENDOMETRIAL MECHANISMS OF OVARIAN HORMONE SYNERGISM	2R01 HD07255-07	60,915
MOULTON, BRUCE C.	LYSOSOMAL MECHANISMS OF OVUM IMPLANTATION	5R01 HD10721-03	37,339
NOYES, FRANK R.	BIOMECHANICAL FUNCTION OF KNEE LIGAMENTS	5R01 AM21172-02	106,718
O'FLAHERTY, ELLEN J.	BLOOD LEAD, BODY LEAD COMPARTMENTS AND LEAD EXPOSURE	5R01 ES01872-02	55,853
OLINGER, CHARLES P.	COMPUTER AIDED BIOACOUSTIC ARTERIAL DIAGNOSTICS	1R01 HL23671-01	58,932
PAUL, RICHARD J.	PULMONARY VASCULAR MUSCLE METABOLISM & CONTRACTILITY	5R01 HL23240-02	33,593
PESCE, AMADEO J.	SPECIFIC ANTIBODIES TO BLADDER CARCINOMA TUMOR ANTIGEN	5R26 CA16939-06	98,856
POLLAK, VICTOR E.	ANCROD IN RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS	1R01 AM20711-01	59,123
ROE, RYONG-JOON	IN VIVO DEGRADATION OF POLYETHYLENE IMPLANTS	5R01 AM20269-03	56,919
RUDNEY, HARRY	REGULATION OF ENZYMES IN MEVALONATE SYNTHESIS	5R01 AM12402-12	85,242

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
SADLER, THOMAS W.	EPITHELIAL FUSION: FACTORS INVOLVED IN TERATOGENESIS	7R01 HD14220-01	37,321
SAELINGER, CATHARINE B.	PATHOGENESIS OF PSEUDOMONAS IN BURN INJURY	5R01 GM24028-03	51,001
SCHWARTZ, ARNOLD	CELLULAR MECHANISMS OF HEART FAILURE	5P01 HL22619-02	545,955
SCOTT, RALPH C.	THE JUVENILE DIABETIC HEART	5R01 HL20428-04	132,070
SHERTZER, HOWARD G.	NITROGENOUS LIGANDS AND HEPATIC MONOOXYGENASES	7R01 GM27928-01	40,689
SOLARO, R JOHN	MODULATION OF CALCIUM CONTROL OF CARDIAC MYOFIBRILS	5R01 HL22231-03	35,916
SUBBIAH, M T.	EARLY INTERVENTION OF AGE-RELATED ARTERIAL CHANGES	1R01 HL24071-01	65,823
SUBBIAH, M T.	PATHOGENESIS OF ATHEROSCLEROSIS	1R01 HL24162-01	84,598
SUBBIAH, M T.	DEVELOPMENT OF CHOLESTEROL HOMEOSTATIC MECHANISM	1R01 HL24263-01	88,226
SUSKIND, RAYMOND R.	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT	5P30 ES00159-14	1,052,135
TORNHEIM, PATRICIA A.	DIABETIC CEREBRAL VASCULAR STRUCTURE AND FUNCTION	5R01 HL22106-03	76,891
TSANG, REGINALD C.	DIABETES IN PREGNANCY	5P01 HD11725-02	477,173
WARSHAWSKY, DAVID	PULMONARY METABOLISM OF THE N-HETEROCYCLIC AROMATICS	5R01 CA23515-02	73,296
WILLEKE, KLAUS	HEALTH EFFECT OF ENVIRONMENTAL ASBESTOS FIBER LENGTH	5R01 ES01870-02	46,228
ZIMMER, HANS W.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07075-05	18,851
ORGANIZATION TOTAL	94	9,639,867	
CLEVELAND			
CASE WESTERN RESERVE UNIVERSITY ZIP CODE 44106			
ADAM, PETER A.	CONTROL OF FETAL AND NEONATAL GLUCOSE METABOLISM	5R01 HD05740-08	99,223
ADAM, PETER A.	DISORDERED FETAL METABOLISM: ANTENATAL INTERVENTION	5P50 HD11089-03	1,033,886
AGLE, DAVID P.	PSYCHOLOGICAL IMPACT OF HEMOPHILIC HOME-CARE THERAPY	1R01 HL22790-01	39,621
AIKAWA, MASAMICHI	ELECTRON MICROSCOPY OF PLASMODIUM-HOST INTERACTIONS	5R01 AI10645-08	58,161
ALLEY, KEITH E.	ONTOGENESIS OF BRAIN STEM VISUOMOTOR SYSTEMS	5R01 NS12781-03	37,897
ANDERSON, JAMES M.	PROSTHETIC VALVE ENDOCARDITIS: ETIOLOGY AND THERAPY	5R01 HL22888-02	101,903
BENSUSAN, HOWARD B.	COLLAGEN-PLATELET INTERACTION	5R01 HL22081-21	66,325
BENSUSAN, HOWARD B.	SEQUENCE OF EVENTS IN STIMULATED BLOOD PLATELETS	1R01 HL23476-01	56,044
BETTICE, JOHN A.	THE CARDIAC RESPONSE TO CHRONIC METABOLIC ACIDOSIS	5R23 HL19601-02	43,038
BIAGLOW, JOHN E.	MODIFICATION OF X-RAY RESPONSE OF ANOXIC-HYPOXIC CELLS	5R01 CA13747-08	169,562
BICKERS, DAVID R.	SKIN METABOLISM OF DRUGS AND CARCINOGENS	5R01 ES01900-02	70,730
BLACKWELL, JOHN	STRUCTURE AND INTERACTIONS OF LUNG PROTEOGLYCAN	5R01 HL21622-03	91,269
BODANSZKY, MIKLOS	SYNTHETIC PEPTIDE HORMONES	5R01 AM12473-11	80,156
BREWER, EUGENE N.	THE MECHANISM OF RADIATION-INDUCED MITOTIC DELAY	5R01 CA22727-02	92,090
BROWN, RICHARD H.	IN VIVO LOADING ON TOTAL KNEE JOINTS	5R01 AM21559-02	64,124
BROWN, RICHARD H.	THREE-DIMENSIONAL ANALYSIS OF KNEE MOTION	5R01 AM21929-02	69,509
BURKE, MORRIS	CONTRACTION OF VERTEBRATE SKELETAL MUSCLES	7R01 NS15319-01	40,360
CAPLAN, ARNOLD I.	CELLULAR AND DEVELOPMENTAL CONTROL OF CALCIFICATION	5R01 DE04008-05	84,567
CAPLAN, ARNOLD I.	PROTEOGLYCAN SYNTHESIS DURING DEVELOPMENT AND AGING	1R01 HD12724-01	130,384
CAPLAN, ARNOLD I.	THE CONTROL OF LIMB MESENCHYMAL CELL DEVELOPMENT	1R01 HD13016-01	59,634
CARTER, JAMES R, JR.	MECHANISM OF ACTION OF INSULIN	5R01 AM18382-06	131,891
CARTER, JAMES R, JR.	BIOSYNTHESIS OF RED CELL MEMBRANE PROTEINS	5R01 AM18389-05	72,188
CHENG, PI-WAN	BIOSYNTHESIS OF HUMAN RESPIRATORY MUCOUS GLYCOPROTEIN	3R23 HL22818-01S1	21,695
CHENG, PI-WAN	BIOSYNTHESIS OF HUMAN RESPIRATORY MUCOUS GLYCOPROTEIN	5R23 HL22818-02	46,296
CHERNIACK, NEIL S.	REGULATION OF BREATHING IN THE AGED	1R01 AG01403-01	83,541
CHERNIACK, NEIL S.	RESPIRATORY NEUROCHEMICAL CONTROL	5R01 HL20847-03	48,120
CHEUNG, PETER W.	NONINVASIVE REFLECTION OXIMETRY IN PERIPHERAL TISSUE	5R01 HL18710-03	35,666
COX, RODY P.	INBORN ERRORS OF METABOLISM IN CELL CULTURE	7R01 AM26758-01	148,986
COX, RODY P.	MODULATION OF GENE EXPRESSION IN CELL CULTURE	7R01 GM27613-01	76,563
CULP, LLOYD A.	PROTEOGLYCAN AND ADHESION (PROJECT I)	5R01 AM25646-02	70,127
DANIEL, THOMAS M.	SPECIFIC MYCOBACTERIAL ANTIGENS	5R22 AI15102-02	82,577
DE MARCO, THOMAS J.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05335-18	20,805
DE PALMA, RALPH G.	ATHEROSCLEROTIC PLAQUE DYNAMICS IN NONHUMAN PRIMATES	5R01 HL16206-05	184,386
DEARBORN, DORR G.	THE ROLE OF LYSYL RESIDUES IN ENZYME CATALYSIS	1R01 GM25930-01	73,902
DOERSHUK, CARL F.	STUDIES IN CYSTIC FIBROSIS	2P01 AM08305-16	975,263
DOUGLAS, JANICE G.	ANGIOTENSIN II RECEPTORS: MECHANISMS OF REGULATION	5R01 HL22990-02	63,559
DUNN, MICHAEL J.	PROSTAGLANDINS, THE KIDNEY AND HYPERTENSION	2R01 HL22563-03	192,666
ELLNER, JERROLD J.	ADHERENT CELL REGULATION OF MICROBIAL IMMUNITY IN MAN	5R23 AI15109-02	46,800
ENLOW, DONALD H.	CRANIOFACIAL GROWTH AND REMODELING	5R01 DE05078-03	76,203

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
EVANS, HELEN H.	RADIATION INDUCED MUTAGENESIS AND CARCINOGENESIS	5R01 CA23427-02	104,939
FACKLER, JOHN P. JR.	REACTIONS-COORDINATING COMPOUNDS-O.S AND SE LIGANDS	2R01 GM19050-07A1	62,449
FANGER, MICHAEL W.	HUMAN AND RABBIT LYMPHOCYTE SUBPOPULATIONS	5R01 AI10148-08	77,456
FU, YAO S.	NUCLEAR DNA STUDY OF GYNECOLOGIC CANCERS	1R01 CA24932-01	41,072
GAMBETTI, PIERLUIGI	SYNAPTOSES AND AXONS STUDIES	5R01 NS14509-03	134,917
GERSHMAN, HOWARD	CONTROL OF CELLULAR MOBILITY	5R01 CA20323-03	57,109
GOLDBERG, ALAN D.	CARDIOVASCULAR EVENTS IN HYPERTENSIVES	5R01 HL22032-02	34,060
GOLDBERG, VICTOR M.	BONE ALLOTRANSPLANTATION	1R01 AM22166-01	185,053
GOLDTHWAIT, DAVID A.	REPAIR OF X-IRRADIATED DNA IN NORMAL AND CANCER CELLS	5R01 CA18747-04	54,327
GOODRIDGE, ALAN G.	REGULATION OF THE SYNTHESIS OF LIPOGENIC ENZYMES	5R01 AM21594-03	145,458
GREENE, BRUCE M.	ONCHOCERCIASIS: IMMUNOLOGICALLY-MEDIATED EYE DISEASE	1R01 EY03318-01	127,145
GREGG, EARLE C.	MUTANTS AND ALTERED RADIORESPONSE OF CELLS AND TUMORS	5R01 CA15901-06	192,889
GREGG, EARLE C.	CORE SUPPORT FOR RADIATION ONCOLOGY RESEARCH	2P30 CA19283-04	383,600
GROSS, SAMUEL	CHILDREN'S CANCER STUDY GROUP - A	5R10 CA20320-02	122,619
GRUNDY, BETTY L.	EFFECTS OF ANESTHETICS ON CORTICAL EVOKED POTENTIALS	1R23 GM26264-01	14,786
HALL, PHILIP W. III.	RENAL METABOLISM OF BETA-2 MICROGLOBULIN	5R01 AM19556-03	27,639
HANSON, RICHARD W.	REGULATION OF GLUCONEOGENESIS IN MAMMALIAN LIVER	5R01 AM25537-02	108,321
HANSON, RICHARD W.	HORMONAL REGULATION OF ENZYME LEVELS IN MAMMALIAN TISSUE	5R01 AM25541-02	72,188
HARRIS, JOHN W.	STUDIES OF ERYTHROCYTE PRODUCTION AND DESTRUCTION	5R01 AM00745-25	144,710
HARRIS, JOHN W.	MAGNETIC MEASUREMENT OF HUMAN IRON STORES	1R01 AM25105-01	147,190
HARRIS, JOHN W.	MAGNETIC MEASURE OF HEART & LIVER IRON IN THALASSEMIA	1R01 HL24198-01	5,320
HEIPLE, KINGSBURY G.	IN VIVO LOADING ON TOTAL HIP JOINT REPLACEMENTS	5R01 AM16600-05	131,960
HOGG, ROBERT W.	CHARACTERIZATION OF L-ARABINOSE BINDING PROTEIN	5R01 AM13791-09	89,004
HOPFER, ULRICH	MEMBRANE TRANSPORT	1R01 AM25170-01	74,221
HOPPEL, CHARLES L.	PATHWAYS AND CONTROL OF FATTY ACID OXIDATION	5R01 AM15804-08	86,702
ILAN, JOSEPH	ESTRADIOL AND PROTEIN SYNTHESIS IN DEVELOPING LIVER	1R01 AM21312-01A1	78,984
ILAN, JOSEPH	MESSANGER RNA TRANSLATION DURING EMBRYOGENESIS	2R01 HD06727-06A1	93,341
ILAN, JUDITH	HUMAN PLACENTAL CHORIONIC GONADOTROPIN BIOSYNTHESIS	5R01 HD11596-02	132,836
JACOBS-LORENA, MARCELO	BIOCHEMICAL STUDIES OF DROSOPHILA OOGENESIS	5R01 GM25327-02	68,984
JONES, JANICE L.	DEFIBRILLATOR WAVESHAPE OPTIMIZATION	1R01 HL24606-01	50,969
KAISERMAN-ABRAMOF, ITA R.	STRUCTURE AND DEVELOPMENT OF THE VISUAL SYSTEM	5R01 EY01018-07	85,379
KALHAN, SATISH C.	CARBOHYDRATE METABOLISM IN CHRONIC UREMIA	1R01 AM25596-01	50,737
KATONA, PETER G.	OPTIMAL AUTOMATED CONTROL OF PHYSIOLOGICAL SYSTEMS	1R01 GM25538-01	74,133
KATONA, PETER G.	NONINVASIVE ASSESSMENT OF AUTONOMIC CARDIAC CONTROL	5R01 HL20328-02	42,093
KEAN, EDWARD L.	GLYCOLIPID AND GLYCOPROTEIN METABOLISM IN EYE TISSUE	5R01 EY00393-12	142,650
KELSEN, STEVEN G.	NEURAL CONTROL OF BREATHING IN PAPAIN INDUCED EMPHYSEMA	1R01 HL24537-01	66,001
KHAN, SOHAIB A.	ENZYME MARKER FOR HEMATOPOIETIC CELLS	7R23 CA27782-01	29,681
KIRBY, ALBERT C.	LEFT VENTRICULAR CA/IONS CONTENT AND CONTRACTILITY	5R01 HL22008-02	47,064
KLEIN, LEROY	QUANTITATIVE DYNAMICS OF BONE REMODELLING WITH AGE	5R01 AG00258-11	213,960
KLEIN, LEROY	AN INTERDISCIPLINARY PROGRAM OF RESEARCH IN AGING	5P01 AG00361-20	480,533
KO, WEN H.	MICROELECTRONICS LABORATORY FOR BIOMEDICAL SCIENCES	5P01 GM14267-13	454,203
KO, WEN H.	BIOMEDICAL ELECTRONICS RESOURCE	5P41 RR00857-05	695,687
KOLETSKY, SIMON	PATHOGENESIS OF ATHEROSCLEROSIS IN RATS	5R01 HL22341-02	53,999
KOWAL, JEROME	ENZYMATIC CONTROL OF STEROID BIOSYNTHESIS	5R01 AM15236-09	58,916
KUHNERT, BETTY R.	DRUG METABOLISM BY THE HIGH RISK MOTHER AND NEONATE	1R01 HD13359-01	101,076
KUMAR, MARY L.	CMV INFECTION IN PREGNANCY: A GUINEA PIG MODEL	5R01 HD10602-02	39,250
KURCZYNSKI, THADDEUS W.	BETA GALACTOSIDASES IN GLOBOID CELL LEUKODYSTROPHY	5R01 GM24860-02	59,572
LANCASTER, WAYNE D.	BOVINE PAPILLOMA VIRUS DNA AND NEOPLASIA	5R23 CA24505-02	39,500
LANDAU, BERNARD R.	CARBOHYDRATE AND LIPID METABOLIC PATHWAYS	5R01 AM14507-10	123,977
LASEK, RAYMOND J.	AGING CHANGES IN NEURONAL STRUCTURE AND FUNCTION	5P01 AG00795-02	274,818
LASEK, RAYMOND J.	MOLECULAR STUDIES OF AXONAL GROWTH	5R01 NS13658-03	61,257
LASEK, RAYMOND J.	AXONAL REGENERATION IN SPINAL CORD	1R01 NS14900-01	98,983
LEIS, JONATHAN P.	PROCESSING AND TRANSLATION OF TUMOR VIRUS RNA IN VITRO	1R01 CA27414-01	91,617
LINDLEY, BARRY D.	CONTRACTILE ACTIVATION BY RAPID TEMPERATURE JUMPS	5R01 HL19848-03	61,493
LINDLEY, BARRY D.	EXCITATION-CONTRACTION COUPLING IN DENERVATED MUSCLE	5R01 NS10196-06	83,925
LITTLE, A BRIAN	HORMONE METABOLISM IN REPRODUCTION	2R01 HD02378-14	81,796
LITTLE, A BRIAN	PROGRAM PROJECT IN REPRODUCTIVE BIOLOGY	3P50 HD07640-0551	180,695
LITTLE, A BRIAN	SPECIALIZED POP. RES. CTR. IN REPRODUCTIVE BIOLOGY	2P50 HD07640-06A1	193,816
MAHAJAN, DAMODAR K.	STEROIDS AND FOLLICULAR DEVELOPMENT	5R01 HD10302-02	53,229
MAHMOUD, ADEL A.	MULTIDISCIPLINARY PROGRAM IN PARASITIC INFECTIONS	5P01 AI15351-02	394,140

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
MAKKER, SUDESH P.	PATHOGENESIS OF MEMBRANOUS GLOMERULONEPHROPATHY.....	1R01 AM25782-01	58,101
MANSOUR, EDWARD G.	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA14548-05	131,207
MARSHALL, JAMES S.	THYROXINE-BINDING GLOBULIN AND SERUM GLYCOPROTEINS.....	5R01 AM15308-08	69,683
MATEESCU, GHEORGHE D.	NMR SPECTRAL STUDIES OF VISUAL PIGMENTS.....	1R01 EY02998-01	88,736
MATTSON, PRISCILLA	ACTH EFFECTS ON THE CYTOSKELETON OF ADRENAL TUMOR CELLS.....	1R01 CA26473-01	91,982
MEIGS, ROBERT A.	AROMATIZATION: ENZYMES, ORGANIZATION AND CONTROL.....	1R01 HD12931-01	94,121
MEISNER, HERMAN M.	OCHRATOXIN A—EFFECT ON CELLS, SUBCELLULAR SYSTEMS.....	5R01 ES01170-03	57,255
MERRICK, WILLIAM C.	MECHANISM OF PROTEIN SYNTHESIS INITIATION.....	1R01 GM26796-01	89,133
MIEYAL, JOHN J.	HEMOPROTEIN-DRUG INTERACTIONS: ROLE IN METABOLISM.....	2R01 GM24076-02A1	60,758
MILLER, CHARLES G.	GENETICS AND BIOCHEMISTRY OF INTRACELLULAR PROTEOLYSIS.....	5R01 AI10333-08	96,235
MILLER, RICHARD E.	GLUTAMINE SYNTHETASE IN CULTURED 3T3-L1 ADIPOCYTES.....	5R01 AM21145-02	52,455
MOORE, ALLEN C.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07113-12	157,433
MORTIMER, EDWARD A, JR.	EPIDEMIOLOGY OF OVARIAN CARCINOMA.....	1R01 CA26252-01	65,183
MOSKOWITZ, ROLAND W.	PATHOGENESIS AND THERAPY OF EXPERIMENTAL OSTEOARTHRITIS.....	1R01 AG01305-01	128,058
MOSKOWITZ, ROLAND W.	NORTHEAST OHIO ARTHRITIS CENTER SUPPORT.....	1P60 AM20618-01A1	248,924
NANKERVIS, GEORGE A.	HLA & RED CELL ANTIGENS IN CYTOMEGALOVIRUS INFECTION.....	1R01 HD11579-01	48,312
NEET, KENNETH E.	INTERACTION OF SUBUNITS IN ENZYMES AND PROTEINS.....	2R01 AM12881-11	98,400
OCCHINO, JOSEPH C.	CHARACTERIZATION OF ORAL MUCOSA AND SKIN BASAL LAMINA.....	2R01 DE04338-04	87,052
OLEINICK, NANCY L.	RADIATION-INDUCED MODIFICATIONS IN PROTEIN SYNTHESIS.....	5R01 CA15378-06	105,368
ORENSTEIN, DAVID M.	EXERCISE CONDITIONING IN PATIENTS WITH CYSTIC FIBROSIS.....	5R23 HL12954-02	46,400
PATEL, MULCHAND S.	BIOCHEMICAL CHANGES IN AGING BRAIN.....	5R01 AG01345-02	67,966
PATEL, MULCHAND S.	EFFECT OF MATERNAL DIABETES ON METABOLISM IN NEWBORNS.....	5R01 HD12643-02	94,206
PEARSON, OLOF H.	ENDOCRINE FACTORS INFLUENCING TUMOR GROWTH IN MAN.....	5R01 CA05197-20	109,072
PLONSEY, ROBERT	NORMALIZED BODY SURFACE POTENTIAL MAPS.....	5R01 HL17931-05	145,530
PLONSEY, ROBERT	STUDY OF CARDIAC SOURCES OF THE ECG.....	1R01 HL23645-01	45,786
POLMAR, STEPHEN H.	CELLULAR IMMUNITY TO PSEUDOMONAS IN CYSTIC FIBROSIS.....	1R01 HL24244-01	79,207
POWELL, ARNOLD E.	LEUKOCYTE ADHERENCE INHIBITION ASSAY IN HUMAN CANCER.....	1R01 CA26144-01	167,998
PRZYBYLSKI, RONALD J.	REGULATION OF INSULIN EFFECTS ON MUSCLE.....	5R01 AM25202-02	75,448
PURNELL, EDWARD W.	STUDY OF EYE PHYSIOLOGY AND DISEASE BY ULTRASOUND.....	5R01 EY00224-17	177,753
RATNOFF, OSCAR D.	STUDIES ON HEMOSTATIC MECHANISMS.....	5R01 HL01661-28	185,873
RECKNAGEL, RICHARD O.	TOXIGENIC LIPID PEROXIDATION AND HEPATIC COMA.....	5R01 ES04182-23	131,190
REES, ALAN M.	DIRECTORY OF U.S. HEALTH SCIENCE LIBRARIES.....	5R01 LM03135-02	108,111
RHODES, ROBERT S.	CONOGENESIS AND MITOCHONDRIAL FUNCTION IN SHOCK.....	1R23 GM26397-01	37,796
ROBBINS, FREDERICK C.	GENERAL CLINICAL RESEARCH CENTER.....	3M01 RR00210-14S2	31,152
ROBBINS, FREDERICK C.	GENERAL CLINICAL RESEARCH CENTER (MATERNAL-CHILD).....	5M01 PR00210-15	735,058
ROBBINS, FREDERICK C.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05410-18	201,413
ROBERTSON, ABEL L.	ATHEROSCLEROSIS AND ARTERIAL CELL FUNCTIONS.....	5R01 HL20924-03	152,209
RODMAN, HARVEY M.	DIABETES AND CELL-MEDIATED IMMUNITY.....	5R01 AM21259-02	79,710
ROOS, BERNARD A.	REGULATION OF CALCITONIN BIOSYNTHESIS AND SECRETION.....	5R01 AM21567-02	47,665
ROSENBERRY, TERRONE L.	ACETYLCHOLINESTERASE IN EXCITABLE MEMBRANES.....	7R01 NS16322-01	9,156
RUDOLPH, STEPHEN A.	PROTEIN PHOSPHORYLATION AND ADRENERGIC EFFECTS.....	5R01 HL21995-02	64,601
RUSTAD, RONALD C.	CELL CYCLE DEPENDENT CHANGES IN RADIATION SENSITIVITY.....	1R01 GM26484-01	67,164
SABLE, HENRY Z.	STUDIES OF POLYHYDROXYCYCLOALKANES.....	5R01 AM07719-16	62,477
SABLE, HENRY Z.	MECHANISM OF ACTION OF THIAMIN PYROPHOSPHATE.....	2R01 AM18888-04	61,844
SALOMON, ROBERT G.	PREPROSTAGLANDIN EXOGENOUS PEROXIDES.....	5R01 GM21249-04	68,624
SCHAFER, IRWIN A.	CHONDROCYTE CULTURE AND GENETIC BONE DYSPLASIA.....	1R01 AM25557-01	55,025
SENA, ELISSA P.	STUDIES ON MITOCHONDRIAL DNA INHERITANCE.....	5R01 GM23643-02	59,508
SHURIN, SUSAN B.	OPSONIC RECOGNITION BY PHAGOCYTES.....	1R01 AI10600-01	78,800
SIMMELINK, JAMES W.	ULTRASTRUCTURAL HISTOPATHOLOGY OF HUMAN DENTAL ENAMEL.....	2R01 DE02525-14	82,143
SINGER, MARCUS	NERVOUS CONTROL OF REGENERATION: AXON-SHEATH RELATIONS.....	5R01 NS07403-19	195,165
SKEGGS, LEONARD T.	CAUSE OF CHRONIC EXPERIMENTAL RENAL HYPERTENSION.....	5R01 HL17243-06	64,661
SMITH, REX N.	THE IMMUNOLOGICAL MAINTENANCE OF PREGNANCY.....	1R01 HD13260-01	90,204
SORENSEN, RICARDO U.	IN VITRO HUMAN CELLULAR RESPONSES TO KILLED BACTERIA.....	5R23 AI14682-02	46,800
SPECK, WILLIAM T.	CARCINOGENIC POTENTIAL OF PHOTOTHERAPY.....	5R01 CA23692-03	57,071
STAMBROOK, PETER J.	STUDY OF MAMMALIAN GENES AND THEIR REPLICATION.....	5R01 GM22248-05	99,216
STAMBROOK, PETER J.	REPLICATION OF AMPHIBIAN NONAMPLIFIED RIBOSOMAL DNA.....	2R01 GM23728-03	87,236
STAMBROOK, PETER J.	APPLICATION FOR AN ELECTRON MICROSCOPE.....	1P41 GM27543-01	101,912
STEINBERG, ARTHUR G.	NATURE & DISTRIBUTION OF HUMAN GAMMA-GLOBULIN FACTORS.....	2R01 GM07214-19	67,745
STUEHR, JOHN E.	KINETIC INVESTIGATION OF BIOCHEMICAL REACTIONS.....	5R01 GM13116-14	82,579
THOMAS, CECIL W.	SYNTHESIZED CHROMOSOME IMAGES.....	1R01 GM26499-01	118,613

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
THOMPSON, WILMER L.....	SYSTEM OF EMERGENCY TREATMENT OF POISONED PATIENTS.....	2R01 GM22317-04	111,879
URBACH, FRED L.....	AN ELECTRON PARAMAGNETIC RESONANCE RESEARCH FACILITY.....	1P41 GM27519-01	92,327
UTTER, MERTON F.....	STRUCTURE OF BIOTIN ENZYMES.....	5R01 AM12245-12	176,316
UTTER, MERTON F.....	INBORN ERRORS OF PYRUVATE METABOLISM.....	5R01 AM20478-02	100,288
UTTER, MERTON F.....	STRUCTURE AND FUNCTION OF PEP CARBOXYKINASE ISOZYMES.....	5R01 AM21859-02	73,258
UTTER, MERTON F.....	ELECTRON MICROSCOPY OF ENZYMES.....	2R01 GM22920-04	42,327
WALTON, ALAN G.....	STRUCTURE OF BLOOD PROTEINS BY NEW CD METHODOLOGY.....	1R01 GM26903-01	39,008
WILLIAMS, DAVID R.....	THE CHEMISTRY OF INTERESTING ANTIBIOTICS.....	1R01 AI15755-01	86,786
WOOD, HARLAND G.....	SUBUNIT/SUBUNIT INTERACTIONS OF TRANSCARBOXYLASE.....	5R01 GM22579-05	116,066
WOOD, HARLAND G.....	UTILIZATION OF CO2 AND THE TOTAL SYNTHESIS OF ACETATE.....	5R01 GM24913-02	71,928
WOOD, ROBERT E.....	PULMONARY MUCUS TRANSPORT IN OBSTRUCTIVE LUNG DISEASES.....	5R01 HL17776-05	87,567
YOUNKIN, STEVEN G.....	LONG-TERM INFLUENCE OF NERVE ON MUSCLE.....	2R01 NS15219-02	88,049
ORGANIZATION TOTAL	171	19,678,429	
CLEVELAND CLINIC HOSPITAL ZIP CODE 44106			
ANTUNEZ, ANTONIO R.....	NEUTRON BEAM RADIOTHERAPY.....	5P01 CA19720-03	541,272
BATTISTO, JACK R.....	NATURALLY OCCURRING DELAYED-TYPE ISO-HYPERSENSITIVITY.....	5R01 AM12468-05	107,435
BUMPUS, F MERLIN.....	CARDIOVASCULAR DISEASES AND BLOOD PRESSURE CONTROL.....	2P01 HL06835-18	1,178,325
BUMPUS, F MERLIN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05674-11	104,593
DEL VILLANO, BERT C.....	BIOLOGICAL STUDIES OF EPIDIDYMAL GLYCOPROTEIN, GP70.....	5R01 CA25789-02	81,049
DEODHAR, SHARAD D.....	IMMUNOPATHOLOGY OF EXPERIMENTAL BERYLLIUM DISEASE.....	1R01 HL24580-01	50,153
EHRHART, ALLEN.....	COLLAGEN BIOSYNTHESIS IN ATHEROSCLEROSIS.....	5R01 HL16588-06	92,222
FINKE, JAMES H.....	KILLER ASSISTING FACTOR IN CELL MEDIATED LYMPHOYSIS.....	5R01 CA24474-02	44,061
GERRITY, ROSS G.....	THE STRUCTURE AND PERMEABILITY OF ARTERIAL ENDOTHELIUM.....	5R01 HL21438-03	86,541
GREENWALD, A SETH.....	THE MECHANICS AND FUNCTION OF HUMAN SYNOVIAL JOINTS.....	5R01 AM17479-04	40,271
HEWLETT, JAMES S.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA04919-20	168,600
HOLZBACH, R THOMAS.....	BILIARY CHOLESTEROL SOLUBILITY.....	5R01 AM17562-06	150,279
NOSE, YUKIHIKO.....	HUMAN ANATOMY FOR CARDIAC PROSTHESES.....	3R01 HL18639-03S1	16,063
NOSE, YUKIHIKO.....	BIVENTRICULAR ASSIST AND REPLACEMENT STUDIES.....	1R01 HL24286-01	149,003
PROFFITT, MAX R.....	AUTOIMMUNITY AND VIRUS-INDUCED LEUKEMIA.....	5R01 CA20242-04	89,302
SHAINOFF, JOHN R.....	FIBRIN COMPLEXES IN INTERMEDIARY COAGULATION.....	2R01 HL16361-04	57,718
SHAINOFF, JOHN R.....	PATHOCHEMISTRY OF FIBRINOGEN.....	5R01 HL19767-02	46,930
ORGANIZATION TOTAL	17	3,003,817	
MOUNT SINAI HOSPITAL OF CLEVELAND ZIP CODE 44106			
GENUTH, SAUL M.....	ROLE OF CARNITINE AND RELATED METABOLITES IN KETOSIS.....	5R01 AM21009-03	75,627
HAAS, ERWIN.....	EXPERIMENTAL RENAL AND NEUROGENIC HYPERTENSION.....	5R01 HL17947-05	185,907
LEVY, MATTHEW N.....	NEURAL CONTROL OF THE HEART.....	5R01 HL10951-12	132,859
LEVY, MATTHEW N.....	CATECHOLAMINE RELEASE IN THE HEART.....	5R01 HL15758-07	89,455
LEVY, MATTHEW N.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05658-12	38,395
MARTIN, PAUL J.....	NEURAL CONTROL OF CARDIAC CONDUCTION AND EXCITATION.....	5R01 HL22484-02	77,163
ORGANIZATION TOTAL	6	599,406	
ST. LUKE'S HOSPITAL OF THE UNITED METHODIST CHURCH ZIP CODE 44104			
SINGERMAN, LAWRENCE J.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02554-01A1	29,377
ORGANIZATION TOTAL	1	29,377	
ST. VINCENT CHARITY HOSPITAL ZIP CODE 44115			
NAIR, PANKAJAM.....	MECHANISM OF CHEMORECEPTOR DISCHARGE.....	2R01 HL13134-08	51,325
WHALEN, WILLIAM J.....	COMPARATIVE STUDY OF HEART FUNCTION.....	5R01 HL11906-12	76,517
WHALEN, WILLIAM J.....	VASCULAR CONTROL MECHANISMS IN SKELETAL MUSCLE.....	5R01 HL12703-10	55,190
ORGANIZATION TOTAL	3	183,032	
UNIVERSITY HOSPITALS OF CLEVELAND ZIP CODE 44106			
ROBBINS, FREDERICK C.....	AMALGAMATED CLINICAL RESEARCH CENTER.....	2M01 RR00080-17	758,961
ORGANIZATION TOTAL	1	758,961	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
COLUMBUS			
BATTELLE MEMORIAL INSTITUTE	ZIP CODE 43201		
BARKER, ANNA D	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05723-08	58,450
DAVIS, ROBERT C	LASER CIRCULAR DICHROISM	5R01 GM24384-02	79,031
DE VORE, DALE P	INVESTIGATIONS OF ELECTRICALLY INDUCED OSTEOGENESIS	5R01 AM21867-02	66,421
HASSLER, CRAIG R	ELECTRICAL AUGMENTATION OF BONE FORMATION & INGROWTH	2R01 AM19280-04	68,920
LEININGER, ROBERT I	AN EVALUATION OF BLOOD-SURFACE INTERACTIONS	1R01 HL24015-01	193,158
ORGANIZATION TOTAL	5 465,980		
CHILDREN'S HOSPITAL	ZIP CODE 43205		
NEWTON, WILLIAM A, JR	CHILDREN'S CANCER STUDY GROUP	5R10 CA03750-22	197,962
ORGANIZATION TOTAL	1 197,962		
OHIO STATE UNIVERSITY	ZIP CODE 43210		
ACKERMAN, G ADOLPH	SURFACE DIFFERENTIATION OF DEVELOPING HEMIC CELLS	5R01 AM21512-02	51,350
ALBEN, JAMES O	NEW SPECTRAL PROBES IN HEMOLYTIC ANEMIAS	2R01 HL17839-04A1	65,218
ALLEN, JAMES N	RADIATION ENHANCEMENT IN NERVOUS SYSTEM TUMOR MODELS	5R01 CA20348-04	106,017
ALLRED, JOHN B	SHORT-TERM DIETARY CONTROL OF RAT LIVER LIPOGENESIS	5R01 AM19555-03	28,816
BALCERZAK, STANLEY P	LEUKEMIA-LYMPHOMA PROGRAM	5P01 CA15147-05	422,282
BARTH, ROLF F	IMMUNITY TO TUMOR-LOCALIZED, CHEMICALLY-MODIFIED DRUGS	1R01 CA27615-01	72,921
BEAL, JACK L	PHYTOCHEMISTRY OF THE GENUS THALICTRUM	5R01 HL07502-14	39,072
BEHRMAN, EDWARD J	SYNTHESIS OF SUGAR NUCLEOTIDES & ANALOGS	2R01 GM20002-03A1	33,764
BEHRMAN, EDWARD J	BIOCHEMICAL APPLICATIONS OF OSMIUM CHEMISTRY	5R01 GM20375-06	34,498
BERLINER, LAWRENCE J	HUMAN THROMBIN: BINDING AND RECOGNITION SITES	1R01 HL24549-01	57,673
BIRKY, C WILLIAM, JR	MECHANISMS OF ORGANELLE TRANSMISSION GENETICS	2R01 GM19607-07	112,026
BOULANT, JACK A	THE NEURAL CONTROL OF TEMPERATURE REGULATION	5R01 NS14644-02	35,217
BOZLER, EMIL	MECHANICAL CONTROL AND ENERGETICS OF MUSCLE CONTRACTION	5R01 AM20049-03	9,954
BRESNAHAN, JACQUELINE C	PAIN MECHANISMS AFTER SPINAL CORD LESIONS	5R01 NS14457-02	71,514
BRIERLEY, GERALD P	ION TRANSPORT BY HEART MITOCHONDRIA	2R01 HL09364-15	89,001
BRIERLEY, GERALD P	PATHOLOGY OF MITOCHONDRIA IN ISCHEMIC MYOCARDIUM	5R01 HL23166-02	71,176
BRIGGS, JOHN D	BIOLOGICAL CONTROL OF VECTORS OF HUMAN DISEASE	1R21 AI16285-01	52,137
BUSCH, DARYLE H	BIOMIMETIC METAL COMPLEXES OF MACROCYCLIC LIGANDS	5R01 GM10040-17	101,894
CERILLI, G JAMES	ANTIVASCULAR ENDOTHELIAL ANTIBODY	5R01 AM16804-06	61,496
CERILLI, G JAMES	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA18016-04A1	115,760
CHEDEKEL, MILES R	PHOTOCHEMICAL AND STRUCTURAL STUDIES ON PHAEOMELANIN	1R01 AG01756-01	19,195
CHEDEKEL, MILES R	BIOSYNTHETIC AND STRUCTURAL STUDIES ON PHAEOMELANIN	1R01 AG01757-01	28,060
CLARKE, STEVEN D	REGULATION OF LIPOGENESIS BY POLYUNSATURATED FATS	5R01 HL23159-02	37,630
CORNWELL, DAVID G	PATHOGENESIS OF EXPERIMENTAL ATHEROSCLEROSIS	5R01 HL11897-12	63,098
CORSON, SAMUEL A	CARDIO-RESPIRATORY-RENAL STRESS REACTIONS	5R01 HL20861-02	57,350
CRAMBLETT, HENRY G	SUPPORT FOR GENERAL CLINICAL RESEARCH CENTER	5M01 RR00034-19	497,953
CRAMBLETT, HENRY G	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05409-18	134,818
DEAN, DONALD H	ISOLATION AND GENETIC ANALYSIS OF SPORULATION GENES	5R01 GM26172-02	36,869
DUDEWICZ, EDWARD J	A MODEL FOR MEDICAL TREATMENTS EVALUATION	1R01 CA26254-01	50,798
FLIGNER, MICHAEL A	A NEW APPROACH TO A GENERALIZED BEHRENS-FISHER PROBLEM	1R01 GM25452-01	17,991
FREY, PERRY A	ENZYME CATALYSIS OF ELECTRON AND GROUP TRANSFER	5R01 AM13502-11	53,583
FREY, PERRY A	NUCLEOTIDYL AND PHOSPHOTRANSFERASE STEREOCHEMISTRY	5R01 GM24390-02	42,191
GAGINELLA, TIMOTHY S	INTESTINAL SECRETION NEUROCHEMICAL RECEPTOR MECHANISMS	5R01 AM21932-02	39,945
GLASER, RONALD	EXPRESSION OF EPSTEIN-BARR VIRUS IN HYBRID CELLS	5R01 CA23807-02	74,075
GROSSIE, JAMES A	PROPERTIES OF SKELETAL MUSCLE IN ALLOXAN DIABETES	5R01 AM23019-02	27,278
HANSEN, POUL M	EFFECTS OF PROCESSING AND STORAGE ON HUMAN MILK	1R01 HD12418-01	31,182
HEBERT, LEE A	INTRARENAL PRESSURE AND RENAL FUNCTION	7R01 HL25404-01	95,737
HILL, RICHARD M	THE CORNEAL ENVIRONMENT	5R01 EY02383-02	17,039
HOLLANDER, PHILIP B	INTRACELLULAR PH AND MYOCARDIAL ELECTROPHARMACOLOGY	5R01 HL20153-03	33,049
HOOVER, EDWARD A	PATHOGENESIS OF ANIMAL LEUKEMIA	5R01 CA22527-03	39,675
HOOVER, EDWARD A	PATHOGENESIS OF PRELEUKEMIC APLASTIC ANEMIA	1R01 CA26447-01	95,042
HORROCKS, LLOYD A	MYELIN BIOSYNTHESIS AND TURNOVER	5R01 NS08291-07	70,273
HORROCKS, LLOYD A	PLASMALENGENASE AND WHITE MATTER INJURY	5R01 NS14381-02	43,656
HORTON, DEREK	SYNTHESIS OF BIOLOGICALLY IMPORTANT CARBOHYDRATES	5R01 GM11976-14	103,593

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
HORTON, DEREK.....	PURCHASE OF NMR SPECTROMETER FOR CORE USER GROUP.....	1P41 GM27431-01	167,436
HUNT, WILLIAM E.....	SPINAL CORD INJURY RESEARCH CENTER.....	5P50 NS10165-08	491,880
INGLING, CARL R, JR.....	THE COLOR AND BRIGHTNESS CHANNELS OF THE VISUAL SYSTEM.....	1R01 EY03236-01	44,341
IVES, DAVID H.....	MECHANISMS OF NUCLEOSIDE KINASE REGULATION.....	1R01 GM26900-01	41,458
JOHNSON, LEE F.....	REGULATION OF DIHYDROFOLATE REDUCTASE GENE EXPRESSION.....	1R01 CA26470-01	35,404
JONES, RONALD.....	CLINICAL IMPLICATIONS OF VERGENE-ANOMALY.....	5R01 EY02532-02	37,328
JORNS, MARILYN S.....	FLAVOENZYME MECHANISMS: REDOX AND NONREDOX REACTIONS.....	2R01 GM22662-04	46,001
KAPRAL, FRANK A.....	STUDIES ON THE IN VIVO GROWTH OF STAPHYLOCOCCI.....	2R01 AI07826-11	79,495
KELLER, MARTIN D.....	A CANCER CENTER EPIDEMIOLOGY BIOSTATISTIC UNIT.....	5R10 CA21751-03	75,420
KING, JAMES S.....	THE DEVELOPMENT OF PRECEREBELLAR NUCLEI.....	5R01 NS08798-08	51,697
KOESTNER, ADALBERT.....	NEUROONCOGENESIS BY RESORPTIVE CARCINOGENS.....	3R01 CA11224-10S1	17,681
KOESTNER, ADALBERT.....	A MODEL OF PARAINFECTIONOUS DEMYELINATING ENCEPHALITIS.....	5R01 NS14821-11	104,895
KRUGER, FRED A.....	ALPHA-ADRENERGIC EFFECTS ON HEART METABOLISM.....	5R01 HL22354-02	59,187
KUNZ, ALBERT L.....	OPEN LOOP FORCING OF CHEST VOLUME AND CO2 CONCENTRATION.....	1R01 HL23780-01	49,662
KUWANA, THEODORE.....	SPECTROELECTROCHEMISTRY OF BIO-ELECTRON TRANSFERS.....	5R01 GM19181-08	53,454
LA PIDUS, JULES B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07074-14	111,150
LIM, DAVID J.....	OTITIS MEDIA WITH EFFUSION.....	2R01 NS08854-10	191,107
LIM, DAVID J.....	RECENT ADVANCES IN MIDDLE EAR EFFUSION.....	1R13 NS15233-01	14,890
LOWERY, BRIAN D.....	MODELS AND MECHANISMS OF ACUTE LUNG INJURY AFTER SHOCK.....	1R23 GM26865-01	48,850
MAGNUS, PHILIP D.....	SYNTHESIS OF MOLECULES OF BIOLOGICAL INTEREST.....	5R01 GM25231-02	49,017
MAGNUS, PHILIP D.....	SYNTHESIS OF HISTRIONICOTOXIN, A NEUROTOXIC DRUG.....	1R01 NS14622-01A1	53,723
MARUSHIGE, KEIJI.....	CHROMATIN IN SPERMATOGENESIS AND FERTILIZATION.....	1R01 HD12265-01A1	65,553
MARZLUF, GEORGE A.....	REGULATION OF GENE EXPRESSION IN NEUROSPORA.....	5R01 GM23367-03	42,442
MAYER, ROBERT M.....	STUDIES ON THE DEXTRAN SUCRASE OF STREPTOCOCCUS SANGUIS.....	2R01 DE03731-04A1	38,622
MENDELL, JERRY R.....	ROLE OF AXOPLASMIC TRANSPORT IN DIABETIC NEUROPATHY.....	1R01 NS15499-01	48,216
MILLER, DUANE D.....	CARDIOPULMONARY ACTIONS: TRIMETOQUINOL ANALOGS.....	1R01 HL22533-01A1	53,818
MILLER, DUANE D.....	ALPHA-ADRENERGIC AND DOPAMINERGIC STEREOCHEMICAL STUDIES.....	5R01 NS14774-02	44,699
MILO, GEORGE E.....	CHEMICAL CARCINOGEN INDUCED NEOPLASTIC TRANSFORMATION.....	1R01 CA25907-01	164,538
MINTON, JOHN P.....	HORMONES AND BREAST CANCER PROSTAGLANDIN BIOSYNTHESIS.....	5R01 CA22892-02	33,133
NEIDHART, JAMES A.....	POLYMERIZED TUMOR ANTIGEN-ADJUVANT IMMUNOTHERAPY.....	1R01 CA26286-01	64,238
NEIDHART, JAMES A.....	A STUDY OF THE ACTIVITIES OF IMPY AND ITS METABOLITES.....	1R01 CA26436-01	37,039
NEREM, ROBERT M.....	DETAILED CHARACTERISTICS OF CORONARY BLOOD FLOW.....	5R01 HL16236-05	55,639
NEWMAN, MELVIN S.....	SYNTHESIS OF CARCINOGENIC COMPOUNDS.....	3R01 CA07394-14S1	12,834
NEWMAN, MELVIN S.....	SYNTHESIS OF SUBSTITUTED POLYCYCLIC HYDROCARBONS.....	2R01 CA07394-15	29,746
OLSON, CARTER L.....	DEVELOPMENT OF NEW METHODS TO ASSAY ENZYME REACTIONS.....	5R01 GM15821-11	51,417
PANGANAMALA, RAO V.....	DIABETES-VITAMIN E-VASCULAR DEGENERATION.....	1R01 HL23439-01	38,143
PAQUETTE, LEO A.....	POLYCONDENSED ALICYCLICS AND THEIR ANTIVIRAL ROLE.....	5R01 AI11490-06	83,769
PAQUETTE, LEO A.....	UNSATURATED POLYOLEFINS AND HYDROCARBON CARCINOGENESIS.....	5R01 CA12115-09	100,899
PARSONS, DONALD O.....	WORK BEHAVIOR OF RETIREMENT AGE MALES.....	1R01 AG02003-01	62,540
PATIL, POPAT N.....	IRIS PIGMENTATION, MELANINS AND OCULAR DRUG EFFECTS.....	5R01 EY01308-05	43,360
PERLMAN, PHILIP S.....	DELETIONS AND MITOCHONDRIAL GENETIC RECOMBINATION.....	2R01 GM21896-04	63,924
PIEPER, HEINZ P.....	ENERGY OUTPUT AND EFFICIENCY OF LEFT VENTRICLE.....	2R01 HL18933-04	65,273
PIEPER, HEINZ P.....	PULMONARY VASCULAR SMOOTH MUSCLE FUNCTION CHARACTERISTIC.....	5R01 HL23239-02	52,027
RAHWAN, RALF G.....	ANTIARRHYTHMIC STUDIES ON 2-SUBSTITUTED AMINOINDENES.....	5R01 HL21670-02	30,958
RALL, JACK A.....	ENERGETICS OF CALCIUM CYCLING DURING MUSCLE CONTRACTION.....	5R01 AM20792-02	17,279
REEVE, JOHN N.....	PROTEIN STABILITY AND AGING IN ANUCLEATE CELLS.....	1R01 AG01546-01	59,284
RICE, DAVID A.....	SOUND TRANSMISSION IN LUNG.....	5R23 HL21199-03	40,655
RICHARDSON, KEITH E.....	OXALIC ACID METABOLISM AND PRIMARY HYPEROXALURIA.....	5R01 AM12960-10	67,535
RINEHART, JOHN J.....	HEMOGLOBIN IRON METABOLISM BY HUMAN MACROPHAGES.....	1R01 AM25685-01	23,336
SAGONE, ARTHUR L.....	THE ROLE OF OXYGEN RADICALS ON EFFECTOR/TUMOR CELLS.....	5R01 CA24289-02	79,350
SHECHTER, HAROLD.....	DIAZO, DIAZIRINO, AZOXY AND NOVEL METEROCYCLIC COMPOUNDS.....	2R01 CA11185-10A1	73,122
SMITH, C ROGER.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05463-17	31,436
SOKOLOSKI, THEODORE D.....	NITROGLYCERIN TOLERANCE.....	5R01 HL23303-01	35,050
SOLOWAY, ALBERT H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05607-13	36,177
SPRECHER, HOWARD W.....	EFFECTS OF DIETARY CHANGE ON PHOSPHOLIPID METABOLISM.....	5R01 AM18844-04	35,173
SPRECHER, HOWARD W.....	FACTORS MODIFYING BLOOD PLATELET FUNCTION IN DIABETICS.....	5R01 AM20387-03	79,619
STEVENSON, JOANNE S.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09119-01A1	85,442
STOCKWELL, CHARLES W.....	VESTIBULAR CONTROL OF POSTURE.....	5R01 NS13903-03	24,565
SWENTON, JOHN S.....	SYNTHESIS OF ANTHRACYCLINE ANTITUMOR AGENTS.....	5R01 CA17712-02	36,049
VASKO, JOHN S.....	PHYSIOLOGY AND HISTOPATHOLOGY OF ARTERIALIZED VEIN GRAFT.....	2R01 HL17337-03A2	79,882

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
WEBB, THOMAS E.....	POST-TRANSCRIPTIONAL CONTROL IN EUKARYOTIC CELLS.....	5R01 CA12411-07	60,775
WHISLER, RONALD L.....	IN VITRO IMMUNOGLOBULIN PRODUCTION IN HEPATITIS.....	5R23 AI14918-02	42,600
WILLIAMS, THOMAS E. JR.....	A NEW METHOD FOR ANALYSIS OF CORONARY ARTERY BEHAVIOR.....	5R01 HL22801-02	34,236
WILSON, HENRY E.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA04920-20	164,089
WITIAK, DONALD T.....	CARCINOGENIC, MUTAGENIC AND CYTOTOXIC MECHANISM (DMBA).....	5R01 CA21371-03	96,784
WITIAK, DONALD T.....	PHARMACOLOGY OF ICRF-159 RELATED ANALOGUES.....	1R01 CA25445-01	94,228
WITIAK, DONALD T.....	HYPOCHOLESTEROLEMIC AGENTS: STEREOCHEMICAL STUDIES.....	5R01 HL12740-11	82,228
YEARY, ROGER A.....	COMPARATIVE STUDIES IN PERINATAL TOXICOLOGY.....	2R01 HD03867-10	101,986
YOHN, DAVID S.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA16058-06	1,447,438
ZWILLING, BRUCE S.....	IMMUNOPROPHYLAXIS AND IMMUNOTHERAPY OF LUNG CANCER.....	5R01 CA16342-05	64,660
ORGANIZATION TOTAL	114 9,441,747		
DAYTON			
UNIVERSITY OF DAYTON ZIP CODE 45469			
SINGER, SANFORD S.....	STERIOD SULFOTRANSFERASES AND GLUCOCORTICOID ACTION.....	5R01 AM19669-03	42,369
TURGEON, ROBERT.....	CROWN GALL TUMOR DISEASE: SUPPRESSION AND RECOVERY.....	5R01 CA23261-03	43,819
ORGANIZATION TOTAL	2 86,188		
WRIGHT STATE UNIVERSITY ZIP CODE 45431			
ARMSTRONG, MARVIN D.....	UNIDENTIFIED AMINO ACIDS IN HUMAN BLOOD PLASMA.....	2R01 GM25751-03	40,446
BATTINO, RUBIN.....	THE SOLUBILITY OF GASES IN LIQUIDS.....	5R01 GM14710-12	59,752
BELIAN, JOHN R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05794-03	73,807
BURT, WAYNE R.....	HYDROXOMATE AND VIRULENCE IN HISTOPLASMOVIS.....	1R01 AI15989-01	47,367
CUMMINGS, SUE C.....	THERMODYNAMIC STUDIES ON MODEL OXYGEN CARRIERS.....	3R01 HL15640-06S1	4,483
CUMMINGS, SUE C.....	THERMODYNAMIC AND EPR STUDIES ON MODEL OXYGEN CARRIERS.....	2R01 HL15640-07	33,641
FLICK, PARKE K.....	REGULATION OF RAT LIVER FATTY ACID SYNTHETASE.....	5R01 AM21957-02	43,029
GOTSHALL, ROBERT W.....	EFFECT OF PRESSURE ON RENAL BLOOD FLOW AND FUNCTION.....	5R23 HL21382-03	30,161
HUTCHINGS, BRIAN L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07155-04	17,541
KANTOR, GEORGE J.....	EFFECTS OF RADIATION ON HUMAN CELLS CULTURED IN VITRO.....	5R01 CA16477-05	43,683
KORDENAT, R. KARL.....	INTERMITTENT RETROPERFUSION OF ISCHEMIC MYOCARDIUM.....	5R01 HL22005-02	104,392
LEFFAK, IRA M.....	CHROMATIN STRUCTURE AND REPLICATION.....	1R01 GM26803-01	68,262
MURPHY, MARTIN J. JR.....	IDENTITY AND CHARACTERISTICS OF ERYTHROID STEM CELLS.....	7R01 AM26691-01	37,077
ORGANISCIAK, DANIEL T.....	ENVIRONMENTAL LIGHT AND RETINAL MEMBRANE DEVELOPMENT.....	5R01 EY01959-03	47,009
PENDERGRASS, PAULA B.....	CONTRACTILE MECHANISMS OF OVULATION.....	5R01 HD12988-02	13,655
PETROFSKY, JERROLD S.....	MICROPROCESSOR STIMULATION OF MUSCLE IN THE PARALYZED.....	7R01 NS16003-01	58,547
ROCHE, ALEXANDER F.....	PATTERNS OF DENTOCRANIOFACIAL GROWTH AND MATURATION.....	5R01 DE05160-03	130,105
ROCHE, ALEXANDER F.....	ASSESSMENT OF SKELETAL MATURITY.....	5R01 HD12251-03	124,646
ROCHE, ALEXANDER F.....	SUBCUTANEOUS FAT, BLOOD LIPIDS AND HEALTH.....	5R01 HD12252-03	359,492
SIERVOGEL, ROGER M.....	GENETICS OF HYPERTENSION AND ASSOCIATED VARIABLES.....	2R01 HL23194-03	141,180
VARADANI, PARTAB T.....	REGULATION AND FUNCTION OF INSULIN DEGRADATION.....	5R01 AM24057-04	135,888
ORGANIZATION TOTAL	21 1,614,163		
DELAWARE			
OHIO WESLEYAN UNIVERSITY ZIP CODE 43015			
STEGE, THOMAS E.....	LIPID PEROXIDATION IN HEPATOCYTES.....	1R01 AG01407-01	26,740
ORGANIZATION TOTAL	1 26,740		
KENT			
KENT STATE UNIVERSITY ZIP CODE 44242			
ADAMS, WALTER C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR07182-01	25,189
HIRSCHMAN, RICHARD.....	EFFECTS OF PHYSIOLOGICAL FEEDBACK ON DENTAL FEAR.....	5R01 DE04769-02	44,585
KILLIAN, GARY J.....	ANALYSIS OF EPIDIDYMAL EPITHELIAL CELLS.....	5R01 HD10827-02	33,414
KILLIAN, GARY J.....	ESR STUDIES ON SPERM CAPACITATION.....	1R01 HD13422-01	42,400
ROE, BRUCE A.....	THE ROLE OF MODIFIED NUCLEOTIDES IN MAMMALIAN TRNA.....	5R01 GM21405-04	62,027
ROE, BRUCE A.....	SEQUENCE ANALYSIS OF MAMMALIAN TRNA AND TRNA GENES.....	1R01 GM25962-01	55,255
TSAI, CHUN-CHE.....	BINDING OF DRUGS TO NUCLEIC ACIDS.....	5R01 GM24259-02	35,413

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
OHIO—Continued				
ORGANIZATION TOTAL	7	298,283		
ROOTSTOWN				
NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE		ZIP CODE 44272		
CRUCE, WILLIAM L.....		STRUCTURE AND FUNCTION OF SUPRASPINAL PATHWAYS.....	5R01 NS14346-03	50,406
DEPEW, RICHARD E.....		BACTERIAL W PROTEINS: BIOCHEMISTRY AND GENETICS.....	5R01 GM25500-02	38,018
FINKELSTEIN, JUDITH A.....		HYPOTHALAMIC STRUCTURE AND FUNCTION.....	5R01 NS14344-02	47,509
HOPPES, WILLIAM L.....		STUDY OF ANAEROBIC INFECTIONS IN DIABETIC PATIENTS.....	7R01 AM25644-01	37,401
KOO, PETER H.....		TUMOR SUPPRESSION BY ALPHA-MACROGLOBULINS OF MICE.....	5R01 CA24337-02	60,936
LIEBELT, ROBERT A.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05806-01	14,473
LIEBELT, ROBERT A.....		BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09026-03	90,050
STUESSE, SHERRY L.....		NEURAL REGULATION OF THE HEART.....	1R23 HL23964-01	26,343
VONEIDA, THEODORE J.....		ORIGIN OF HIPPOCAMPAL COMMISSURE.....	1R01 NS15131-01	37,965
ORGANIZATION TOTAL	9	403,101		
TOLEDO				
MEDICAL COLLEGE OF OHIO AT TOLEDO		ZIP CODE 43614		
ASKARI, AMIR.....		MERCURIAL POISONS EFFECTS ON NA/IONS,K/IONS-ATPASE.....	5R01 ES01599-03	51,014
ASKARI, AMIR.....		CARDIAC GLYCOSIDES: MECHANISMS OF CELLULAR ACTIONS.....	5R01 HL19129-05	90,028
BIRKHAWN, RONALD H.....		BRANCHED-CHAIN AMINO ACID OXIDATION DURING TRAUMA.....	1R01 GM26872-01	66,893
BUDD, GEOFFREY C.....		ASSESSMENT OF INTRAPORTAL HEPATOCYTE TRANSPLANTATION.....	5R01 AM21380-02	54,426
CHAKRABORTY, JYOTSNA.....		NUCLEOTIDE CYCLASE ACTIVITY IN HUMAN AND MOUSE TESTES.....	5R01 HD10107-03	47,849
CLIFFORD, DONALD H.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05700-10	95,458
GARLID, KEITH D.....		THE STATE OF WATER AND SOLUTES IN MITOCHONDRIA.....	5R01 GM24297-02	61,400
HOWARD, JOHN M.....		STUDIES OF PANCREATIC DIABETES.....	5R01 AM21116-03	44,761
KOECHER, DANIEL A.....		RENAL NECROSIS INDUCED BY CHEMICALS.....	1R01 GM26775-01	62,265
LEVIN, JEROME A.....		INACTIVATION OF NOREPINEPHRINE IN VASCULAR TISSUE.....	5R01 HL12647-09	52,443
LEVIN, JEROME A.....		PULMONARY VASCULAR INACTIVATION OF BIOGENIC AMINES.....	1R01 HL24656-01	22,098
LONG, CALVIN L.....		ENERGY METABOLISM IN CANCER PATIENTS.....	1R01 CA26513-01	95,038
LONG, CALVIN L.....		METABOLIC RESPONSE TO TRAUMA.....	2P01 GM23065-04A1	321,811
MANNING, MAURICE.....		DESIGN AND SYNTHESIS OF NEUROHYPOPHYSIAL PEPTIDES.....	5R01 GM25280-08	104,900
MC PARTLAND, RICHARD P.....		BIOCHEMICAL EVENTS IN GENETIC HYPERTENSION IN RATS.....	1R23 HL23389-01	45,445
MULROW, PATRICK J.....		PROSTAGLANDINS AND HYPERTENSION.....	5R01 HL19229-03	93,855
MULROW, PATRICK J.....		ETIOLOGICAL FACTORS IN HYPERTENSION.....	5R01 HL19644-04	138,785
NELSON, A DENNIS.....		SCINTIGRAPHIC DIAGNOSIS OF CORONARY ARTERY DISEASE.....	1R23 HL24236-01	42,368
PEARLMUTTER, ANNE F.....		HORMONE INTERACTION STUDIED BY KINETIC TECHNIQUES.....	2R01 AM18383-03A2	53,540
POPA, VALENTIN T.....		EFFECT OF ENDOGENOUS HISTAMINE ON HUMAN AIRWAYS.....	1R01 HL23679-01	61,075
RAPP, JOHN P.....		BIOCHEMISTRY AND GENETICS OF SALT HYPERTENSION.....	2R01 HL20176-03A1	141,743
REIMANN, ERWIN M.....		BIOCHEMICAL ROLE OF CYCLIC AMP IN THE GASTRIC MUCOSA.....	5R01 AM15611-08	66,213
REIMANN, ERWIN M.....		REGULATION OF GLYCOPEN SYNTHASE BY PROTEIN KINASES.....	2R01 AM19231-04	67,380
RHEE, HEE M.....		DIGITALIS INDUCED ARRHYTHMIA-NA/KIONS-ATPASE ACTIVITY.....	5R23 HL21196-03	42,749
SAWICKI, DOROTHEA L.....		REGULATION OF ALPHAVIRUS TRANSCRIPTION.....	5R01 AI15123-02	35,825
SCHLENDER, KEITH K.....		REGULATION OF THE RENAL GLYCOPEN SYNTHASE SYSTEM.....	5R01 AM14723-09	53,280
SOLOFF, MELVYN S.....		MECHANISMS OF OXYTOCIN ACTION.....	5R01 HD08406-05	80,525
TIDRICK, ROBERT T.....		CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17989-05	111,380
TURNER, JOHN W, JR.....		HORMONAL CONTROL OF SEXUAL DIFFERENTIATION OF THE BRAIN.....	2R01 HD09429-04	50,495
ORGANIZATION TOTAL	29	2,255,042		
UNIVERSITY OF TOLEDO		ZIP CODE 43606		
SHEPHERD, RAYMOND E.....		EXERCISE, TRAINING AND REGULATION OF LIPID METABOLISM.....	1R01 AM21912-01A1	52,792
ORGANIZATION TOTAL	1	52,792		
UNIVERSITY HEIGHTS				
JOHN CARROLL UNIVERSITY		ZIP CODE 44118		
KECK, MAX J.....		INTEROCULAR TRANSFER OF AFTEREFFECTS IN STRABISMUS.....	5R01 EY02087-02	24,191
ORGANIZATION TOTAL	1	24,191		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
WILBERFORCE			
CENTRAL STATE UNIVERSITY	ZIP CODE 45384		
JOHNSON, MELVIN A, JR.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08052-09	26,734
ORGANIZATION TOTAL	1 26,734		
WOOSTER			
COLLEGE OF WOOSTER	ZIP CODE 44691		
HINTON, CLAUDE W.....	CHROMOSOME BEHAVIOR IN DROSOPHILA.....	5R01 GM16536-11	22,964
ORGANIZATION TOTAL	1 22,964		
OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER	ZIP CODE 44691		
BOHL, EDWARD H.....	IMMUNITY AGAINST ENTERIC VIRAL INFECTIONS.....	2R01 AI10735-06	65,237
ORGANIZATION TOTAL	1 65,237		
STATE TOTAL	528 53,399,186		
OKLAHOMA			
DURANT			
SOUTHEASTERN OKLAHOMA STATE UNIVERSITY	ZIP CODE 74701		
ROBINSON, JACK L.....	SUPPORT FOR BIOMEDICAL SCIENCES (MINORITIES).....	5S06 RR08003-09	86,849
ORGANIZATION TOTAL	1 86,849		
NORMAN			
UNIVERSITY OF OKLAHOMA	ZIP CODE 73069		
BASTIAN, JOSEPH A, JR.....	MECHANISMS OF SENSORY PROCESSING.....	2R01 NS12337-05	38,136
DRYHURST, GLENN.....	ELECTROCHEMISTRY AND INTERFACIAL BEHAVIOR OF PURINES.....	5R01 GM21034-06	54,109
DRYHURST, GLENN.....	REDOX CHEMISTRY OF PTERIDINES.....	1R01 GM25842-01	34,460
FLETCHER, JOHN S.....	SENESCENCE OF PLANT SUSPENSION CULTURES.....	1R01 AG01709-01	26,910
FUNG, BING-MAN.....	WATER AND IONS IN MUSCLE AND COLLAGEN IN AGING.....	5R01 AG00199-03	30,462
JOHNSON, ARTHUR E.....	THE INTERACTION OF AA-TRNA AND RIBOSOMES.....	1R01 GM26494-01	57,120
LARSH, HOWARD W.....	ISOLATION OF A SKIN TEST ANTIGEN FOR BLASTOMYCOSIS.....	5R01 AI11610-06	33,509
LARSH, HOWARD W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07078-06	37,876
LEHR, ROLAND E.....	DIOL EPOXIDE/OTHER DERIVATIVES OF PAH & AZA-PAH-SAR'S.....	2R01 CA22985-03	43,005
SCHMITZ, FRANCIS J.....	ANTITUMOR AGENTS FROM MARINE ORGANISMS.....	5R01 CA17256-05	59,340
THOMPSON, JAMES N, JR.....	GENE NUMBER AND DEVELOPMENT IN QUANTITATIVE TRAITS.....	1R01 GM24809-01	27,958
VAN DER HELM, DICK.....	STRUCTURE OF ANTICANCER AGENTS BY X-RAY DIFFRACTION.....	5R01 CA17562-05	57,642
VAN DER HELM, DICK.....	STRUCTURE/CONFORMATION-SIDEROCHROME & PEPTIDE CHELATES.....	5R01 GM21822-05	75,907
YOSHINO, TIMOTHY P.....	IMMUNOBIOLOGY OF SCHISTOSOME-MOLLUSK INTERACTIONS.....	1R22 AI15503-01	35,356
ORGANIZATION TOTAL	14 611,790		
OKLAHOMA CITY			
OKLAHOMA MEDICAL RESEARCH FOUNDATION	ZIP CODE 73104		
ALAUPOVIC, PETAR.....	THE CHEMISTRY AND PHYSIOLOGY OF LIPID TRANSPORT.....	1P01 HL23181-01	279,388
BOTTOMLEY, RICHARD H.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA16957-05	160,390
BRADFORD, REAGAN H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05538-17	68,258
CARPENTER, MARY P.....	METABOLISM OF THE TESTIS IN VITAMIN E DEFICIENCY.....	5R01 HD05641-18	58,864
CARUBELLI, RAOUL.....	SIALOGLYCOCONJUGATES IN CANCER UNDER DIETARY STRESS.....	5R01 CA20969-03	40,349
CARUBELLI, RAOUL.....	BIOCHEMICAL STUDY OF THE TRACHEOBRONCHIAL SECRETIONS.....	1R01 HL23110-01A2	88,695
FLOYD, ROBERT A.....	CARCINOGEN FREE RADICALS IN ARYLAMINE METABOLISM.....	5R01 CA18591-05	33,980
FLOYD, ROBERT A.....	FREE RADICALS IN NITROSO-UNSATURATED LIPID REACTIONS.....	5R01 CA21542-02	32,722
GRIFFIN, MARTIN J.....	ROLE OF EPOXIDE HYDRASE IN CHEMICAL CARCINOGENESIS.....	3R01 CA24459-01S1	32,095

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OKLAHOMA—Continued			
JOHNSON, B CONNOR	VITAMIN A METABOLISM AND FUNCTION	5R01 AM22053-02	57,764
JOHNSON, B CONNOR	NUTRITIONAL REGULATION OF ENZYME ACTIVITY	5R01 HL12138-09	61,567
JOHNSON, B CONNOR	VITAMIN K FUNCTION IN PROTEIN CARBOXYLATION	2R01 HL17619-04A1	83,510
KING, M MARGARET	MAMMARY CARCINOGENESIS: DIETARY FATS AND ANTIOXIDANTS	5R23 ES01789-02	41,188
MC CAY, PAUL B.	LIPID PEROXIDATION: DIET ANTIOXIDANTS AND CARCINOGENS	5R01 AM06978-17	64,823
MC CAY, PAUL B.	OXIDASE-GENERATED FREE RADICALS IN VIT. E DEFICIENCY	5R01 AM08397-19	54,839
MC CAY, PAUL B.	DIETARY FATS AND ANTIOXIDANTS IN CARCINOGENESIS	5R01 CA21019-03	125,851
MC CAY, PAUL B.	CHEMICAL CARCINOGENESIS IN SPECIFIC DIETARY STATES	5R01 CA21419-03	15,692
MC CONATHY, WALTER J.	RELATIONSHIP BETWEEN HUMAN LIPOPROTEIN D AND LCAT	1R01 HL23719-01	38,379
RADCLIFFE, ROBERT D.	PURIFICATION OF BOVINE PLASMINOGEN PROACTIVATOR	5R01 HL20846-03	30,850
SCHMIDT, PAUL G.	NMR OF TRANSFER RNA	2R01 GM25261-02	33,593
SCHMIDT, PAUL G.	ACID PROTEASE STRUCTURE, DYNAMICS AND MECHANISM	5R01 GM25703-02	44,080
TANG, JORDAN J.	STUDIES OF THE COMPONENTS OF HUMAN GASTRIC JUICE	5R01 AM01107-24	75,985
TANG, JORDAN J.	STRUCTURE AND FUNCTION OF MAMMALIAN CATHEPSIN D	2R01 GM20212-04A1	52,750
WANG, CHI-SUN	STUDIES ON THE HUMAN MILK LIPOPROTEIN LIPASE	1R01 HL23705-01	66,120
ORGANIZATION TOTAL	24	1,641,732	
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190			
BROYLES, ROBERT H.	DIFFERENTIATION OF RED BLOOD CELLS IN VITRO	3R01 AM21386-03S1	2,709
BROYLES, ROBERT H.	REGULATION OF HB SWITCHING IN VIVO AND IN VITRO	1R01 AM21764-01	40,710
BULMER, GLENN S.	PATHOGENESIS OF CRYPTOCOCCOSIS	5R01 AI05022-16	32,824
DORMER, KENNETH J.	CARDIODYNAMICS AND HYPERTENSION UNDER CEREBELLAR CONTROL	5R23 HL22747-02	31,513
DOWELL, RUSSELL T.	DEVELOPMENT OF HEART METABOLISM AND CONTRACTILE FUNCTION	1R01 HD13127-01	52,035
DOWELL, RUSSELL T.	ADAPTIVE HEART GROWTH IN NEONATES AND ADULTS	5R01 HL23025-02	61,791
FARBER, JAY P.	EARLY HYPOXIA AND DEVELOPMENT OF RESPIRATORY CONTROL	5R01 HL23601-02	30,531
FOREMAN, ROBERT D.	CENTRAL ORGANIZATION OF CARDIAC AFFERENT NERVES	5R01 HL22732-02	23,692
GRAVES, DONALD C.	STUDIES ON THE BOVINE LEUKEMIA VIRUS	5R23 CA23980-02	33,580
GRAY, PETER N.	AN ENZYME DEFECT IN HUNTINGTON'S DISEASE	5R01 NS14642-02	40,965
HINSHAW, LERNER B.	VENTRICULAR RELAXATION AND MYOCARDIAL EDEMA IN SHOCK	1R01 HL24590-01	44,812
HORN BROOK, KENT R.	DRUG AND HORMONE EFFECTS ON CARBOHYDRATE METABOLISM	5R01 AM16551-07	41,859
HOWES, ROBERT I, JR.	ROOT FORMATION IN LOWER VERTEBRATE TROPH TRANSPLANTS	5R01 DE03709-06	18,608
HUMPHREY, G BENNETT	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY	5R10 CA11233-11	148,937
KEM, DAVID C.	INTRACELLULAR ACTION OF ALDOSTERONE IN HYPERTENSION	2R01 HL19279-04	103,738
KOSANKE, STANLEY D.	ANIMAL RESOURCE DIAGNOSTIC LABORATORY	5P40 RR01098-03	82,030
KOSS, MICHAEL C.	ADRENERGIC CONTROL OF A CENTRAL AUTONOMIC SYSTEM	5R01 NS14039-03	28,185
LERNER, MICHAEL P.	PURIFICATION OF HUMAN BREAST TUMOR PROTEINS	5R01 CA22541-02	57,133
LYNN, THOMAS N.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00062-17	278,302
LYNN, THOMAS N.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05411-18	104,970
MANDAL, ANIL K.	CHRONIC SPLENECTOMY IN RENAL TUBULAR LESIONS	1R01 AM26022-01	21,824
MARCH, WAYNE F.	MACULAR PHOTOCOAGULATION STUDY	1R10 EY03281-01	58,776
METCOFF, JACK	REGULATION OF CELL METABOLISM IN UREMIA	5R01 AM19503-03	171,860
METCOFF, JACK	MATERNAL MALNUTRITION AND FETAL DEVELOPMENT	3R01 HD06915-06S1	29,224
POLLAY, MICHAEL	TRANSCAPILLARY EXCHANGE IN EXPERIMENTAL BRAIN TUMORS	5R01 CA21427-04	75,118
REDDY, YERRADHODDI S.	PHOSPHORYLATION OF MYOCARDIAL REGULATORY PROTEIN	7R01 HL25311-01	25,274
RENNERT, OWEN M.	HUMAN MILK PEPTIDES, METALLO-PEPTIDES AND TRACE METALS	1R01 HD12465-01	85,805
RIKANS, LORA E.	AGING MODIFICATION OF MICROSOMAL DRUG METABOLISM	1R23 AG01202-01	40,949
SCHERLAG, BENJAMIN J.	MECHANISMS OF ISCHEMIC RHYTHM DISORDERS	5R01 HL23599-02	100,043
SOKATCH, JOHN R.	STRUCTURE OF BRANCHED CHAIN KETO ACID DEHYDROGENASE	1R01 AM21737-01A1	57,475
STONE, HUBERT L.	CARDIAC ADAPTATION TO PHYSICAL TRAINING	5R01 HL22154-02	50,397
STONE, HUBERT L.	REPETITIVE EXERCISE AND CARDIAC ENLARGEMENT	5R01 HL23206-02	74,917
TAYLOR, FLETCHER B, JR.	THROMBOSIS AND PLASMA PROTEINS	3P01 HL17812-04S1A1	40,493
TAYLOR, FLETCHER B, JR.	THROMBOSIS AND PLASMA PROTEINS	5P01 HL17812-05	440,727
TORRES-PINEDO, RAMON B.	FLUID LOSS IN SOYBEAN PROTEIN INTOLERANCE	1R01 HD12441-01	80,005
WATKINS, FRAN S.	ORAL/HEAD AND NECK CLINICAL CANCER EDUCATION PROGRAM	1R25 CA24677-01A1	48,795
WEST, KELLY M.	CAUSES OF DIABETES AND OBESITY IN OKLAHOMA INDIANS	5R01 AM21462-02	97,994
WEST, KELLY M.	VASCULAR LESIONS OF DIABETES IN OKLAHOMA INDIANS	5R01 HL21039-03	78,912
ZEINER, ARTHUR R.	BEHAVIORAL CONTROL OF ESSENTIAL HYPERTENSION	5R01 HL19844-03	37,066
ORGANIZATION TOTAL	39	2,874,578	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OKLAHOMA—Continued			
STILLWATER			
OKLAHOMA STATE UNIVERSITY AT STILLWATER		ZIP CODE 74074	
BERLIN, KENNETH D	PHOSPHORUS ANALOGS OF POTENTIAL CARCINOSTATS	5R01 CA22770-02	50,773
BLANKEMEYER, JAMES T	PHYSIOLOGY OF INTERCELLULAR COUPLING IN MIDGUT	5R01 AM21890-02	30,931
CARRAWAY, KERMIT L	MEMBRANE-CYTOSKELETON INTERACTIONS	1R01 GM25818-01	68,480
DURHAM, NORMAN N	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07077-13	20,465
GARNER, DUANE L	PZ-PEPTIDASES OF MAMMALIAN SPERMATOZOA AND TESTES	1R01 HD12477-01	62,012
GHOLSON, ROBERT K	THE ORIGIN OF MITOCHONDRIAL PYRIDINE NUCLEOTIDES	5R01 GM25356-02	30,712
MELCHER, ULRICH K	STRUCTURE OF MEMBRANE IMMUNOGLOBULINS	1R01 AI15931-01	31,770
NELSON, ELDON C	METABOLISM OF THE VITAMINS A	5R01 AM09191-13	56,167
OWNBY, CHARLOTTE L	SNAKEBITE MYONECROSIS: TREATMENT WITH ANTI-MYOTOXIN	1R01 AI16623-01	54,499
ROCKLEY, MARK G	A PHOTODYNAMIC CHARACTERIZATION OF FLUORESCENT PROBES	1R01 GM25353-01	28,132
SPIVEY, HOWARD O	PROPERTIES OF CONCENTRATED ENZYME SOLUTIONS	2R01 GM16916-06A2	46,365
ORGANIZATION TOTAL	11	480,306	
TAHLEQUAH			
NORTHEASTERN OKLAHOMA STATE UNIVERSITY		ZIP CODE 74464	
VAN DENBOS, GARY	BIOMEDICAL SCIENCES SUPPORT (MINORITIES)	2S06 RR08123-06	168,454
ORGANIZATION TOTAL	1	168,454	
TULSA			
ORAL ROBERTS UNIVERSITY		ZIP CODE 74102	
ARMSTRONG, ROBERT B	LOCOMOTION: IDLING METABOLISM AND GAIT DYNAMICS	5R01 AM25472-02	68,888
ORGANIZATION TOTAL	1	68,888	
STATE TOTAL	91	5,932,597	
OREGON			
BEAVERTON			
OREGON GRADUATE CENTER FOR STUDY AND RESEARCH		ZIP CODE 97005	
BAROFSKY, DOUGLAS F	CHEMICAL DYNAMICS OF FDMs OF HYPOTHALAMIC PEPTIDES	5R01 AM20937-02	61,474
DAVES, G DOYLE, JR	STRUCTURE ELUCIDATION OF HUMAN TRANSFER FACTOR	5R01 AI14699-02	76,966
DAVES, G DOYLE, JR	BIOMEDICAL RESEARCH SUPPORT GRANT	1S07 RR07184-01	25,988
HAUSER, FRANK M	POLYNUCLEAR ANTICANCER ANTIBIOTICS: SELECTED SYNTHESSES	2R01 CA18141-04	61,372
HAUSER, FRANK M	STEREOSPECIFIC SYNTHESIS OF SELECTED AMINO SUGARS	1R01 GM26574-01	29,822
HURST, JAMES K	MOLECULAR BASIS FOR MICROBICIDAL ACTION IN LEUKOCYTES	1R01 AI15834-01	67,638
HURST, JAMES K	MECHANISMS OF BIOLOGICAL REDOX REACTIONS OF COPPER	5R01 GM20943-05	39,520
LOEHR, THOMAS M	LASER RAMAN SPECTROSCOPY OF METALLOPROTEINS	5R01 GM18865-08	73,439
ORGANIZATION TOTAL	8	436,219	
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY		ZIP CODE 97331	
ANDERSON, SONIA R	FLUORESCENCE STUDIES OF ENZYME STRUCTURE AND FUNCTION	2R01 AM13912-07	67,935
BEAUDREAU, GEORGE S	NUCLEOPOLYHEDROSIS VIRUSES OF ORGYIA PSEUDOTSUGATA	1R01 ES02129-01	63,451
BROWN, LYLE R	RNA POLYMERASE GENES: STRUCTURE, FUNCTION, AND CONTROL	5R01 GM19617-07	51,413
BÜHLER, DONALD R	METABOLISM AND TOXICITY OF PYRROLIZIDINE ALKALOIDS	5R01 CA22524-03	82,456
BÜHLER, DONALD R	METABOLISM OF HEXACHLOROBENZENE—TOXICITY AND PORPHYRIA	5R01 ES01556-02	36,061
DANIELS, MALCOLM	GEV HEAVY-ION AND 200 KV X-RAY EXCITATION OF DNA	5R01 CA20218-02	48,909
FERRO, ADOLPH J	REGULATION OF CELL GROWTH BY 5'-METHYLTHIOADENOSINE	5R01 CA25756-02	45,867
FERRO, ADOLPH J	THE ROLES OF SAM IN THE REGULATION OF MITOSIS	2R01 GM26194-02	72,541
FREED, VIRGIL H	TOXICOLOGY OF ENVIRONMENTAL CHEMICALS	5P01 ES00040-15	641,536

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
FREED, VIRGIL H.	ENVIRONMENTAL HEALTH SCIENCES CENTER	5P30 ES00210-12	945,962
FULLERTON, DWIGHT S.	C(17)-SIDE GROUP GEOMETRY AND CARDENOLIDE ACTIVITY	5R01 HL21457-02	63,955
GODWIN, ROBERT K.	REGIONAL & LONGITUDINAL ANALYSES OF POPULATION POLICY	5R01 HD10660-03	8,143
ISENBERG, IRVIN	INTERACTIONS OF CHROMOSOMAL PROTEINS	5R01 CA10872-12	105,291
ISENBERG, IRVIN	STUDY OF HMG AND A24 PROTEINS	1R01 GM25794-01	45,407
JOHNSON, WALTER C, JR.	THE CONFORMATION AND FUNCTION OF NUCLEIC ACIDS	5R01 GM21479-05	62,640
KING, CHARLES E.	GENETICS AND PHYSIOLOGY OF SENESESCENCE IN ROTIFERS	1R01 AG02065-01	88,338
KOLLER, LOREN D.	ENVIRONMENTAL CONTAMINANTS: EFFECT ON TUMOR IMMUNITY	5R01 ES01612-02	41,275
LAIS, LYMAN T.	REGULATION OF NOREPINEPHRINE RELEASE IN HYPERTENSION	1R23 HL24448-01	43,213
MATHEWS, CHRISTOPHER K.	ENZYMOLGY OF NORMAL AND VIRUS-INFECTED BACTERIA	5R01 AI15145-02	41,632
MATHEWS, CHRISTOPHER K.	ENZYMOLGY OF NORMAL AND VIRUS-INFECTED BACTERIA	2R01 AI15145-03	94,070
MATHEWS, CHRISTOPHER K.	DNA PRECURSOR DYNAMICS IN ANIMAL CELLS	5R01 CA24323-02	49,604
MATHEWS, CHRISTOPHER K.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07079-14	122,772
MATSUMOTO, MASAKAZU	AGING AND ANTIBODY RESPONSE IN RESPIRATORY SECRETION	1R01 AG01381-01	47,542
MILLS, DALLICE I.	GENE EXPRESSION DURING MEIOSIS	2R01 GM24040-03A1	70,701
NIXON, JOSEPH E.	METABOLISM AND CO-CARCINOGENICITY OF CYCLOPROPENES	2R01 ES00550-08A1	71,762
PARKS, LEO W.	ANALYSIS OF THE STEROL COMPONENTS OF YEAST	5R01 AM05190-18	44,431
PAWLOWSKI, NORMAN E.	MECHANISMS FOR BIOLOGICAL ACTIVITY OF CYCLOPROPENES	5R01 CA25766-02	36,057
PEARSON, GEORGE D.	REPLICATION MAP OF AN ONCOGENIC VIRUS	5R01 CA17699-05	105,938
REED, DONALD J.	2-HALOETHYLNITROSOUREAS AND DNA PHOSPHOTRIESTERS	1R01 CA25561-01	77,673
REED, DONALD J.	CHEMICAL TOXICITY AND GLUTATHIONE REGULATION	5R01 ES01978-02	70,495
ROBERTS, PAUL A.	GENETIC CONTROL OF SENESESCENCE IN DROSOPHILA	1R01 AG02078-01	45,758
ROGERS, CHRISTINA M.	DEVELOPMENT OF A EUKARYOTIC CLONING VEHICLE	1R23 CA27421-01	32,910
SCANLAN, RICHARD A.	N-NITROSAMINES IN FOODS	5R01 CA25002-09	92,804
SCHAUP, HENRY W.	RIBOSOME BIOGENESIS AND FUNCTION	5R01 GM25701-02	45,528
SCHMITZ, JOHN A.	MAMMARY TUMORS—DIETARY FATTY ACIDS/SELENIUM EFFECTS	5R01 CA20998-03	74,509
SELIVONCHICK, DANIEL P.	MEMBRANE INTEGRITY AND CYCLOPROPENOID FATTY ACIDS	5R23 ES01702-02	31,005
SINNHUBER, RUSSELL O.	PROTEIN EFFECTS OF AFLATOXIN CARCINOGENESIS IN TROUT	5R01 CA20990-02	68,636
SINNHUBER, RUSSELL O.	METABOLISM AND CARCINOGENICITY OF AFLATOXINS	5R01 ES00541-09	70,042
SMALL, ENOCH W.	STRUCTURAL TRANSITIONS OF NUCLEOSOMES	5R01 GM25663-02	50,308
SPIKER, STEVEN L.	THE ROLE OF PROTEINS IN CHROMATIN STRUCTURE	5R01 GM25699-02	48,875
SUMMERTON, JAMES E.	METHOD FOR SEQUENCE-SPECIFIC BLOCKAGE OF NUCLEIC ACID	1R01 GM25513-01A1	55,048
TERRIERE, LEON C.	DETOXICATION MECHANISMS IN INSECTS	2R01 ES00362-21	80,382
THIES, RICHARD W.	RING EXPANSION ROUTES TO 8,9,13,14-DISECOSTEROIDS	5R01 HD08550-06	39,824
TINSLEY, IAN J.	TOXICOLOGY OF BROMINATED FATTY ACIDS	5R01 ES01377-03	39,584
UEMURA, ETSURO	NEUROPATHOLOGICAL STUDIES ON AGING PRIMATES	7R23 AG02109-01	36,361
VAN HOLDE, KENSAL E.	SUBUNIT STRUCTURE OF CHROMATINS	2R01 GM22916-04	83,966
WEBER, LAVERN J.	NIEHS MARINE/FRESHWATER BIOMEDICAL CENTER GRANT	5P30 ES01926-02	143,524
WEDMAN, E EDWARD	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09120-02	97,868
WHANGER, PHILIP D.	EFFECT OF DIETARY FACTORS ON METALLOTHIONEIN LEVELS	2R01 AM19285-04	81,676
WHANGER, PHILIP D.	PRIMATES—SELENIUM DEFICIENCY AND AVAILABILITY	5R01 AM21037-02	50,159
WHANGER, PHILIP D.	FLUORIDE-CADMIUM INTERACTION IN DENTAL CARIES	5R01 DE04615-02	20,489
WHANGER, PHILIP D.	METABOLIC RELATIONSHIPS OF SELENIUM IN MYOPATHIES	5R01 NS07413-11	55,009
WHITE, JAMES D.	SYNTHESIS OF MACROLIDE ANTIBIOTICS	2R01 AI10964-06	95,494
ORGANIZATION TOTAL	53	4,786,829	
EUGENE			
OREGON RESEARCH INSTITUTE ZIP CODE 97401			
BIGLAN, ANTHONY	TEEN SOCIAL BEHAVIOR AND THE PREVENTION OF SMOKING	1R01 HD13409-01	145,765
ORGANIZATION TOTAL	1	145,765	
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON ZIP CODE 97403			
BAJER, ANDREW S.	STUDIES ON THE FUNCTION OF THE MITOTIC SPINDLE	5R01 GM21741-05	64,267
BAJER, ANDREW S.	MITOSIS EXPERIMENTAL STUDIES	1R01 GM26121-01	50,009
BERNHARD, SIDNEY A.	KINETIC ANALYSIS OF ENZYME CATALYSIS	5R01 GM10451-15	52,514
BERNHARD, SIDNEY A.	MOLECULAR INTERACTIONS IN SYNAPTIC TRANSMISSION	5R01 NS12240-05	63,710
BLOCH, WILL	USE OF AN ALKYLATING AGENT TO STUDY ENZYME MECHANISM	1R01 GM27713-01	52,012
CAPALDI, RODERICK A.	ORGANIZATION OF SUCCINIC OXIDASE IN HEART	5R01 HL22050-02	82,358

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
CAPALDI, RODERICK A.....	STUDIES OF ATP SYNTHETASE FROM HEART MITOCHONDRIA.....	1R01 HL24526-01	46,108
DAHLQUIST, FREDERICK W.....	ENERGETICS AND DYNAMICS OF LIPID PROTEIN INTERACTIONS.....	5R01 GM24792-02	72,286
FERNALD, RUSSELL D.....	NEURAL BASIS OF VISUAL PATTERN RECOGNITION IN FISH.....	5R01 EY02284-02	60,965
FINKE, RICHARD G.....	MECHANISTIC METALLOBIOCHEMISTRY OF COENZYME B12.....	1R01 AM26214-01	43,327
GORDON-LICKEY, BARBARA.....	DEVELOPMENTAL ABNORMALITIES OF SUPERIOR COLICULUS.....	5R01 EY00125-10	74,595
GRANT, PHILIP.....	OPTIC FIBER PATTERNS: ONTOGENY OF NEURONAL CONNECTIONS.....	1R01 EY02642-01	69,786
GRIFFITH, O HAYES.....	PHOTOELECTRON MICROSCOPY OF MAMMALIAN MEMBRANES.....	2R01 CA11695-10	148,238
GRIFFITH, O HAYES.....	SPIN LABELING AND MEMBRANE STRUCTURE.....	5R01 GM25698-13	125,360
HERBERT, EDWARD.....	REGULATION OF PRODUCTION OF ACTH IN CELL CULTURE SYSTEMS.....	5R01 AM16879-06	131,643
HERSKOWITZ, IRA.....	PHAGE-HOST INTERACTIONS AND CONTROL OF PHAGE GROWTH.....	2R01 AI11344-07	52,901
HERSKOWITZ, IRA.....	GENETIC CONTROL OF MATING IN YEAST.....	2R01 AI13462-04	96,741
HUDSON, BRUCE S.....	ELECTRONIC STRUCTURE OF THE VISUAL POLYENES.....	7R01 EY03182-01	40,773
HUDSON, BRUCE S.....	ELECTRONIC AND RAMAN SPECTRAL STUDIES OF MEMBRANES.....	3R01 GM26536-01S1	37,152
HUDSON, BRUCE S.....	ELECTRONIC AND RAMAN SPECTRAL STUDIES OF MEMBRANES.....	5R01 GM26536-02	42,991
HUDSON, BRUCE S.....	RESONANCE ENHANCED SPECTROSCOPY.....	7R01 GM26981-01	31,981
HUDSON, BRUCE S.....	HIGH REPETITION RATE PICOSECOND LASER FACILITY.....	1P41 GM27411-01	120,044
KEANA, JOHN F.....	NEW SPIN LABELS FOR STUDYING BIOLOGICAL MEMBRANES.....	5R01 GM24951-05	62,897
KIMMEL, CHARLES B.....	MAUTHNER CELL SYNAPTOGENESIS AND DENDRITIC DEVELOPMENT.....	1R01 NS15001-01	93,640
LEWINSOHN, PETER M.....	DEPRESSION, INFORMATION PROCESSING AND AGE.....	1R21 AG01449-01	85,337
MARROCCO, RICHARD T.....	PHYSIOLOGY OF VISUAL AFFERENT PATHWAYS.....	2R01 EY01286-04A1	91,319
MATTHEWS, BRIAN W.....	X-RAY STRUCTURAL STUDIES OF PROTEINS.....	2R01 GM20066-07	131,382
MATTHEWS, BRIAN W.....	STRUCTURE, FUNCTION AND STABILITY OF T4 PHAGE LYSOZYME.....	5R01 GM21967-05	91,488
NOVICK, AARON.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07080-14	130,989
NOVITSKI, EDWARD.....	THE NATURE OF RADIATION INDUCED GENETIC DAMAGE.....	5R01 ES01536-03	65,862
NOVITSKI, EDWARD.....	THE SYNTHESIS AND ANALYSIS OF CHROMOSOMES.....	5R01 GM18678-09	69,913
PETICOLAS, WARNER L.....	LASER RAMAN SCATTERING FROM BIOLOGICAL MACROMOLECULES.....	5R01 GM15547-13	104,202
POSTLETHWAIT, JOHN H.....	GENE AND HORMONE CONTROL OF DROSOPHILA EGG PROTEINS.....	5R01 GM21548-05	52,400
POSTLETHWAIT, JOHN H.....	DETERMINATION AND PATTERN FORMATION IN DROSOPHILA.....	5R01 GM24182-03	72,087
RAIFIELD, GEORGE W.....	MEMBRANE BIOPHYSICS.....	1R01 GM26669-01	29,403
SCHELLMAN, JOHN A.....	INTERACTIONS OF NUCLEOTIDES AND PROTEINS.....	5R01 GM20195-22	93,902
SCHELLMAN, JOHN A.....	CIRCULAR DICHROISM STUDIES.....	1P41 GM27440-01	51,268
SMITH, GERALD R.....	MOLECULAR BIOLOGY-PHAGE LAMBDA OPERATOR & TRANSCRIPTS.....	5R01 AI13079-03	82,732
SPRAGUE, KAREN U.....	MOLECULAR BIOLOGY OF B. MORI FIBROIN AND TRNA GENES.....	5R01 GM25388-02	67,873
STAHL, FRANKLIN W.....	RECOMBINATIONAL INTERMEDIATES IN PHAGE LAMBDA.....	5R01 GM20373-06	68,055
STREISINGER, GEORGE.....	GENETIC STUDIES WITH ZEBRA FISH (BRACHYDANIO RERIO).....	2R01 GM22731-04	142,249
VON HIPPEL, PETER H.....	STRUCTURE AND RELATIONS OF PROTEINS AND NUCLEIC ACIDS.....	5R01 GM15792-13	165,625
WOLFE, RAYMOND G, JR.....	CATALYTIC MECHANISM STUDIES-MALIC DEHYDROGENASE.....	5R01 GM21460-21	48,628
ORGANIZATION TOTAL	43	3,361,012	
PORTLAND			
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER ZIP CODE 97210			
BARMACK, NEAL H.....	CENTRAL AND PERIPHERAL CONTROL OF EYE POSITION.....	5R01 EY00848-08	93,386
GROVE, DAVID N.....	THE CHRONICALLY ILL CHILD AND HIS IMPACT ON THE FAMILY.....	5R01 HD11133-02	84,176
KAPLAN, MICHAEL W.....	OPTICAL STUDIES OF PHOTORECEPTOR FUNCTION.....	3R01 EY01779-03S1	13,513
KAPLAN, MICHAEL W.....	OPTICAL STUDIES OF PHOTORECEPTOR FUNCTION.....	2R01 EY01779-04	79,237
KLEIN, MICHAEL L.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY02558-01	44,825
NASHNER, LEWIS M.....	CONTROL OF HUMAN POSTURE STUDIES.....	2R01 NS12661-04	89,715
RIVAS, MARIAN L.....	HEREDITARY ASPECTS OF THE EPILEPSIES.....	1R01 NS15820-01	121,094
ROBERTS, WILLIAM J.....	SYMPATHETIC EFFERENT MODULATION OF PAIN.....	5R01 NS13447-02	31,290
RUSHMER, DONALD S.....	STUDIES IN CEREBELLAR PHYSIOLOGY.....	5R01 NS02289-18	112,679
RUSHMER, DONALD S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05593-12	30,102
ORGANIZATION TOTAL	10	700,017	
MEDICAL RESEARCH FOUNDATION OF OREGON ZIP CODE 97225			
BEATTY, CLARISSA H.....	CYCLIC NUCLEOTIDE METABOLISM OF AGED RHESUS MUSCLE.....	1R01 AG01505-01	62,308
BEATTY, CLARISSA H.....	EFFECTS OF PROSTAGLANDINS ON MYOMETRIAL METABOLISM.....	5R01 HD06069-08	40,445
FAHRENBACH, WOLF H.....	STRUCTURE OF NEURONAL CIRCUITRY IN SENSORY GANGLIA.....	2R01 EY00392-12	26,762
FRIKKE, MAUREEN J.....	REGULATION OF MATERNAL REACTIONS TO FETAL ALLOGRAFTS.....	5R01 HD12049-02	75,049

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
HOWARD, CHARLES F. JR.	ISLET AMYLOID AND DIABETES IN AGING MONKEYS AND MAN	5R01 AM21982-02	51,860
HU, FUNAN	STROMAL PIGMENT CELLS OF THE UVEA IN CULTURE	5R01 EY02086-03	58,007
LASTER, LEONARD	SUPPORT FOR REGIONAL PRIMATE RESEARCH CENTER	5P40 RR00163-20	3,109,981
MALINOW, MANUEL R.	CHOLESTEROL BINDING SAPONINS AND ATHEROSCLEROSIS	5R01 HL16587-05	220,379
MALLEY, ARTHUR	ANTIGEN FRAGMENT SUPPRESSION OF THE IGE RESPONSE	5R01 AI13875-02	51,701
MC NULTY, WILBUR P.	PCB AND TCDD DROFACIAL TERATOGENESIS IN M. MULATTA	5R01 DE04333-03	95,818
MC NULTY, WILBUR P.	TOXICITY OF PURE PCBs FOR RHESUS MONKEYS	5R01 ES01522-02	141,759
MONTAGNA, WILLIAM	ANNUAL SYMPOSIA ON BIOLOGY OF THE SKIN	2R13 AM09431-14	13,000
MONTAGNA, WILLIAM	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05694-10	114,402
NORMAN, REID L.	PITUITARY ROLE IN ESTROGEN EVOKED GONADOTROPIN RELEASE	2R01 HD07499-03A1	38,022
NOVY, MILES J.	ENDOCRINE AND VASCULAR RELATIONSHIPS IN PARTURITION	2R01 HD06159-07	161,829
PHOENIX, CHARLES H.	SEXUAL BEHAVIOR AND HORMONES IN AGING MALES	1R01 AG01608-01	85,456
PORTMAN, OSCAR W.	EXPERIMENTAL VASCULAR SCLEROSIS	5R01 HL09744-15	136,782
RESKO, JOHN A.	STEROID HORMONES AND FETAL DEVELOPMENT	5R01 HD07658-05	55,005
SPIES, HAROLD G.	EVENTS THAT CONTROL FERTILIZATION	5P01 HD05969-09	531,986
SPIES, HAROLD G.	NEURAL INFLUENCE ON PROLACTIN SECRETION	5R01 HD07602-07	64,330
SPIES, HAROLD G.	EVENTS THAT CONTROL FERTILITY IN PRIMATES	1P50 HD11982-01	499,564
ORGANIZATION TOTAL	21 5,634,445		
OREGON STATE HIGHER EDUCATION SYSTEM—PORTLAND STATE UNIVERSITY ZIP CODE 97207			
SMEJTEK, PAVEL	PESTICIDES AND TRANSPORT ACROSS BILAYER LIPID MEMBRANES	5R01 ES00937-06	65,085
TAYLOR, W HERMAN	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1S08 RR09099-01A1	118,538
ORGANIZATION TOTAL	2 183,623		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201			
BAGBY, SUSAN P.	RENIN-VOLUME INTERACTIONS IN COARCTATION HYPERTENSION	5R01 HL19825-03	76,306
BISSONNETTE, JOHN M.	CONTROL OF FETAL BREATHING MOVEMENTS	5R01 HD11251-03	47,168
BISSONNETTE, JOHN M.	PLACENTAL GLUCOSE TRANSPORT	5R01 HD12033-02	62,779
BULLOCK, WESLEY W.	REGULATION OF CUTANEOUS BASOPHIL HYPERSENSITIVITY	5R01 DE05365-02	43,515
CAMPBELL, ROBERT A.	POLYAMINE RADIOIMMUNOASSAY STUDIES IN CANCER	5R01 CA16328-04	167,853
CARMODY, TIMOTHY P.	CORONARY RISK, PSYCHOLOGY AND DIETARY ADHERENCE	1R23 HL24233-01	39,600
CONNOR, WILLIAM E.	THE METABOLISM OF STEROLS FROM SHELLFISH AND ALGAE	5R01 AM21478-02	52,143
CONNOR, WILLIAM E.	THE ALTERNATIVE DIET FOR CORONARY DISEASE PREVENTION	5R01 HL20910-03	416,568
CRITCHLOW, B VAUGHN	NEURAL REGULATION OF ANTERIOR PITUITARY	5R01 AM16794-08	66,616
DOWNES, HALL	FATE AND EFFECTS OF LOCAL ANESTHETIC AEROSOLS	1R01 GM24524-01	66,926
FABER, JAN J.	PATHOPHYSIOLOGY OF HYDROPS FETALIS	5R01 HD12017-02	72,470
FAUST, CHARLES H. JR.	GENE EXPRESSION IN NORMAL AND MALIGNANT ANIMAL CELLS	3R01 CA17401-03S1	11,988
FELLMAN, J H.	TAURINE METABOLISM IN HEART AND BRAIN	5R01 NS01572-22	89,260
FLETCHER, WILLIAM S.	SOUTHWEST ONCOLOGY GROUP (OREGON)	5R10 CA21116-02	96,711
GREER, MONTE A.	NEUROENDOCRINE AND THYROID PHYSIOLOGY	5R01 AM01447-24	185,264
GROVER, M ROBERTS, JR.	GENERAL CLINICAL RESEARCH CENTER	3M01 RR00334-12S2	40,600
GROVER, M ROBERTS, JR.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00334-13	675,885
GROVER, M ROBERTS, JR.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05412-18	176,100
HALLICK, LESLEY M.	REPLICATION AND REPAIR OF VIRAL DNA AND RNA COMPLEXES	1R01 CA24799-01	74,402
HAMMERSTAD, JOHN P.	PATHOPHYSIOLOGY AND TREATMENT OF TARDIVE DYSKINESIA	5R01 NS14689-02	68,943
HANFIN, JON M.	RECEPTOR PHARMACOLOGY IN ATOPIC DERMATITIS	1R01 AI15557-01	54,145
HARE, JAMES F.	MITOCHONDRIA PROTEIN DEGRADATION IN DIABETIC RATS	1R01 AM25703-01	46,122
IGLEWSKI, BARBARA H.	THE ROLE OF PSEUDOMONAS AERUGINOSA EXOTOXINS	5R01 AI14671-02	47,809
ILLINGWORTH, D ROGER	LIPID METABOLISM IN MAN: THE EFFECTS OF DIETARY FATS	1R01 HL22906-01A1	82,412
JONES, RICHARD T.	HEMOGLOBIN: STRUCTURE, FUNCTION AND GENETIC CONTROL	5R01 AM17850-06	90,742
JONES, RICHARD T.	FUNCTIONAL STUDIES OF ABNORMAL HUMAN HEMOGLOBINS	5R01 HL20142-03	22,671
KABAT, DAVID	CONTROL OF GENE EXPRESSION IN DIFFERENTIATING CELLS	5R01 CA23032-11	76,815
KABAT, DAVID	LEUKEMOGENESIS BY FRIEND SPLEEN FOCUS FORMING VIRUS	1R01 CA25810-01	62,155
KLOSTER, FRANK E.	RANDOMIZED STUDY OF CORONARY BYPASS SURGERY	5R01 HL21293-03	64,584
KOLER, ROBERT D.	GAS TRANSPORT IN THE FETAL AND POSTNATAL CIRCULATION	5R01 HD10595-03	62,884
KRIPPAEHN, WILLIAM W.	EFFECT OF FUNCTION ON GRAFTS AND IMPLANTS OF COLLAGEN	5R01 HL14126-18	85,046
LAYMAN, DON L.	COLLAGEN SYNTHESIS BY CULTURED HUMAN VASCULAR CELLS	5R01 HL21303-03	77,153
LAYMAN, DON L.	MACRO- AND MICROANGIOPATHY IN DIABETES MELLITUS	1R01 HL24216-01	46,924
LEES, MARTIN H.	CARDIOPULMONARY FUNCTION OF METHADONE EXPOSED INFANTS	5R01 HD11702-02	45,137
LESLIE, GERRIE A.	REGULATOR LYMPHOCYTES OF DYSGAMMAGLOBULINEMIC CHICKS	5R01 CA23708-02	53,980

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
LESLIE, GERRIE A.....	MATERNAL IDIOTYPY: EFFECTS ON PROGENY IMMUNE POTENTIAL.....	1R01 HD12381-01	49,998
LOVRIEN, EVERETT W.....	GENETIC LINKAGE ANALYSIS IN SELECTED FAMILIES.....	2R01 HD08237-06	58,029
MAGENIS, R ELLEN.....	SATELLITE DNA MAPPING WITH CHROMOSOME HETEROMORPHISMS.....	1R01 GM26285-01	51,084
MAGENIS, R ELLEN.....	HUMAN CHROMOSOME MAPPING AND MISBEHAVIOR.....	5R01 HD07997-05	52,058
MAHLER, DAVID B.....	CLINICAL BEHAVIOR OF DENTAL RESTORATIVE MATERIALS.....	5R01 DE02320-14	64,789
MAHLER, DAVID B.....	MARGINAL FRACTURE OF DENTAL AMALGAM.....	5R01 DE02936-11	48,594
MASON, HOWARD S.....	MECHANISMS OF OXYGEN METABOLISM.....	5R01 AM07180-17	121,128
METCALFE, JAMES.....	RESPIRATION DURING DEVELOPMENT.....	3P01 HD10034-03S1	75,640
METCALFE, JAMES.....	RESPIRATION DURING DEVELOPMENT.....	5P01 HD10034-04	583,450
MORSE, STEPHEN A.....	PHYSIOLOGY AND METABOLISM OF NEISSERIA GONORRHOEA II.....	2R01 AI13571-04	86,076
NEERHOUT, ROGER C.....	CHILDREN'S CANCER STUDY GROUP.....	1R10 CA26044-01	39,046
PANTELY, GEORGE A.....	OXYGEN DELIVERY AND METABOLISM IN MYOCARDIAL ISCHEMIA.....	1R23 HL24562-01	38,544
PEARSE, HARPER D.....	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.....	1R26 CA25918-01	39,332
PEARSON, ANTHONY A.....	THE DEVELOPMENT OF THE EYE AND ITS ADNEXA.....	5R01 EY02275-02	16,055
PIROFSKY, BERNARD.....	GENETIC RBC DISEASE: CORRECTION BY TRANSPLANTATION.....	1R01 HL24185-01	51,935
RAHIMTOOLA, SHAHBUDIN H.....	PROSPECTIVE STUDY OF BUNDLE BRANCH BLOCK.....	5R01 HL21527-02	99,074
RAMPONE, ALFRED J.....	INTESTINAL ABSORPTION OF LIPIDS.....	5R01 AM21056-02	36,084
REYNOLDS, JOHN W.....	ADRENOCORTICAL FUNCTION IN ABNORMAL NEWBORN INFANTS.....	1R01 HD12027-01	42,156
REYNOLDS, THOMAS C.....	CHANGES IN MOUSE COLON DURING CHEMICAL CARCINOGENESIS.....	5R26 CA21480-02	31,875
RIKER, WILLIAM K.....	ANTHRAQUINONE CATHARTICS: PHARMACOLOGY AND TOXICOLOGY.....	1R01 AM19092-01A2	82,777
RIKER, WILLIAM K.....	ANTICONVULSANT NEUROPHARMACOLOGY: SITE OF DRUG ACTION.....	5R01 NS12813-03	49,683
RITTENBERG, MARVIN B.....	FUNCTIONAL DIFFERENTIATION IN B LYMPHOCYTES.....	5R01 AI14985-02	98,094
SAVARA, BHIM S.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR05336-18	21,957
SEAMAN, GEOFFREY V.....	AGING ERYTHROCYTES: BIORECOGNITION AND ELIMINATION.....	5R01 HL18284-05	59,788
SEAMAN, GEOFFREY V.....	CELL PARTITIONING WITH TWO PHASE AQUEOUS POLYMERS.....	1R01 HL24374-01	85,111
SHEARER, THOMAS R.....	SELENIUM METABOLIC EFFECTS AND DENTAL CARIES.....	5R01 DE03536-07	32,826
SHEARER, THOMAS R.....	FLUORIDE-SELENIUM INTERACTION IN DENTAL CARIES.....	5R01 DE03856-06	32,212
SHEARER, THOMAS R.....	FLUORIDE-CADMIUM INTERACTION IN DENTAL CARIES.....	5R01 DE04616-02	40,508
SIEGEL, BENJAMIN V.....	AUTOIMMUNITY AND NEOPLASIA IN NEW ZEALAND BLACK MICE.....	3R01 CA18149-03S1	5,130
SIEGEL, BENJAMIN V.....	AUTOIMMUNITY AND NEOPLASIA IN NEW ZEALAND BLACK MICE.....	2R01 CA18149-04	88,845
STARR, ALBERT.....	LATE RESULTS OF VALVE REPLACEMENT: COMPUTER ANALYSIS.....	5R01 HL16461-06	177,940
TRIMBLE, JOSEPH E.....	MINORITY ELDERLY ADAPTATION TO LIFE-THREATENING EVENTS.....	1R01 AG01908-01	86,943
VAN BUSKIRK, E MICHAEL.....	THE VERTEBRATE EYE: STUDIES OF AQUEOUS OUTFLOW.....	7R01 EY03279-01	42,951
VANDENBARK, ARTHUR A.....	REGULATION OF CELL GROWTH BY 5'-METHYLTHIOADENOSINE.....	1R01 CA24151-01A1	44,315
VIDGOFF, JACLYN M.....	INVESTIGATION OF LYSOSOMAL STORAGE DISEASES.....	1R01 NS15521-01	29,555
WEIMAR, VIRGINIA L.....	REACTION OF CORNEAL CELLS TO INJURY.....	2R01 EY00238-17A1	148,957
WEITLAUF, HARRY M.....	METABOLIC CHANGES IN PREIMPLANTATION EMBRYOS OF MICE.....	5R01 HD08496-06	58,475
WELEBER, RICHARD G.....	GYRATE ATROPHY OF THE CHOROID AND RETINA.....	5R01 EY02527-02	66,569
WOODWARD, WILLIAM R.....	MAMMALIAN VISUAL SYSTEM: NEUROTRANSMITTER, SCREENING.....	5R01 EY02456-02	65,293
WUEPPER, KIRK D.....	EPIDERMAL TRANSGLUTAMINASE: ROLE IN KERATINIZATION.....	5R01 AM17687-05	28,282
WUEPPER, KIRK D.....	ROLE OF IMMUNE COMPLEXES IN ALLERGIC SKIN DISEASES.....	1R01 AM25183-01	69,401
WUEPPER, KIRK D.....	PURIFICATION AND FUNCTION OF HUMAN HMW KININOGEN.....	5R01 HL18618-05	38,764
ORGANIZATION TOTAL	77	6,488,999	
PROVIDENCE MEDICAL CENTER ZIP CODE 97213			
SEAMAN, GEOFFREY V.....	EVALUATION OF DIAGNOSTIC CLINICAL HEMORRHOLOGY.....	5R01 HL19255-04	51,362
ORGANIZATION TOTAL	1	51,362	
REED COLLEGE ZIP CODE 97022			
ARCH, STEPHEN W.....	REGULATORY PHYSIOLOGY AND BIOCHEMISTRY IN NERVE CELLS.....	5R01 NS11149-05	61,087
RUBEN, LAURENS N.....	THE EVOLUTION AND DEVELOPMENT OF IMMUNE RESPONSES.....	2R01 AI12846-05	60,836
RUSSELL, PETER J.....	A RIBOSOME BIOSYNTHESIS MUTANT OF NEUROSPORA.....	5R01 GM22488-04	39,631
RUSSELL, PETER J.....	REGULATION OF EUKARYOTIC RIBOSOME BIOSYNTHESIS.....	1R01 GM26082-01	52,657
ORGANIZATION TOTAL	4	214,211	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 97207			
CASEY, DANIEL E.....	PHARMACOLOGICAL PROFILE OF TARDIVE DYSKINESIA.....	5R01 NS14081-02	16,340
ORGANIZATION TOTAL	1	16,340	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
OREGON—Continued				
SALEM				
WILLAMETTE UNIVERSITY	ZIP CODE 97301			
MASER, STEVEN M.....		A DEMOGRAPHIC STUDY OF CHANGE IN POLITICAL STRUCTURES.....	5R01 HD12606-02	20,626
ORGANIZATION TOTAL	1	20,626		
STATE TOTAL	222	22,039,448		
PENNSYLVANIA				
BETHLEHEM				
LEHIGH UNIVERSITY	ZIP CODE 18015			
SCHAFER, STEPHEN W.....		ROLE OF TAURINE IN HEART FAILURE.....	2R01 HL18554-04	63,870
SCHRAY, KEITH J.....		ENZYME-IMMUNOASSAY CONJUGATE SYNTHESIS.....	5R01 GM25355-02	84,501
ORGANIZATION TOTAL	2	148,371		
BRYN MAWR				
BRYN MAWR COLLEGE	ZIP CODE 19010			
HOFFMAN, HOWARD S.....		PSYCHOPHYSICS OF THE STARTLE REACTION.....	5R01 HD10511-06	77,256
OLDS-CLARKE, PATRICIA J.....		STUDIES OF SPERM FUNCTION IN MAMMALIAN FERTILIZATION.....	5R01 HD09156-05	44,855
ORKWISZEWSKI, KATHRYN G.....		GENETIC REGULATION OF MAMMALIAN GALACTOSE METABOLISM.....	5R01 AM21112-02	11,213
POWERS, ALICE S.....		VISUAL SYSTEM STRUCTURE AND FUNCTION.....	3R01 EY01657-03S1	2,116
TREISTMAN, STEVEN N.....		CYCLIC NUCLEOTIDE MODULATION OF NEURONAL ACTIVITY.....	1R01 NS15195-01	29,347
ORGANIZATION TOTAL	5	164,787		
DARBY				
MERCY CATHOLIC MEDICAL CENTER	ZIP CODE 19023			
MEYER, EDWARD C.....		CLEARANCE OF PLASMA PROTEINS FROM ALVEOLI.....	5R01 HL13596-08	96,346
ORGANIZATION TOTAL	1	96,346		
HAVERFORD				
HAVERFORD COLLEGE	ZIP CODE 19041			
KESSLER, DIETRICH.....		BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07141-05	19,069
LOEWY, ARIEL G.....		DISTRIBUTION OF THE ISOPEPTIDE BOND IN CELLULAR PROTEINS.....	5R01 HL04385-18	87,654
SANTER, MELVIN.....		COMPARATIVE SEQUENCE STUDIES ON RIBOSOMAL RNA.....	5R01 GM11738-13	67,947
ORGANIZATION TOTAL	3	174,670		
HERSHEY				
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER	ZIP CODE 17033			
BAIRD, IRWIN L.....		ANATOMICAL STUDIES OF THE INTERNAL EAR.....	5R01 NS07860-13	60,964
BHAVANANDAN, VEERASINGHAM.....		COMPLEX SACCHARIDES OF NORMAL AND CANCER CELL NUCLEI.....	5R01 CA17686-04	59,983
CAMPBELL SMITH, PETER J.....		X-RAY CRYSTALLOGRAPHIC ANALYSES OF PROTEIN STRUCTURE.....	2R01 GM21398-05	55,130
CAMPBELL SMITH, PETER J.....		X-RAY DIFFRACTION ANALYSIS OF DNA BINDING PROTEINS.....	5R01 GM24723-02	61,417
CONNOR, JOHN D.....		PERINATAL HYPOXIA AND DEFICITS IN CELL COMMUNICATION.....	1R01 NS15663-01	48,270
CURRY, STEPHEN L.....		GYNECOLOGIC ONCOLOGY GROUP.....	5R10 CA16386-04	44,964
DAVIDSON, EUGENE A.....		BIOCHEMISTRY OF MUCOPOLYSACCHARIDES.....	5R01 CA15483-12	173,853
DRAGO, JOSEPH R.....		PROSTATE ADENOCARCINOMA MODEL: NB RATS AND NUDE MICE.....	5R26 CA27380-02	66,013
HAMMOND, JAMES M.....		PROLACTIN AND PROLACTIN RECEPTORS IN OVARIAN FUNCTION.....	2R01 HD10122-04	80,075
HARRISON, TIMOTHY S.....		CARDIOVASCULAR DETERMINANTS OF CATECHOLAMINE RELEASE.....	5R01 HL18995-05	103,802
HASS, LOUIS F.....		STUDIES ON THE CONTROL OF SICKLE CELL CRISIS.....	5R01 HL16647-06	98,499
HILL, CHARLES W.....		GENETICS AND BIOCHEMISTRY OF MISSENSE SUPPRESSION.....	5R01 GM16329-12	108,578
HOPPER, ANITA K.....		YEAST MUTANTS IN tRNA-TRANSCRIPTION AND MATURATION.....	1R01 GM27930-01	67,403

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
HOPPER, JAMES E.....	MOLECULAR BASIS OF INTERCHROMOSOMAL GENE REGULATION.....	1R01 GM27925-01	117,766
HOWETT, MARY K.....	IN VIVO COCARCINOGENESIS OF CHEMICALS AND VIRUSES.....	1R01 CA25305-01	56,188
HUGHES, HOWARD C.....	ELIMINATION OF REOPERATIVE CARDIAC PACEMAKER SURGERY.....	2R01 HL13988-08	95,717
HYMAN, RICHARD W.....	MALIGNANCY AND DNA HOMOLOGY AMONG THE HERPES VIRUSES.....	5R01 CA16498-05	54,551
IDELL-WENGER, JANE A.....	REGULATION OF MYOCARDIAL ACYLCARNITINE TRANSPORT.....	5R01 HL20308-03	48,302
ISOM, HARRIET C.....	REGULATION OF DIFFERENTIATION IN HEPATOCYTES IN VITRO.....	5R01 CA23931-02	47,693
JACOB, SAMSON T.....	POLY(A) POLYMERASES FROM LIVER AND HEPATOMAS.....	5R01 CA25078-02	83,182
JEFFERSON, LEONARD S, JR.....	REGULATION OF LIVER GROWTH AND FUNCTION.....	5R01 AM13499-11	84,646
JEFFERSON, LEONARD S, JR.....	REGULATION OF SKELETAL MUSCLE METABOLISM.....	5R01 AM15658-09	72,103
LADDA, ROGER L.....	GROWTH FACTORS: CONTROL OF ANIMAL CELL PROLIFERATION.....	2R01 AG00421-04	68,040
LANG, C MAX.....	LABORATORY ANIMAL DIAGNOSTIC RESOURCE.....	2P40 RR00469-11	85,795
LEHMAN, RALPH A.....	LATERALIZATION OF HANDEDNESS, ATTENTION AND LEARNING.....	3R01 NS15315-01S1	367
LEHMAN, RALPH A.....	LATERALIZATION OF HANDEDNESS, ATTENTION AND LEARNING.....	5R01 NS15315-02	42,237
LEURE-DU PREE, ALPHONSE E.....	RETINAL ZINC: CELLULAR LOCATION AND VISUAL FUNCTION.....	2R01 EY01438-04	46,906
LIEDTKE, A JAMES.....	ALTERATIONS OF METABOLISM IN ISCHEMIC MYOCARDIUM.....	5R01 HL21209-03	67,073
LIU, DAI K.....	MODE OF ACTION OF ALDOSTERONE IN KIDNEY AND HEART.....	2R01 AM17644-04A1	37,433
LLOYD, THOMAS A.....	TYROSINE HYDROXYLASE: MECHANISMS OF REGULATION.....	2R01 GM23134-04	73,723
MORGAN, HOWARD E.....	METABOLIC REGULATION OF SUGAR TRANSPORT.....	5R01 HL13029-10	51,958
MORGAN, HOWARD E.....	REGULATION OF PROTEIN DEGRADATION IN HEART.....	5R01 HL18258-05	78,185
MORGAN, HOWARD E.....	REGULATION OF PROTEIN TURNOVER IN DIABETIC HEART.....	5R01 HL20388-04	87,097
MORTIMORE, GLENN E.....	MECHANISM AND REGULATION OF PROTEIN TURNOVER IN LIVER.....	5R01 AM21624-02	121,374
MUNGER, BRYCE L.....	LARYNGEAL SENSORY RECEPTOR MECHANISMS AND SIDS.....	5R01 HD11216-02	77,097
NAHRWOLD, DAVID L.....	SURGICAL PANCREATIC DISEASE: EXOCRINE INHIBITION.....	1R01 AM22188-01	65,444
NAHRWOLD, DAVID L.....	STUDY OF ENTERO-OXYNTIN IN NEW SURGICAL MODEL.....	1R01 AM23085-01	95,106
NEELY, JAMES R.....	REGULATION OF MYOCARDIAL FATTY ACID METABOLISM.....	5R01 HL13028-10	68,275
NEELY, JAMES R.....	REGULATION OF METABOLISM IN OXYGEN DEFICIENT HEARTS.....	5R01 HL18206-05	87,821
NEELY, JAMES R.....	EFFECTS OF DIABETES ON CARDIAC FUNCTION AND METABOLISM.....	5R01 HL20484-04	50,440
NELLIS, STEPHEN H.....	MICROVASCULAR PRESSURES IN THE INTACT BEATING HEART.....	5R01 HL22917-02	44,330
NELSON, NICHOLAS M.....	PULMONARY SCOR: PATHOPHYSIOLOGY, MANAGEMENT OF IRDS.....	5P50 HL19190-03	519,654
PEGG, ANTHONY E.....	PERSISTENCE OF ALKYLATED DNA IN CARCINOGENESIS.....	2R01 CA18137-04	88,068
PEGG, ANTHONY E.....	MAMMALIAN POLYAMINE METABOLISM.....	2R01 CA18138-04A1	47,552
PEGG, ANTHONY E.....	INVESTIGATIONS OF MAMMALIAN AMINOPROPYLTRANSFERASES.....	1R01 GM26290-01	47,400
PIERCE, WILLIAM S.....	LEFT VENTRICULAR BYPASS FOR MYOCARDIAL INFARCTION.....	5R01 HL13426-10	153,878
PIERCE, WILLIAM S.....	DEVELOPMENT AND EVALUATION OF AN ARTIFICIAL HEART.....	5R01 HL20356-03	236,483
PRYSTOWSKY, HARRY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05680-11	190,016
PUBOLS, BENJAMIN H, JR.....	NEURAL PATHWAYS INVOLVED IN TACTILE DISCRIMINATION.....	5R01 NS13418-02	69,372
RANNELS, D EUGENE, JR.....	REGULATION OF PROTEIN TURNOVER IN LUNG TISSUE.....	5R01 HL20344-03	21,851
RAPP, FRED.....	THE CHARACTERIZATION OF MEASLES VIRUS LATENCY.....	5R01 AI12203-05	71,504
RAPP, FRED.....	ETIOLOGY OF PROSTATE TUMORS.....	5R26 CA16365-06	127,775
RAPP, FRED.....	SUPPORT FOR SPECIALIZED CANCER RESEARCH CENTER.....	5P30 CA18450-04	148,369
ROSE, KATHLEEN M.....	REGULATION OF RNA POLYMERASE I GENE EXPRESSION.....	1R01 GM26740-01	57,013
ROSE, RICHARD C.....	ABSORPTION OF WATER-SOLUBLE VITAMINS BY INTESTINE.....	2R01 AM19119-04	79,007
ROSE, RICHARD C.....	ABSORPTION OF CHEMICAL CARCINOGENS IN COLON.....	1R26 CA25878-01	51,183
ROSENBERG, ABRAHAM G.....	COMPLEX GLYCOLIPIDS OF BRAIN AND RELATED SYSTEMS.....	2R01 NS08258-11	124,837
SCHENGRUND, CARA L.....	BIOLOGICAL FUNCTIONS OF PLASMA MEMBRANE SIALIDASE.....	5R01 CA14319-06	69,881
SCHOOLWERTH, ANTON C.....	MITOCHONDRIAL TRANSPORT AND RENAL AMMONIAGENESIS.....	3R01 AM19714-02S1	11,852
SCHOOLWERTH, ANTON C.....	MITOCHONDRIAL TRANSPORT AND RENAL AMMONIAGENESIS.....	5R01 AM19714-03	71,219
SHIMAN, ROSS.....	REGULATION OF TYROSINE SYNTHESIS IN HEPATOMA CELLS.....	5R01 CA14881-07	76,876
TAYLOR, JOHN M.....	METABOLISM OF LIVER MRNA IN DIABETES.....	5R01 AM22013-02	42,831
TAYLOR, JOHN M.....	CONTROL OF ALBUMIN SYNTHESIS IN LIVER AND HEPATOMAS.....	3R01 CA16746-05S1	39,456
TENSER, RICHARD B.....	LATENT VIRUS INFECTIONS OF THE NERVOUS SYSTEM.....	5R01 NS14568-02	47,484
TEVETHIA, MARY J.....	MUTAGENESIS OF SPECIFIC REGIONS OF THE SV40 GENOME.....	5R01 CA24694-02	49,315
TEVETHIA, SATVIR S.....	BIOLOGY OF SV40 SPECIFIC TRANSPLANTATION ANTIGEN.....	5R01 CA25000-02	132,504
VANNUCCI, ROBERT C.....	PATHOGENESIS OF PERINATAL HYPOGLYCEMIC BRAIN DAMAGE.....	5R01 HD09109-05	66,476
VESELL, ELLIOT S.....	GENETICALLY CONTROLLED VARIATIONS IN DRUG DISPOSITION.....	1R01 GM26027-01	73,609
WASSNER, STEVEN J.....	VITAMIN D DEFICIENCY AND MUSCLE PROTEIN TURNOVER.....	1R01 AM24061-01	61,156
WEISZ, JUDITH.....	ANDROGENS, BRAIN DIFFERENTIATION AND FUNCTION.....	3R01 HD09542-06S1	34,700
WEISZ, JUDITH.....	ANDROGENS, BRAIN DIFFERENTIATION AND FUNCTION.....	5R01 HD09542-07	107,415
WHITFIELD, CAROL F.....	CONTROL OF SUGAR ENTRY IN NORMAL AND DIABETIC HEART.....	5R23 HL21842-02	38,073
WHITMAN, VICTOR.....	CARDIAC ADAPTATION TO AGING AND STRESS.....	5R23 HL21393-02	37,027

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
ZAGON, IAN S.....	STUDIES IN NEURO-ONCOGENESIS AND NEUROGENESIS.....	5R01 CA22815-02	51,165
ZELIS, ROBERT F.....	QUANTITATIVE ANALYSIS OF THE HUMAN VENOUS SYSTEM.....	1R01 HL23836-01	53,789
ORGANIZATION TOTAL	75 6,036,590		
LANCASTER			
FRANKLIN AND MARSHALL COLLEGE		ZIP CODE 17604	
FEIT, IRA N.....	CYCLIC AMP AND CELL DIFFERENTIATION IN DICTYOSTELIUM.....	1R01 GM26912-01	29,870
ORGANIZATION TOTAL	1 29,870		
LANCASTER CLEFT PALATE CLINIC		ZIP CODE 17602	
STARR, PHILIP.....	BEHAVIORAL STAGES FOR CLEFT PALATE PATIENTS.....	5R01 DE04779-02	53,374
ORGANIZATION TOTAL	1 53,374		
LEWISBURG			
BUCKNELL UNIVERSITY		ZIP CODE 17837	
HILLIKER, SANDRA R.....	PHYSICAL AND FUNCTIONAL ANALYSIS OF PHAGES P22 AND L.....	1R01 GM26238-01	69,115
VEENING, HANS.....	CHEMICAL STUDIES OF FLUIDS FROM HEMODIALYSIS PATIENTS.....	1R01 AM25785-01	56,100
ORGANIZATION TOTAL	2 125,215		
LINCOLN UNIVERSITY			
LINCOLN UNIVERSITY		ZIP CODE 19352	
JOHNSON, WILLIAM T.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08002-09	159,974
ORGANIZATION TOTAL	1 159,974		
PHILADELPHIA			
ACADEMY OF NATURAL SCIENCES		ZIP CODE 19103	
DAVIS, GEORGE M.....	ANALYSIS OF MOLLUSCAN FAUNAS AND ASIAN SCHISTOSOMIASIS.....	5R22 AI11373-06	36,066
ORGANIZATION TOTAL	1 36,066		
ALBERT EINSTEIN MEDICAL CENTER		ZIP CODE 19141	
KIMBEL, PHILIP.....	DYNAMICS OF NEUTROPHIL ELASTASE IN THE LUNG.....	3P01 HL20994-02S2	54,132
KIMBEL, PHILIP.....	DYNAMICS OF NEUTROPHIL ELASTASE IN THE LUNG.....	5P01 HL20994-03	1,055,265
KIMBEL, PHILIP.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05505-16	37,681
MANN, STEVEN G.....	RADIATION THERAPY ONCOLOGY GROUP.....	1R10 CA22557-01A1	40,842
ORGANIZATION TOTAL	4 1,187,920		
AMERICAN COLLEGE OF RADIOLOGY—RADIATION ONCOLOGY STUDY CENTER		ZIP CODE 19107	
KRAMER, SIMON.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA21661-04	597,633
KRAMER, SIMON.....	PARTICLE PROGRAM—CLINICAL TRIALS.....	5R10 CA23113-02	254,373
ORGANIZATION TOTAL	2 852,006		
CHILDREN'S HOSPITAL OF PHILADELPHIA		ZIP CODE 19104	
ASAKURA, TOSHIO.....	MECHANISM OF OXYGEN SUPPLY TO TISSUE.....	5R01 HL18226-05	80,828
ASAKURA, TOSHIO.....	STUDIES IN SICKLE CELL DISEASE.....	5R01 HL20750-02	83,194
BAKER, LESTER.....	HYPOGLYCEMIA IN SMALL FOR GESTATIONAL AGE NEWBORNS.....	5R01 AM13518-17	108,907
CORTNER, JEAN A.....	GENETIC VARIATION OF HUMAN LIPASES—ATHEROSCLEROSIS.....	2R01 HL18723-04	103,251
CORTNER, JEAN A.....	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN.....	5M01 RR00240-15	519,942
CREASEY, WILLIAM A.....	MECHANISM OF ACTION OF NEW ANTICANCER AGENTS.....	5R01 CA23147-02	68,981
D'ANGIO, GIULIO J.....	PEDIATRIC CANCER RESEARCH CENTER.....	3P01 CA14489-06S1	117,098
EVANS, AUDREY E.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA11796-10	261,674
EVANS, AUDREY E.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA19372-04	131,150
GLICK, MARY C.....	ABNORMAL FUCOSE METABOLISM IN CYSTIC FIBROSIS.....	2R01 AM16859-04A2	100,881
GOLDMAN, ALLEN S.....	CRANIOFACIAL ANOMALIES AND PROTEIN RECEPTORS.....	5R01 DE04622-03	112,635
GOLDMAN, ALLEN S.....	OROFACIAL ANOMALIES IN PHENYTOIN TERATOGENESIS.....	1R01 DE05041-01	131,370
HARRIS, T N.....	AGING AND IMMUNE RESPONSES TO TRANSPLANTS AND TUMORS.....	5R01 AG00453-05	34,808

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
HUMMELER, KLAUS	THE BIOLOGY OF HUMAN NEUROBLASTOMA	5R01 CA13451-07	102,791
HUMMELER, KLAUS	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05506-17	137,129
JEAN, JONG-HO	MECHANISM OF ABORTIVE INFECTION BY CMV	1R01 AI15570-01	42,234
KATZ, SOLOMON H.	ANTECEDENTS OF ADOLESCENT HYPERTENSION	5R01 HL19869-04	190,162
KOLODOVSKY, OTAKAR	METABOLISM OF THE DEVELOPING SMALL INTESTINE	5R01 AM14531-09	113,777
LANGE, BEVERLY J.	CANCER THERAPY: EMERGENCE OF 6-TG RESISTANT LYMPHOCYTES	1R01 CA26907-01	40,956
LENNETTE, EVELYNE T.	STUDIES OF EPSTEIN-BARR VIRUS DETERMINED ANTIGENS	1R01 CA24779-01	135,773
MACK, ROBERT W.	CORRELATES OF ADIPOSE CELL GROWTH IN INFANCY	1R01 HD12480-01	83,234
PLOTKIN, STANLEY A.	PREVENTION OF CMV INFECTIONS IN TRANSPLANT RECIPIENTS	5R01 AI14927-02	76,573
POTSIC, WILLIAM P.	MIDDLE EAR MUCUS: RHEOLOGICAL AND CLINICAL FACTORS	1R01 NS14459-01A1	64,239
RASHKIND, WILLIAM J.	NONSURGICAL TREATMENT OF CONGENITAL HEART DISEASE	2R01 HL12307-09	117,205
SCHWARTZ, ELIAS	HEME AND GLOBIN SYNTHESIS IN INFANTS AND CHILDREN	5R01 AM16691-08	106,157
SEGAL, STANTON	GENETIC METABOLIC DISEASES OF INFANCY AND CHILDHOOD	2R01 AM10894-14	328,698
SEGAL, STANTON	CELLULAR MECHANISMS IN MENTAL RETARDATION	5P01 HD08536-05	651,337
STATES, BEATRICE M.	METABOLIC BASIS OF CYSTINE STORAGE DISEASE	5R01 AM13900-10	103,450
TENORE, ALFRED	THYROID HORMONES AND BREAST MILK	1R01 HD12531-01	80,963
WATKINS, JOHN B.	BILE ACID METABOLISM IN INFANCY AND CHILDHOOD	7R01 HD13913-01	77,226
WATKINS, JOHN B.	BILE ACIDS AND THE DEVELOPMENT OF INTESTINAL FUNCTION	7R01 HD13932-01	52,989
YAFFE, SUMNER J.	REGULATION OF DRUG METABOLISM DURING DEVELOPMENT	5R01 HD10063-04	72,529
ORGANIZATION TOTAL	32	4,432,141	
DREXEL UNIVERSITY ZIP CODE 19104			
GELLER, KENNETH	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07129-10	22,190
GRIFFITH, BELVER C.	INFORMATION AND KNOWLEDGE IN BIOMEDICAL RESEARCH	5R01 LM00911-07	79,736
MODE, CHARLES J.	COMPUTER MACROSIMULATION IN FAMILY PLANNING EVALUATION	5R01 HD09571-05	74,599
NES, WILLIAM R.	INFLUENCE OF STRUCTURE ON ISOPENTENOID METABOLISM	2R01 AM12172-12	129,986
ORGANIZATION TOTAL	4	306,511	
FOX CHASE CANCER CENTER ZIP CODE 19111			
CREECH, RICHARD H.	EASTERN COOPERATIVE ONCOLOGY GROUP	7R10 CA27525-01	299,082
DONALDSON, MILTON H.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA23229-03	131,004
HAMPTON, ALEXANDER	CHEMISTRY AND ENZYMOLOGY OF ANTICANCER PURINE ANALOGS	5R01 CA11196-11	143,651
ZWEIDLER, ALFRED	HISTONES IN CELL DIFFERENTIATION AND CARCINOGENESIS	5R01 CA15135-06	65,916
ORGANIZATION TOTAL	4	639,653	
FRANKLIN INSTITUTE OF THE STATE OF PENNSYLVANIA ZIP CODE 19103			
HARRIS, JACK N.	ISLET HORMONE SECRETION IN UNIQUE A,B&D CELL CULTURES	1R23 AM26065-01	60,407
KRONICK, PAUL L.	ISOLATING CELLS BY DIFFERENTIAL MAGNETOPHORESIS	1R01 GM26308-01	39,241
SHANK, RICHARD P.	METABOLISM AND REGULATION OF AMINO ACID TRANSMITTERS	1R01 NS16004-01	69,743
ORGANIZATION TOTAL	3	169,391	
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102			
ARCHER, F JOY	AGING OF NORMAL AND DIABETIC FIBROBLASTS IN VITRO	1R23 AG00810-01	45,096
BLACK, PERRY	SPONTANEOUS SEIZURES AND BRAIN STIMULATION	7R01 NS16309-01	22,197
BLACK, PERRY	EXPERIMENTAL STUDIES OF SPINAL CORD TRAUMA	7R01 NS16310-01	22,205
BRADY, LUTHER W.	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA12252-08	105,028
BRADY, LUTHER W.	GYNECOLOGIC ONCOLOGY GROUP	5R10 CA12478-09	149,068
BRADY, LUTHER W.	RADIATION THERAPY CLINICAL AND RESEARCH CENTER	5P01 CA14043-05	431,420
BRADY, LUTHER W.	RESEARCH PLAN FOR RADIOSENSITIZER CONFERENCE	1R13 CA26728-01	33,140
BRODSKY, ISADORE	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA13611-07	120,372
CROWELL, RICHARD L.	VIRAL INTERFERENCE IN CARRIER CULTURES	2R01 AI03771-19	79,143
DAMJANOV, IVAN	EMBRYO DERIVED TERATOCARCINOMA	3R01 CA23097-02S1	15,507
DE TERRA, NOEL	CONTROL OF NUCLEAR POSITIONING IN THE CILIATE STENTOR	5R01 GM24567-02	68,495
DI PALMA, JOSEPH R.	EXPLORATORY STUDIES IN CANCER RESEARCH	5P20 CA18225-03	82,889
DI PALMA, JOSEPH R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05413-18	134,698
ESFAHANI, MOJTABA	STRUCTURE AND FUNCTION OF LIPIDS IN MEMBRANES	5R01 GM26452-02	58,465
FLEISCHMAJER, RAUL	CHEMICAL ANALYSIS OF COLLAGEN TYPES IN SCLERODERMA	5R01 AM20968-02	107,352
HEINDEL, NED D.	MELANOMA DELINEATING RADIOPHARMACEUTICALS	5R01 CA22578-02	88,934
KAHN, SIGMUND B.	ONCOLOGY EDUCATION EVALUATION AND DEVELOPMENT	5R25 CA17963-05	84,649
KALIA, MADHU	PULMONARY REFLEXES-CENTRAL PATHWAYS	5R01 HL17800-05	16,346

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
KATZ, SHEILA M.....	NATURAL HISTORY OF THE ORGANISM OF LEGIONNAIRES' DISEASE.....	1R01 AI15593-01	85,964
KOFFLER, DAVID.....	TISSUE INJURY MECHANISMS IN SYSTEMIC LUPUS ERYTHEMATOSUS.....	5R01 AM21715-03	69,169
KOFFLER, DAVID.....	IMMUNOPATHOGENESIS OF CNS DISEASE IN SLE.....	5R01 AM21789-02	82,642
LAVINE, ROBERT L.....	DIABETOGENIC EFFECT OF L-ASPARAGINASE.....	5R01 AM21202-02	82,074
LONG, CAROLE A.....	H-2 COMPLEX AND SUSCEPTIBILITY TO MAMMARY TUMOR VIRUS.....	5R01 CA22720-03	103,324
MAGUIRE, HENRY C, JR.....	REGULATION OF THE IMMUNE RESPONSE TO CONTACT ALLERGENS.....	5R01 AI13337-03	78,436
MARTINEZ-HERNANDEZ, ANTONIO.....	BASEMENT MEMBRANE STRUCTURE, FUNCTION, PATHOLOGY.....	1R01 AM25254-01A1	69,040
MARTINEZ-HERNANDEZ, ANTONIO.....	THE BASEMENT MEMBRANE IN DIABETES.....	5R01 AM25641-02	35,436
MISANTONE, LOUIS J.....	NEUROCHEMICAL RESPONSE TO OPTIC NERVE CRUSH.....	1R01 EY02667-01	1,500
MOORE, DAN H.....	ETIOLOGICAL STUDIES OF MAMMARY CARCINOMA.....	5R01 CA22413-03	294,931
OHNISHI, TSUYOSHI.....	ISOLATION OF CA-BINDING PROTEINS FROM ERYTHROCYTES.....	5R01 HL23200-02	37,521
PRICE, HENRY L.....	EFFECT OF ANESTHETICS ON MYOCARDIAL FUNCTION.....	5R01 HL15799-05	64,789
ROSE, LESLIE I.....	METABOLIC STUDIES OF HUMAN UTERINE NEOPLASMS.....	5R01 CA18737-05	77,810
SCHAFER, STEPHEN W.....	THE EFFECT OF TOLBUTAMIDE ON THE ISCHEMIC MYOCARDIUM.....	1R01 HL24399-01	55,604
STANTON, LEONARD.....	TEST PHANTOMS FOR OPTIMIZING MAMMOGRAPHIC TECHNIQUE.....	1R01 CA26327-01	41,768
VANDERLINDE, RAYMOND E.....	RELATIONSHIP OF TISSUE LEVELS OF CHROMIUM TO DIABETES.....	5R01 AM20830-02	39,590
WEIDANZ, WILLIAM P.....	MECHANISMS OF 'NONSTERILIZING IMMUNITY' IN MALARIA.....	2R01 AI12710-04A1	68,228
WEIDANZ, WILLIAM P.....	MALARIA INDUCED IMMUNODEPRESSION.....	1R01 AI16153-01	41,885
ORGANIZATION TOTAL	36	2,994,715	
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111			
BAYER, MANFRED E.....	MULTIFUNCTIONAL ZONES ON THE BACTERIAL SURFACE.....	5R01 AI10414-06	62,507
BERMAN, HELEN.....	MODEL COMPOUNDS FOR NUCLEIC ACID INTERACTIONS.....	5R01 GM21589-05	55,808
BLUMBERG, BARUCH S.....	CANCER CLINICAL RESEARCH AT THE FOX CHASE CENTER.....	5P01 CA06551-16	883,526
BOSMA, MELVIN J.....	REGULATION OF IMMUNOGLOBULIN PRODUCTION.....	5R01 AI13323-04	121,864
BOSMA, MELVIN J.....	HIDDEN IMMUNOGLOBULIN ALLOTYPES IN MICE.....	5R01 CA04946-19	48,678
CASTOR, LA ROY N.....	PROTEIN SYNTHESIS AND CONTROL OF THE CELL CYCLE.....	1R01 CA24961-01	64,874
COHEN, LEONARD H.....	DEVELOPMENTAL CHANGES IN CHROMOSOMAL PROTEINS.....	5R01 GM24019-03	60,742
COHEN, LEONARD H.....	ROLES OF PROTEINS IN CHROMOSOME ORGANIZATION.....	1R01 GM26459-01	96,300
GLUSKER, JENNY P.....	APPLICATION OF CRYSTALLOGRAPHIC TECHNIQUES.....	5R01 CA10925-30	182,242
GUPTA, RAJ K.....	SPECTRAL STUDIES OF HEME- AND METAL PROTEINS.....	2R01 AM19454-04	84,148
KNUDSON, ALFRED G, JR.....	COMPREHENSIVE CANCER CENTER PROGRAM AT FOX CHASE.....	2P30 CA06927-17	4,270,171
KNUDSON, ALFRED G, JR.....	BIOMATHEMATICAL APPROACHES TO CANCER.....	5R01 CA22780-02	322,987
KNUDSON, ALFRED G, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 R05539-17	139,564
LONDON, W THOMAS.....	HEPATITIS B INFECTION AND REACTIONS TO HOMOGRAFTS.....	1R01 AM21958-01	110,051
MARCUS, ABRAHAM.....	INITIATION AND PEPTIDE SYNTHESIS IN VITRO.....	5R01 GM15122-12	113,476
MASON, WILLIAM S.....	REPLICATION OF ROUS SARCOMA VIRUS.....	1R01 CA26012-01	129,301
MASTRANGELO, MICHAEL J.....	CLINICAL & LABORATORY MALIGNANT MELANOMA INTEGRATED PROG.....	5R01 CA13456-07	127,147
MILDVAN, ALBERT S.....	NMR STUDIES OF ENZYME-METAL-SUBSTRATE INTERACTIONS.....	2R01 AM13351-12	123,346
MINTZ, BEATRICE.....	GENE CONTROL OF MAMMALIAN DEVELOPMENT AND DISEASE.....	5R01 HD01646-20	260,917
MOSIER, DONALD E.....	INDUCTION AND REGULATION OF B LYMPHOCYTE ACTIVATION.....	1R01 AI15879-01	80,644
MOSIER, DONALD E.....	T LYMPHOCYTE REGULATION OF IDIOTYPE EXPRESSION.....	1R01 AI16120-01	94,868
NEMER, MARTIN J.....	GENE EXPRESSION IN EMBRYOGENESIS.....	5R01 HD04367-18	110,698
RIBLET, ROY.....	GENETIC ANALYSIS OF THE IMMUNE RESPONSE.....	5R01 AI13797-03	46,628
ROSE, IRWIN A.....	REGULATION OF CARBOHYDRATE METABOLISM.....	5R01 AM17320-16	69,105
ROSE, IRWIN A.....	CONTROL OF HEXOKINASE LOSS IN DIABETES.....	5R01 AM21811-02	46,897
ROSE, IRWIN A.....	MECHANISMS OF PROTON AND PHOSPHORYL TRANSFER.....	2R01 GM20940-16	84,782
ROSE, ZELDA B.....	ENZYMES OF 2,3-DIPHOSPHOGLYCERATE METABOLISM.....	5R01 GM19875-08	78,109
ROSS, MORRIS H.....	REGULATION OF TUMOR SUSCEPTIBILITY.....	3R01 CA16442-04S1	25,437
ROSS, MORRIS H.....	REGULATION OF TUMOR SUSCEPTIBILITY.....	2R01 CA16442-05	131,135
SMITH, JACKSON B.....	SYNGENIC MIXED LYMPHOCYTE INTERACTIONS IN MICE.....	1R01 AI15876-01	79,328
SOROF, SAM.....	MACROMOLECULES IN CHEMICAL CARCINOGENESIS.....	2R01 CA05945-16	139,326
SOROF, SAM.....	MAMMARY CARCINOGENESIS AND PROTEINS IN ORGAN CULTURE.....	5R01 CA21522-03	84,808
SUMMERS, JESSE W.....	GENOME STRUCTURE AND REPLICATION OF HEPATITIS B VIRUS.....	5R01 AI15166-02	66,217
TARTOF, KENNETH D.....	STRUCTURE AND FUNCTION OF GENES.....	5R01 GM19194-08	85,049
TAYLOR, JOHN M.....	THE IN VIVO TRANSCRIPTION OF RNA TUMOR VIRUS GENOMES.....	5R01 CA22651-02	35,385
TILGHMAN, SHIRLEY M.....	REGULATION OF ALPHA-FETOPROTEIN GENE EXPRESSION.....	7R01 CA28050-01	22,859
WEIGERT, MARTIN G.....	GENETIC CONTROL OF ANTIBODY STRUCTURE.....	5R01 GM20964-06	139,387
ORGANIZATION TOTAL	37	8,678,311	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
LANKENAU HOSPITAL	ZIP CODE 19151		
CHAO, TESSA L.....	THE ANTISICKLING EFFECTS OF IMIDOESTERS.....	5R23 HL21129-03	37,655
GABUZDA, THOMAS G.....	REGULATION IN DEVELOPING ERYTHROID CELLS.....	5R01 HL16654-07	67,731
HOLMES, WILLIAM L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05585-13	21,148
HOLROYDE, CHRISTOPHER P.....	METABOLIC STUDY OF ADULT AND PEDIATRIC CANCER PATIENTS.....	2R01 CA20960-03	155,478
REICHARD, GEORGE A, JR.....	METABOLIC SUBSTRATE UTILIZATION IN MAN.....	5R01 AM13527-09	124,299
ORGANIZATION TOTAL	5 406,311		
MARRIAGE COUNCIL OF PHILADELPHIA	ZIP CODE 19104		
MILLER, WILLIAM R.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09069-03	104,938
ORGANIZATION TOTAL	1 104,938		
MEDICAL COLLEGE OF PENNSYLVANIA	ZIP CODE 19129		
BASKIN, STEVEN I.....	REGULATION OF LEUKEMIC PROLIFERATION BY TAURINE.....	5R01 CA22170-03	31,109
BERMAN, NANCY E.....	EXPERIMENTAL ANALYSIS OF STRABISMUS.....	5R01 EY02088-02	69,821
BOZZOLA, JOHN J.....	A RIBOSOMAL VACCINE AGAINST DENTAL CARIES.....	5R23 DE05039-02	30,063
DI BERARDINO, MARIE A.....	NORMAL DIFFERENTIATION AND CARCINOGENESIS.....	5R01 GM23635-02	95,509
ELFVIN, MYRA J.....	ANALYSIS OF PARAMYOSIN-CONTAINING INVERTEBRATE MUSCLES.....	2R01 GM21956-04	76,354
GREENE, ROLAND F.....	ANALYSIS OF M-RNA IN HEPATOMAS.....	5R01 CA20595-03	57,841
KELLIHER, GERALD J.....	THE ROLE OF PROSTAGLANDIN IN CORONARY OCCLUSION.....	1R01 HL23962-01	84,195
LEIGHTON, JOSEPH.....	BLADDER CANCER—MENISCUS-GRADIENT AND MATRIX CULTURE.....	2R26 CA14137-07A1	75,620
MARSH, JULIAN B.....	CELLULAR AND MOLECULAR BIOLOGY OF LIPOPROTEIN METABOLISM.....	5P01 HL22633-02	674,172
MURASKO, DONNA M.....	STIMULATORY EFFECT OF IMMUNIZATION ON TUMORIGENESIS.....	5R01 CA23353-02	55,473
MURPHY, E HAZEL.....	DEVELOPMENT AND FUNCTION OF THE VISUAL SYSTEM.....	5R01 EY02488-02	149,983
PAUCKER, KURT.....	SEROLOGY OF ACTIVE SITES ON HUMAN INTERFERONS.....	5R01 AI13649-03	45,666
PAUCKER, KURT.....	CHARACTERIZATION OF INTERFERON MOLECULAR SPECIES.....	1R01 AI14459-01A1	89,846
PUGLIA, CHARLES D.....	TOLERANCE TO HYPEROXIA VIA ENDOGENOUS ANTIOXIDANTS.....	1R01 HL24454-01	37,877
ROBERTS, JAY.....	ROLE OF BIOLOGICAL MEMBRANES IN AGING PROCESSES.....	5P01 AG00003-08	191,229
ROBERTS, JAY.....	PHARMACOLOGIC STUDIES ON GENESIS OF CARDIAC RHYTHMICITY.....	5R01 HL13666-07	70,177
ROSS, LEONARD L.....	DEVELOPMENT AND REGENERATION OF THE NERVOUS SYSTEM.....	5P01 NS13768-03	534,241
RUBIN, WALTER.....	AMINE METABOLISM IN GASTRIC ENDOCRINE AND MAST CELLS.....	1R01 AM25495-01	110,203
SCHICK, PAUL K.....	THE STRUCTURE AND FUNCTION OF PLATELET MEMBRANES.....	5R01 HL18249-05	12,009
SMITH, JANET D.....	CMV REPLICATION IN HYBRID CELLS.....	2R01 AI12832-04A1	53,852
SUTNICK, ALTON I.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05418-18	117,708
TESSLER, ALAN R.....	AXONAL SPROUTING & FUNCTIONAL RECOVERY IN SPINAL CORD.....	3R01 NS14477-01S1	24,480
TESSLER, ALAN R.....	AXONAL SPROUTING & FUNCTIONAL RECOVERY IN SPINAL CORD.....	5R01 NS14477-02	68,570
TULENKO, THOMAS N.....	DRUG SENSITIVITY OF THE HUMAN PLACENTAL VASCULATURE.....	1R23 HL24512-01	53,170
ORGANIZATION TOTAL	24 2,809,168		
MONELL CHEMICAL SENSES CENTER	ZIP CODE 19104		
BRAND, JOSEPH G.....	PERIPHERAL MECHANISMS IN TASTE RECEPTION.....	1R01 NS15565-01	67,519
CAGAN, ROBERT H.....	MECHANISMS OF TASTE FUNCTION.....	5R01 NS15740-02	58,754
CHRISTENSEN, CAROL M.....	ROLE OF SALIVA IN HUMAN TASTE PERCEPTION.....	1R01 DE05545-01	40,630
KARE, MORLEY R.....	BIOLOGICAL AND BEHAVIORAL ASPECTS OF SALT INTAKE.....	1R13 NS14736-01	10,000
LABOWS, JOHN N, JR.....	INVESTIGATION OF HUMAN AXILLARY AND SCALP ODORS.....	5R01 AM26195-02	26,309
SENSEMAN, DAVID M.....	NEUROEFFECTOR TRANSMISSION IN A SIMPLE SALIVARY GLAND.....	1R01 DE05271-01	28,130
SENSEMAN, DAVID M.....	SENSORY CONTROL OF OCCLUSION: MODEL SYSTEMS APPROACH.....	7R23 DE05536-01	22,496
ORGANIZATION TOTAL	7 253,838		
PENNSYLVANIA HOSPITAL	ZIP CODE 19107		
BOGGS, THOMAS R, JR.....	PREMATURITY, VITAMIN E & RETROLENTAL FIBROPLASIA.....	5R01 EY01723-02	422,217
BOGGS, THOMAS R, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05590-15	63,511
BONGIOVANNI, ALFRED M.....	HORMONAL FUNCTION IN GROWTH AND DEVELOPMENT IN CHILDHOOD.....	7R01 HD14174-01	83,320
LERNER, HARVEY J.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA13613-07	77,949
LERNER, HARVEY J.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20187-03	56,482
LING, GILBERT N.....	NMR STUDY OF WATER IN CANCER AND IN NORMAL TISSUES.....	5R01 CA16301-05	65,475
LING, GILBERT N.....	CELL WATER, IONS AND CONTROL MECHANISMS.....	5R01 GM11422-15	117,773
WALLACH, EDWARD E.....	INVESTIGATIONS OF THE MECHANICAL ASPECTS OF OVULATION.....	5R01 HD05948-06	75,406
ORGANIZATION TOTAL	8 962,133		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 19131			
D'ANTONIO, LAWRENCE E.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09088-01A1	92,522
MISANTONE, LOUIS J.....	NEUROCHEMICAL RESPONSE TO OPTIC NERVE CRUSH.....	7R01 EY03360-01	3,520
MISANTONE, LOUIS J.....	MECHANISMS OF RECOVERY OF BEHAVIORAL FUNCTION.....	7R01 NS16101-01	37,008
ORGANIZATION TOTAL	3 133,050		
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE ZIP CODE 19104			
JOSHI, HEYNER S.....	ANTIGENIC STATUS OF THE MURINE PREIMPLANTATION EMBRYO.....	5R01 HD11566-02	48,800
LAGE, GARY L.....	ALTERATION OF DIGITALIS AND ALDOSTERONE DISPOSITION.....	7R01 HL25112-01	39,162
ORGANIZATION TOTAL	2 87,962		
PHILADELPHIA GERIATRIC CENTER ZIP CODE 19141			
ALTSCHULER, HENRY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05611-11	39,660
GRANICK, SAMUEL.....	ORGANIC BRAIN SYNDROME IN ELDERLY COMMUNITY RESIDENTS.....	5R01 AG00768-03	60,388
LAWTON, M POWELL.....	ASSESSMENT AND THE MENTAL HEALTH OF THE ELDERLY.....	5R01 AG00895-03	50,049
ORGANIZATION TOTAL	3 150,097		
PRESBYTERIAN-UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER ZIP CODE 19104			
LATIES, ALAN M.....	AUTONOMIC INNERVATION OF THE EYE.....	5R01 EY01194-07	128,101
STONE, RICHARD A.....	ANION TRANSPORT IN THE IRIS AND CILIARY BODY.....	1R01 EY02942-01	76,268
ORGANIZATION TOTAL	2 204,369		
SIMON GREENBERG FOUNDATION ZIP CODE 19101			
KLIGMAN, ALBERT M.....	A PROGRAM STUDY OF THE BIOLOGY OF AGING SKIN.....	1P01 AG00788-01	115,000
ORGANIZATION TOTAL	1 115,000		
ST. CHRISTOPHER'S HOSPITAL FOR CHILDREN ZIP CODE 19133			
GRUSKIN, ALAN B.....	CHILDHOOD HYPERTENSION: RENIN, URATE, EPIDEMIOLOGY.....	1R01 HL23511-01	53,274
PUNNETT, HOPE H.....	DO SOME GENETIC CONSTITUTIONS PREDISPOSE TO CANCER?.....	2R01 CA19834-03A1	74,725
SMITH, DAVID S.....	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN.....	2M01 RR00075-16	502,726
ORGANIZATION TOTAL	3 630,725		
TEMPLE UNIVERSITY ZIP CODE 19122			
ADELMAN, RICHARD C.....	BIOCHEMICAL REGULATION OF AGING PROCESSES.....	5P01 AG00368-09	353,242
BASERGA, RENATO L.....	STUDY OF FACTORS CONTROLLING CELLULAR PROLIFERATION.....	5R01 CA08373-15	105,572
BASERGA, RENATO L.....	A CORRELATED STUDY ON THE BIOLOGY OF NEOPLASIA.....	5P01 CA12923-08	391,478
BASERGA, RENATO L.....	SYNCHRONIZATION OF CELLS IN VIVO.....	2R26 CA14907-06	99,052
BASERGA, RENATO L.....	ANALYSIS OF G1 IN MAMMALIAN CELLS.....	1R01 CA25898-01	76,277
BASERGA, RENATO L.....	CHROMOSOMAL PROTEINS IN CELL PROLIFERATION.....	2R01 GM22359-04	55,760
BLAINE, EDWARD H.....	ANGIOTENSIN, HYPERTENSION AND CENTRAL NERVOUS SYSTEM.....	5R01 HL22617-02	28,320
BODEN, GUENTHER.....	SECRETIN: IN HEALTH, DISEASE, & MOLECULAR HETEROGENEITY.....	5R01 AM19397-03	60,135
BOVE, ALFRED A.....	CARDIAC FUNCTION IN HYPERTROPHY.....	2R01 HL19425-04	106,210
BRIGHAM, M PRINCE.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05417-18	201,413
BUCKLEY, HELEN R.....	IMMUNOLOGY AND PHYSIOLOGY OF NONPATHOGENIC C ALBICANS.....	1R01 AI15818-01	46,511
CAREY, RITA A.....	MYOSIN LIGHT CHAIN PHOSPHORYLATION IN HEART FAILURE.....	1R23 HL23379-01	34,480
CHANG, FONG N.....	BACTERIAL RIBOSOME BIOSYNTHESIS AND RNA MINOR BASES.....	5R01 GM19302-08	54,150
COLMAN, ROBERT W.....	SPECIALIZED CENTER FOR THROMBOSIS RESEARCH.....	5P50 HL14217-09	1,435,653
COLMAN, ROBERT W.....	BIOCHEMISTRY AND PATHOPHYSIOLOGY OF PLASMA KALLIKREIN.....	7R01 HL24365-01	147,635
CONGER, ALAN D.....	RADIO-AND CHEMOTHERAPEUTIC EFFECTS ON BIOSYSTEMS.....	1R01 CA24658-01	70,732
DANEO-MOORE, LOLITA.....	COMPOSITION OF S. MUTANS IN DIFFERENT GROWTH ENVIRONMENT.....	1R01 DE05180-01	52,823
DANIEL, JAMES L.....	ATP UTILIZATION IN PLATELET CONTRACTILE MECHANISMS.....	5R23 HL21128-03	39,601
DUKER, NAHUM J.....	PATHOLOGY OF REPAIR OF CARCINOGENIC DNA DAMAGE.....	5R01 CA24103-02	55,786
EISENSTEIN, TOBY K.....	SALMONELLA IMMUNITY IN LPS-NONRESPONDER MICE.....	1R01 AI15613-01	48,057
FARBER, JOHN L.....	PATHOGENESIS OF LIVER CELL NECROSIS.....	2R01 AM19154-04	98,597
FARBER, JOHN L.....	CHROMATIN IN NORMAL AND PATHOLOGICAL LIVER CELLS.....	5R01 CA12073-08	66,956
FREEDMAN, WILLIAM.....	BIOMECHANICAL AND EMG CORRELATES OF STEP DOWN IN MAN.....	1R01 NS14133-01A1	40,858
FREEMAN, ALAN R.....	ROLE OF SODIUM POTASSIUM PUMP IN HEART FAILURE.....	1R01 HL22673-01A1	65,865
HARD, GORDON C.....	EXPERIMENTAL PATHOLOGY OF RENAL CARCINOGENESIS.....	3R01 CA24216-01S1	42,241
HARRINGTON, GEORGE W.....	ELECTROANALYTICAL STUDIES OF N-NITROSAMINES.....	5R01 CA18618-05	62,772

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
HARVEY, WILLIAM R.	PHYSIOLOGY OF INSECT DIAPAUSE AND DEVELOPMENT	2R01 AI09503-10	99,825
HAVAS, HELGA F.	MECHANISM OF IMMUNOSUPPRESSION BY PLASMACYTOMAS	2R01 CA14300-04	61,744
HECKMAN, JAMES L.	CARDIAC VALVE FUNCTION IN HEART FAILURE	1R01 HL22919-01	55,940
HENNING, SUSAN J.	REGULATION OF INTESTINAL DEVELOPMENT	2R01 HD10042-04	20,653
HENNING, SUSAN J.	ONTOGENY OF FEEDING CONTROLS IN THE RAT	1R01 HD12498-01	35,190
HIGGINS, MICHAEL L.	CELL DIVISION AND SURFACE GROWTH IN A 'MODEL' SYSTEM	5R01 AI10971-08	56,602
HILFER, S. ROBERT	EMBRYONIC DEVELOPMENT OF THE EYE CUP	5R01 EY01934-03	36,081
HILLMAN, NINA W.	THE EFFECT OF RNA AND DNA ON CEPHALIC TERATA	5R01 HD00827-16	113,482
HILLMAN, RALPH	GENETIC TRANSLATION AS A CELLULAR CONTROL MECHANISM	2R01 GM18080-07A1	55,702
HILLMAN, RALPH	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07115-12	48,512
HOLMSEN, HOLM A.	GUANINE NUCLEOTIDE METABOLISM OF HUMAN PLATELETS	1R01 HL23816-01	20,700
HOOPER, JOHN K.	CONTROL OF PILATION IN BACTERIA	5R01 AI15106-02	40,329
KANE, AGNES M.	PATHOGENESIS OF MINERAL DUST TOXICITY	1R23 ES02251-01	25,117
KARNAKY, KARL J., JR.	A NEW MODEL SYSTEM TO STUDY CHLORIDE TRANSPORT	5R01 GM24766-02	38,173
KIM, SANGDUK	ENZYMATIC MODIFICATION OF CARBOXYL RESIDUES IN PROTEIN	5R01 GM20594-07	54,926
KIRBY, EDWARD P.	STRUCTURE AND FUNCTION OF BOVINE FACTOR VIII	5R01 HL15474-07	37,809
KUNDEL, HAROLD L.	DIAGNOSTIC ACCURACY AND X-RAY IMAGE PROPERTIES	1R01 CA24625-01	189,882
KUNDEL, HAROLD L.	VISUAL SEARCH AND FILM READER ERROR IN RADIOLOGY	5R01 GM21474-05	77,254
LARGEN, MICHAEL T.	CYCLOC NUCLEOTIDE FUNCTION IN LYMPHOCYTE PROLIFERATION	1R01 AI16168-01	77,817
LITWACK, GERALD	STERIOD RECEPTOR AND DNA BINDING PROTEINS IN AGING	1R01 AG00939-01	30,500
LITWACK, GERALD	REACTION BETWEEN HORMONES AND TYROSINE OXIDASE SYSTEM	5R01 AM08350-16	38,516
LITWACK, GERALD	METABOLISM OF CORTISOL IN LIVER	5R01 AM13531-10	89,207
LOTIKAR, PRABHAKAR D.	MECHANISM OF CHEMICAL CARCINOGENESIS	2R01 CA10604-12	74,050
MAGEE, PETER N.	CORE PROGRAM IN CARCINOGENESIS	2P30 CA12227-09	1,222,979
MAGEE, PETER N.	FORMATION AND METABOLISM OF N-NITROSO COMPOUNDS	5R01 CA23451-02	133,739
MEIER, GEORGE D.	RIGHT VENTRICULAR CONTRACTION AND RELAXATION	5R23 HL21197-03	36,497
MILLER, ARTHUR S.	CLINICAL CANCER—DENTAL	5R25 CA19456-04	36,748
MONSTER, ARIE W.	MOTOR UNIT BEHAVIOR IN VOLUNTARY MUSCLE CONTRACTION	3R01 NS11574-03S1	26,201
MOTE, MICHAEL I.	CELLULAR BASIS OF VISUAL INTEGRATION	5R01 EY00784-09	64,071
NICOLINI, CLAUDIO A.	CORRELATIONS OF NEW AND OLD CELL KINETIC PARAMETERS	5R01 CA20034-03	88,800
NIEMIAROWSKI, STEFAN	INTERACTION OF CELLS WITH POLYMERIZING FIBRIN	5R01 HL15226-07	47,602
ORDAHL, CHARLES P.	TRANSCRIPTION OF MUSCLE-SPECIFIC GENES IN MYOGENESIS	5R01 GM25400-02	38,721
OWEN, OLIVER E.	HUMAN METABOLISM IN DIABETIC KETOACIDOSIS	1R01 AM25386-01	89,455
PAAVOLA, LAURIE G.	THE CELL BIOLOGY OF LUTEAL CELLS	5R01 HD09993-02	32,856
PAIK, WOON K.	BIOLOGICAL METHYLATION OF CYTOCHROME C IN NEUROSPORA	5R01 AM09602-10	75,486
PAIK, WOON K.	PROTEIN METHYLATION IN NEOPLASTIC TISSUES	5R01 CA12226-09	55,031
PIERINGER, RONALD A.	BACTERIAL LIPID METABOLISM	5R01 AI05730-15	57,513
PIERINGER, RONALD A.	THE ROLE OF BACTERIAL METABOLITES IN ORAL DISEASES	1R01 DE04957-01A1	58,037
PIERINGER, RONALD A.	BIOCHEMICAL ASPECTS OF MYELINATION	5R01 NS10221-04	42,559
PLAUT, GERHARD W.	REGULATION OF PATHWAYS OF INTERMEDIARY METABOLISM	5R01 AM15404-09	110,114
REICHLIE, FREDERICK A.	PRE- AND POST-SHUNT HUMAN HEPATIC HEMODYNAMICS	5R01 AM18194-05	95,689
REVESZ, GEORGE	CARDIAC FAILURE DETECTION BY RADIOGRAPHY AND OPTICS	5R01 HL21846-02	68,607
SAVAGE, CARL R.	EPIDERMAL GROWTH FACTOR: ACTIONS ON LIVER AND PANCREAS	1R01 AM21545-01	50,446
SAVAGE, CARL R.	HORMONAL ACTIONS AND ROLE OF EPIDERMAL GROWTH FACTOR	1R01 AM25436-01	54,670
SCHICK, PAUL K.	THE STRUCTURE AND FUNCTION OF PLATELET MEMBRANES	7R01 HL25455-01	67,389
SCHRAMM, VERN L.	REGULATION AND MECHANISM OF PEP CARBOXYKINASE	1R01 AM25551-01	33,825
SCHRAMM, VERN L.	REGULATION OF ADENINE NUCLEOTIDE POOLS	2R01 GM21083-04A1	62,402
SCHWARTZ, ARTHUR G.	ACTIONS OF CHEMICAL CARCINOGENS ON CULTURED CELLS	3R01 CA14661-06S1	14,855
SCHWARTZ, ARTHUR G.	ACTIONS OF CHEMICAL CARCINOGENS ON CULTURED CELLS	2R01 CA14661-07	63,294
SEVY, ROGER W.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00349-13	386,026
SHAFFER, THOMAS H.	PULMONARY PHYSIOLOGY IN LIQUID VENTILATION	2R01 HL22843-02	56,357
SHANK, RICHARD P.	RECEPTOR ACTIVATION-INACTIVATION AT A MODEL SYNAPSE	5R01 NS13979-02	20,615
SHEFFIELD, JOEL B.	RETINAL HISTOGENESIS STUDIES	5R01 EY02625-02	50,689
SHOCKMAN, GERALD D.	BIOSYNTHESIS OF BACTERIAL CELL WALLS AND MEMBRANES	5R01 AI05044-16	62,261
SHOCKMAN, GERALD D.	INHIBITION OF HUMAN CARIOGENIC STREPTOCOCCI	5R01 DE03487-08	60,975
SINHA, ASRU K.	REGULATION OF PLATELET FUNCTION BY PLASMA PROTEINS	1R01 HL24747-01	40,718
SIROVER, MICHAEL A.	METAL CARCINOGENESIS—DNA MODIFICATION/HUMAN LYMPHOCYTES	5R23 ES01736-02	36,172
SMALLEY, RICHARD V.	SOUTHEASTERN CANCER STUDY GROUP	5R10 CA07961-15	145,605
SMALLEY, RICHARD V.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA21859-03	93,796
SMITH, COLLEEN M.	REGULATION OF TOTAL COA LEVELS IN HEART AND LIVER	5R01 AM18045-06	81,315

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
SPANN, JAMES F, JR	EXPERIMENTAL CONGESTIVE HEART FAILURE AND HYPERTROPHY	5R01 HL17631-06	126,795
SUHADOLNIK, ROBERT J.	CELLULAR ROLE OF NAD, NAD ANALOGS, QTRNA & BIOSYNTHESIS	9R01 GM26134-06	91,898
THOMPSON, ROBERT C	PROOFREADING OF THE CODON-ANTICODON INTERACTION	1R01 GM24983-01	77,325
TILGHMAN, SHIRLEY M.	REGULATION OF ALPHA-FETOPROTEIN GENE EXPRESSION	5R01 CA23572-02	55,254
TUSZYNSKI, GEORGE P.	BIOCHEMISTRY OF CYTOSKELETAL PROTEINS	1R01 CA27458-01	80,488
URBACH, FREDERICK	THE BIOLOGIC EFFECTS OF ENVIRONMENTAL RADIATION	5P01 ES00269-13	336,184
VAN SCOTT, EUGENE J.	CELL CONTROL IN INTEGUMENTAL CANCER	5P01 CA11536-10	514,826
WEINHOUSE, SIDNEY	METABOLISM OF NORMAL AND NEOPLASTIC TISSUE	2R01 CA10916-18	130,264
WOODRUFF, DIANA S.	AGING, BEHAVIOR, AND EEG RELATIONSHIPS	5R23 AG01069-02	41,820
ZISKIN, MARVIN C.	LOW INTENSITY ULTRASONIC EFFECTS IN MAMMALIAN TISSUE	1R01 GM25477-01	42,534
ORGANIZATION TOTAL	96	10,477,690	
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107			
BESARAB, ANATOLE	REGULATION OF PARATHYROID HORMONE ACTION IN KIDNEY	5R01 AM19559-02	73,838
BESARAB, ANATOLE	EFFECTS OF PARTICULATES ON RENAL FUNCTION AND STRUCTURE	1R01 AM25159-01	98,017
BRENT, ROBERT L.	PROBLEMS IN RADIATION EMBRYOLOGY	5R01 HD11038-03	94,893
BRODOVSKY, HARVEY S.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA14215-07	108,031
CALKINS, CATHERINE E.	ACTIVATION AND ONTOGENY OF B CELL FEEDBACK REGULATION	1R01 AI15789-01	55,723
DE HORATIUS, RAPHAEL J.	LYMPHOCYTOTOXIC ANTIBODY AND IMMUNE REGULATION IN SLE	5R23 AI14574-02	50,760
DOBELBOWER, RALPH R, JR.	125 I, 5-FU, & EXTERNAL RADIOTHERAPY—PANCREATIC CANCER	1R26 CA25733-01	49,927
DUCKETT, SERGE W.	PATHOGENESIS OF TE-INDUCED NEUROPATHY	5R01 NS12902-02	41,792
EPPL, AUGUST W.	HORMONES AND THE PROGRAMMED DEATH IN PETROMYZON MARINUS	5R01 AG01148-02	96,051
ERSLEV, ALLAN J.	FEEDBACK BETWEEN RED CELL PRODUCTION & OXYGEN TRANSPORT	2R01 HL04612-21	138,203
FRASCA, PETER.	GROUND SUBSTANCE STUDIES IN HUMAN CORTICAL BONE	5R01 AM20020-02	74,838
GEE, MARLYS H.	MECHANISM OF CLEARANCE OF LUNG EDEMA FLUID	5R01 HL22911-02	48,818
GRAZIANI, LEONARD J.	HYDROCEPHALUS AND BRAIN GROWTH IN PREMATURE INFANTS	1R01 HD12497-01	86,540
HAUPTMAN, STEPHEN P.	T-MIGC AND N-MIGC IN LYMPHOID MALIGNANCY	1R01 CA26369-01	98,299
HAURANI, FARID I.	ACUTE LEUKEMIA COOPERATIVE-STUDY GROUP B	3R10 CA05462-18S1	58,287
JOHNSON, E MARSHALL	FETAL LUNG DEVELOPMENT: SUSCEPTIBILITY TO TERATOGENESIS	1R01 HD12773-01	106,336
KAJI, HIDEKO	REGULATION OF MACROMOLECULAR SYNTHESIS IN CELLULAR AGING	5R01 AG00691-03	76,793
KALF, GEORGE F.	CONTROL OF POLYPOIDY IN THE DEVELOPING TROPHOBLAST	1R01 HD11399-01A1	116,450
KELLOW, WILLIAM F.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05414-18	171,399
KOCHHAR, DEVENDRA M.	MECHANISMS UNDERLYING EXPERIMENTAL TERATOGENESIS	2R01 HD10935-02A1	118,371
KOCSIS, JAMES J.	ROLE OF TAURINE IN THE HEART	5R01 HL20211-03	52,128
KOSZALKA, THOMAS R.	STEROIDOGENESIS IN THE YOLK SAC PLACENTA	1R01 HD11086-01A2	73,223
KRAMER, SIMON	RESEARCH AND CLINICAL RADIATION THERAPY CENTER	5P01 CA11602-10	737,936
LEWIS, GEORGE C, JR.	GYNECOLOGIC ONCOLOGY GROUP HEADQUARTERS	3R10 CA19189-04S1	47,500
LEWIS, GEORGE C, JR.	GYNECOLOGIC ONCOLOGY GROUP HEADQUARTERS	5R10 CA19189-05	867,291
LIBERTI, PAUL A.	PHYSICO-CHEMICAL STUDIES OF CLQ AND OF ITS INTERACTIONS	5R01 AI12365-05	105,212
MARTINEZ, JOSE	STRUCTURAL AND BIOLOGICAL PROPERTIES OF FIBRINOGEN	5R01 HL20092-03	61,881
MAURER, PAUL H.	IMMUNOLOGICAL STUDIES WITH SYNTHETIC POLYPEPTIDES	5R01 AI07825-13	178,944
MC GEADY, STEPHEN J.	THE SUPPRESSOR OF T CELL IN HUMAN ALLERGY	5R23 AI14204-02	50,760
MOSKOWITZ, NORMAN	CONNECTIONS OF AUDITORY CORTEX	5R01 NS10806-06	71,041
MULHOLLAND, STANFORD G.	ANTIBACTERIAL DEFENSE OF THE URINARY BLADDER	5R01 AM22078-02	61,051
MURPHY, SCOTT	PLATELET STORAGE AT 22 DEGREES C	5R01 HL20818-03	141,094
OWEN, CHARLES S.	MITOCHONDRIAL MEMBRANE PROTEINS AND GLYCOPROTEINS	1R01 GM27806-01	67,988
PANOS, CHARLES	L-FORMS OF GROUP A, BETA HEMOLYTIC STREPTOCOCCI	5R01 AI11161-08	92,916
PEUSNER, KENNA D.	A STUDY OF THE ROLE OF AGING ON DIFFERENTIATION	1R01 NS15633-01	59,990
ROVETTO, MICHAEL J.	MYOCARDIAL FUNCTION AND METABOLISM FOLLOWING ISCHEMIA	5R01 HL17895-05	52,359
SCHNEIDERMAN, MARTIN H.	CELL SURVIVAL INTERACTION OF COMBINED MODALITIES	5R01 CA20337-02	125,305
SEYDEL, H GUNTER	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA20235-04	127,398
SHABER, GARY S.	LOW DOSE BREAST ELECTRON RADIOGRAPHY (IONOGRAPHY)	2R01 CA19787-04	100,608
SHAPIRO, SANDOR S.	CONTROL MECHANISMS IN HEMOSTASIS	2R01 HL09163-14	139,509
SHERWIN, JOSEPH R.	REGULATION OF THYROID CELL ACTIVITY	1R01 AM20061-01A1	62,982
SIEGMAN, MARION J.	CONTRACTION OF PULMONARY VASCULAR SMOOTH MUSCLE	5R01 HL23205-02	50,625
SILVER, MELVIN J.	PLATELET PROSTAGLANDINS	5R01 HL14890-08	215,296
SIMENHOFF, MICHAEL L.	IN VIVO NITROSAMINES AND CANCER IN RENAL FAILURE	1R01 CA26571-01	185,519
SMITH, J BRYAN	ISOLATION AND MECHANISM OF ACTION OF THROMBOXANE A2	5R01 HL21239-03	47,428
SNYDER, ROBERT	BENZENE TOXICITY AND METABOLISM	5R01 ES00322-13	86,267
SPATH, JAMES A, JR.	MAINTENANCE OF CELLULAR INTEGRITY IN ISCHEMIC HEARTS	3R01 HL20283-02S1	3,567

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
STRELETZ, LEOPOLD J.....	NEONATAL BILIRUBINEMIA AND BRAINSTEM AUDITORY FUNCTION.....	1R01 NS15254-01	65,563
TRAVIS, SUSAN F.....	RED CELL METABOLIC ALTERATIONS IN POSTNATAL LIFE.....	5R01 HD10213-02	55,305
WHEELLOCK, E. FREDERICK.....	SUPPRESSION OF ESTABLISHED LEUKEMIA VIRUS INFECTIONS.....	5R01 CA12461-07	137,328
WHEELLOCK, E. FREDERICK.....	STUDIES OF TUMOR DORMANCY AND EMERGENCE.....	5R01 CA18995-04	101,256
WHEELLOCK, E. FREDERICK.....	ROLE OF ENDOGENOUS VIRUSES IN TUMOR DORMANT STATES.....	3R01 CA24115-01S1	25,478
ORGANIZATION TOTAL	52 6,014,114		
UNIVERSITY CITY SCIENCE CENTER ZIP CODE 19104			
KEFALIDES, NICHOLAS A.....	CHEMISTRY AND METABOLISM OF CONNECTIVE TISSUES.....	5P01 AM20553-03	752,657
MACARAK, EDWARD J.....	RESPONSE OF PULMONARY ENDOTHELIUM TO INJURY.....	1R01 HL24914-01	144,045
ORGANIZATION TOTAL	2 896,702		
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19174			
ADDONIZIO, V. PAUL.....	HEMATOLOGICAL INJURY AND PULMONARY DYSFUNCTION.....	5R23 HL22346-02	46,585
ADLER, NORMAN T.....	BIOPSYCHOLOGY OF REPRODUCTION.....	2R01 HD04522-08	121,370
AGUIRRE, GUSTAVO D.....	CONE DEGENERATION—STRUCTURAL AND FUNCTIONAL STUDIES.....	2R01 EY01244-07	111,465
AGUS, ZALMAN S.....	MECHANISMS OF HYPERCALCIURIA AND HYPERPHOSPHATURIA.....	5R01 AM19478-03	50,291
ARAI, KAZUHIKO.....	MECHANISMS OF TUMOR REGRESSION BY HAPTEN TREATMENT.....	1R01 CA25945-01	96,262
ARMSTRONG, CLAY M.....	PERMEABILITY MECHANISMS IN EXCITABLE MEMBRANES.....	5R01 NS12547-04	97,766
ASBURY, ARTHUR K.....	STUDIES OF NEUROMUSCULAR DISEASES.....	2P50 NS08075-10A1	650,814
AYADHANI, NARAYAN G.....	MOLECULAR MECHANISMS OF CHEMICAL CARCINOGENESIS.....	5R01 CA22762-02	69,073
AYADHANI, NARAYAN G.....	PURIFICATION & CHARACTERIZATION OF MITOCHONDRIAL MRNA.....	3R01 GM25073-01S1	10,675
AYADHANI, NARAYAN G.....	PURIFICATION & CHARACTERIZATION OF MITOCHONDRIAL MRNA.....	5R01 GM25073-02	73,173
BAGSHAW, ROGER J.....	CARDIOPULMONARY CONTROL MECHANISMS.....	1R01 GM26627-01	111,813
BAHN, ANITA K.....	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	5R10 CA21183-03	131,841
BAHN, ANITA K.....	CASE-CONTROL STUDY OF MALIGNANT MELANOMA.....	1R01 CA23544-01A1	112,973
BAILE, CLIFTON A.....	CHOLECYSTOKININ AND FEEDING IN ZUCKER OBESE RATS.....	5R01 AM21413-02	35,606
BARKER, CLYDE F.....	SPONTANEOUS DIABETES—PATHOGENESIS AND TREATMENT.....	1R01 AM26007-01	99,788
BARTKOWSKI, RICHARD R.....	EFFECTS OF ANESTHETICS ON MODEL MEMBRANE SYSTEMS.....	1R01 GM26696-01	52,476
BAUM, STANLEY.....	ANGIOGRAPHIC DIAGNOSIS AND CONTROL OF GI BLEEDING.....	1R01 AM20604-01A1	94,948
BELLO, LEONARD J.....	CONTROL OF CELL DIVISION IN NORMAL VS MALIGNANT CELLS.....	5R01 CA17650-02	94,768
BENNETT, JOEL S.....	CHARACTERIZATION OF PLATELET-FIBRINOGEN INTERACTIONS.....	1R01 HL23809-01	64,431
BENSON, CHARLES E.....	PATHOGENIC PROPERTIES OF SALMONELLA.....	1R01 AI15848-01	67,323
BERKOWITZ, ROBERT J.....	MATERNAL TRANSMISSION OF STREPTOCOCCUS MUTANTS.....	1R23 DE05357-01	38,750
BLACK, JONATHAN.....	THE MECHANICAL PROPERTIES OF ISOLATED, VIABLE OSTEOONS.....	5R01 AM19933-03	106,142
BLACK, JONATHAN.....	INTERMEDIATE ORGANOMETALLIC CORROSION PRODUCTS.....	1R01 AM25752-01	90,323
BLASIE, J. KENT.....	STRUCTURE & FUNCTION OF MEMBRANES INVOLVED IN VISION.....	5R01 EY00673-08	74,856
BOETTIGER, DAVID E.....	GENETIC ANALYSIS OF RNA TUMOR VIRUSES.....	5R01 CA16502-05	81,989
BORA, F. WILLIAM, JR.....	INHIBITION OF SCARS IN TENDON AND NERVE INJURY.....	5R01 AM16186-07	204,302
BOSK, CHARLES L.....	THE SOCIAL PSYCHOLOGY OF GENETIC COUNSELING.....	5R01 HD12243-02	33,616
BRACKETT, BENJAMIN G.....	ASSESSMENT OF GAMETE FERTILIZING ABILITY IN VITRO.....	2R01 HD09406-04A1	68,910
BRACKETT, BENJAMIN G.....	MOLECULAR CONTROL OF SPERM MATURATION.....	5R01 HD11229-02	81,972
BRIGHTON, CARL T.....	STIMULATION OF EXTREMITY GROWTH BY ELECTRICAL FIELDS.....	5R01 AM13812-10	141,469
BRIGHTON, CARL T.....	ARTICULAR CARTILAGE PRESERVATION AND TRANSPLANTATION.....	5R01 AM15091-09	151,253
BRIGHTON, CARL T.....	ACCELERATION OF FRACTURE HEALING BY ELECTRICAL FIELDS.....	2R01 AM18033-05	108,145
BRIGHTON, CARL T.....	ACCELERATION OF FRACTURE HEALING BY ELECTRICAL FIELDS.....	5R01 AM18033-06	153,371
BRIGHTON, CARL T.....	WORKSHOP ON ELECTRICALLY INDUCED OSTEOCHONDROGENESIS.....	1R13 AM25741-01	7,500
BRINSTER, RALPH L.....	PROTEIN DEGRADATION IN THE MOUSE OVUM.....	1R01 HD12384-01	74,821
BROOKS, FRANK P.....	NEUROGENIC CONTROL OF GASTRODUODENAL FUNCTION.....	5R01 AM14563-08	85,219
BROWNELL, KELLY D.....	BEHAVIORAL CARDIOVASCULAR COMPLIANCE STRATEGIES.....	5R23 HL22345-03	45,835
BURCH, JOHN W.....	ASPIRIN SENSITIVITY OF HUMAN PLATELETS.....	1R01 HL23810-01	67,499
CASSILETH, PETER A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18106-05	155,444
CAVA, MICHAEL P.....	TUMOR-INHIBITORY ALKALOID STUDIES.....	5R01 CA22337-03	75,185
CAVA, MICHAEL P.....	STRUCTURALLY MODIFIED ANTICANCER ANTHRACYCLINES.....	5R01 CA24199-02	37,750
CHACKO, SAMUEL K.....	REGULATION OF CONTRACTION IN VASCULAR SMOOTH MUSCLE.....	5R01 HL22264-02	60,777
CHACKO, SAMUEL K.....	PULMONARY ARTERY PROPERTIES AND HYPERTENSION.....	1R01 HL23779-01	87,722
CHANCE, BRITTON.....	REDOX STATES OF NORMAL/PATHOLOGICAL CORNEAL CONDITIONS.....	5R01 EY02421-02	70,050
CHANCE, BRITTON.....	MECHANISM OF ELECTRON TRANSFER REACTIONS IN MITOCHONDRIA.....	1R01 GM27308-01	108,626
CHANCE, BRITTON.....	NIHMS SHARED INSTRUMENTATION GRANT.....	1P41 GM27476-01	139,607
CHANCE, BRITTON.....	OXYGEN DELIVERY TO TISSUE.....	5R01 HL17826-05	40,433

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
CHANCE, BRITTON.....	OXYGEN, ENERGY AND CONTRACTILITY IN CARDIAC TISSUE.....	5P01 HL18708-04	514,972
CHANCE, BRITTON.....	HETEROGENEITY OF CORTICAL OXYGEN METABOLISM.....	1R01 NS15340-01	83,634
CINES, DOUGLAS B.....	PLATELET ANTIGEN-ANTIBODY INTERACTIONS.....	1R01 HL23750-01	75,129
CIVAN, MORTIMER M.....	MICROELECTRODE STUDY OF TRANSPORT ROLES OF CELL NA,K.....	5R01 AM20632-02	114,846
CLARK, JAMES M.....	MODIFICATION OF SUSCEPTIBILITY TO OXYGEN POISONING.....	5R01 HL22259-02	66,613
CLARK, WALLACE H, JR.....	BIOLOGY OF HUMAN CUTANEOUS MALIGNANT MELANOMA.....	5R01 CA25298-02	136,898
CLEEMANN, LARS.....	IONIC CONTROL OF CARDIAC EXCITATION AND CONTRACTION.....	1R01 HL24667-01	30,293
COHEN, D WALTER.....	GENERAL CLINICAL RESEARCH CENTER DENTAL MEDICINE.....	1M01 RR01224-01	53,150
COHEN, D WALTER.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05337-18	83,670
COHEN, SIDNEY.....	COLONIC MYOELECTRIC ACTIVITY.....	5R01 AM19379-03	129,365
COHN, MILDRED.....	NMR AND EPR STUDIES OF ENZYME-NUCLEOTIDE INTERACTIONS.....	3R01 GM12446-15S1	59,051
COHN, MILDRED.....	NMR AND EPR STUDIES OF ENZYME-NUCLEOTIDE INTERACTIONS.....	2R01 GM12446-16	154,965
COHN, MILDRED.....	NMR STUDIES OF ENZYME-NUCLEOTIDE INTERACTIONS.....	1P41 GM27342-01	140,639
COOPER, DAVID Y.....	AEROBIC HYDROXYLASES IN STEROID AND DRUG METABOLISM.....	2R01 AM04484-19	105,997
COOPER, RICHARD A.....	DISORDERS OF THE RED CELL MEMBRANE IN DISEASES OF MAN.....	5R01 AM15441-08	104,485
COOPER, RICHARD A.....	CANCER CENTER SUPPORT GRANT.....	2P30 CA16520-04	777,560
COOPERMAN, BARRY S.....	TETRACYCLINES: MECHANISMS OF ACTION AND RESISTANCE.....	5R01 AI14717-02	145,169
COOPERMAN, BARRY S.....	PYROPHOSPHATASE MECHANISM-ADENYLATE AFFINITY LABELS.....	5R01 AM13212-11	72,507
COWING, CAROL O.....	ROLE OF THE ACCESSORY CELLS IN IMMUNE RESPONSES.....	1R01 AI16044-01	113,978
COX, ROBERT H.....	ARTERIAL BARORECEPTORS IN CARDIOVASCULAR CONTROL.....	2R01 HL19256-04	73,769
COX, ROBERT H.....	HYPERTENSION: CONTRIBUTION OF ARTERIAL WALL CHANGES.....	1R01 HL23348-01	49,748
DANIELE, RONALD P.....	FIBROGENESIS/IMMUNE FUNCTION-EXPER PULMONARY SILICOSIS.....	1R01 HL23877-01	110,979
DAS, MANJUSRI.....	RECEPTOR ACTIVATION IN INSULIN ACTION.....	1R01 AM25724-01	42,912
DAS, MANJUSRI.....	INDUCTION OF MITOGENESIS BY EPIDERMAL GROWTH FACTOR.....	1R01 AM25819-01	86,114
DAUBER, JAMES H.....	IMMUNE FUNCTION AND FIBROGENESIS IN SILICOSIS.....	5R23 HL21134-03	46,675
DAVIDOVITCH, ZEEV.....	TOOTH ERUPTION/MOVEMENT/RESORPTION BIOCHEMICAL ASPECTS.....	5R01 DE03619-07	122,549
DETWEILER, DAVID K.....	SUSTAINED INCREASE IN CARDIAC OUTPUT.....	5R01 HL19091-03	82,650
DONOGHUE, SUSAN.....	VITAMIN A METABOLISM IN PREGNANT AND PERINATAL LIFE.....	5R01 HD11273-03	38,866
DONOHUE, JERRY.....	STRUCTURAL STUDIES: HYDROGEN BONDS AND CONFORMATIONS.....	2R01 GM20611-03A1	32,332
DUTTON, PETER L.....	ELECTRON AND PROTON TRANSLOCATION IN ENERGY CONVERSION.....	1R01 GM27309-01	137,046
EARLEY, LAURENCE.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00040-19	738,759
EASTERLIN, RICHARD A.....	SOCIOECONOMIC STUDIES OF FERTILITY.....	5R01 HD05427-08	152,714
EDMUNDS, L HENRY, JR.....	PLATELET FUNCTION DURING EXTRACORPOREAL PERFUSION.....	2R01 HL19055-04	193,890
ENGLANDER, S WALTER.....	PHYSICAL STUDIES OF BIOLOGICAL MACROMOLECULES.....	5R01 AM11295-14	122,517
ENGLANDER, S WALTER.....	ELASTIN STRUCTURE; DNA BREATHING; HBS GELATION.....	5R01 HL21757-02	31,450
EPSTEIN, ALAN N.....	THE NEUROLOGICAL BASES OF FEEDING AND DRINKING.....	2R01 NS03469-19	84,694
ERULKAR, SOLOMON D.....	PHARMACOLOGICAL STUDIES ON CENTRAL SYNAPTIC TRANSMISSION.....	5R01 NS12211-05	72,182
EWENS, WARREN J.....	STOCHASTIC PROCESSES IN GENETIC POPULATIONS.....	5R01 GM21135-06	33,663
FARNBACH, GEORGE C.....	IMMUNOLOGY AND ELECTROPHYSIOLOGY OF POLYMYOSITIS.....	1R01 AM25440-01	98,740
FARRELL, JAY P.....	IMMUNOLOGICAL ASPECTS OF VISCERAL LEISHMANIASIS.....	5R01 AI12663-05	77,424
FERGUSON, JAMES J, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05415-18	201,413
FERRER, JORGE F.....	COMPARATIVE LEUKEMIA STUDIES UNIT.....	5P01 CA14193-07	571,189
FISCHER, GRACE M.....	EFFECT OF SEX HORMONES ON VASCULAR CONNECTIVE TISSUE.....	5R01 HL17721-05	75,939
FISCHER, GRACE M.....	VASCULAR CONNECTIVE TISSUE: ROLE IN ATHEROSCLEROSIS.....	5R01 HL19252-03	61,212
FISHER, ARON B.....	LUNG OXIDATIVE METABOLISM AND ENERGY PRODUCTION.....	5R01 HL15013-08	58,044
FISHMAN, ALFRED P.....	REGULATION OF VENTILATION AND PULMONARY CIRCULATION.....	5P01 HL08805-16	1,039,489
FISHMAN, ALFRED P.....	IMMUNOLOGY AND INTERSTITIAL FIBROSIS OF THE LUNG.....	5P50 HL15061-08	545,794
FLAKS, JOEL G.....	MECHANISMS OF ANTIBIOTIC ACTION AND RIBOSOME FUNCTION.....	5R01 AI03899-19	97,894
FLICKINGER, GEORGE L.....	THE ROLE OF LYOSOMES IN CORPUS LUTEUM FUNCTION.....	5R01 HD10451-03	112,401
FORMAN, HENRY J.....	RADICALS AND ENZYMES IN PULMONARY OXYGEN TOXICITY.....	1R01 HL23790-01	77,328
FORSTER, ROBERT E.....	CELLULAR AND MOLECULAR ASPECTS OF RESPIRATORY PHYSIOLOGY.....	5P01 HL19737-03	849,561
FOSTER, KENNETH R.....	MICROWAVE DIELECTRIC PROPERTIES OF TUMOR TISSUE.....	1R01 CA26046-01	73,525
FRANKEL, FRED R.....	MAMMARY CANCER AND THE NUCLEAR ESTRADIOL RECEPTOR.....	5R01 CA17301-05	111,776
FRIEDMAN, ROBERT D.....	GENETIC AND EPIDEMIOLOGICAL STUDY OF SALIVARY PROTEINS.....	7R01 DE05528-01	19,747
FURTH, JOHN J.....	RNA METABOLISM IN MAMMALIAN CELLS.....	5R01 GM10390-16	95,837
GALLISTEL, CHARLES R.....	NEUROBIOLOGICAL STUDIES WITH 2-DG AUTORADIOGRAPHY.....	1R01 NS14935-01	150,428
GARCIA, CELSO RAMON.....	BEHAVIOR AND PHYSIOLOGY FACTORS IN INFERTILITY THERAPY.....	5R01 HD11456-02	84,999
GARFINKEL, DAVID.....	COMPUTER SIMULATION IN CARDIOLOGY.....	5R01 HL15622-06	158,844
GASSER, DAVID L.....	GENETIC CONTROL OF THE IMMUNE RESPONSE.....	5R01 CA15146-07	135,587
GASSER, DAVID L.....	GENETIC BASIS OF DRUG-INDUCED CLEFT PALATE.....	1R01 DE05008-01	52,650

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
GERSTEIN, GEORGE L.....	STUDIES OF INTERACTION BETWEEN NEURONS.....	5R01 NS05606-14	76,685
GIL, JOAN.....	PINOCTOTIC VESICLES & PULMONARY EDEMA.....	5R01 HL22463-03	28,928
GLICK, JOHN H.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA15488-07	240,542
GOLDBERG, MARTIN.....	ELECTROLYTE DISTURBANCES IN CARDIORENAL DISEASE.....	2R01 HL00340-30	243,388
GOLDFINE, HOWARD.....	STRUCTURE AND FUNCTION OF BACTERIAL LIPIDS.....	2R01 AI08903-12	97,726
GONATAS, NICHOLAS K.....	CELLULAR ASPECTS OF NEUROLOGIC DISORDERS.....	2R01 NS05572-15	254,174
GOODGAL, SOL H.....	GENETIC TRANSFER IN MAMMALIAN SOMATIC CELLS.....	5R01 GM24263-02	62,560
GOODGAL, SOL H.....	TRANSFORMATION IN HAEMOPHILUS AND MAMMALIAN CELLS.....	5R01 GM24915-18	92,903
GOODMAN, ROBERT L.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA13457-07	107,433
GOTS, JOSEPH S.....	BIOSYNTHESIS AND INTERCONVERSION OF PURINES.....	5R01 CA02790-24	76,170
GREENBERG, JOEL H.....	REGIONAL HYPOXIC RESPONSE OF ADULT AND NEWBORN.....	1R01 NS14418-01	74,395
GREENBERG, JOEL H.....	REGIONAL CEREBRAL METABOLISM AND BLOOD FLOW IN SLEEP.....	1R01 NS14783-01	57,653
GRILL, HARVEY J.....	NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR.....	5R01 AM21397-03	59,779
HARKEN, ALDEN H.....	INTRAOPERATIVE CARDIAC OXYGEN SUPPLY-DEMAND.....	5R01 HL22315-02	106,107
HARRIS, HARRY.....	INHERITED HUMAN ENZYME DIVERSITY.....	5R01 CA20296-03	128,053
HASKINS, MARK E.....	MUCOPOLYSACCHARIDOSES I AND VI.....	1R01 AM25759-01	99,400
HAUGAARD, ELLA S.....	DIABETES, INSULIN AND URACIL NUCLEOTIDE METABOLISM.....	5R01 AM21423-02	72,661
HAUGAARD, NIELS.....	REGULATION OF METABOLISM BY DRUGS AND HORMONES.....	5R01 HL01813-26	82,732
HAYES, WILSON C.....	MECHANICS OF NORMAL, ARTHRITIC AND PROSTHETIC KNEES.....	2R01 AM20135-03	64,551
HERSHBERG, THEODORE.....	URBAN MORTALITY DETERMINANTS—LATE 19TH CEN. PHILA.....	1R01 HD12413-01	111,801
HESS, MARILYN E.....	DRUG EFFECTS ON CARDIAC RECEPTORS AND HEART FUNCTION.....	2R01 HL16436-05	49,717
HOCHSTRASSER, ROBIN M.....	PHOTOPROCESSES IN THE ORGANIC SOLID STATE.....	5R01 GM12592-15	83,367
HOEK, JOANNES B.....	CELLULAR HETEROGENEITY AND HORMONAL REGULATION IN LIVER.....	5R01 AM22141-02	67,817
HOGUE-ANGELETTI, RUTH A.....	STUDIES ON PROTEINS OF CATECHOLAMINE STORAGE VESICLES.....	3R01 NS13201-03S1	8,131
HOGUE-ANGELETTI, RUTH A.....	STUDIES ON PROTEINS OF CATECHOLAMINE STORAGE VESICLES.....	2R01 NS13201-04	161,727
HOLST, HAZEL I.....	MICROWAVE THAWING OF FROZEN TISSUE.....	2R01 AM17865-04	69,911
HOLTZER, HOWARD.....	CONVERSION OF EMBRYONIC CELLS INTO TRANSFORMED CELLS.....	5R01 CA18194-05	133,659
HOROWITZ, LEONARD N.....	HUMAN VENTRICULAR ACTIVATION: PATTERNS AND MECHANISMS.....	5R23 HL21292-02	46,113
HORWITZ, ALAN F.....	DETERMINANTS OF MYOGENIC MEMBRANE PHENOMENA.....	2R01 GM23244-04	86,829
HURTIG, HOWARD.....	HEMOSTATIC RISK FACTORS—STROKE/TRANS CEREBRAL ISCHEMIA.....	5R01 NS14359-02	70,961
INOUE, SHINYA.....	STUDIES OF SUBMICROSCOPIC STRUCTURE OF LIVING CELLS.....	5R01 GM23475-14	223,431
IYENGAR, MELKOTE R.....	MYOSIN AS A MULTIZYME COMPLEX.....	5R01 HL22538-02	80,171
JIMENEZ, SERGIO A.....	BIOCHEMICAL AND VASCULAR ALTERATIONS IN SCLERODERMA.....	5R01 AM19616-02	85,858
JOHNSTON, FRANCIS E.....	ENVIRONMENTAL NOISE AND PHYSICAL GROWTH OF CHILDREN.....	5R01 HD11542-02	19,744
JONES, STEPHEN C.....	LOCAL CEREBRAL BLOOD FLOW AND METABOLISM IN SEIZURES.....	1R01 NS14973-01	48,940
JOSEPHSON, MARK E.....	ELECTROPHYSIOLOGIC BASIS OF ARRHYTHMIA SURGERY.....	1R01 HL24278-01	142,218
KAJI, AKIRA.....	BIOCHEMICAL CONTROL OF MACROMOLECULAR SYNTHESIS.....	5R01 GM12053-15	62,518
KALLEN, ROLAND G.....	MECHANISMS OF BIOCHEMICAL CATALYSIS (C-C & C-N BONDS).....	5R01 GM13777-12	80,070
KARUSH, FRED.....	INTERACTIONS OF IMMUNOGLOBULINS.....	5R01 AI09492-19	164,415
KAUFFMAN, STUART A.....	SEQUENTIAL DEVELOPMENTAL COMMITMENTS IN DROSOPHILA.....	2R01 GM22341-04	101,439
KEFALIDES, NICHOLAS A.....	PLATELET VESSEL WALL INTERACTIONS IN THROMBOGENESIS.....	5P01 HL18827-03	521,238
KENNETT, ROGER H.....	HYBRIDOMAS: PRODUCTION AND GENETIC APPLICATIONS.....	5R01 CA24263-02	41,201
KIM, SEUNG U.....	EXPERIMENTAL NEUROPATHOLOGY IN TISSUE CULTURE.....	2R01 NS10648-06A2	74,313
KIM, SEUNG U.....	AGING IN CULTURED NEURONS.....	1R01 NS15205-01	37,313
KLEINZELLER, ARNOST.....	ACTIVE SUGAR TRANSPORT IN RENAL CELLS.....	5R01 AM12619-11	101,164
KOELLE, GEORGE B.....	NEUROHUMORAL TRANSMITTERS AND RELATED DRUGS.....	5R01 NS00282-27	104,297
KOHN, MICHAEL C.....	SENSITIVITY ANALYSIS OF METABOLIC MODELS.....	1R01 AM25840-01	32,516
KOZINSKI, ANDRZEJ W.....	INTERACTION OF VIRUSES WITH HOST CHROMOSOMES.....	5R01 CA10055-13	75,608
KREULEN, THOMAS H.....	MYOCARDIAL HYPERTROPHY, ELASTICITY, AND FAILURE IN MAN.....	1R01 HL24062-01	61,163
KRON, REUBEN E.....	EFFECTS OF HBO IN ACUTE CEREBRAL ISCHEMIA.....	1R01 NS14288-01A1	176,579
LAMBERTSEN, CHRISTIAN J.....	TOLERANCE TO RESPIRATORY GASES IN HEALTH AND DISEASE.....	5P01 HL08899-15	813,706
LANGENBERG, DONALD N.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07083-14	171,534
LANGFITT, THOMAS W.....	HEAD INJURY CLINICAL RESEARCH CENTER.....	2P50 NS08803-10	499,729
LASH, JAMES W.....	ANALYSIS OF CHONDROGENESIS.....	3R01 HD00380-21S1	4,575
LASH, JAMES W.....	ANALYSIS OF CHONDROGENESIS.....	5R01 HD00380-22	162,065
LEBOY, PHOEBE S.....	TRNA METHYLATION IN MAMMALIAN CELLS.....	5R01 CA23363-02	74,513
LEIGH, JOHN S, JR.....	IRON-SULFUR PROTEINS IN ORIENTED MULTILAYERS.....	5R01 GM25052-02	84,596
LEVENSON, GORDON E.....	IN VITRO MODEL FOR STUDY OF FLUORIDE ON TOOTH GERMS.....	5R01 DE04686-02	49,913
LIEBMAN, PAUL A.....	MICROPHOTOMETRIC STUDIES ON RETINAL RODS AND CONES.....	3R01 EY00012-16S1	72,179
LIEBMAN, PAUL A.....	VISION RESEARCH CENTER.....	5P30 EY01583-05	138,537

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
LIEF, FLORENCE S.	HUMAN WART VIRUS AS AN ONCOGENIC AGENT	5R01 CA13007-06	78,019
LISGARTEN, MAX A.	STUDIES OF THE PERIODONTAL FLORA	5R01 DE04759-02	171,276
LITT, MITCHELL	PHYSICO-CHEMICAL PROPERTIES OF TRACHEAL MUCUS	5R01 HL14271-08	80,093
LU, PONZY	NMR STUDY OF A REGULATORY PROTEIN	2R01 GM22623-04	72,010
MAGNO, MICHAEL	SYSTEMATIC STUDY OF THE BRONCHIAL CIRCULATION	5R01 HL22928-02	55,949
MARSHAK, ROBERT R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05464-17	115,696
MARSHALL, BRYAN E.	THE ROLE OF ALBUMIN IN LUNG WATER ACCUMULATION	5R01 HL16916-05	116,444
MASTROIANNI, LUIGI JR.	A COORDINATED PROGRAM IN REPRODUCTIVE BIOLOGY	5P01 HD06274-08	400,598
MATSCHINSKY, FRANZ M.	SUPPORT FOR DIABETES CENTER	5P30 AM19525-03	621,164
MATSCHINSKY, FRANZ M.	THE BIOCHEMISTRY OF EXTRAPANCREATIC GLUCORECEPTOR CELLS	5R01 AM22119-03	81,444
MATSCHINSKY, FRANZ M.	METABOLISM OF ISLETS OF LANGERHANS AND HORMONE RELEASE	5R01 AM22122-02	120,349
MATSCHINSKY, FRANZ M.	BIOCHEMISTRY OF PROMINENT AUDITORY STRUCTURES	2R01 NS14843-02	113,972
MC DEVITT, DAVID S.	CRYSTALLINS IN NORMAL AND REGENERATED NEWT EYE LENSES	5R01 EY02534-02	53,259
MC DONALD, GEORGE G.	MIDDLE ATLANTIC REGIONAL NMR FACILITY	5P41 RR00542-09	114,378
MELA, LEENA M.	INTRACELLULAR CHANGES INDUCED BY SHOCK AND TRAUMA	5R01 GM19867-08	159,805
MELBIN, JULIUS	THE CARDIOPULMONARY JUNCTION	3R01 HL22223-01S1	8,388
MELBIN, JULIUS	THE CARDIOPULMONARY JUNCTION	5R01 HL22223-02	80,516
MELLMAN, WILLIAM J.	HUMAN GENETICS CENTER SUPPORT	2P50 GM20138-06	1,009,178
MELLMAN, WILLIAM J.	BIOCHEMICAL GENETICS OF CULTURED HUMAN CELLS	2R01 HD00588-17	51,367
MELLMAN, WILLIAM J.	THE GENETICS OF GALACTOSE ENZYME DETERMINANTS IN MAN	5R01 HD04861-10	152,995
MIKUTA, JOHN J.	GYNECOLOGICAL ONCOLOGY GROUP	2R10 CA15977-05A1	55,470
MOORE, E NEIL	ELECTROPHYSIOLOGY OF FIBRILLATION AND DEFIBRILLATION	5R01 HL16076-07	137,428
MOORE, E NEIL	ELECTROPHYSIOLOGY OF LETHAL ARRHYTHMIAS	5R01 HL23071-02	93,781
MORAD, MARTIN	ELECTROPHYSIOLOGY OF PRENATAL TO ADULT MAMMAL HEARTS	5R01 HL16152-07	129,588
MORAD, MARTIN	ELECTRO-OPTICAL DYES AS PROBES OF HEART EXCITABILITY	5R01 HL17702-05	110,823
MORRISON, ADRIAN R, JR.	BRAINSTEM REGULATION OF BEHAVIOR DURING SLEEP	5R01 NS13110-02	49,272
MOULTON, DAVID G.	OLFACTORY PHYSIOLOGY	5R01 NS10617-03	13,963
MUELLER, PAUL	RECONSTITUTION AND ANALYSIS OF MEMBRANE TRANSPORT	2R01 GM25256-03	81,269
MURRAY, THOMAS	EPIDEMIOLOGICAL STUDY OF ANALGESIC USE AND RENAL DISEASE	5R01 AM20920-02	89,229
NASS, MARGIT M.	MITOCHONDRIAL GENETIC SYSTEM IN NORMAL & CANCER CELLS	5R01 CA13814-07	91,689
NATHANSON, NEAL	IMMUNOPATHOGENESIS OF VISNA	3R01 NS16010-01S1	170
NATHANSON, NEAL	IMMUNOPATHOGENESIS OF VISNA	5R01 NS16010-02	149,249
NEUFELD, GORDON R.	PULMONARY EDEMA VS RECRUITMENT IN RESPIRATORY FAILURE	1R01 HL23730-01	74,354
NICOLAOU, KYRIACOS C.	TOTAL SYNTHESIS OF LEUCONOLIDE A3	1R01 GM26879-01	63,220
NOORDERGRAAF, ABRAHAM	PHYSIOLOGICAL MECHANICS OF THE HEART AND THE ARTERIES	2R01 HL10330-12A1	92,983
NORMAN, MICHAEL E.	POTENTIAL ROLE OF COMPLEMENT IN GINGIVAL INFLAMMATION	5R01 DE04809-02	105,025
NOWELL, PETER C.	LEUKOCYTE REGULATORY MECHANISMS	3R01 CA12779-07S1	34,053
NOWOTNY, ALOIS H.	RELATION OF STRUCTURE TO FUNCTION IN ENDOTOXINS	1R01 CA24628-01	109,227
NOWOTNY, ALOIS H.	ROLE OF BACTERIAL PRODUCTS IN PERIODONTAL DISEASES	5R01 DE04777-03	107,058
OPELLA, STANLEY J.	NMR STUDIES OF BIOLOGICAL SUPRAMOLECULAR STRUCTURES	5R01 GM24266-03	54,399
ORKAND, RICHARD K.	LONG-TERM INTERACTIONS OF NEURONS AND GLIA	5R01 NS12253-06	81,598
OWEN, CHARLES S.	BIOPHYSICAL PROBES OF THE LYMPHOCYTE MEMBRANE	5R01 GM23700-03	24,510
PACK, ALLAN I.	VAGAL AFFERENTS EFFECT OF NEURAL OUTPUT AND VENTILATION	1R01 HL24542-01	55,941
PATTERSON, DONALD F.	ETIOLOGY AND DEVELOPMENT OF CONGENITAL HEART DISEASE	5R01 HL18848-04	208,684
PHILLIPS, S MICHAEL	IN VITRO S. MANSONI VITELLOGENESIS-GRANULOMA FORMATION	1R22 AI15193-01	105,206
PLISKIN, MICHAEL E.	ENHANCEMENT OF ORAL CANCER AFTER ALLOGRAFTING	1R23 DE05117-01	34,720
PORTER, DAVID J.	MECHANISM OF ENZYME ACTION	5R01 GM11040-15	129,722
PREMACK, DAVID	THE NATURE OF INTELLECTUAL DEFICITS IN RETARDATION	5P01 HD10965-02	148,243
PUGH, EDWARD N, JR.	ANALYSIS OF THE MECHANISMS OF PHOTORECEPTOR KINETICS	5R01 EY02660-02	29,963
QUINN, JOHN A.	TRANSPORT OF ARTERIAL BLOOD GASES THROUGH SKIN	5R01 HL22327-02	84,185
REED, GEORGE H.	NMR OF DIGESTIVE AND METABOLIC ENZYME COMPLEXES	5R01 AM17517-06	85,822
REIVICH, MARTIN	CEREBRAL BLOOD FLOW AND METABOLISM IN STROKE AND SHOCK	3P50 NS10939-07S1	507,916
REIVICH, MARTIN	LOCAL CEREBRAL GLUCOSE METABOLISM IN MAN	1P01 NS14867-01	678,691
RITTER, MARK A.	PHOTO-INDUCED CELL KILLING, MUTATION, AND DNA REPAIR	1R01 CA24657-01	99,409
RIVA, CHARLES E.	FLOW AND DIFFUSION OF FLUORESCIN IN THE OCULAR FUNDUS	3R01 EY03242-01S1	48,509
ROBERTS, BRYAN W.	IRON CARBONYL REAGENTS IN NATURAL PRODUCTS SYNTHESIS	1R01 GM25222-01A1	62,621
ROSAN, BURTON	MICROBIOLOGIC STUDIES OF THE HUMAN ORAL STREPTOCOCCI	5R01 DE03180-09	95,140
ROSENBLUM, JOEL	BIOCHEMICAL STEPS AND CONTROL OF COLLAGEN SYNTHESIS	5R01 AM20863-03	78,509
ROSENBLUM, JOEL	CENTER FOR ORAL HEALTH RESEARCH	2P50 DE02623-12A1	1,347,570
ROSENQUIST, ALAN C.	EXTRAGENICULATE VISUAL PATHWAYS IN ANIMALS	5R01 EY02654-02	78,176

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
ROSENWAIKE, IRA	USE OF DEATH STATISTICS TO MEASURE MORTALITY OF AGED	5R01 AG01115-02	23,072
ROSENWAIKE, IRA	ACCURACY OF DEATH CERTIFICATE AGES FOR THE EXTREME AGED	1R01 AG01550-01	60,437
ROSNER, BURTON S.	RISE TIME AND PERCEPTION OF TRANSIENT SOUNDS	5R01 NS13545-02	55,813
ROSSMAN, MILTON D.	IMMUNE EVENTS IN SARCOIDOSIS	1R23 HL24500-01	46,190
ROZIN, P.	THE DEVELOPMENT OF THE CHILD'S CONCEPTION OF FOOD	1R01 HD12674-01	33,616
RUBINSTEIN, NEAL A.	CONTROL OF MYOSIN TYPES IN INDIVIDUAL MUSCLE FIBERS	5R01 NS14332-02	57,526
RUTMAN, ROBERT J.	MECHANISM OF ACTION OF L-PHENYLALANINE MUSTARD	1R01 CA25251-01	81,662
SANGER, JOSEPH W.	ANALYSIS OF CELL DIVISION AND CELL MOTILITY	5R01 GM25653-02	91,197
SCARPA, ANTONIO	SEROTONIN AND ION TRANSPORT IN GRANULES AND PLATELETS	1R01 HL24010-01	63,114
SCHAD, GERHARD A.	ARRESTED DEVELOPMENT OF LARVAL HOOKWORMS IN THE HOST	3R01 AI11852-05S1	1,828
SCHERER, PETER W.	DEPOSITION OF HYGROSCOPIC AEROSOLS IN BRONCHI	5R01 HL20105-03	48,699
SCHLAEFFER, WILLIAM W.	MECHANISMS OF PERIPHERAL NERVE DYSFUNCTION	3R01 NS15722-01S1	874
SCHLAEFFER, WILLIAM W.	MECHANISMS OF PERIPHERAL NERVE DYSFUNCTION	5R01 NS15722-02	89,107
SCHREIBER, ALAN D.	MACROPHAGE RECOGNITION AND TUMOR CELL INTERACTIONS	5R01 CA15236-06	96,205
SCHWARTZ, MYRNA F.	SEMANTIC MEMORY LOSS IN DEMENTIA	7R01 AG02231-01	38,620
SELZER, MICHAEL E.	EPILEPSY RELEVANT DRUGS AND CENTRAL SYNAPSES	5R01 NS14257-03	44,967
SELZER, MICHAEL E.	REGENERATION IN SPINAL CORD	1R01 NS14837-01	38,658
SHAPIRO, BERNARD H.	DEVELOPMENTAL ORGANIZERS OF DRUG METABOLISM	1R01 GM26222-01	63,740
SHIPLEY, ELIZABETH	THE DEVELOPMENT OF HIERARCHICAL CATEGORY STRUCTURE	1R01 HD12821-01	43,969
SHPORER, MORDECHAI	NUCLEAR QUADRUPOLE RESONANCE OF INTRACELLULAR IONS	5R01 GM23389-02	106,044
SILBERBERG, DONALD H.	ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS	2P50 NS11037-07	825,430
SILVERS, WILLYS K.	BEHAVIOR OF WEAK TRANSPLANTATION ANTIGENS	5R01 CA18640-10	107,158
SIMSON, MICHAEL B.	ELECTROPHYSIOLOGY OF A WELL DEFINED ISCHEMIC AREA	1R23 HL24253-01	47,437
SINGER, IRWIN	RENAL WATER AND ION TRANSPORT: ROLE OF PROTEINS	5R01 AM21454-02	69,073
SMITH, AMOS B. III	SYNTHESIS OF CYCLOPENTENOID ANTITUMOR AGENTS	2R01 CA19033-04	89,518
SMITH, AMOS B. III	SYNTHESIS OF JATROPHONE AND RELATED ANTITUMOR AGENTS	5R01 CA22807-02	53,907
SMITH, AMOS B. III	NATURAL PRODUCT SYNTHESIS VIA UNSATURATED DIAZOKETONES	1R01 GM24680-01	45,338
SMITH, THEODORE C.	PHYSIOLOGIC RESPONSES OF THE AGED TO ANESTHESIA	5R01 AG00275-03	79,115
SNAPE, WILLIAM J. JR.	NEUROHORMONAL REGULATION OF COLONIC SMOOTH MUSCLE	1R01 AM25396-01	66,900
SOLOWAY, ROGER D.	PIGMENT GALLSTONES: COMPOSITION AND FORMATION	5R01 AM16549-05	95,248
SOMLYO, ANDREW P.	STUDY OF MUSCLES RELATED TO HEART DISEASE	5P01 HL15835-07	1,653,138
SOMLYO, ANDREW P.	HYPERTENSIVE VASCULAR SMOOTH MUSCLE	1R01 HL25348-01	195,991
SPEAR, JOSEPH F.	ELECTROPHYSIOLOGY OF CARDIAC AUTOMATICITY	5R01 HL19045-04	85,574
SPELKE, ELIZABETH S.	STUDIES OF PERCEPTUAL KNOWLEDGE IN INFANCY	1R01 HD13248-01	58,143
SPIELMAN, RICHARD	GENETICS OF SUSCEPTIBILITY TO DIABETES MELLITUS	1R01 AM25556-01	81,137
SPRAGUE, JAMES M.	BRAIN MECHANISMS OF VISUAL LEARNING AND TRANSFER	5R01 EY00577-14	115,660
SPRENT, JONATHAN	H-2 CONTROL OF T-HELPER CELL FUNCTION IN VIVO	1R01 AI15393-01	128,338
STAMBAUGH, RICHARD L.	THE ROLE OF ACROSIN AND MICROTUBULES IN FERTILIZATION	5R01 HD11600-02	71,853
STEIN, THOMAS P.	NITROGEN POOLS AND TURNOVER IN SURGICAL PATIENTS	5R01 AM16658-06	99,857
STEIN, THOMAS P.	SURGERY AND ADJUVANT CANCER THERAPY	2R01 CA18575-04	89,489
STERLING, PETER	MICROCIRCUITRY OF THE VISUAL SYSTEM	5R01 EY00828-08	145,510
STEVENS, JOHN K.	RETINAL-RETINAL AND RETINAL-LGN NEURAL INTERACTIONS	5R01 EY01832-03	41,911
STOLLEY, PAUL D.	EPIDEMIOLOGY OF UROLITHIASIS	1R01 AM23094-01	79,830
STRAUSS, JEROME F. III.	THE ROLE OF BLOOD LIPOPROTEINS IN OVARIAN FUNCTION	1R01 HD12314-01	94,028
TAICHMAN, NORTON S.	LEUKOCYTES IN THE PATHOGENESIS OF PERIODONTAL DISEASE	5R01 DE03995-05	178,870
THORNTON, EDWARD R.	GLYCOSPHINGOLIPID CHEMISTRY AND MEMBRANE STRUCTURE	2R01 GM22647-04	99,893
TRENTHAM, DAVID R.	DYNAMIC PROCESSES OF MUSCLE CONTRACTION	1R01 AM23030-01	187,637
TROTMAN, BRUCE W.	UNCONJUGATED HYPERBILIRUBINEMIA IN A MODEL	3R01 AM20361-02S1	8,014
TROTMAN, BRUCE W.	MODEL OF HUMAN PIGMENT GALLSTONES	5R01 AM20361-03	70,598
TSOU, KWAN C.	NEW FLUORESCENT MARKERS FOR CANCER DIAGNOSIS	5R01 CA19552-03	38,330
VAN DE WALLE, ETIENNE	POPULATION STUDIES CENTER	5P30 HD10379-03	62,832
VOET, DONALD H.	THE X-RAY STRUCTURE OF YEAST PYROPHOSPHATASE	2R01 GM20568-03A1	70,309
WEBER, ANNEMARIE A.	FORCE AND SPEED IN SKELETAL AND CARDIAC MUSCLE	5R01 HL15692-08	103,687
WEBER, WILFRIED T.	LYMPHOCYTE FUNCTIONAL CAPACITIES	5R01 AM11693-12	62,608
WEINBERG, ERIC S.	HISTONE GENES AND THEIR TRANSCRIPTION	7R01 GM27322-01	100,879
WEINER, DAVID J.	IMMUNITY OF RATS AND GERBILS TO LITOMOSOIDES CARINII	5R22 AI13767-02	37,493
WEISS, LEON P.	ELECTRON MICROSCOPY OF THE RETICULOENDOTHELIAL SYSTEM	5R01 AM19920-04	146,309
WILLIAMSON, JOHN R.	CONTROL OF METABOLISM IN NORMAL AND DISEASED STATES	5R01 AM15120-09	114,811
WILLIAMSON, JOHN R.	CARDIAC METABOLISM IN HEART FAILURE	2R01 HL14461-09	147,392
WILSON, DARCY B.	LYMPHOCYTES & HISTOCOMPATIBILITY ANTIGENS	5R01 AI10961-08	178,698

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
WILSON, DARCY B.	IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	3P01 CA15822-05S1	195,491
WILSON, DARCY B.	IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	2P01 CA15822-06	1,142,299
WILSON, DAVID F.	OXIDATIVE PHOSPHORYLATION IN BIOLOGICAL MEMBRANES	2P01 GM12202-16	448,328
WILSON, DAVID F.	OXYGEN DEPENDENCE OF MITOCHONDRIAL FUNCTION	5R01 GM21524-05	80,880
WILSON, DAVID F.	BRAIN ENERGY AND NEUROTRANSMITTER METABOLISM	5R01 NS14505-02	79,281
WINEGRAD, ALBERT I.	STUDIES RELATED TO THE COMPLICATIONS OF DIABETES	5R01 AM04722-19	237,023
WINEGRAD, SAUL	CELLULAR BASIS OF CARDIAC CONTRACTILITY	5R01 HL16010-17	86,817
YONETANI, TAKASHI	STRUCTURE AND FUNCTION OF RESPIRATORY HEMOPROTEINS	5R01 HL14508-11	134,200
ZEIDMAN, IRVING	INVASION AND METASTASIS	1R01 CA26867-01	36,168
ZWEIMAN, BURTON	CELLULAR INFLAMMATORY RESPONSES IN ALLERGIC REACTIONS	5R01 AI14332-03	146,053
ORGANIZATION TOTAL	297	40,756,780	
WILLS EYE HOSPITAL ZIP CODE 19130			
NAGY, ROSE M.	HETEROGENEITY OF LYMPHOCYTES IN HERPES OCULAR DISEASE	5R01 EY02594-02	70,892
SAVINO, PETER J.	HOST IMMUNOLOGIC RESPONSE IN GRAVES' OPHTHALMOPATHY	5R01 EY02631-02	50,330
SERY, THEODORE W.	RESPONSE OF CORNEAL STROMA TO INJECTIONS OF PROTEINS	3R01 EY00195-21S1	95,762
SERY, THEODORE W.	LENS METABOLISM AND EXPERIMENTAL CATARACT	5R01 EY00225-18	46,851
SERY, THEODORE W.	EXPERIMENTAL HERPES VIRUS CORNEAL INFECTIONS	5R01 EY01454-05	95,835
SERY, THEODORE W.	IN VITRO AND IN VIVO STUDIES OF RETINOBLASTOMA	5R01 EY02131-02	65,845
SERY, THEODORE W.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05510-16	31,701
ORGANIZATION TOTAL	7	457,216	
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104			
ABRAMCZUK, JAN	HEAVY METALS IN EARLY MAMMALIAN EMBRYOGENESIS	5R01 ES01866-02	85,222
BAIRD, WILLIAM M.	MODIFIERS OF CHEMICAL CARCINOGENESIS IN CELL CULTURE	5R01 CA19948-04	79,174
BECHTOL, KATHLEEN B.	IMMUNOCHEMICAL APPROACH TO SPERMATOGENESIS	5R01 GM23892-02	37,987
BECHTOL, KATHLEEN B.	BRAIN-SPECIFIC ANTIGENS/GENETICS & BIOCHEMISTRY	1R01 NS15427-01	79,685
BORUN, THADDEUS W.	REGULATION OF HISTONE BIOSYNTHESIS IN HETEROPOID CELLS	5R01 CA17856-04	185,983
BRINTON, MARGO	GENETICALLY DETERMINED RESISTANCE TO VIRUS INFECTIONS	5R01 AI14238-03	76,071
BUCK, CLAYTON A.	MEMBRANE CHANGES CAUSED BY TUMOR VIRUS TRANSFORMATION	2R01 CA19144-05	42,910
CRISTOFALO, VINCENT J.	CELLULAR SENEESCENCE AND CONTROL OF CELL PROLIFERATION	5P01 AG00378-08	600,929
CROCE, CARLO M.	MAPPING OF TUMOR VIRUS GENOMES IN TRANSFORMED CELLS	5R01 CA16685-05	234,144
CROCE, CARLO M.	BIOLOGY OF HUMAN FIBROSARCOMA	5R01 CA20741-03	94,037
CROCE, CARLO M.	IMMUNORESPONSE TO HUMAN SURFACE ANTIGENS	5R01 CA23568-02	71,188
CROCE, CARLO M.	ENZYME MARKERS IN THE MAPPING OF HUMAN GENES	5R01 GM20700-05	96,320
DAMSKY, CAROLINE	ACTIN RELEVANCE TO MALIGNANCY AND VIRUS MORPHOGENESIS	5R01 CA21319-03	77,323
DIAMOND, LEILA	THE EFFECT OF CHEMICAL CARCINOGENS ON CELLS IN VITRO	5R01 CA08936-12	153,027
DIAMOND, LEILA	ENVIRONMENTAL FACTORS IN THE INDUCTION OF CANCER	5P01 CA21778-02	330,935
DIAMOND, LEILA	TUMOR PROMOTOR AND CELL DIFFERENTIATION	5R01 CA23413-02	51,328
DOHERTY, PETER C.	CELL-MEDIATED IMMUNITY IN INFLUENZA	5R01 AI14162-03	111,287
DOHERTY, PETER C.	CELL-SURFACE MONITORING BY RECIRCULATING LYMPHOCYTES	1R01 AI15412-01	171,021
DOHERTY, PETER C.	CELL-MEDIATED CYTOTOXICITY IN HUMANS	5R01 CA20833-03	93,774
GERHARD, WALTER	ANTIGENICITY OF INFLUENZA VIRUS HEMAGGLUTININ	3R01 AI13989-02S1	11,551
GERHARD, WALTER	ANTIGENICITY OF INFLUENZA VIRUS HEMAGGLUTININ	5R01 AI13989-03	82,397
KNOWLES, BARBARA B.	ANTIGENICITY AND TUMORIGENICITY OF SOMATIC CELL HYBRIDS	2R01 CA18470-04	154,276
KOPROWSKI, HILARY	STUDY OF RABIES AND RABIES VIRUS ANTIGENS	5R22 AI09706-09	321,790
KOPROWSKI, HILARY	CONSOLIDATED BASIC CANCER RESEARCH PROGRAM	5P30 CA10815-12	1,876,921
KOPROWSKI, HILARY	GENETICS AND VIROLOGY OF CANCER	5P01 CA21124-03	629,765
KOPROWSKI, HILARY	ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS	2P50 NS11036-07	1,004,103
KOPROWSKI, HILARY	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05540-17	190,812
KRITCHEVSKY, DAVID	LIPID METABOLISM IN AGING	5R01 AG00076-03	52,939
KRITCHEVSKY, DAVID	DIETARY EFFECTS ON CHOLESTEROL METABOLISM	5R01 HL03299-22	99,751
KRITCHEVSKY, DAVID	LIPID METABOLISM	5R01 HL05209-19	121,753
KRITCHEVSKY, DAVID	ACID AND ALKALINE LIPASES IN AORTAS OF VARIOUS SPECIES	1R01 HL23625-01	47,283
LEVINE, ELLIOT M.	CELLULAR GROWTH AND SENEESCENCE IN ENDOTHELIAL CELLS	5R01 AG00839-02	105,225
LEVINE, ELLIOT M.	CELLULAR BIOLOGY OF IN VIVO AND IN VITRO AGING	1R01 AG01826-01	86,212
MANSON, LIONEL A.	ROLE OF TRANSPLANTATION ANTIGENS IN MALIGNANT CELLS	5R01 CA07973-14	80,321
O'BRIEN, THOMAS G.	POLYAMINES AND CHEMICAL CARCINOGENESIS IN VITRO	5R23 ES01664-02	62,696
PINCUS, THEODORE P.	NATURAL HOST CONTROL MECHANISMS IN LEUKEMIA	1R01 CA24744-01	99,440
PINCUS, THEODORE P.	GENETIC RESTRICTION OF ENDOGENOUS RETROVIRUSES	1R01 CA25315-01	58,977

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
SOLTER, DAVOR	ROLE OF CELL SURFACE ANTIGENS IN MAMMALIAN DEVELOPMENT	1R01 HD12487-01	59,155
STAMATO, THOMAS D.	ISOLATING CARCINOGEN SENSITIVE MAMMALIAN CELL MUTANTS	7R01 ES02274-01	68,225
TSUCHIDA, NOBUO	HOST/VIRUS INTERACTION IN KI-MSV GENOME EXPRESSION	5R01 CA22701-02	82,606
WARREN, LEONARD	THE SURFACE MEMBRANES OF NORMAL AND CANCER CELLS	2R01 CA19130-03A2	114,446
WARREN, LEONARD	CELL BIOLOGY AND IMMUNOLOGY OF THE CANCER CELL	5P01 CA21069-03	516,651
WEINMANN, ROBERTO	CONTROL OF ADENOVIRUS TRANSCRIPTION	2R01 AI13231-04	104,846
WETTSTEIN, PETER J.	FUNCTIONAL INTERACTIONS OF I AND H-2K/D IR GENES	1R01 AI16052-01	101,669
WETTSTEIN, PETER J.	CELLULAR ANTIGENS OF NORMAL AND MALIGNANT RAT TISSUES	5R01 CA10097-12	202,580
WHITTAKER, J RICHARD	MELANOTIC EXPRESSION IN CARCINOGEN-INDUCED MELANOMAS	5R01 CA23394-02	118,859
WHITTAKER, J RICHARD	EGG CYTOPLASMIC INFORMATION IN CELL DIFFERENTIATION	5R01 HD09201-05	130,276
ORGANIZATION TOTAL	47 9,257,870		
ZOOLOGICAL SOCIETY OF PHILADELPHIA ZIP CODE 19104			
SNYDER, ROBERT L	HEPATITIS VIRUS AND LIVER TUMORS IN WOODCHUCKS	1R01 AI16260-01	99,024
ORGANIZATION TOTAL	1 99,024		
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION-ALLEGHENY-SINGER RESEARCH CORPORATION		ZIP CODE 15212	
BRAUNSCHWEIGER, PAUL G.	CORTICOSTEROIDS-CYTOKINETIC AND BIOCHEMICAL STUDIES	1R01 CA26020-01	79,303
CONCANNON, JOSEPH P.	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA25007-03	58,627
CONCANNON, JOSEPH P.	CLINICAL RADIATION THERAPY RESEARCH CENTER	3P01 CA25011-02S1	280,877
OKUNEWICK, JAMES	VIRAL LEUKEMIA THERAPY BY RESISTANT TISSUE TRANSPLANT	5R01 CA22512-02	53,073
PROCTOR, JULIAN W.	BIOASSAY FOR ANTITUMOR EFFECTS OF R.E. STIMULANTS	1R01 CA24936-01A1	56,395
SCHENKEN, LARRY L.	COMBINED MODE (ECMRC) STUDIES IN VIVO: TUMOR/NORMAL	5R01 CA25008-04	203,601
SCHIFFER, LEWIS M.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05801-03	54,828
YAMAMURA, YASUHIRO	ROLES OF ARMED MONOCYTES IN CONTROL OF METASTASIS	5R01 CA22839-02	58,336
ORGANIZATION TOTAL	8 845,040		
AMERICAN CLEFT PALATE ASSOCIATION ZIP CODE 15261			
WILSON-MACKBY, LIBBY F.	AMER CLEFT PALATE ASSN. ON GENETICS & CLEFTING	1R13 DE05349-01	1,680
ORGANIZATION TOTAL	1 1,680		
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
BAHILL, A TERRY	CLINICAL RECORDING OF SACCADDES	5R23 EY02382-02	10,982
BOTHNER-BY, ANSEL A.	DYNAMIC NUCLEAR OVERHAUSER EFFECTS IN BIOMOLECULES	2R01 AM16532-07	104,167
CUSSLER, EDWARD L, JR.	RATE PROCESSES INVOLVING BILE	5R01 AM16143-07	129,153
FRIEDMAN, MARK B.	DEVELOPMENT OF CONTROL OF WALKING IN CHILDREN	5R01 HD11869-02	64,629
GOLDMAN, ROBERT D.	CELL AGING: CONTRACTILE PROTEIN STRUCTURE AND FUNCTION	5R01 AG00890-02	99,514
GOLDMAN, ROBERT D.	NORMAL AND TUMOR-VIRUS TRANSFORMED CELL BEHAVIOR	5R01 CA17210-05	97,016
HACKNEY, DAVID D.	MECHANISM AND REGULATION OF CONTRACTILE PROTEINS	1R01 AM25980-01	51,455
HITCHCOCK, SARAH E.	MOLECULAR BIOLOGY OF REGULATION OF CONTRACTION	5R01 AM19660-03	64,256
HO, CHIEN	NMR STUDIES OF BIOLOGICAL MEMBRANES	1R01 GM26874-01	163,458
HO, CHIEN	PHYSICAL-CHEMICAL STUDY OF HEMOGLOBIN AND ERYTHROCYTE	7R01 HL24525-01	372,040
JONES, ELIZABETH W.	GENETIC REGULATION OF PROTEASES IN YEAST	5R01 AM18090-06	104,339
KELLEY, WILLIAM S.	GENETIC AND STRUCTURAL STUDIES OF DNA POLYMERASE I	5R01 GM24688-02	67,574
LEINHARDT, SAMUEL	IMPACT OF INTERVENTIONS ON SOCIAL NETWORKS	1R01 HD12506-01	136,356
LLINAS, MIGUEL	HETERONUCLEAR NMR INVESTIGATIONS OF SIDEROPHORES	1R01 GM25213-01	62,874
LLINAS, MIGUEL	PURCHASE OF A WIDE-BORE, 200 MHZ FT-NMR SPECTROMETER	1P41 GM27390-01	171,150
LONGINI, RICHARD L.	AN OPTIMAL FETAL HEART MONITOR	2R01 HL20632-03	121,001
MC CURRY, PATRICK M, JR.	SYNTHESIS OF THE ANTI-CANCER AGENT 593A & HOMOLOGUES	5R01 CA24057-02	61,173
NAGLE, JOHN F.	BIOMEMBRANE TRANSITIONS: DENSITY MEASUREMENTS	2R01 GM21128-05	31,302
O'DONNELL, JANIS M.	GENE REGULATION IN DROSOPHILA: A NEW MODEL SYSTEM	1R01 GM26757-01	81,350
SCHATZ, EDWARD R.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07081-14	91,537
SIEGLER, ROBERT S.	THE DEVELOPMENT OF SCIENTIFIC THINKING	5R01 HD12055-02	65,142
STERN, RICHARD M.	AUDITORY LATERALIZATION IN NOISE	1R01 NS14908-01	50,533
WADDELL, WALTER H.	PROTEIN-CHROMOPHORE INTERACTIONS IN VISUAL PIGMENTS	5R01 EY01777-03	37,461
WADDELL, WALTER H.	PHOTOCHEMISTRY OF RHODOPSIN AND 11-CIS RETINAL	5R01 EY01930-03	9,720
WILLIAMS, JAMES F.	GENETIC ANALYSIS OF ADENOVIRUSES	3R01 CA21375-02S1	45,094

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
WORTHINGTON, C R.....	MOLECULAR STRUCTURE OF SARCOPLASMIC RETICULUM MEMBRANES.....	5R01 GM20804-05	24,667
WORTHINGTON, C R.....	MOLECULAR STRUCTURE OF NERVE AND PHOTORECEPTORS.....	2R01 NS09329-10	114,148
ORGANIZATION TOTAL	27	2,432,091	
CHILDREN'S HOSPITAL OF PITTSBURGH ZIP CODE 15213			
ALBO, VINCENT C.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA07439-16	125,524
BLUESTONE, CHARLES D.....	EUSTACHIAN TUBE OBSTRUCTION AND MIDDLE EAR EFFUSIONS.....	5R01 NS13735-03	43,221
DRASH, ALLAN L.....	JUVENILE DIABETES MELLITUS: EPIDEMIOLOGY & ETIOLOGY.....	5R01 AM24021-02	302,732
MICHAELS, RICHARD H.....	VIRAL POTENTIATION OF BACTERIAL INFECTION.....	1R01 AI15988-01	59,120
OLIVER, THOMAS K, JR.....	GENERAL CLINICAL RESEARCH CENTER (CHILDREN).....	5M01 RR00084-17	440,856
OLIVER, THOMAS K, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05507-17	55,634
PARADISE, JACK L.....	INDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY.....	5R01 HD07403-06	258,302
ORGANIZATION TOTAL	7	1,285,389	
DUQUESNE UNIVERSITY ZIP CODE 15219			
CASTRIC, PETER A.....	PURIFICATION AND CHARACTERIZATION OF UREA AMIDOYLASE.....	2R01 GM20419-03A1	40,161
PISKIEWICZ, DENNIS.....	STRUCTURE OF ACONITASE, A HIGH POTENTIAL FE-S PROTEIN.....	1R01 GM26893-01	77,411
ORGANIZATION TOTAL	2	117,572	
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
BLACK, F OWEN.....	CONTROL OF HUMAN POSTURAL SWAY TRAJECTORIES.....	5R01 NS13286-03	61,331
BROWN, STUART I.....	PRECORNEAL TEAR FILM.....	5R01 EY01489-05	60,565
BROWN, STUART I.....	COLLAGENOLYTIC SYSTEMS IN NORMAL AND DISEASED CORNEAS.....	2R01 EY01490-05	72,873
BROWN, STUART I.....	STRUCTURAL MACROMOLECULES: NORMAL AND DISEASED CORNEA.....	5R01 EY01817-03	100,646
BROWN, STUART I.....	STUDY AND TREATMENT OF IMMUNE OCULAR DISEASES.....	3P50 EY01991-02S1	19,100
BROWN, STUART I.....	STUDY AND TREATMENT OF IMMUNE OCULAR DISEASES.....	5P50 EY01991-03	122,934
BROWN, STUART I.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05779-04	44,067
CHURCH, ROBERT L.....	GENETICS AND BIOCHEMISTRY OF THE LENS IN CELL CULTURE.....	1R01 EY02896-01	61,614
CHURCH, ROBERT L.....	SOMATIC CELL GENETICS OF CONNECTIVE TISSUE PROTEINS.....	5R01 HD09727-05	118,524
KAO, WINSTON W.....	BIOSYNTHESIS OF COLLAGEN IN EMBRYONIC CHICK CORNEA.....	1R01 EY02869-01	81,258
MONDINO, BARTLY J.....	THE ROLE OF COMPLEMENT IN EXTERNAL DISEASES OF THE EYE.....	5R01 EY02304-02	41,569
MONDINO, BARTLY J.....	LYMPHOCYTES IN IMMUNOLOGIC DISEASES OF THE EYE.....	1R01 EY02894-01	94,053
O'LEARY, DENNIS P.....	STUDY OF VESTIBULAR RECEPTOR AFFERENT RESPONSES.....	5R01 NS12494-04	73,378
SANDO, ISAMU.....	HISTOPATHOLOGY OF TEMPORAL BONES.....	2R01 NS13787-03	67,579
ORGANIZATION TOTAL	14	1,019,491	
MAGEE-WOMEN'S HOSPITAL ZIP CODE 15213			
ZELEZNIK, ANTHONY J.....	CONTROL OF FOLLICULOGENESIS IN THE RHESUS MONKEY.....	5R01 HD12014-02	29,492
ZELEZNIK, ANTHONY J.....	CELLULAR ASPECTS OF GRANULOSA CELL DIFFERENTIATION.....	1R01 HD13235-01	54,059
ORGANIZATION TOTAL	2	83,551	
MONTEFIORE HOSPITAL ZIP CODE 15213			
ADIBI, SIAMAK A.....	BRANCHED AMINO ACID METABOLISM IN ALTERED NUTRITION.....	3R01 AM15855-06S1	29,618
ADIBI, SIAMAK A.....	INTESTINAL TRANSPORT AND METABOLISM OF PEPTIDES.....	5R01 AM15861-08	90,669
FROMM, HANS.....	BILE ACID METABOLISM IN GALLSTONE DISEASE.....	5R01 AM19689-03	54,049
KLAIN, MIROSLAV.....	HIGH FREQUENCY JET VENTILATION.....	1R01 HL23366-01	38,784
MENDELOW, HARVEY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05592-09	36,694
NORDEN, CARL W.....	HEMOPHILUS INFLUENZAE TYPE B INFECTIONS.....	5R01 AI11932-05	43,193
SHADDOCK, RICHARD K.....	REGULATION OF GRANULOPOIESIS.....	5R01 CA15237-05	74,584
TROEN, PHILIP.....	STUDIES OF HUMAN MALE INFERTILITY.....	5R01 HD11468-02	99,110
WINKELSTEIN, ALAN.....	IMMUNOSUPPRESSANTS AND LYMPHOCYTE FUNCTION.....	5R01 CA24429-05	84,366
WOLFSON, SIDNEY K, JR.....	BIOAUTOFUEL CELL: IMPLANTABLE DIRECT ENERGY CONVERTER.....	2R01 GM19419-07A1	83,950
ORGANIZATION TOTAL	10	635,017	
MPC CORPORATION ZIP CODE 15213			
BOTHNER-BY, AKSEL A.....	NMR FACILITY FOR BIOMEDICAL STUDIES.....	5P41 RR00292-14	147,847
ORGANIZATION TOTAL	1	147,847	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 15240			
DE RUBERTIS, FREDERICK R.....	CONTROL AND ACTIONS OF RENAL CYCLIC GMP.....	5R01 AM20187-02	24,071

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
DE RUBERTIS, FREDERICK R.....	CYCLIC NUCLEOTIDES IN COLONIC CARCINOGENESIS.....	5R26 CA16908-05	44,142
ORGANIZATION TOTAL	2 68,213		
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
ABOLA, JAIME E.....	X-RAY STRUCTURAL ANALYSIS OF TRANSFERRIN.....	2R01 GM23195-04	95,744
ALVIN, JOHN D.....	DISPOSITION OF PRIMIDONE DURING CHRONIC THERAPY.....	5R01 NS13437-02	34,957
ANDERSON, GARTH R.....	SPECIFIC CELLULAR SEQUENCES IN SARCOMA VIRUS GENOMES.....	3R01 CA19488-03S1	14,460
ARMSTRONG, JOHN A.....	HERPES REACTIVATIONS AFTER CRANIAL NERVE SURGERY.....	5R01 AI15299-02	55,800
BASFORD, ROBERT E.....	REGULATION OF GLYCOLYSIS IN BRAIN.....	2R01 NS11773-04A1	46,090
BATES, MARGARET W.....	CONTROL OF FATTY ACID METABOLISM IN THE INTACT ANIMAL.....	5R01 AM13988-09	39,815
BENTLEY, RONALD.....	BIOSYNTHESIS OF VITAMIN K.....	5R01 GM20053-15	90,017
BOGGS, DANE R.....	KINETICS AND CONTROL OF NEUTROPHILIC GRANULOCYTES.....	5R01 AM14352-11	155,112
BOGGS, DANE R.....	HEMATOPOIETIC CHIMERISM.....	5R01 HL19333-04	87,896
BORLE, ANDRE B.....	REGULATION OF CELLULAR CALCIUM PHOSPHATE METABOLISM.....	2R01 AM07867-15A1	72,242
BORLE, ANDRE B.....	CALCIUM AND THE ENDOCRINE CONTROL OF LIVER METABOLISM.....	1R01 AM26089-01	85,376
BROWN, THOMAS D.....	CONTACT STRESS DISTRIBUTIONS IN THE HIP AND KNEE.....	1R01 AM26010-01	56,298
BUCKINGHAM, ROBERT B.....	COLLAGEN SYNTHESIS BY THE DEREGULATED PSS FIBROBLAST.....	5R01 AM19662-02	78,477
BYRNE, JOHN H.....	ANALYSIS OF THE NEURAL CONTROL OF BEHAVIOR.....	2R01 NS13511-04	63,756
CAMPBELL, IAIN M.....	RADIOGAS CHROMATOGRAPH/QUADRUPOLE MASS SPECTROMETRY.....	1R01 GM25592-01	151,956
CAUNA, NIKOLAJS.....	FINE STRUCTURE AND CHEMISTRY OF NERVE ENDINGS.....	5R01 NS04147-16	42,626
CHEVENEYCK, PAUL A.....	PROLIFERATION AND DIFFERENTIATION OF HEMATOPOIETIC CELLS.....	2R01 CA14278-06	83,527
CHIU, TEH-HSING.....	CELL ENVELOPE SYNTHESIS AND CONTROL OF ORAL MICROBES.....	5R01 DE05018-02	25,565
CHUNG, ALBERT E.....	MOUSE TERATOMA AND DERIVED CELLS STUDIES.....	5R01 CA21246-02	76,450
CHUNG, ALBERT E.....	STRUCTURE AND BIOSYNTHESIS OF AN EXTRACELLULAR MEMBRANE.....	1R01 GM25690-01	57,830
COFFEE, CAROLE J.....	STRUCTURE AND FUNCTION OF MUSCLE REGULATORY PROTEINS.....	2R01 AM16728-07	107,447
COHEN, THEODORE.....	NEW METHODS FOR SYNTHESIS AND MODIFICATION OF RINGS.....	2R01 GM22760-04	92,926
COOPER, TERRANCE G.....	SYNTHESIS AND ASSEMBLY OF ENZYMES IN EUKARYOTES.....	5R01 GM19386-08	35,920
COOPER, TERRANCE G.....	GENETICS AND ISOLATION OF A EUKARYOTIC CONTROL PROTEIN.....	5R01 GM20693-05	36,040
COOPER, TERRANCE G.....	SYNTHESIS AND ASSEMBLY OF EUKARYOTIC MEMBRANES.....	1R01 GM24383-01A1	68,348
CORDER, CLINTON N.....	KIDNEY ATPASE: ACTIVITY CONVERSION.....	2R01 AM18857-04	66,978
COREY, SHARON E.....	CENTRAL & PERIPHERAL EFFECT OF VINBLASTINE & VINCRISTINE.....	1R01 NS15421-01	31,722
CRAMER, DONALD V.....	MAJOR HISTOCOMPATIBILITY COMPLEX IN THE WILD RAT.....	3R01 CA25038-01S1	51,283
CRAVEN, BRYAN M.....	CHARGE DENSITY IN BARBITURATE CRYSTAL STRUCTURES.....	2R01 GM22548-18	47,253
CRAVEN, BRYAN M.....	CRYSTAL STRUCTURES OF LIPIDS: CHOLESTEROL.....	5R01 HL20350-03	34,011
CURTHOYS, NORMAN P.....	CHARACTERIZATION OF RAT KIDNEY GLUTAMINASE ISOENZYMES.....	5R01 AM16651-07	60,676
DANISHEFSKY, SAMUEL J.....	THE SYNTHESIS OF POTENTIAL ANTIBIOTICS.....	5R01 AI13939-03	58,175
DANISHEFSKY, SAMUEL J.....	THE SYNTHESIS OF ANTITUMOR NATURAL PRODUCTS.....	3R01 CA12107-15S1	81,022
DAYTON, PETER G.....	CARDIOVASCULAR DYNAMICS AND ANESTHETIC DISPOSITION.....	1R01 GM27340-01	98,131
DIXIT, BALWANT N.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05455-16	17,751
DOWD, PAUL.....	SYNTHESIS OF VITAMIN B12 MODELS.....	2R01 GM19906-03A1	60,956
EDMONDS, MARY P.....	BIOGENESIS OF MESSENGER RNA IN ANIMAL CELLS.....	5R01 CA18065-04	115,407
ENTERLINE, PHILIP E.....	CANCER IN ARSENIC EXPOSED POPULATIONS.....	5R01 CA20540-03	76,277
EPSTEIN, LEONARD H.....	HOME-BASED BEHAVIORAL PROGRAM FOR OBESE CHILDREN.....	1R01 HD12520-01	90,298
ERTEL, ROBERT J.....	MYOCARDIAL CELLS: AUTONOMIC AND RHYTHMIC MECHANISMS.....	3R01 HL14832-06S1	7,871
FEINGOLD, DAVID S.....	STUDIES OF UDP GLUCOSE DEHYDROGENASE.....	5R01 AM15332-07	62,170
FISHER, BERNARD.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA12027-08	316,280
FISHER, BERNARD.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA12028-08	104,210
FISHER, BERNARD.....	SURGICAL MANAGEMENT OF THE REGIONAL LYMPH NODE.....	5R01 CA12102-09	65,477
FISHER, BERNARD.....	EFFECT OF REMOVAL OF PRIMARY TUMOR.....	2R01 CA14972-06	89,588
FISHER, BERNARD.....	THERAPY EFFECTS ON TUMOR KINETICS & IMMUNE PARAMETERS.....	1R01 CA26004-01	85,270
FORREST, EDWARD J.....	INTERDISCIPLINARY STUDIES: CLEFTS AND OTHER ANOMALIES.....	5P01 DE01697-17	212,432
FORREST, EDWARD J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05338-18	35,130
FRIZZELL, RAYMOND A.....	ACTIVE CHLORIDE SECRETION BY MAMMALIAN COLON.....	5R01 AM18199-05	7,957
FUCHS, FRANKLIN.....	ANALYSIS OF CELLULAR CALCIUM COMPARTMENTS IN MUSCLE.....	5R01 AM10551-14	42,566
GAY, VERNON L.....	NEGATIVE FEEDBACK OF STEROIDS ON LH AND FSH IN RATS.....	5R01 HD11102-02	47,693
GAY, VERNON L.....	NEUROENDOCRINE REGULATION OF LH SECRETION.....	5R01 HD12240-02	37,242
GILL, THOMAS J, III.....	CHEMICAL GENETIC AND CELLULAR ASPECTS OF IMMUNOGENICITY.....	3R01 CA18659-08S1	48,233
GLEW, ROBERT H.....	GAUCHER'S DISEASE—ENZYMOLGY AND APPROACH TO THERAPY.....	5R01 AM17465-06	53,249
GLEW, ROBERT H.....	GLYCOPROTEINS IN PULMONARY ALVEOLAR PROTEINOSIS.....	5R01 HL20547-03	41,396
GODFREY, SUSAN.....	ONTOGENY AND FUNCTION OF D. DISCOIDEUM ORGANELLES.....	5R01 GM23285-03	64,636

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
GRIECO, PAUL A.....	TUMOR INHIBITORS: VERNOLEPIN, ERIOLANGIN, CORIOLIN.....	3R01 CA13689-07S1	50,428
GRIECO, PAUL A.....	FLUOROPROSTAGLANDINS.....	5R01 HD10725-03	46,045
GRIFFIN, HERSCHEL E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05451-18	52,298
GRINDLEY, NIGEL D.....	MECHANISM OF INSERTION SEQUENCE TRANSLOCATION.....	5R01 GM25227-02	48,435
GRUNDY, BETTY L.....	EFFECTS OF ANESTHETICS ON CORTICAL EVOKED POTENTIALS.....	7R23 GM27942-01	30,982
HALL, RICHARD W, JR.....	IMPLEMENTATIONS OF VISUAL INFORMATION PROCESSING.....	5R23 EY02457-02	14,800
HENDRIX, ROGER W.....	ASSEMBLY AND STRUCTURE OF BACTERIOPHAGE LAMBDA HEADS.....	5R01 AI12227-05	63,007
HO, CHIEN.....	PHYSICAL-CHEMICAL STUDY OF HEMOGLOBIN AND ERYTHROCYTE.....	3R01 HL10383-12S1	4,380
HO, MONTO.....	LATENCY AND REACTIVATION OF CYTOMEGALOVIRUS INFECTION.....	5R01 AI11798-07	94,650
HOFFEE, PATRICIA A.....	DR-5-P ALDOLASE: REGULATION AND MECHANISM OF ACTION.....	5R01 AM12152-12	62,805
HOFFEE, PATRICIA A.....	REGULATION OF PENTOSE METABOLISM IN LIVER CELLS.....	5R01 AM21758-02	79,835
HOFFMANN, RICHARD J.....	FUNCTION OF GENETICALLY DETERMINED ENZYME VARIATION.....	1R01 GM25809-01	68,312
HOFFMANN, KLAUS H.....	HORMONAL CONTROL OF THE ADRENOCORTICAL CELL.....	5R01 AM01128-24	216,430
HOFFMANN, KLAUS H.....	A NOVEL APPROACH TO INSULIN-RECEPTOR AFFINITY COLUMNS.....	5R01 AM21292-02	33,701
HUNG, TIN-KAN.....	BIOMECHANICS OF EXPERIMENTAL SPINAL CORD INJURY.....	5R01 NS13238-03	79,364
JACOBSON, LEWIS A.....	REGULATION OF PROTEIN SYNTHESIS IN GROWTH TRANSITIONS.....	5R01 GM20114-06	70,026
JANNETTA, PETER J.....	EXPERIMENTAL MODEL OF NEUROGENIC HYPERTENSION.....	1R01 HL24097-01	98,225
JEFFREY, GEORGE A.....	STRUCTURAL STUDIES OF CARBOHYDRATES.....	5R01 GM24526-02	89,102
KAPLAN, SANDRA S.....	PLATELET LEUKOCYTE INTERACTIONS IN HOST DEFENSE.....	5R01 AI14218-02	64,993
KAROL, MERYL H.....	RESPIRATORY ANAPHYLAXIS TO INDUSTRIAL CHEMICALS.....	5R01 ES01532-03	43,914
KATYAL, SIKANDAR L.....	RESPIRATORY DISTRESS SYNDROME. AN EXPERIMENTAL MODEL.....	2R01 HL17199-02A1	78,679
KNOBIL, ERNST.....	REPRODUCTIVE PHYSIOLOGY IN THE MACAQUE.....	2R01 HD03968-19	125,336
KNOBIL, ERNST.....	CENTER FOR RESEARCH IN PRIMATE REPRODUCTION.....	5P30 HD08610-05	390,299
KNOBIL, ERNST.....	CENTER FOR RESEARCH IN PRIMATE REPRODUCTION.....	2P50 HD08610-06	730,386
KOVACS, MARIA.....	DEPRESSION IN NEWLY DIAGNOSED JUVENILE DIABETICS.....	1R01 AM25568-01	111,141
KOZAK, MARILYN S.....	ANALYSIS OF REOVIRUS MRNA RIBOSOME BINDING SITES.....	7R01 AI16634-01	60,654
KOZIKOWSKI, ALAN P.....	SYNTHESIS OF THE ANTIBIOTIC PSEUDOMONIC ACID A.....	1R01 AI16138-01	34,388
KOZIKOWSKI, ALAN P.....	SYNTHESIS OF MODIFIED C-NUCLEOSIDES.....	5R01 CA22612-02	49,434
KOZIKOWSKI, ALAN P.....	SYNTHESIS OF THERAPEUTICALLY IMPORTANT ALKALOIDS.....	5R01 HL20579-03	33,923
KULLER, LEWIS H.....	RELATIONSHIP BETWEEN CHOLECYSTECTOMY AND ASCENDING COLON.....	5R01 CA24739-02	47,723
KULLER, LEWIS H.....	BLOOD PRESSURE OF CHILDREN AND YOUNG ADULTS.....	3R01 HL19864-03S1	48,597
KULLER, LEWIS H.....	EPIDEMIOLOGY OF SUDDEN CARDIAC DEATH AMONG WOMEN.....	5R01 HL20179-03	20,293
LAUFFER, MAX A.....	INTERACTIONS OF TOBACCO MOSAIC VIRUS AND ITS COMPONENTS.....	5R01 GM21619-05	82,171
LEON, DONALD F.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00056-18	699,186
LEON, DONALD F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05416-18	201,413
LESTER, ROGER.....	NEONATAL NUTRITION: DEVELOPMENT OF FAT ABSORPTION.....	5R01 HD08954-05	104,329
LEVY, GERALD S.....	STUDIES OF MYOCARDIAL ADENYL CYCLASE.....	7R01 HL25405-01	145,610
LEWIS, JESSICA H.....	BLOOD COAGULATION AND HEMORRHAGIC DISEASE.....	5R01 HL02254-24	88,123
LIEBERMAN, IRVING.....	MECHANISMS OF CONTROL OF MAMMALIAN CELL MULTIPLICATION.....	5R01 CA06663-18	102,147
LOMBARDI, BENITO.....	ACUTE HEMORRHAGIC PANCREATITIS WITH FAT NECROSIS.....	3R01 AM18664-03S1	15,069
LOMBARDI, BENITO.....	ACUTE HEMORRHAGIC PANCREATITIS WITH FAT NECROSIS.....	2R01 AM18664-04	70,025
LOMBARDI, BENITO.....	PROTEINASE INHIBITORS AND PATHOGENESIS OF PANCREATITIS.....	5R01 AM20706-02	46,428
LOMBARDI, BENITO.....	CHOLINE DEFICIENCY, OVAL CELLS AND HEPATOCARCINOGENESIS.....	5R01 CA23449-02	80,141
MC CLURE, RICHARD J.....	CRYSTAL STRUCTURAL STUDIES OF SERUM ALBUMIN.....	2R01 GM22164-06	56,289
MC MANUS, IVY R.....	PROTEIN METHYLATION REACTIONS IN SKELETAL MUSCLE.....	1R01 AM21599-01A1	61,920
MEARS, DANA C.....	WEAR PARTICLE ANALYSIS IN HUMAN ARTIFICIAL JOINTS.....	5R01 AM20697-02	45,818
MERLIE, JOHN P.....	THE MOLECULAR AND CELL BIOLOGY OF THE ACH-RECEPTOR.....	5R01 NS14640-02	40,019
MOOSSY, JOHN.....	TWELFTH PRINCETON CONFERENCE ON CEREBROVASCULAR DISEASE.....	1R13 NS15406-01	8,810
MOTOYAMA, ETSURO K.....	PULMONARY MECHANICS DURING POSTNATAL DEVELOPMENT.....	7R01 HL25810-01	61,102
NAKADA, DAISUKE.....	CONTROL OF VIRUS GENE EXPRESSION.....	5R01 GM21504-05	61,295
ONTELL, MARCIA B.....	MUSCLE SATELLITE CELL REACTION TO DISEASE AND TRAUMA.....	5R01 NS13688-04	62,616
OVE, PETER.....	CONTROL OF DNA REPLICATION IN NORMAL AND TUMOR CELLS.....	5R01 CA11637-09	66,510
PECKHAM, WILLIAM D.....	LH-LIKE MATERIAL IN THE RHESUS MONKEY.....	5R01 HD09985-02	67,982
PHILLIPS, BRUCE A.....	ROLE OF VIRAL AND CELL FUNCTIONS IN VIRUS REPLICATION.....	2R01 AI08368-12	74,556
POLVERINI, PETER J.....	MECHANISMS INVOLVED IN TUMOR NEOVASCULARIZATION.....	5R23 CA24104-02	15,688
POPLE, HARRY E.....	CLINICAL DECISION SYSTEMS RESEARCH RESOURCE.....	5R24 RR01101-03	161,827
PULSINELLI, PHILIP D.....	STRUCTURAL BASIS OF REGULATORY FUNCTION IN HEMOGLOBIN.....	2R01 AM18065-04	52,184
RABIN, BRUCE S.....	IMMUNOLOGIC STUDY OF EXPERIMENTAL ULCERATIVE COLITIS.....	5R01 AM18321-05	53,681
REBEK, JULIUS.....	A NEW TEST FOR REACTIVE INTERMEDIATES.....	2R01 GM23709-03	61,511
REBEK, JULIUS, JR.....	ENZYME CATALYSIS & REACTION MECHANISMS.....	1R01 GM25912-01	70,271

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
RINALDO, CHARLES R. JR.	CELL MEDIATED IMMUNITY DURING CYTOMEGALOVIRUS INFECTION.....	1R01 AI16212-01	60,802
ROBINSON, ALAN G.	THE PHYSIOLOGY OF NEUROPHYSIN SECRETION.....	5R01 AM16166-06	71,366
ROSENBERG, JEROME L.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07084-14	137,934
ROSENBERG, JOHN M.	STRUCTURE AND FUNCTION OF ECORI ENDONUCLEASE.....	5R01 GM25671-02	59,783
RUSSELL, RICHARD L.	GENETIC, BIOCHEMICAL AND DIETARY PROBES OF AGING.....	5R01 AG01154-02	52,972
RUSSELL, RICHARD L.	GENETIC VARIANTS OF SYNAPTIC PROTEINS.....	5R01 NS13749-03	61,667
SAFAR, PETER	CLINICAL STUDY OF BRAIN RESUSCITATION.....	1R10 NS15295-01	192,713
SALVIN, SAMUEL B.	IMMUNITY TO OPPORTUNISTIC FUNGUS INFECTIONS.....	1R01 AI16046-01	87,678
SANDLER, RIVKA B.	LIFE STYLES AND BONE DENSITIES OF THE AGED.....	1R01 AM21190-01A1	109,902
SASSOUNI, VIKEN	INFLUENCE OF ALLERGIC RHINITIS ON FACIAL TYPE.....	5R01 DE04948-02	37,135
SAX, MARTIN	CRYSTAL STRUCTURE OF M-COMPONENTS.....	2R01 AM18827-04	115,234
SAX, MARTIN	THE STEREOCHEMICAL AND VALENCE STRUCTURE OF THIAMINE.....	5R01 GM23609-03	40,914
SHAPIRO, ALVIN P.	BEHAVIORAL CONSEQUENCES OF HYPERTENSION.....	5R01 HL20724-02	91,601
SHINOZUKA, HISASHI	CELLULAR FUNCTION ANALYSIS OF PANCREATIC CARCINOGENESIS.....	2R26 CA20116-04	59,643
SHINOZUKA, HISASHI	DIET MODIFICATION & PROMOTION OF LIVER CARCINOGENESIS.....	1R01 CA26556-01	57,998
SIEGEL, ALEXANDER W.	THE DEVELOPMENT OF SPATIAL REPRESENTATIONS.....	3R01 HD09694-03S1	16,695
SINGH, GURMUKH	IMMUNODIAGNOSIS OF MESOTHELIOMA.....	1R01 CA27081-01	31,090
SIUDA, JEROME F.	ENZYME MEDIATED GENERATION OF HALOGENATED POLLUTANTS.....	5R01 ES01644-02	41,087
STEVENS, CHARLES L.	THE INITIAL STAGES OF PROTEIN SELF-ASSOCIATION.....	2R01 GM22558-04	87,782
STOUT, CHARLES D.	CRYSTAL STRUCTURES OF AZOTOBACTER PROTEINS.....	5R01 GM25672-02	67,114
SUSSMAN, RAQUEL	REPRESSORS CONTROLLING RADIATION-INDUCIBLE SYSTEMS.....	5R01 AI13415-02	62,984
VERBIN, ROBERT S.	CLINICAL CANCER EDUCATION GRANT.....	5R25 CA22547-02	29,599
WALSH, CHARLES J.	GENE REGULATION DURING DIFFERENTIATION OF NAEGLERIA.....	5R01 GM23516-03	53,606
WANG, BI-CHENG	STUDY OF NEUROPHYSIN-HORMONE SYSTEMS: X-RAY DIFFRACTION.....	1R01 AM25447-01	47,326
WIDNELL, CHRISTOPHER C.	MEMBRANE FUNCTION IN AGING AND DEVELOPMENT.....	2R01 AG00439-08	100,124
WIDNELL, CHRISTOPHER C.	NEW INITIATIVE IN THE BIOLOGY OF AGING.....	1R21 AG01453-01	82,626
WIDNELL, CHRISTOPHER C.	PLASMA MEMBRANE STRUCTURE, FUNCTION AND BIOGENESIS.....	5R01 GM17724-09	98,451
WONG, IAN K.	A COMPARATIVE METABOLISM STUDY OF PAH ANALOGUES.....	7R23 CA27928-01	37,000
YOUNGNER, JULIUS S.	STUDIES OF CELLULAR RESISTANCE TO VIRUS INFECTIONS.....	2R01 AI06264-16	172,777
ORGANIZATION TOTAL	145	11,840,924	
UNIVERSITY PARK			
PENNSYLVANIA STATE UNIVERSITY ZIP CODE 16802			
ALLCOCK, HARRY R.	POLY (ORGANOPHOSPHAZENES) FOR BIOMEDICAL USES.....	2R01 HL11418-10	56,591
ARONSON, NATHAN N. JR.	NORMAL AND PATHOLOGICAL LYSSOMAL METABOLISM.....	2R01 AM15465-08A1	87,493
BALTES, PAUL B.	COGNITIVE DEVELOPMENT AND MODIFIABILITY IN ADULTHOOD.....	5R01 AG00403-04	121,052
BENKOVIC, STEPHEN J.	PHOSPHATE ACTIVATION MECHANISMS.....	5R01 GM13306-14	104,165
BENKOVIC, STEPHEN J.	THE TRANSFORMYLASE ENZYMES.....	5R01 GM24129-03	85,249
BUSKIRK, ELSWORTH R.	OBESITY AND PHYSIOLOGICAL RESPONSE TO ENVIRONMENT.....	5R01 AM08311-15	144,698
BUSS, EDWARD G.	INFLUENCE OF A MUTANT GENE ON RIBOFLAVIN METABOLISM.....	2R01 GM07830-19	42,792
DEERING, REGINALD A.	DNA REPAIR IN SLIME MOLD.....	5R01 GM16620-10	96,802
DENO, NORMAN C.	25-HYDROXYCHOLESTEROL FROM CHOLESTEROL AND SITOSTEROL.....	1R01 GM25801-01	26,765
FAHNESTOCK, STEPHEN R.	RIBOSOME STRUCTURE AND FUNCTION.....	5R01 GM21080-06	77,912
GAY, CAROL V.	ULTRASTRUCTURAL STUDIES OF BIOLOGICAL MINERALIZATION.....	5R01 AM20374-03	22,808
GESELOWITZ, DAVID B.	SIMULATION STUDIES OF THE ECG IN ACUTE ISCHEMIA.....	5R01 HL21283-03	43,936
HAMILTON, GORDON A.	A MECHANISTIC STUDY OF SOME O2 OXIDOREDUCTASES.....	5R01 AM13448-11	99,049
HAMMERSTEDT, ROY H.	THE ROLE OF THE EPIDIDYMIS IN SPERMATOZOA MATURATION.....	2R01 HD05859-08A1	73,924
HAMMERSTEDT, ROY H.	CHARACTERIZATION OF SPERM MEMBRANES.....	1R01 HD13099-01	88,461
HIBBARD, EMERSON	VISUAL RESTORATION.....	2R01 EY01071-07	60,360
HOLLIS, THEODORE M.	SHEAR TO AORTIC HISTAMINE SYNTHESIS AND PERMEABILITY.....	5R01 HL19830-03	47,022
HOLLIS, THEODORE M.	AORTIC HISTAMINE SYNTHESIS IN DIABETES.....	3R01 HL20460-03S1	2,399
HORROCKS, WILLIAM D. JR.	NEW LANTHANIDE PROBES OF PROTEIN STRUCTURE.....	5R01 GM23599-03	63,592
HULTSCH, DAVID F.	COMPREHENSION AND MEMORY FOR TEXT IN ADULTHOOD AND AGING.....	1R01 AG00910-01A1	80,399
HYMER, WESLEY C.	PROLACTIN CELL FUNCTION IN BREAST CANCER.....	5R01 CA23248-02	94,985
JOHNSON, KENNETH A.	KINETIC ANALYSIS OF THE DYNEIN ATPASE MECHANISM.....	1R01 GM26726-01	57,754
LANG, L. GEORGE	MOSSBAUER STUDIES OF RESPIRATORY HEMOPROTEINS.....	5R01 HL16860-06	105,169
LEIBOWITZ, HERSCHEL W.	ANALYTIC STUDIES OF VISUAL PERCEPTION.....	9R01 EY03276-16	54,211
LUDWIG, ERNEST H.	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07082-14	138,123

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
MACKEN, PATRICIA C.....	EXERCISE INTERVENTION IN OLDER MEN: 10-YEAR FOLLOW-UP.....	1R01 HL23385-01	49,297
MASTRO, ANDREA M.....	EFFECTS OF PHORBOL ESTERS ON LYMPHOCYTE STIMULATION.....	5R01 CA24385-02	55,119
MASTRO, ANDREA M.....	PHOSPHORYLATION OF CELL SURFACES.....	5R01 GM22953-04	69,541
MATTHEWS, CHARLES R.....	REVERSIBLE UNFOLDING OF NATIVE AND MUTANT PROTEINS.....	2R01 GM23303-04	65,704
MATTHEWS, CHARLES R.....	CHEMICAL TRAPPING OF INTERMEDIATES IN PROTEIN FOLDING.....	5R01 GM24570-02	39,749
MC CARL, RICHARD L.....	EFFECT OF AGING ON BEATING HEART CELLS IN CULTURE.....	5R01 HL10018-12	66,927
MC DONEL, JAMES L.....	MECHANISM OF ACTION OF C. PERFRINGENS ENTEROTOXIN.....	5R01 AI14161-03	39,001
MILLER, NORMAN B.....	MULTIDIMENSIONAL ECHO IMAGING OF THE ISCHEMIC HEART.....	5R01 HL20872-03	120,138
OLOFSON, ROY A.....	NEW, PHARMACEUTICALLY USEFUL SYNTHETIC METHODS.....	2R01 GM13980-13	46,956
PERSON, STANLEY.....	THE MECHANISM OF VIRUS INDUCED CELL FUSION.....	5R01 AI11513-06	76,719
PHILLIPS, ALLEN T.....	COVALENT MODIFICATIONS REGULATING ENZYME FUNCTION.....	5R01 AM13198-11	86,727
PORTER, RONALD D.....	EFFECTS OF DNA SUBSTRATES ON RECOMBINATION IN E. COLI.....	1R01 GM26422-01	61,963
RHEUBEN, MARY B.....	SYNAPSE FUNCTION DURING GROWTH AND DEGENERATION.....	5R01 NS13700-03	30,281
SCHLEGEL, ROBERT A.....	CONTROL OF PROLIFERATION IN HUMAN DIPLOID FIBROBLASTS.....	5R01 GM25650-02	43,405
SCHRAER, HARALD.....	CONFERENCE—BONE/TEETH CHEMISTRY, PHYSIOLOGY, STRUCTURE.....	1R13 AM26538-01	3,500
SCHRAER, HARALD.....	HORMONES, BONE CELL INTERACTIONS AND BONE MINERALIZATION.....	5R01 DE01764-17	86,357
SCHRAER, HARALD.....	CELLULAR AND MOLECULAR ASPECTS OF MINERALIZATION.....	2R01 DE04345-04	83,096
SHAMMA, MAURICE.....	ISOLATION AND SYNTHESIS OF ANTICANCER DRUGS.....	2R01 CA11450-09	67,904
SHAMMA, MAURICE.....	REACTIONS OF ALKALOIDS AND THEIR ANALOGS.....	5R01 HL12971-16	78,670
SHAMMA, MAURICE.....	THE DEVELOPMENT OF ANTICONSULSANT COMPOUNDS.....	1R01 NS15437-01	31,001
STEVENS, STANLEY E. JR.....	CONTROL OF NITROGEN ASSIMILATION IN BLUE-GREEN ALGAE.....	5R01 GM23524-03	49,371
TAYLOR, WILLIAM D.....	REACTION OF CARCINOGENS AND CELL EXTRACTS WITH RF-DNA.....	5R01 CA18970-04	73,778
TURPEN, JAMES B.....	DEVELOPMENTAL ANALYSIS OF LYMPHOPOIESIS.....	5R01 HD11179-03	40,736
ULTMAN, JAMES S.....	BOLUS-RESPONSE MEASUREMENT OF LUNG FUNCTION.....	2R01 HL20347-03	61,206
VILLAFRANCA, JOSEPH J.....	REGULATION OF CARBAMYL PHOSPHATE BIOSYNTHESIS.....	5R01 AM21785-02	39,158
VILLAFRANCA, JOSEPH J.....	STRUCTURE AND CONTROL OF GLUTAMINE SYNTHETASES.....	5R01 GM23529-03	46,916
VILLAFRANCA, JOSEPH J.....	STRUCTURE-FUNCTION RELATIONSHIP IN ALLOSTERIC ENZYMES.....	1P41 GM27525-01	157,604
WANGSNES, P. J.....	IMPORTANCE OF SERUM ANABOLIC FACTORS IN GROWTH.....	5R01 HD11121-02	56,646
WEDLER, FREDERICK C.....	CATALYTIC AND REGULATORY MECHANISMS OF KEY ENZYMES.....	5R01 GM25682-02	56,301
WEINREB, STEVEN M.....	CHEMICAL STUDIES OF POTENTIAL ANTITUMOR AGENTS.....	5R01 CA25145-02	50,454
WEINREB, STEVEN M.....	SYNTHESIS OF THE CYTOCHALASINS.....	5R01 GM26138-02	54,125
WOLINSKY, IRA.....	HIGH DIETARY PROTEIN AND CALCIUM METABOLISM IN AGING.....	1R01 AG01702-01	72,595
ORGANIZATION TOTAL	57	3,836,656	
VILLANOVA			
VILLANOVA UNIVERSITY ZIP CODE 19085			
WARD, INGEBORG L.....	EFFECTS OF PREPUBERTAL STRESS ON ADULT SEXUAL BEHAVIOR.....	5R01 HD04688-09	60,157
ORGANIZATION TOTAL	1	60,157	
STATE TOTAL	1,052	122,476,526	
RHODE ISLAND			
KINGSTON			
GORDON RESEARCH CONFERENCES ZIP CODE 02881			
BENNETT, EDWARD L.....	MACROMOLECULES & BEHAVIOR.....	1R13 NS15596-01	5,500
BUNN, H. FRANKLIN.....	GORDON CONFERENCE ON THE RED CELL.....	1R13 AM25392-01	5,000
CRUICKSHANK, ALEXANDER M.....	GORDON CONFERENCE ON THE BIOLOGY OF AGING.....	1R13 AG01360-01	15,000
GOLDMAN, LAWRENCE.....	GORDON CONFERENCE: IONIC CHANNELS IN MEMBRANES.....	1R13 NS15096-01	6,420
GOLDSTEIN, JOSEPH L.....	GORDON RESEARCH CONFERENCE ON ATHEROSCLEROSIS.....	1R13 HL23957-01	6,000
NIKAIDO, HIROSHI.....	GORDON RESEARCH CONFERENCE ON BACTERIAL CELL SURFACES.....	1R13 AI15910-01	5,625
PARKS, ROBERT E. JR.....	CHEMOTHERAPY OF EXPERIMENTAL AND CLINICAL CANCER.....	1R13 CA26648-01	10,986
WEINSTEIN, I. BERNARD.....	GORDON RESEARCH CONFERENCE ON CANCER, 1979.....	1R13 CA27485-01	10,870
ORGANIZATION TOTAL	8	65,401	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
RHODE ISLAND—Continued			
UNIVERSITY OF RHODE ISLAND	ZIP CODE 02881		
ABUSHANAB, ELIE.....	CHIRAL SYNTHESIS OF ADENOSINE DEAMINASE INHIBITORS.....	1R01 CA24885-01	61,658
BELL, ROBERT G.....	MECHANISM OF ACTION OF VITAMIN K AND ANTICOAGULANTS.....	5R01 HL14847-08	42,967
BROWN, PHYLLIS R.....	HPLC STUDY OF SERUM NUCLEOSIDES AND BASES.....	5R01 CA17603-05	46,779
DAIN, JOEL A.....	THE ENZYMIC METABOLISM OF GANGLIOSIDE DURING DEVELOPMENT.....	5R01 NS05104-14	34,322
GREENE, DOUGLAS S.....	PHARMACOLOGY OF LEUCOVORIN IN CANCER CHEMOTHERAPY.....	1R01 CA25312-01	34,362
LAUX, DAVID C.....	LECTIN-DEPENDENT CELL-MEDIATED CYTOTOXICITY.....	1R01 CA24335-01A1	32,302
SHIMIZU, YUZURU.....	MARINE BIOPOLYMERS WITH CELL SPECIFICITY.....	5R01 CA22338-03	31,075
SHIMIZU, YUZURU.....	BIOSYNTHESIS OF MARINE NATURAL PRODUCTS.....	1R01 GM24425-01A1	62,384
STEPANISHEN, PETER R.....	WIDE BANDWIDTH DIAGNOSTIC ULTRASONIC SYSTEMS.....	2R01 GM23104-03	39,300
TREMBLAY, GEORGE C.....	AMMONIA DETOXIFICATION IN THE FATTY LIVER.....	1R01 AM26166-01	45,217
TURCOTTE, JOSEPH G.....	SYNTHESIS OF ANTITUMOR LIPONUCLEOTIDES.....	5R01 CA15898-05	54,695
WOOD, NORRIS P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07086-03	15,987
ORGANIZATION TOTAL	12	501,048	
PAWTUCKET			
MEMORIAL HOSPITAL	ZIP CODE 02860		
STEINER, MANFRED.....	STUDIES OF PLATELET MICROTUBULE PROTEIN.....	5R01 HL19323-04	37,215
STEINER, MANFRED.....	STUDIES OF THE EFFECT OF VITAMIN E ON PLATELETS.....	5R01 HL22951-02	48,073
ORGANIZATION TOTAL	2	85,288	
PROVIDENCE			
BROWN UNIVERSITY	ZIP CODE 02912		
BLUMSTEIN, SHEILA E.....	ACOUSTIC AND PERCEPTUAL INVARIANCE IN SPEECH.....	1R01 NS15123-01	78,335
CANE, DAVID E.....	BIOSYNTHESIS OF ISOPRENOID METABOLITES.....	5R01 GM22172-05	73,521
CHA, SUNGMAN.....	TIGHT-BINDING INHIBITORS OF ENZYMES.....	1R01 CA24982-01	45,570
CHAPMAN, KENT M.....	SENSORY TRANSDUCTION IN CARDIAC MECHANORECEPTORS.....	5R01 HL19995-03	43,783
CHU, SHIH-HSI.....	BIOLOGICAL EFFECTS OF CYCLIC NUCLEOTIDE ANALOGS.....	3R01 CA20460-02S1	1,450
COLEMAN, JOHN R.....	CONTROL OF PHENOTYPIC EXPRESSION IN SKELETAL MUSCLE.....	1R01 GM24499-01	38,973
CSERR, HELEN F.....	THE FUNCTIONAL SIGNIFICANCE OF CEREBROSPINAL FLUID.....	2R01 NS11050-07	80,616
CZECH, MICHAEL P.....	INSULIN ACTION ON THE FAT CELL SURFACE MEMBRANE.....	5R01 AM17893-06	119,976
DAHLBERG, ALBERT E.....	POLYSOMES & SUBUNITS: STRUCTURE-FUNCTION RELATIONSHIPS.....	5R01 GM19756-08	70,956
DANIELS, JERRY D.....	BINOCULAR VISION: INTERACTIONS ON AREA 18 NEURONS.....	5R01 EY02244-02	54,316
EBNER, FORD F.....	STRUCTURE AND FUNCTION OF SOMATIC SENSORY-MOTOR CORTEX.....	2R01 NS13031-04	74,270
EIMAS, PETER D.....	DEVELOPMENTAL STUDIES OF SPEECH PERCEPTION.....	2R01 HD05331-10	77,336
FAIN, JOHN N.....	HORMONAL CONTROL OF LIPID METABOLISM.....	2R01 AM10149-14	111,546
FAIN, JOHN N.....	INSULIN AND CATECHOLAMINE IN CARBOHYDRATE METABOLISM.....	5R01 AM21470-02	91,934
FAUSTO, NELSON.....	GENE EXPRESSION IN REGENERATING AND NEOPLASTIC LIVERS.....	5R01 CA23226-09	108,232
GALLETI, PIERRE M.....	DIABETES PREGNANCY: EFFECTS ON MOTHER & HER OFFSPRING.....	5P50 HD11343-02	678,894
GALLETI, PIERRE M.....	SYNTHESIS OF ARTIFICIAL LUNG AND KIDNEY SYSTEMS.....	5R01 HL11945-11	163,195
GALLETI, PIERRE M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05664-12	107,163
GERBI, SUSAN A.....	FINE STRUCTURE OF RIBOSOMAL RNA.....	5R01 GM20261-06	76,268
GERBI, SUSAN A.....	STRUCTURE OF POLYTENE CHROMOSOMES.....	1R01 GM26070-01	92,726
GLICKSTEIN, MITCHELL.....	VISUAL INPUT TO THE CEREBELLUM.....	1R01 EY03114-01	100,307
GOLDSTEIN, LEON.....	RENAL AMMONIA METABOLISM.....	5R01 AM12443-11	77,425
GOSS, RICHARD J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07085-14	67,466
JOHNSON, GARY L.....	REGULATORY PROTEINS OF ADENYLATE CYCLASE.....	1R01 GM26776-01	73,445
KIDWELL, MARGARET G.....	GENETIC ASPECTS OF HYBRID DYSGENESIS IN DROSOPHILA.....	1R01 GM25399-01	58,698
LANDY, ARTHUR.....	MECHANISMS OF SITE-SPECIFIC RECOMBINATION.....	5R01 AI13544-03	51,977
LANDY, ARTHUR.....	CONTROL OF SYNTHESIS AND FUNCTION OF NUCLEIC ACID.....	5R01 CA11208-11	79,652
LEITH, JOHN T.....	HEAT AND RADIATION EFFECTS ON NORMAL AND TUMOR CELLS.....	5R01 CA25687-02	73,514
LIEBERMAN, PHILIP.....	DEVELOPMENTAL STUDIES OF SPEECH PRODUCTION.....	5R01 HD09197-05	73,029
LUSK, JOAN E.....	MEMBRANE PERMEABILITY OF COLICIN-TREATED CELLS.....	2R01 GM20171-07	71,122
MARSHALL, JEAN M.....	PROPERTIES OF SMOOTH MUSCLE.....	5R01 HD06963-14	95,843
MASSOVER, WILLIAM H.....	FORM AND FUNCTION OF NORMAL AND NEOPLASTIC FERRITINS.....	3R01 CA18530-03S1	6,608
MC ILWAIN, JAMES T.....	CORTICAL CONTROL OF SUPERIOR COLLICULUS.....	5R01 EY02505-07	30,928
MORTON, THOMAS H.....	INACTIVATION OF SCHIFF BASE-FORMING PROTEINS.....	5R01 NS14773-02	49,885

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
RHODE ISLAND—Continued			
PARKER, KATHLYN A.....	SYNTHESIS OF HIGHLY OXYGENATED COMPOUNDS.....	5R01 CA16524-06	52,984
PARKS, ROBERT E, JR.....	COENZYMES CONTAINING PURINE AND PYRIMIDINE ANALOGS.....	5R01 CA07340-16	140,589
POTTER, ROBERT G.....	BIOMETRIC STUDIES OF HUMAN FERTILITY.....	2R01 HD12100-02	44,992
RICHARDSON, PETER D.....	PLATELET ADHESION AND AGGREGATION IN A FLOW CHAMBER.....	5R01 HL22338-02	66,772
RIEGER, PHILIP H.....	AQUEOUS SOLUTION STUDIES OF ARSENATES AND VANADATES.....	5R01 ES00894-06	33,201
RIGGS, LORRIN A.....	HUMAN VISUAL RESPONSES IN RETINA AND CORTEX.....	5R01 EY00744-08	38,055
RIGGS, LORRIN A.....	VISUAL SIGNIFICANCE OF EYE BLINKS.....	1R01 EY03169-01	58,444
ROTMAN, M BORIS.....	BIOCHEMICAL COMPONENTS OF A TRANSPORT SYSTEM.....	2R01 AM11194-12	71,336
ROTMAN, M BORIS.....	RECESSIVE GENES CONTROLLING IMMUNOCOMPETENCE.....	5R01 CA24440-05	86,501
SCHRIER, ALLAN M.....	SUPPORT FOR PRIMATE LABORATORY NEWSLETTER.....	5P40 RR00419-12	23,914
SHANK, PETER R.....	STRUCTURE AND INTEGRATION OF AVIAN SARCOMA VIRUS DNA.....	1R01 CA24829-01	82,308
SHEPP, BRYAN E.....	DEVELOPMENTAL STUDIES OF PERCEPTUAL ORGANIZATION.....	1R01 HD13406-01	69,864
SPEARE, ALDEN, JR.....	LONGITUDINAL STUDY OF MIGRATION AND HOUSEHOLD CHANGE.....	1R01 HD12329-01	146,820
STEIN, JOSEPH M.....	BIOPHYSICAL STUDIES OF MEMBRANES AND RELATED SYSTEMS.....	5R01 GM20545-07	71,265
STRAUSS, ELLIOTT W.....	LIPID-DROPLET FORMATION DURING FAT ABSORPTION BY GUT.....	5R01 AM20392-03	62,344
WOOTEN, BILLY R.....	RETINAL MOSAICISM IN FEMALES CARRYING COLOR BLINDNESS.....	5R01 EY01512-05	24,127
ORGANIZATION TOTAL	50	4,172,475	
MIRIAM HOSPITAL ZIP CODE 02906			
HOPKINS, ROBERT W.....	STUDIES OF CLINICAL AND EXPERIMENTAL SHOCK.....	5R01 GM19930-07	65,768
MORRIS, DAVID J.....	REGULATION OF METABOLISM AND ACTION OF ALDOSTERONE.....	1R01 AM21404-01A1	87,293
ZACKS, SUMNER I.....	EFFECT OF AGING ON REGENERATION OF SKELETAL MUSCLE.....	5R01 AG00961-02	49,480
ORGANIZATION TOTAL	3	202,541	
RHODE ISLAND COLLEGE ZIP CODE 02908			
GONSALVES, NEIL I.....	EYE AND LENS DEVELOPMENT IN THE ANOPHTHALMIC MOUSE.....	5R01 EY02336-02	41,264
ORGANIZATION TOTAL	1	41,264	
RHODE ISLAND HOSPITAL ZIP CODE 02902			
GANN, DONALD S.....	HEMODYNAMIC CONTROL OF PITUITARY ADRENAL FUNCTION.....	7R01 AM26831-01	168,724
GANN, DONALD S.....	HORMONAL AND CARDIOVASCULAR RESPONSE TO TRAUMA.....	7R01 GM27946-01	170,715
GLICKSMAN, ARVIN S.....	CANCER AND LEUKEMIA GROUP B RADIOTHERAPY COMMITTEE.....	3R10 CA21058-02S1	15,896
GLICKSMAN, ARVIN S.....	CANCER AND LEUKEMIA GROUP B RADIOTHERAPY COMMITTEE.....	2R10 CA21058-03	176,535
HAMOLSKY, MILTON W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05644-07	38,514
LEONE, LOUIS A.....	CANCER AND ACUTE LEUKEMIA GROUP B.....	2R10 CA08025-15	153,422
PUESCHEL, SIEGFRIED M.....	STUDY OF 'MATERNAL PHENYLKETONURIA'.....	5R01 HD10420-02	82,069
WILLIAMS, DAVID O.....	EFFECTS OF PROSTAGLANDINS ON MYOCARDIAL BLOOD FLOW.....	1R01 HL24388-01	70,452
ORGANIZATION TOTAL	8	876,327	
ROGER WILLIAMS GENERAL HOSPITAL ZIP CODE 02908			
CALABRESI, PAUL.....	SUPPORT FOR CLINICAL CANCER RESEARCH CENTER.....	3P30 CA13943-06S1	54,183
CALABRESI, PAUL.....	SUPPORT FOR CLINICAL CANCER RESEARCH CENTER (CCSG) CORE.....	2P30 CA13943-07	555,871
CALABRESI, PAUL.....	CLINICAL & PHARMACOLOGICAL ANTINEOPLASMS STUDY.....	3P01 CA20892-03S1	32,381
CALABRESI, PAUL.....	CLINICAL & PHARMACOLOGICAL ANTINEOPLASMS STUDY.....	2P01 CA20892-04	432,431
CALABRESI, PAUL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05765-05	42,674
CHU, MING Y.....	CHEMOTHERAPY RESPONSE OF HUMAN SOLID TUMOR XENOGRAPHS.....	1R01 CA25631-01A1	64,544
CUMMINGS, FRANCIS J.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA15947-05	18,631
DEXTER, DANIEL L.....	DIFFERENTIATION-INDUCTION IN HUMAN COLON CANCER CELLS.....	5R26 CA23225-02	65,308
HEPPNER, GLORIA H.....	IMMUNE REACTIVITY AND MAMMARY NEOPLASIA.....	2R01 CA17074-04	80,522
PASSERO, MICHAEL A.....	LUNG PROTEIN GLYCOSYLATION AND ALVEOLAR DISEASES.....	1R01 HL22752-01A1	33,111
SUSSET, JACQUES G.....	VISCO-ELASTIC PROPERTIES OF DETRUSOR AND VESICAL NECK.....	1R01 AM26893-01	53,853
ORGANIZATION TOTAL	11	1,433,509	
STATE TOTAL	95	7,377,853	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA			
CHARLESTON			
MEDICAL UNIVERSITY OF SOUTH CAROLINA	ZIP CODE 29401		
AINSWORTH, STERLING K.....	STRUCTURAL BASIS OF NEPHRON FILTRATION.....	5R01 HL16490-05	66,043
BAGGETT, BILLY.....	ANDROGEN ACTION IN CULTURED CHICK COMB FIBROBLASTS.....	5R01 HD12181-02	37,619
BANK, HARVEY L.....	CYTOBIOLOGY OF ISOLATED ISLETS OF LANGERHANS.....	5R01 AM18115-05	67,751
BROSTOFF, STEVEN W.....	THE ROLE OF MYELIN PROTEINS IN EXPERIMENTAL NEURITIS.....	5R01 NS11867-06	101,980
BUSE, MARIA G.....	FACTORS THAT MODIFY INSULIN ACTION.....	5R01 AM02001-22	95,107
CANTEY, JOSEPH R.....	STUDY OF A POSSIBLE NEW MECHANISM OF E. COLI DIARRHEA.....	5R22 AI13738-03	4,743
CHAO, LEE.....	RNA POLYMERASE MEDIATED MUTAGENESIS.....	1R01 GM26689-01	35,466
COLWELL, JOHN A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05420-18	143,207
FISH, WAYNE W.....	MECHANISM OF IRON STORAGE AND MOBILIZATION BY FERRITIN.....	5R01 HL19491-04	29,783
FUDENBERG, H HUGH.....	GENETIC MECHANISMS IN IMMUNOLOGIC DEFICIENCY STATES.....	9R01 CA25746-04	119,673
FUDENBERG, H HUGH.....	GENETIC CHILDHOOD DISEASES AND AGING.....	5P01 HD09938-05	351,900
GAFFNEY, THOMAS E.....	INTERDISCIPLINARY PROGRAM IN PHARMACOLOGY/TOXICOLOGY.....	5P50 GM20387-07	706,529
GAFFNEY, THOMAS E.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR01070-03	428,094
GALBRAITH, ROBERT M.....	IMMUNOCHEMICAL STUDIES OF H-Y ANTIGEN.....	1R01 AI15371-01	50,308
GRAVES, JAMES S.....	REGULATION OF NA/K TRANSPORT IN CULTURED SOMATIC CELLS.....	5R01 GM24708-02	39,876
HOHN, ARNO R.....	HYPERTENSIVE PROGENY: PHYSICAL/HUMORAL PRECURSOR SEARCH.....	5R01 HL19870-04	158,259
HYNES, JOHN B.....	SYNTHESIS OF NEW ANALOGS TARGETED FOR COLON CANCER.....	5R26 CA25014-02	29,471
JOLLOW, DAVID J.....	STUDIES ON ACETAMINOPHEN-INDUCED LIVER NECROSIS.....	1R01 GM25781-01	121,749
KARAM, JIM D.....	GENETIC CONTROL OF PHAGE T4 DNA REPLICATION.....	2R01 GM18842-07A1	57,393
LA VIA, MARIANO F.....	B LYMPHOCYTE ACTIVATION IN YOUNG AND AGED MICE.....	7R01 AG02124-01	19,317
LE ROY, E CARWILE.....	EARLY DETECTION AND OUTCOME OF RHEUMATIC DISEASE.....	5P60 AM20571-03	188,166
LEDFORD, BARRY E.....	SERUM PROTEIN SYNTHESIS BY MOUSE HEPATOMA CELLS.....	5R01 CA17037-06	43,701
LEVINE, JON H.....	POLYAMINE METABOLISM IN DIABETES.....	5R01 AM21224-02	52,501
LINDENMAYER, GEORGE E.....	CALCIUM INTERACTIONS WITH MYOCARDIAL SARCOLEMMMA.....	1R01 HL23802-01	87,274
LUND, JENNIFER S.....	STRUCTURAL BASIS FOR PROCESSING VISUAL INFORMATION.....	1R01 EY03321-01	154,289
LUND, RAYMOND D.....	TRANSPLANTATION STUDIES OF THE RAT VISUAL SYSTEM.....	7R01 EY03326-01	97,763
LUND, RAYMOND D.....	DEVELOPMENT AND PLASTICITY OF VISUAL CONNECTIONS.....	7R01 EY03414-01	51,530
MARCO, LUIS A.....	PHARMACOLOGICAL PROPERTIES OF INTRINSIC CAUDATE NEURONS.....	5R01 NS14712-02	31,098
MARGOLIUS, HARRY S.....	KALLIKREIN-KININ SYSTEM IN HYPERTENSION.....	5R01 HL17705-05	103,336
MARKS, RICHARD D, JR.....	RADIATION THERAPY ONCOLOGY GROUP.....	1R10 CA23794-01	36,936
MC DONALD, J KEN.....	LYSOSOMAL PROTEASES OF ORAL CONNECTIVE TISSUES.....	5R01 DE04772-02	40,973
METCALF, JOHN F.....	EFFECT OF CARBON DIOXIDE ON LOCAL GAS EXCHANGE.....	5R23 HL22932-02	37,336
MIDDAUGH, SUSAN J.....	ELECTROMYOGRAPHIC FEEDBACK IN MOTOR LEARNING.....	1R01 NS15249-01	45,001
MILLS, JOHN H.....	AUDITORY EFFECTS OF LONG EXPOSURE TO LOW LEVELS OF NOISE.....	5R01 ES01301-05	96,242
OGAWA, MAKIO.....	HUMAN AND MURINE HEMOPOIESIS IN CULTURE.....	1R01 AM22170-01	23,940
OGAWA, MAKIO.....	CELL CULTURE STUDIES OF HEMOGLOBINOPATHIES.....	5R01 HL20913-03	56,621
ONDO, JEROME G.....	AMINO ACID NEUROTRANSMITTERS AND REPRODUCTION.....	5R01 HD10132-04	36,606
PADOOCK, GARY V.....	GLOBIN MRNA: DETERMINATION OF REGULATING SEQUENCES.....	5R01 GM24783-02	42,617
PEROT, PHANOR L, JR.....	FUNDAMENTAL STUDIES IN SPINAL CORD INJURY.....	5P50 NS11066-06	417,028
PITTMAN, FRED E.....	STUDIES OF TISSUE TOXICITY OF ENTAMOEBA HISTOLYTICA.....	2R01 AI12649-03	118,648
PRIEST, DAVID G.....	5-FLUOROURACIL TARGET IN EUKARYOTIC CELLS.....	5R01 CA22754-03	36,427
SCHWABE, CHRISTIAN.....	THE STRUCTURE AND FUNCTION OF RELAXIN.....	5R01 HD10540-03	37,466
SPECTOR, MYRON.....	POROUS HIGH DENSITY POLYETHYLENE TOOTH ROOTS.....	2R01 DE04414-04	88,190
SPICER, SAMUEL S.....	CELL ULTRASTRUCTURE AND FUNCTION.....	5R01 AM10956-13	82,304
SPICER, SAMUEL S.....	MORPHOCHEMICAL STUDIES, LIGHT & ELECTRON MICROSCOPY.....	5R01 AM11028-13	41,624
STRELKAUSKAS, ANTHONY J.....	HUMAN T CELL SUBSETS-ISOLATION WITH AUTOANTIBODY.....	1R01 AI16651-01	59,363
SWANSON, ARNOLD A.....	PROTEOLYSIS IN NORMAL AND SENILE CATARACT LENS.....	5R01 EY04029-11	52,410
WHEELER, DARRELL D.....	AGING AND MEMBRANE TRANSPORT IN THE NERVOUS SYSTEM.....	5R01 NS12292-04	40,609
YOUNG, FRANKLIN A, JR.....	ARTIFICIAL TOOTH ROOTS.....	5R01 DE03497-07	89,914
YOUNG, FRANKLIN A, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05767-05	25,785
ORGANIZATION TOTAL	50 4,979,966		
ST. FRANCIS XAVIER HOSPITAL			
ZIP CODE 29401			
HAGERTY, ROBERT F.....	PIN-RETAINED PROSTHESIS WITH SURGERY IN CLEFT PALATE.....	1R01 DE04517-01A1	61,154
ORGANIZATION TOTAL	1 61,154		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA—Continued			
CLEMSON			
CLEMSON UNIVERSITY	ZIP CODE 29631		
ABRAMOVITCH, RUDOLPH A.....	BIOLOGICALLY ACTIVE COMPOUNDS FROM N-OXIDES AND YLIDES.....	2R01 GM25242-02A1	72,719
ABRAMOVITCH, RUDOLPH A.....	NOVEL SULTAMS AND LACTAMS AS POTENTIAL ANTICONVULSANTS.....	1R01 NS15605-01	37,734
COOKE, FRANCIS W.....	11TH ANNUAL INTERNATIONAL BIOMATERIALS SYMPOSIUM-1979.....	1R13 DE05432-01	8,500
HENNINGSON, ROBERT W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07180-02	18,509
LARCOM, LYNDON L.....	BIOLOGICAL EFFECTS OF DNA-PROTEIN CROSS-LINKS.....	5R01 CA21479-03	26,427
PARK, JOON B.....	IMPLANT FIXATION IN BONE BY ELECTRICAL STIMULATION.....	2R01 AM19828-03	47,252
PARK, JOON B.....	DENTAL IMPLANT FIXATION BY ELECTRICALLY MEDIATED PROCESS.....	5R23 DE04712-03	21,157
POWELL, GARY L.....	ENZYME STRUCTURE OF ACYL-COA BINDING SITES.....	2R01 GM22788-04	72,249
SIAS, FRED R, JR.....	EFFECT OF AGING ON HOMEOSTATIC CONTROL MECHANISMS.....	1R01 AG01794-01	41,431
VON RECUM, ANDREAS F.....	PMMA PRECOATED INTRAMEDULLARY IMPLANTS.....	1R01 AM25867-01	55,484
VON RECUM, ANDREAS F.....	HEALING OF INTESTINAL MUCOSA TO A PENETRATING CONDUIT.....	1R01 HL23646-01	49,600
VON RECUM, ANDREAS F.....	COLLAGEN-TREATED PERCUTANEOUS IMPLANTS.....	1R01 HL25438-01	66,560
ZIMMERMAN, JAMES K.....	SELF-ASSOCIATIONS IN COMPLEMENT AND PYRUVATE KINASE.....	1R01 GM26239-01	58,124
ORGANIZATION TOTAL	13	575,746	
COLUMBIA			
BENEDICT COLLEGE	ZIP CODE 29204		
MC COY, GEORGE L.....	BIOMEDICAL SCIENCE RESEARCH PROGRAM.....	2S06 RR08117-06	249,427
ORGANIZATION TOTAL	1	249,427	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER	ZIP CODE 29201		
NANKIN, HOWARD R.....	TESTICULAR FUNCTION IN AGING MEN.....	1R01 AG01217-01	85,860
ORGANIZATION TOTAL	1	85,860	
UNIVERSITY OF SOUTH CAROLINA	ZIP CODE 29208		
ABEL, FRANCIS L.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09093-01	129,974
ALLEN, DONALD O.....	PERFUSED FAT CELL SYSTEM.....	5R01 AM19914-03	44,512
BAYNES, JOHN W.....	CLEARANCE OF GLYCOPROTEINS FROM THE CIRCULATION.....	5R01 AM19971-03	66,553
BECK, RONALD R.....	EXPERIMENTAL DIABETES IN PREGNANCY.....	5R01 HD12253-02	23,609
BRYSON, THOMAS A.....	SYNTHESIS, ACTIVITY AND REACTIVITY OF 9-BORASTEROIDS.....	2R01 AM18802-04	45,445
BRYSON, THOMAS A.....	CYTOTOXIC SESQUITERPENE SYNTHESIS.....	1R01 GM26820-01	31,892
CARGILL, ROBERT L.....	SYNTHESIS OF APHIDICOLIN, STEMODINOL, AND KHUSIMONE.....	1R01 AI16002-01	55,668
DAWSON, JOHN H.....	SPECTROSCOPY AND MECHANISMS OF HEME IRON OXYGENASE.....	1R01 GM26730-01	57,253
DUNLAP, R BRUCE.....	THE MECHANISM OF ACTION OF THYMIDYLATE SYNTHETASE.....	5R01 CA12842-08	58,100
ELLIS, PAUL D.....	NMR INVESTIGATIONS OF THYMIDYLATE SYNTHETASE.....	2R01 CA15645-04A1	69,323
ELLIS, PAUL D.....	113CD AND 77SE NMR OF SYSTEMS OF BIOLOGICAL INTEREST.....	1R01 GM26295-01	57,869
ENGLE, RANDALL W.....	RESEARCH ON THE AUDITORY SENSORY MEMORY IN CHILDREN.....	5R01 HD11114-03	8,325
FELDER, MICHAEL R.....	REGULATION OF ENZYME LEVELS IN MOUSE HEPATOMA.....	5R01 CA16184-05	53,425
FISHER, RONALD R.....	MITOCHONDRIAL PYRIDINE DINUCLEOTIDE TRANSHYDROGENASE.....	5R01 GM22070-05	57,011
FURCHTOTT, ERNEST.....	SPECIAL INITIATIVES GRANT FOR GERONTOLOGICAL RESEARCH.....	1R21 AG01571-01	68,008
GROSS, STEPHEN R.....	BIOCHEMISTRY OF INHERITED VARIATIONS IN DRUG RESPONSE.....	2R01 GM26153-02	49,379
INGEBRETSEN, WILLIAM R, JR.....	GLYCOGEN METABOLISM IN ANOXIC DIABETIC MYOCARDIUM.....	5R01 HL22064-03	51,382
JOHNSON, LEWIS D.....	STUDY OF BASEMENT MEMBRANE GLYCOPROTEIN AND COLLAGEN.....	7R01 CA27467-01	32,825
KISTLER, W STEPHEN.....	ROLE OF SPECIFIC PROTEINS IN MAMMALIAN SPERMATOGENESIS.....	5R01 HD10793-03	44,620
KISTLER, W STEPHEN.....	REGULATION OF SPECIFIC GENE PRODUCTS BY ANDROGENS.....	1R01 HD13472-01	59,706
LILL, PATSY H.....	CARCINOGEN INDUCED FACILITATION OF TUMOR GROWTH.....	1R01 CA25361-01	33,930
LUFTIG, RONALD B.....	ASSEMBLY OF MURINE LEUKEMIA VIRUSES.....	7R01 CA28077-01	38,326
LUFTIG, RONALD B.....	VIRAL INTERACTION OF MICROTUBULES IN CULTURED CELLS.....	1R01 CA28078-01	161,655
MACON, A R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07160-04	42,989
THOMPSON, E AUBREY, JR.....	HORMONAL CONTROL OF CELL PROLIFERATION.....	5R01 CA22394-02	44,470
THOMPSON, E AUBREY, JR.....	HORMONE EFFECTS ON PROLIFERATION OF MALIGNANT THYMOCYTES.....	1R01 CA24347-01A1	49,856
THORPE, SUZANNE R.....	SITES AND MECHANISMS OF PLASMA PROTEIN CATABOLISM.....	1R01 AM25373-01	54,376
WATSON, PHILIP D.....	CAPILLARY PERMEABILITY AND THE INTERSTITIAL MATRIX.....	1R01 HL24314-01	41,267
WUTHIER, ROY E.....	ROLE OF MATRIX VESICLES IN CALCIFICATION.....	2R01 AM18983-04	137,194
YOCH, DUANE C.....	REGULATION OF NITROGENASE ACTIVITY.....	1R01 AI16040-01	46,486

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA—Continued			
ORGANIZATION TOTAL	30	1,715,428	
DENMARK			
VOORHEES COLLEGE	ZIP CODE 29042		
GILL, TARLOK S.....	TERATOGENECITY OF PSYCHOTROPIC DRUGS.....	5S06 RR08141-02	126,126
ORGANIZATION TOTAL	1	126,126	
ORANGEBURG			
SOUTH CAROLINA STATE COLLEGE	ZIP CODE 29115		
DATTA-GUPTA, NIRMALENDU.....	BIOMEDICAL SCIENCES.....	5S06 RR08060-09	126,305
ORGANIZATION TOTAL	1	126,305	
SPARTANBURG			
INDIVIDUAL AWARD—HUDSON, MONIE S.	ZIP CODE 29302		
HUDSON, MONIE S.....	TREE SAP EXTRACTS FOR CANCER CHEMOTHERAPY SCREENING.....	5R01 CA12359-08	39,000
ORGANIZATION TOTAL	1	39,000	
STATE TOTAL	99	7,959,012	
SOUTH DAKOTA			
VERMILLION			
UNIVERSITY OF SOUTH DAKOTA	ZIP CODE 57069		
MARSHALL, FINLEY D, JR.....	HOMOCARNOSINE METABOLISM IN BRAIN.....	2R01 NS06137-11A2	44,232
PEANASKY, ROBERT J.....	PURIFICATION OF PROTEINS WITH BIOLOGICAL ACTIVITY.....	2R01 AI10992-09A1	63,933
SMALL, GARY D.....	DNA METABOLISM IN EUKARYOTES.....	2R01 GM21095-05	49,260
THOMAS, JOHN A.....	MECHANISM OF OXIDATIVE PHOSPHORYLATION.....	5R01 GM22845-03	26,876
WELTY, JOSEPH D, JR.....	AMINO ACIDS OF CONTRACTILE PROTEINS OF FAILING HEARTS.....	2R01 HL09234-14	34,786
WINDER, WILLIAM W.....	CONTROL OF LIVER GLYCOGENOLYSIS DURING EXERCISE.....	7R01 AM27107-01	23,920
ORGANIZATION TOTAL	6	243,007	
YANKTON			
YANKTON COLLEGE	ZIP CODE 57078		
MATTHEWS, MICHAEL K.....	THE CONTROL OF SPERM TRANSPORT.....	1R01 HD12983-01	5,408
ORGANIZATION TOTAL	1	5,408	
STATE TOTAL	7	248,415	
TENNESSEE			
JOHNSON CITY			
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—EAST TENNESSEE STATE UNIVERSITY	ZIP CODE 37601		
COWDEN, RONALD R.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09171-01	119,028
HARDER, DAVID R.....	ELECTROPHYSIOLOGY OF CEREBRAL VASCULAR SMOOTH MUSCLE.....	1R01 HL24007-01	32,533
KOSTRZEWA, RICHARD M.....	GROWTH AND DEVELOPMENT OF MONOAMINERGIC NEURONS.....	5R01 NS14797-03	46,970
ORGANIZATION TOTAL	3	198,531	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
KNOXVILLE			
KNOXVILLE COLLEGE	ZIP CODE 37921		
JAMES, JESSE.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	2S06 RR08055-08	141,254
ORGANIZATION TOTAL	1	141,254	
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE	ZIP CODE 37916		
BAGBY, ROLAND M.....	SMOOTH MUSCLE CELL ORGANIZATION.....	5R01 HL18077-05	48,461
BECKER, JEFFREY M.....	A NOVEL APPROACH FOR DRUGS TO CANDIDA ALBICANS.....	5R01 AI14387-03	59,792
BECKER, JEFFREY M.....	PEPTIDE TRANSPORT IN MICRO-ORGANISMS.....	5R01 GM22087-05	52,379
BECKER, JEFFREY M.....	A MODERN QUANTITATIVE FLUORESCENT MICROSCOPY SYSTEM.....	1P41 GM27545-01	111,768
BRIAN, DAVID A.....	CORONAVIRUS STRUCTURE AND REPLICATION.....	5R23 AI14367-03	35,492
BROWN, ARTHUR.....	TOGAVIRUSES: CROSS PROTECTION STUDIES.....	5R01 AI14362-02	66,606
BRYANT, ROBERT E.....	RNA POLYMERASE MUTATIONS IN MAMMALIAN CELLS.....	5R01 GM24271-03	45,346
CHEN, JAMES P.....	RADIOIMMUNOASSAY OF HYPER AND HYPOCOAGULABLE STATES.....	2R01 HL20014-03A1	40,468
CHERTOK, ROBERT J.....	DIET AND AGE EFFECTS ON THE MIXED-FUNCTION OXIDASES.....	1R01 AG01660-01	76,615
CHILINA, ALLEN R.....	CARCINOGEN INDUCED ALTERATIONS IN GENE EXPRESSION.....	1R23 ES02215-01	38,593
CLAPP, NEAL K.....	EFFECTS OF DIETARY BRAN ON COLON CANCER IN MICE.....	1R26 CA25509-01	47,940
COURTNEY, RICHARD J.....	STUDIES OF PURIFIED HERPES SIMPLEX VIRUS GLYCOPROTEINS.....	5R01 CA24564-02	72,750
FARKAS, WALTER R.....	ACCUMULATION OF GUANINE DUE TO HEAVY METALS.....	5R01 ES01323-03	60,496
FARKAS, WALTER R.....	GUANYLATION OF tRNA.....	2R01 GM20546-04A1	58,505
FUHR, JOSEPH E.....	SICKLE CELL ANEMIA AND HEMOGLOBIN SYNTHESIS.....	5R01 HL23736-05	52,871
FUSON, ERNEST W.....	MODULATION OF LYMPHOCYTE CYTOLYSIS OF TUMOR CELLS.....	1R01 CA26257-01	47,625
HANDEL, STEPHEN J.....	PERCEIVING AUDITORY RHYTHMS.....	5R01 NS14842-02	19,551
HUANG, LEAF.....	TARGETING OF LIPOSOMES TO TUMOR CELLS.....	1R01 CA24553-01	73,319
HUANG, LEAF.....	MEMBRANE TRANSPLANTATION: ENGINEERING OF CELL SURFACE.....	5R01 GM23473-03	79,545
JONES, JIMMY B.....	HEMATOPOIETIC STUDIES OF CYCLIC HEMATOPOIESIS.....	5R01 HL15647-07	67,201
JUNGREIS, ARTHUR M.....	PHYSIOLOGY OF MOLTING FLUID ELABORATION IN INSECTS.....	5R01 AI12779-02	62,724
KABALKA, GEORGE W.....	RAPID INCORPORATION OF RADIONUCLIDES FOR MEDICAL USE.....	1R01 GM25817-01	62,844
KITCHEN, HYRAM.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09012-03	65,239
KRAUSS, STEPHEN.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA13237-08	191,663
LANGE, ROBERT D.....	ERYTHROPOIETIN: IMMUNOASSAY AND CHARACTERIZATION.....	2R01 HL10567-13A1	85,424
LANGE, ROBERT D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05541-14	38,397
LAWLER, JAMES E.....	CARDIAC CORRELATES OF BEHAVIORAL STRESS IN ANIMALS.....	5R01 HL19680-02	45,101
LOZZIO, BISMARCK B.....	HEREDITARILY ATHYMIC-ASPLENIC MICE: TUMOR GROWTH.....	2R01 CA18185-04	75,062
MACCABE, JEFFREY A.....	MECHANISMS IN EMBRYONIC LIMB MORPHOGENESIS.....	2R01 HD07282-06	37,719
MC DONALD, TED P.....	THROMBOPOIETIN: IMMUNOASSAY AND CHARACTERIZATION.....	5R01 HL14637-06	62,002
MILLER, ROBERT V.....	EXTRACHROMOSOMAL DNA ESTABLISHMENT IN PSEUDOMONAS.....	1R01 AI12759-01A3	48,031
MORIARTY, THOMAS F.....	DIRECT TECHNIQUE FOR LEFT VENTRICULAR VOLUME VS TIME.....	1R01 HL22312-01A1	79,322
NABELEK, ANNA K.....	PHONEME CONFUSIONS/REVERBERATION/AGE/HEARING LOSS.....	2R01 NS12035-05	89,916
NABELEK, IGOR V.....	HEARING AID DISTORTION BY AMPLITUDE COMPRESSION.....	5R01 NS12946-02	61,044
OLINS, DONALD E.....	PHYSICAL PROPERTIES OF ISOLATED NUCLEI AND CHROMOSOMES.....	5R01 GM19334-08	82,191
POPP, RAYMOND A.....	NON-ALPHA-CHAIN SYNTHESIS CONTROL IN THALASSEMIC MICE.....	5R01 HL20912-03	60,723
ROTH, L EVANS.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07088-12	68,789
ROUSE, BARRY T.....	IMMUNITY MECHANISMS IN HERPES VIRUSES INFECTIONS.....	5R01 AI14981-02	85,056
SAYLER, GARY S.....	BACTERIAL DEGRADATION OF PCB—CONSEQUENCES & EFFECTS.....	5R01 ES01521-03	55,248
SCHELL, FRED M.....	ALPHA-ALKYLATION OF AMINES: SYNTHETIC APPLICATIONS.....	5R01 GM23381-03	30,515
SLAGA, THOMAS J.....	POLYCYCLIC HYDROCARBON METABOLISM AND BINDING IN SKIN.....	5R01 CA20076-04	90,412
SOLOMON, ALAN.....	PROTEINS IN MULTIPLE MYELOMA & RELATED BLOOD DISEASES.....	5R01 CA10056-14	132,312
VAN HOOK, WILLIAM A.....	GAS-SOLUTION CALORIMETRY-SOLVENT ISOTOPE EFFECTS.....	2R01 GM19991-07	51,382
WUST, CARL J.....	MYELOGENOUS LEUKEMIA-ASSOCIATED ANTIGENS.....	2R01 CA17533-04A1	79,183
ORGANIZATION TOTAL	44	2,895,622	
MARYVILLE			
SOUTHERN RESEARCH INSTITUTE	ZIP CODE 37801		
COWSAR, DONALD R.....	A MINIATURIZED CARBON-FIBER HEMOPERFUSION DEVICE.....	1R01 HL23395-01	75,117
ORGANIZATION TOTAL	1	75,117	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL	ZIP CODE 38101		
ADLER, FRANK L.....	INDUCTION OF TOLERANCE AND SUPPRESSOR CELLS IN VITRO.....	5R01 CA23709-03	77,575
ADLER, LOUISE T.....	IMMUNOGLOBULIN ALLOTYPES: SUPPRESSION AND RELEASE.....	5R01 AI13159-05	63,563
BEAN, WILLIAM J, JR.....	STUDY OF THE EVOLUTION OF INFLUENZA A VIRUSES.....	5R23 AI14293-03	41,700
BRENT, THOMAS P.....	ENZYMES AND REACTIONS FOR REPAIR OF DNA IN HUMAN CELLS.....	5R01 CA14799-05	60,822
CHEUNG, WAI Y.....	REGULATORY ASPECTS OF CYCLIC AMP METABOLISM IN CNS.....	2R01 NS08059-11	111,436
COSTLOW, MARK E.....	HORMONE RECEPTOR REGULATION IN MAMMARY TISSUE.....	1R01 CA23956-01A1	67,932
COSTLOW, MARK E.....	PROLACTIN RECEPTOR REGULATION IN CULTURED MAMMARY CELLS.....	1R01 CA25170-01	93,698
DOCKTER, MICHAEL E.....	TOPOGRAPHICAL MAPPING OF CYTOCHROME C OXIDASE.....	1R01 AM21974-01A1	50,033
EVANS, WILLIAM E.....	ADRIAMYCIN PHARMACOKINETICS IN CHILDREN.....	1R23 CA24176-01A1	34,750
FISHMAN, MARVIN.....	THE ROLE OF MACROPHAGE SUBCLASSES IN TUMOR IMMUNITY.....	2R01 CA18672-04	54,278
GANGULY, PANKAJ.....	PLATELET AGGREGATION.....	5R01 HL16720-03	34,333
GOORHA, RAKESH M.....	DNA-BINDING PROTEINS AND LUCKE TUMOR ASSOCIATED VIRUS.....	5R01 GM23638-03	60,861
GRANOFF, ALLAN.....	STUDIES OF LUCKE TUMOR ASSOCIATED VIRUSES.....	2R01 CA07055-17	208,341
GUNTHER, GARY R.....	CHARACTERIZATION OF A PANCREATIC ACINAR CARCINOMA.....	1R26 CA26561-01	59,271
JACKSON, CARL W.....	EFFECTS OF ERYTHROPOIESIS ON PLATELETS AND HEMOSTASIS.....	3R01 HL19270-03S1	7,179
KINGSBURY, DAVID W.....	MULTIPLICATION OF PARAMYXOVIRUSES.....	5R01 AI05343-16	129,538
MAUER, ALVIN M.....	CANCER CENTER SUPPORT (CORE) GRANT.....	3P30 CA21765-02S1	480,801
MAUER, ALVIN M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA23944-02	105,170
MAUER, ALVIN M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05584-15	123,766
MORRISON, MARTIN.....	STUDY OF HUMAN ERYTHROCYTE MEMBRANE PROTEIN 3 VARIANT.....	1R01 AI16211-01	74,680
MORRISON, MARTIN.....	STRUCTURE AND FUNCTION OF RED CELL MEMBRANES.....	5R01 AM18106-04	69,075
MURPHY, SHARON B.....	A STUDY OF LEUKOKINETICS IN ACUTE LEUKEMIA.....	5R01 CA15956-06	104,980
PHILLIPS, DAVID R.....	PLATELET MEMBRANE PROTEINS IN AGGREGATION.....	5R01 HL15616-05	47,260
PHILLIPS, DAVID R.....	MOLECULAR CHARACTERIZATION OF GLANZMANN'S THROMBASTHENIA.....	5R01 HL21487-02	38,778
PORTNER, ALLEN.....	BIOSYNTHESIS OF PARAMYXOVIRUSES.....	5R01 AI11949-05	84,055
ROBERTS, BUFORD D.....	BASIS FOR SYNERGISM TO ONCOLYTIC DRUG-COMBINATIONS.....	1R01 CA23337-01A1	68,917
SIMONE, JOSEPH V.....	LEUKEMIA PROGRAM PROJECT.....	5P01 CA20180-03	1,430,923
SIMONE, JOSEPH V.....	STUDIES OF CHILDHOOD SOLID TUMORS.....	5P01 CA23099-02	532,109
THOMAS, EDWIN L.....	PEROXIDASE IN SALIVA AND PREVENTION OF ORAL DISEASE.....	2R01 DE04235-04	57,732
WALKER, WILLIAM S.....	MACROPHAGE FUNCTIONS IN TUMORIGENESIS.....	5R01 CA16652-05	70,085
WEBSTER, ROBERT G.....	ORIGIN OF PANDEMIC INFLUENZA VIRUSES.....	5R01 AI08831-11	97,816
WELCH, ARNOLD D.....	CHEMOTHERAPY IN MICE OF HUMAN CARCINOMAS OF THE COLON.....	2R26 CA21677-03	245,548
YEH, YU-YAN.....	KETONES FOR BRAIN LIPIDS IN DEVELOPING RATS.....	5R01 HD08568-05	51,672
ORGANIZATION TOTAL	33 4,838,677		
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—MEMPHIS STATE UNIVERSITY	ZIP CODE 38152		
GARTNER, THEODORE K.....	CONTROL AND MECHANISM OF PLATELET AGGREGATION.....	5R01 HL23010-02	48,672
STUDEBAKER, GERALD A.....	PAIRED COMPARISON HEARING AID CHARACTERISTIC SELECTION.....	7R01 NS15996-01	154,005
ORGANIZATION TOTAL	2 202,677		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES	ZIP CODE 38163		
ABEL, GENE G.....	SEXUAL DISORDERS RESULTING FROM DIABETES.....	3R01 AM20844-01S1	12,503
ANDERSEN, RICHARD N.....	MECHANISM(S) OF ACTH ACTION ON TESTOSTERONE DYNAMICS.....	5R01 AM19423-02	51,568
ARNESON, RICHARD M.....	ANTIOXIDANTS IN MOUSE NEUROBLASTOMA.....	5R01 CA16927-05	25,750
AUTIAN, JOHN.....	ACUTE TOXICITY EVALUATION OF BIOMATERIALS.....	1R01 HL24040-01	89,093
BAER, PHILIP G.....	HYPERTENSION: PROSTAGLANDINS AND RENAL FUNCTION.....	1R01 HL23548-01	114,030
BEACHEY, EDWIN H.....	LIGAND-RECEPTOR INTERACTION IN BACTERIAL ADHERENCE.....	2R01 AI13550-04	66,843
BLATTEIS, CLARK M.....	HYPERPYREXIA THERAPY WITH HELIUM-OXYGEN.....	5R01 AI13244-03	43,766
BLATTEIS, CLARK M.....	BRAIN AREAS MEDIATING AUTONOMIC AND BEHAVIORAL FEVERS.....	1R01 NS14929-01	48,037
CALDWELL, ROBERT W.....	THE IMPORTANCE OF AMINOSUGARS IN DIGITALIS ACTIVITY.....	5R01 HL17796-05	64,006
CHESNEY, CAROLYN M.....	PLATELET COLLAGEN INTERACTION.....	3R01 HL18650-03S1	2,643
DABBOUS, MUSTAFA K.....	THE COLLAGENOLYTIC SYSTEM OF INVASIVE TUMORS.....	1R01 CA25617-01	71,060
DABBOUS, MUSTAFA K.....	GINGIVAL MATRIX PROTEINS AND PERIODONTAL DISEASE.....	2R01 DE04125-04	47,775
DESIDERIO, DOMINIC M.....	MASS SPECTROMETRY SEQUENCING OF HYPOTHALAMIC PEPTIDES.....	1R01 GM26666-01	106,327
DIXIT, SARYU N.....	CHEMISTRY OF GLOMERULAR BASEMENT MEMBRANE COLLAGENS.....	5R01 AM20385-03	46,314
DORSETT, PRESTON H.....	MECHANISMS OF PERSISTENT RUBELLA VIRUS INFECTION.....	5R01 AI11255-06	42,101

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
DUCIBELLA, THOMAS.....	PREIMPLANTATION EMBRYO CELL SURFACE ORGANIZATION.....	5R01 HD11505-02	4,620
FISHER, JOSEPH N, JR.....	DIABETIC KETOACIDOSIS: ALTERATIONS IN MINERAL METABOLISM.....	5R01 AM21099-02	47,065
GROSVENOR, CLARK E.....	NEURAL AND HORMONAL REGULATION OF LACTATION.....	3R01 HD04358-19S1	1,405
GROSVENOR, CLARK E.....	NEURAL AND HORMONAL REGULATION OF LACTATION.....	5R01 HD04358-20	60,204
HASTY, DAVID L.....	TISSUE INTERACTIONS DURING ODONTOGENESIS.....	1R23 DE05062-01	28,700
HUNT, JAMES C.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00211-15	498,688
IRVING, CHARLES C.....	BIOCHEMICAL MECHANISMS IN EXPERIMENTAL BLADDER CANCER.....	5R26 CA16765-06	86,217
IRVING, CHARLES C.....	CONJUGATION REACTIONS IN ARYLAMINE CARCINOGENESIS.....	1R01 CA26165-01	60,684
JERNIGAN, HOWARD M.....	NITROGEN METABOLISM IN THE CRYSTALLINE LENS.....	1R01 EY02665-01	45,729
KANE, JAMES F.....	A COMMON AMIDOTRANSFERASE SUBUNIT IN METABOLISM.....	5R01 AM19443-03	37,020
KANG, ANDREW H.....	CHEMISTRY AND BIOLOGY OF NORMAL AND ABNORMAL COLLAGENS.....	5R01 AM16506-07	58,501
KANG, ANDREW H.....	COLLAGEN-PLATELET INTERACTION AND HUMAN AORTA COLLAGEN.....	5R01 HL20114-03	48,828
KANG, ELLEN S.....	REYE'S SYNDROME: STUDIES OF MEMBRANE FUNCTION.....	5R01 HD11657-03	76,101
KATZE, JON R.....	TRNA Q-BASE: ITS RELATION TO DIFFERENTIATION.....	3R01 CA20919-03S1	8,086
KITABCHI, ABBAS E.....	VITAMIN E DEFICIENCY AND FUNCTIONAL STATES OF MEMBRANES.....	5R01 AM19717-02	65,879
LEFFLER, CHARLES W.....	CONTROL OF CIRCULATION.....	1R01 HL22639-01A1	70,338
MALIK, KAFAIT U.....	ANGIOTENSIN, PROSTAGLANDINS, ADRENERGIC INTERACTIONS.....	5R01 HL19134-05	79,841
MALIK, KAFAIT U.....	CARBOHYDRATES-NUCLEOTIDES AND ADRENERGIC INTERACTIONS.....	5R01 HL20206-03	34,309
MASHBURN, THOMPSON A, JR.....	STRUCTURAL STUDIES OF LUNG PROTEOGLYCAN.....	5R01 HL21641-03	40,435
MC CARTY, GIRD A, JR.....	CLINICAL CANCER EDUCATION PROGRAM (DENTAL).....	2R25 CA19532-04	51,321
MC LAUGHLIN, BARBARA J.....	PHOTORECEPTOR SYNAPTOGENESIS IN THE RETINA.....	3R01 EY02708-01S1	4,269
MC LAUGHLIN, BARBARA J.....	INHERITED RETINAL DEGENERATION.....	1R01 EY02853-01	65,628
MIRVIS, DAVID M.....	ELECTROPHYSIOLOGIC CORRELATES OF MYOCARDIAL ISCHEMIA.....	5R01 HL20597-03	114,412
MIZE, RICHARD R.....	NEURAL CIRCUITRY IN THE SUPERIOR COLICULUS.....	1R01 EY02973-01	57,249
MUIRHEAD, ERNEST E.....	THE ANTIHYPERTENSIVE FUNCTION OF THE RENAL MEDULLA.....	5R01 HL19287-04	131,667
NASILETTI, ALBERTO.....	VASOACTIVE HORMONES AND BLOOD PRESSURE REGULATION.....	2R01 HL18579-04	101,990
NEELY, CHARLES L, JR.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA17027-05	162,805
NICKSON, JAMES J.....	COMMUNITY CANCER CENTER SUPPORT GRANT (SPECIALIZED).....	5P30 CA16518-05	315,444
NISHIMURA, HIROKO.....	COMPARATIVE STUDIES OF RENAL HANDLING OF ELECTROLYTES.....	5R01 AM17824-05	51,067
NISHIMURA, HIROKO.....	THE EVOLUTION OF HUMORAL CONTROL OF BLOOD PRESSURE.....	1R01 HL22674-01A1	55,545
O'TOOLE, CAROL M.....	IDENTIFICATION OF ANTIGENS SPECIFIC TO BLADDER CANCER.....	5R26 CA20216-03	31,052
PALMIERI, GENARO M.....	HYDROXYPROLINE IN BONE METASTASIS FROM BREAST CANCER.....	2R01 CA20939-03	49,625
POSTLETHWAITE, ARNOLD E.....	ENDOCRINOLOGY-FIBROBLAST ACTIVATION.....	1R01 AM26034-01	57,728
PREWITT, RUSSELL L, JR.....	HEMODYNAMIC INTERACTIONS OF VASOACTIVE CHEMICALS.....	2R01 HL18489-04	40,141
PREWITT, RUSSELL L, JR.....	MICROVASCULAR ADAPTATIONS IN HYPERTENSION.....	1R01 HL23480-01	40,320
QUINTANA, RONALD P.....	SURFACE-ACTIVE ANTITHROMBOTIC AGENTS FOR PROSTHESES.....	1R01 HL22236-01A1	67,175
ROBERTSON, JAMES T.....	SUPPORT FOR CEREBROVASCULAR RESEARCH CENTER.....	5P50 NS06826-11	254,047
SABESIN, SEYMOUR M.....	DYSLIPOPROTEINEMIA IN DIABETES AND VASCULAR DISEASE.....	5R01 HL22121-03	79,905
SABESIN, SEYMOUR M.....	PATHOLOGIC EFFECTS ON CELLS OF MODIFIED LIPOPROTEINS.....	5R01 HL23945-07	126,423
SANDBERG, HOWARD E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05423-18	156,422
SCHUEL, KONRAD W.....	MECHANISM OF CORONARY VASCULAR ADAPTATION.....	1R01 HL24323-01	80,694
SCHNEIDER, EDWARD G.....	INTRANEURAL REGULATION OF SODIUM REABSORPTION.....	5R01 HL16658-06	67,923
SHARE, LEONARD.....	CONTROL OF ADH SECRETION AND METABOLISM.....	5R01 HL12990-10	74,100
SHARE, LEONARD.....	ROLE OF ADH IN EXPERIMENTAL RENAL HYPERTENSION.....	2R01 HL19209-04	83,718
SHARMA, RAMESHWAR K.....	BIOCHEMICAL CONTROL IN ADRENOCORTICAL CARCINOMA CELLS.....	5R01 CA16091-05	102,575
SOLOWAY, MARK S.....	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.....	5R26 CA15934-06	101,011
SOLOWAY, MARK S.....	EXPERIMENTAL CHEMOTHERAPY OF MURINE BLADDER CANCER.....	5R26 CA18643-05	117,432
SOLOWAY, MARK S.....	CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER.....	2R26 CA20618-04	79,857
STILES, ROBERT N.....	NEUROMUSCULAR-LOAD OSCILLATIONS.....	5R01 NS14730-02	29,973
STOLLERMAN, GENE H.....	STREPTOCOCCAL IMMUNITY, RHEUMATIC FEVER AND NEPHRITIS.....	3R01 AI10085-15S1	11,768
STOLLERMAN, GENE H.....	STREPTOCOCCAL IMMUNITY, RHEUMATIC FEVER AND NEPHRITIS.....	5R01 AI10085-16	173,536
STRIVE, WILLIAM G.....	ACETYLCHOLINESTERASE, ORIENTATION ON PLASMA MEMBRANES.....	5R01 NS09564-08	37,000
SULLIVAN, JAY M.....	HEMODYNAMIC EFFECTS OF DIETARY SODIUM IN MAN.....	5R01 HL21523-02	66,628
WEBB, WILLIAM L.....	BEHAVIORAL TACTICS FOR CLINICAL CARDIAC CONTROL.....	5R01 HL18814-04	38,343
WHITESSELL, WILLIAM O, JR.....	NERVOUS SYSTEM PORPHYRINS AND LEAD AND PCB EFFECTS.....	7R01 ES02421-01	64,111
WOOD, JOHN G.....	LOCATION AND FUNCTION OF CARBOHYDRATES IN THE BRAIN.....	2R01 NS12590-04	65,000
ORGANIZATION TOTAL	71	5,392,370	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
NASHVILLE			
FIISK UNIVERSITY	ZIP CODE 37203		
HULL, GEORGE	BIOMEDICAL RESEARCH SUPPORT GRANT	5S06 RR08062-09	192,994
ORGANIZATION TOTAL	1	192,994	
GEORGE PEAODY COLLEGE FOR TEACHERS	ZIP CODE 37203		
BAUMEISTER, ALFRED A.	RESEARCH PROGRAM ON RETARDED INTELLECTUAL DEVELOPMENT	2P01 HD00973-16	493,925
HAYWOOD, H CARL	RESEARCH CENTER—HUMAN DEVELOPMENT & MENTAL RETARDATION	2P30 HD04510-11	419,351
HAYWOOD, H CARL	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07087-14	41,582
ORGANIZATION TOTAL	3	954,858	
MEHARRY MEDICAL COLLEGE	ZIP CODE 37208		
ARINZE, IFEANYI J.	DEVELOPMENT OF CARBOHYDRATE & LIPID METABOLISM IN LIVER	5R01 HD08792-05	48,040
BERNARD, LOUIS J.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA19425-04	106,514
JACKSON, JULIUS H.	CONTROL OF RELATED DISPERSED GENES AND GENE PRODUCTS	5R01 GM25605-02	38,778
JONES, FRED	DEVELOPMENT AND EXPANSION OF BIOMEDICAL SCIENCES	5S06 RR08037-09	508,131
LOWE, JAMES U.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05422-18	46,440
NAVALKAR, RAMCHANDRA G.	IMMUNOLOGIC STUDIES ON LEPROSY	5R22 AI08647-12	62,163
RICHARDSON, ELISHA R.	GROWTH AND DEVELOPMENT OF THE HUMAN HEAD	5R01 DE02862-14	151,157
RUSSELL, JAMES D.	EPIGENETIC VARIATION IN COLLAGEN SYNTHESIS WITH AGING	1R01 AG02046-01	45,792
RUSSELL, JAMES D.	KELOIDS: AN IN VITRO MODEL OF TUMOR GROWTH REGULATION	2R01 CA17229-04A1	81,480
ORGANIZATION TOTAL	9	1,088,495	
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—TENNESSEE STATE UNIVERSITY	ZIP CODE 37203		
HOGG, RICHARD A.	A BIOMEDICAL RESEARCH PROGRAM WITH STUDENT PARTICIPATION	2S06 RR08092-06	418,144
ORGANIZATION TOTAL	1	418,144	
VANDERBILT UNIVERSITY	ZIP CODE 37240		
ANDREWS, JOHN S.	LENS CELL MEMBRANE SYNTHESIS AND CATARACTOGENESIS	5R01 EY01852-03	102,357
BIRD, ROBERT E.	CONTROL OF PLASMID DNA REPLICATION IN E COLI	5R01 GM25526-02	53,541
BORUM, PEGGY R.	CARNITINE METABOLISM DURING DEVELOPMENT	1R01 HD11820-01A1	45,566
BOUCEK, ROBERT J, JR.	THE REGULATION OF CARDIAC HYPERTROPHY	5R23 HL21234-03	44,933
BOURNE, JOHN R.	COMPUTER ANALYSIS OF ELECTROENCEPHALOGRAMS	1R01 GM26886-01	81,759
BRIGHAM, KENNETH L.	SCOR: PULMONARY EDEMA—ETIOLOGY, PATHOGENESIS	5P50 HL19153-03	403,262
BROQUIST, HARRY P.	DIETARY LYSINE AND CARNITINE FORMATION	2R01 AM16019-08	104,048
BROQUIST, HARRY P.	LYSINE METABOLISM IN FUNGI	9R01 GM24831-10	62,498
BURKA, LEO T.	SWEET POTATO TOXINS	1R01 ES01752-01A1	56,625
BURR, IAN M.	REGULATION OF GLUCAGON SECRETION	1R01 AM25900-01	60,015
BUSH, MILTON T.	METABOLIC INTERACTION OF DRUGS	5R01 NS03534-18	63,427
CAMPBELL, ERNEST Q.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07089-14	79,080
CARPENTER, GRAHAM F.	RECEPTORS FOR EPIDERMAL GROWTH FACTOR IN TUMOR CELLS	5R23 CA24071-02	34,745
CASAGRANDE, VIVIEN A.	EFFECTS OF VISUAL DEPRIVATION IN PRIMATES	2R01 EY01778-04	74,921
CHAN, TIMOTHY M.	GLUCOCORTICOID PERMISSIVE ACTION ON LIVER METABOLISM	5R01 AM20306-03	50,929
CHAN, TIMOTHY M.	SKELETAL MUSCLE METABOLISM IN OBESE-DIABETIC MICE	5R01 AM21130-03	48,493
CHERRINGTON, ALAN D.	GLUCONEOGENESIS AND GLYCOGENOLYSIS: ROLE AND REGULATION	5R01 AM18243-05	107,937
CHYTIL, FRANK	NUTRITIONAL ASPECTS OF PURINE METABOLISM	5R01 HD05384-08	65,435
CHYTIL, FRANK	VITAMIN A IN GROWTH AND DEVELOPMENT	5R01 HD09195-05	106,739
CHYTIL, FRANK	LUNG HORMONAL AND CHROMOSOMAL REGULATION	2R01 HL15341-07	68,775
COHEN, STANLEY	EPIDERMAL GROWTH FACTOR	2R01 HD00700-16	154,558
COLLEY, DANIEL G.	IMMUNOLOGIC RESPONSES TO SCHISTOSOMA MANSONI	5R22 AI11289-07	63,336
COLOWICK, SIDNEY P.	ENZYMATIC OXIDATION AND PHOSPHORYLATION	2R01 GM20656-21	126,581
CONIGLIO, JOHN G.	LIPID CHEMISTRY AND METABOLISM IN REPRODUCTIVE TISSUE	5R01 HD07694-07	53,511
CORBIN, JACKIE D.	REGULATION OF METABOLISM BY CAMP-DEPENDENT KINASES	5R01 AM15988-08	59,212
CROFFORD, OSCAR B.	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20593-02	690,491
CUNNINGHAM, LEON W.	COLLAGEN SYNTHESIS IN 'DIABETIC' FIBROBLASTS	5R01 AM19606-03	63,425
DAVIES, JACK	PRENATAL ESTROGEN AND SEXUAL DEVELOPMENT IN THE MALE	5R01 HD11607-02	66,775
DE MARCHI, JEANETTE M.	INDUCTION BY CYTOMEGALOVIRUS OF CELL DNA SYNTHESIS	5R01 CA20806-02	74,289
DES PREZ, ROGER M.	PLATELET INJURY IN INFECTIOUS AND ALLERGIC DISEASES	5R01 HL08399-16	57,361

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
DETTBARN, WOLF D.....	MYOPATHY: EFFECT OF CHOLINESTERASE INHIBITION.....	2R01 NS12438-04A1	95,912
EXTON, JOHN H.....	ADRENERGIC CONTROL OF LIVER METABOLISM.....	2R01 AM18660-04	3,199
FLEISCHER, BECCA C.....	STRUCTURE AND FUNCTION OF GOLGI APPARATUS OF KIDNEY.....	5R01 AM17223-06	119,910
FLEISCHER, SIDNEY.....	MEMBRANES AND ORGANELLES—STRUCTURE AND FUNCTION.....	5R01 AM14632-16	170,571
FLEISCHER, SIDNEY.....	EPR STUDIES OF MOLECULAR MOTION IN MEMBRANE SYSTEMS.....	1R01 AM21987-01	89,673
FORBES, JAMES T.....	IMMUNOLOGIC INHIBITION OF TUMOR GROWTH.....	1R01 CA23477-01A1	43,076
FOX, ROBERT.....	THE SUPPRESSION MECHANISM IN BINOCULAR RIVALRY.....	5R01 EY00590-16	45,270
FREDERIKSEN, DIXIE W.....	ATHEROSCLEROSIS AND THE ARTERIAL CONTRACTILE PROTEINS.....	5R01 HL18516-04	53,384
FREDERIKSEN, DIXIE W.....	CONTRACTILE PROTEINS OF MATURE AND DEVELOPING BRAIN.....	1R01 NS15077-01	53,800
FREEMAN, JOHN A.....	SYNAPTIC ORGANIZATION OF THE OPTIC TECTUM.....	2R01 EY01117-07	154,746
GARBERS, DAVID L.....	GUANYLATE CYCLASE: LARGE SCALE PURIFICATION.....	5R01 GM24290-02	90,570
GARBERS, DAVID L.....	REGULATION OF SPERM CYCLIC NUCLEOTIDE METABOLISM.....	5R01 HD10254-04	90,758
GOVE, WALTER R.....	POPULATION DENSITY AND HUMAN BEHAVIOR IN CHICAGO.....	2R01 HD06911-04A1	63,796
GRAHAM, THOMAS P, JR.....	VIDEOEORTHOGRAPHY IN CONGENITAL HEART DISEASE.....	5R01 HL21985-02	106,661
GREENE, HARRY L.....	DEVELOPMENT OF CLINICAL NUTRITION RESEARCH UNIT.....	1P30 AM26657-01	407,828
GUENGERICH, F PETER.....	ENZYMIC ACTIVATION OF ENVIRONMENTAL TOXINS.....	5R01 ES01590-03	43,959
GUENGERICH, F PETER.....	BIOACTIVATION AND COVALENT BINDING OF TOXIC HALOALKENES.....	1R01 ES02205-01	71,708
HAMMON, JOHN W, JR.....	ALBUMIN IN ALTERED PULMONARY VASCULAR PERMEABILITY.....	1R01 HL24641-01	56,124
HANDE, KENNETH R.....	ALLOPURINOL PHARMACOLOGY AND ITS USE IN CANCER THERAPY.....	1R01 CA26418-01	80,482
HANKINS, WILLIAM D.....	A FRIEND VIRUS TRANSFORMATION SYSTEM IN VITRO.....	1R01 CA26306-01	51,593
HARBISON, RAYMOND D.....	ENVIRONMENTAL TOXICANT EFFECTS ON PERINATAL DEVELOPMENT.....	5R01 ES00782-07	64,352
HARDMAN, JOEL G.....	ROLE OF CYCLIC GMP: CONTROL OF CYCLIC GMP METABOLISM.....	5R01 GM16811-10	121,700
HARRIS, THOMAS M.....	TETRACYCLINES AND RELATED PHENOLIC NATURAL PRODUCTS.....	5R01 GM12848-15	75,924
HARRIS, THOMAS M.....	VANCOMYCIN, RISTOCETIN AND RELATED ANTIBIOTICS.....	5R01 GM23593-03	66,128
HARRIS, THOMAS R.....	CORONARY CAPILLARY EXCHANGE: THE EFFECTS OF ISCHEMIA.....	3R01 HL19370-03S1	15,199
HARRISON, ROBERT W, III.....	IMMUNOLOGIC QUANTITATION OF GLUCOCORTICOID RECEPTORS.....	1R01 AM26723-01	46,126
HARRISON, ROBERT W, III.....	PHYSIOLOGY OF PITUITARY CELL GLUCOCORTICOID BINDING.....	5R01 CA19907-03	46,489
HASH, JOHN H.....	CHARACTERIZATION OF STAPHYLOCOCCAL CAPSULAR ANTIGENS.....	1R01 AI15531-01	55,783
HASH, JOHN H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05424-18	201,413
HELLERQVIST, CARL G.....	ANALYSIS OF EUKARYOTIC CELL SURFACES.....	5R01 CA16865-05	61,522
HNILICA, LUBOMIR S.....	PROTEINS OF THE CELL NUCLEUS.....	5R01 CA18389-05	108,554
HNILICA, LUBOMIR S.....	EXPERIMENTAL HEPATOCARCINOGENESIS.....	1R01 CA26412-01	111,515
HNILICA, LUBOMIR S.....	NUCLEAR ANTIGENS IN HUMAN COLORECTAL CANCER.....	1R26 CA27338-01	80,800
HOFFMAN, LOREN H.....	UTERINE AND PLACENTAL CONTROL OF LUTAL FUNCTION.....	5R01 HD05942-08	67,367
HOLLADAY, LESLIE A.....	SOMATOSTATIN-ISLET INTERACTION: EM AUTORADIOGRAPHY.....	5R01 AM23024-02	72,240
INAGAMI, TADASHI.....	RENIN AND PRECURSORS: STRUCTURE AND FUNCTION.....	5R01 HL22288-02	50,182
INAGAMI, TADASHI.....	RENIN IN THE BRAIN.....	1R01 HL24112-01	101,795
JOHNSON, L ENSIGN.....	CONTROL STRUCTURE IN PHYSIOLOGICAL KINETICS.....	5R01 GM24060-02	18,304
JOHNSON, ROGER A.....	REGULATION OF ADENYLATE CYCLASE & CAMP METABOLISM.....	5R01 AM18185-05	90,121
JOHNSON, ROGER A.....	ADENOSINE REGULATION OF C-AMP METABOLISM AND LIPOLYSIS.....	5R01 AM21170-03	60,438
JONES, MARK M.....	POSSIBLE NEW ANTIDOTES FOR MERCURY POISONING.....	5R01 ES01018-05	90,782
KAAS, JON H.....	VISUAL ASSOCIATION CORTEX.....	5R01 EY02686-05	66,144
KAPLAN, ALBERT S.....	METABOLISM OF CELLS INFECTED WITH NUCLEAR DNA VIRUSES.....	5R01 AI10947-08	274,582
KONO, TETSURO.....	ACTION OF INSULIN ON ITS RECEPTOR AND PHOSPHODIESTERASE.....	5R01 AM06725-18	93,768
KONO, TETSURO.....	ACTION OF INSULIN ON SUGAR TRANSPORT.....	5R01 AM19925-03	48,314
KRANTZ, SANFORD B.....	ERYTHROPOIETIN AND THE REGULATION OF ERYTHROPOIESIS.....	5R01 AM15555-08	91,015
KRONENBERG, MARVIN W.....	IMAGING & ECG IN ACUTE & CHRONIC ISCHEMIC HEART DISEASE.....	5R23 HL22004-02	48,123
LACY, WILLIAM W.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR009519	1,411,570
LANDON, ERWIN J.....	FACTORS COUPLING STIMULUS TO RESPONSE IN HYPERTENSION.....	1R01 HL25358-01	85,713
LIMBIRD, LEE E.....	ADRENERGIC RECEPTORS AND THE ADENYLATE CYCLASE SYSTEM.....	7R23 HL24777-01	32,466
LINCOLN, THOMAS.....	REGULATION OF HEART C-AMP DEPENDENT PROTEIN KINASE.....	5R01 HL19181-03	25,435
MC GEE, ZELL A.....	PATHOGENIC MECHANISMS IN GONOCOCCAL INFECTIONS.....	3R01 AI13488-03S1	11,077
MC GEE, ZELL A.....	PATHOGENIC MECHANISMS IN GONOCOCCAL INFECTIONS.....	2R01 AI13488-04	125,925
MC KANNA, JAMES A.....	OPHTHALMIC PARAMETERS IN THE DEVELOPMENT OF MYOPIA.....	5R01 EY02221-02	61,404
MENG, H C.....	ESSENTIAL FATTY ACID DEFICIENCY IN MAN AND ANIMAL.....	2R01 AM18281-04A1	195,074
MITCHELL, WILLIAM M.....	HUMAN PROCOLLAGEN STRUCTURE AND FUNCTION.....	5R01 AM18222-05	74,853
MOSIG, GISELA.....	DNA REPLICATION AND RECOMBINATION IN BACTERIOPHAGE.....	5R01 GM13221-15	127,302
MOYER, SUE A.....	REPLICATION AND INTERFERENCE OF RNA VIRUSES.....	5R01 AI14594-02	98,307
NEAL, ROBERT A.....	ENZYMIC MECHANISMS OF INSECTICIDE METABOLISM.....	5R01 ES00075-15	80,213
NEAL, ROBERT A.....	CENTER IN ENVIRONMENTAL TOXICOLOGY.....	5P30 ES00267-12	571,619

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
NEAL, ROBERT A.	MECHANISM(S) OF TOXICITY OF THE CHLORINATED P-DIOXINS	5R01 ES01552-03	42,290
O'DAY, DENIS M.	STUDIES IN EXPERIMENTAL FUNGAL INFECTIONS OF THE EYE	2R01 EY01621-04	94,930
OATES, JOHN A.	RESEARCH CENTER FOR PHARMACOLOGY AND DRUG TOXICOLOGY	5P50 GM15431-12	1,298,489
OATES, JOHN A.	SPECIALIZED CENTER OF RESEARCH IN HYPERTENSION	5P50 HL14192-09	1,251,595
OATES, JOHN A.	RENAL PROSTAGLANDINS: SYNTHESIS AND FUNCTION	5R01 HL16489-05	172,637
OLDHAM, ROBERT K.	SOUTHEASTERN CANCER STUDY GROUP	3R10 CA23909-01S1	160,203
OLSON, GARY E.	DEVELOPMENTAL BIOLOGY OF MAMMALIAN SPERMATOZOA	5R01 HD11816-02	61,928
ONG, DAVID E.	CANCER AND VITAMIN A	5R01 CA20850-03	40,383
ORGBIN-CRIST, MARIE	MALE REPRODUCTIVE PHYSIOLOGY	5R01 HD03820-11	86,996
ORGBIN-CRIST, MARIE	CENTER FOR POPULATION AND REPRODUCTIVE BIOLOGY RESEARCH	5P30 HD05797-08	232,495
ORTH, DAVID N.	NEW HUMAN GROWTH-STIMULATING HORMONE: EGF/UROGASTRONE	5R01 AM19739-03	68,589
ORTH, DAVID N.	TUMOR CELL SYNTHESIS & SECRETION OF PEPTIDE HORMONES	5R01 CA11685-10	122,551
ORTH, DAVID N.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA19429-04	172,765
PARK, JANE H.	STUDIES ON 3-PHOSPHOGLYCERALDEHYDE DEHYDROGENASE	5R01 GM07884-18	86,017
PATTON, JAMES A.	EVALUATION OF A MOSAIC INTRINSIC GERMANIUM SCANNER	5R01 GM23627-03	46,272
PILKIS, SIMON J.	HORMONAL CONTROL OF HEPATIC GLUCONEOGENESIS	5R01 AM18270-05	100,135
POST, ROBERT L.	THE ION-PUMP IN THE ERYTHROCYTE	5R01 HL01974-25	152,965
PUETT, J DAVID	STRUCTURE AND METABOLISM OF PITUITARY HORMONES	5R01 AM15838-08	84,941
PUETT, J DAVID	GONADOTROPIN ACTIONS IN LEYDIG TUMOR CELLS	5R01 CA23603-02	36,076
RABIN, DAVID	GLUCOSE REGULATION OF ORAL PROTEIN DISPOSITION	5R01 AM22195-02	95,401
RABINOWITZ, DAVID	HORMONAL CONTROL OF SPLANCHNIC AND FOREARM METABOLISM	5R01 AM19587-03	77,204
RABINOWITZ, DAVID	PITUITARY-GONADAL PHYSIOLOGY AND PHARMACOLOGY	3R01 HD10128-03S1	19,195
REED, PETER W.	REGULATION OF POLYMORPHONUCLEAR LEUKOCYTE FUNCTION	5R01 GM24690-02	60,942
REGEN, DAVID M.	GLUCOSE-TRANSPORT REGULATION IN THYMOCYTES	5R01 AM18733-04	69,849
ROBINSON, JOHN P.	THE AMINO ACID SEQUENCE OF TETANUS TOXIN	2R01 AI12750-04A1	99,330
ROSELLI, ROBERT J.	TRANSVASCULAR FLUID AND PROTEIN EXCHANGE IN THE LUNG	5R23 HL22933-02	44,640
ROSENTHAL, RONALD E.	STUDIES OF THE SYNOVIAL RESPONSE TO ACUTE TRAUMA	5R01 AM17475-06	44,042
SASTRY, B V.	CHOLINERGIC SYSTEM, SPERM MOTILITY AND MALE FERTILITY	5R01 HD10607-03	75,964
SASTRY, RAMA B.	AGING, MEMBRANE FLUIDITY AND DRUG ACTION	1R01 AG02077-01	82,503
SEAEVER, SALLY S.	THE HORMONAL REGULATION OF THE EXPRESSION OF A GENE	5R01 HD10610-03	51,085
SLONIM, EPHRAIM A.	REDOX CHANGES ON B CELL VIABILITY AND INSULIN RELEASE	5R01 AM21323-03	45,474
SODERLING, THOMAS R.	REGULATION OF GLYCOGEN SYNTHASE KINASES AND PHOSPHATASE	5R01 AM17808-05	76,268
STAHLMAN, MILDRED T.	APNEA AND S.I.D.S. FROM THE LARYNGEAL CHEMOREFLEX	5R01 HD10454-03	67,749
STAHLMAN, MILDRED T.	NEWBORN LUNG CENTER FOR HYALINE MEMBRANE DISEASE	5P50 HL14214-08	646,079
STAHLMAN, MILDRED T.	PULMONARY VASCULAR RESPONSE TO GROUP B STREPTOCOCCI	5R01 HL22520-02	119,097
STEIN, RICHARD S.	LITHIUM INDUCED GRANULOCYTOSIS IN CANCER PATIENTS	5R01 CA23971-02	35,744
STOLTZFUS, CONRAD M.	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNA	5R01 CA16262-05	30,867
SWIFT, LARRY L.	LIVER AND INTESTINAL GOLGI LIPOPROTEINS IN MAN AND RAT	1R01 HL23525-01A1	46,343
TABER, DOUGLASS F.	SYNTHESIS OF CYTOTOXIC AGENTS	5R01 CA22757-03	38,190
WAGNER, CONRAD	TISSUE STORES OF FOLATE: DIETARY CONTROL AND ASSAY	5R01 AM15289-05	51,379
WATSON, J THROCK	NIH-GMS SHARED GC/MS-COMPUTER INSTRUMENTATION	1P41 GM27557-01	162,058
WELLS, JACK N.	TISSUE SPECIFIC INHIBITORS OF PHOSPHODIESTERASE	5R01 GM21220-04	52,728
WELLS, JACK N.	PHOSPHODIESTERASE INHIBITION AND MUSCLE CONTRACTION	2R01 HL19325-04	67,841
WILKINSON, GRANT R.	EFFECTS OF THE AGING PROCESS ON DRUG RESPONSIVENESS	1R01 AG01395-01	131,774
WILLIAMS, ROBLEY C, JR.	ASSEMBLY AND DISASSEMBLY OF CYTOPLASMIC MICROTUBULES	3R01 GM25638-01S1	2,301
WILLIAMS, ROBLEY C, JR.	ASSEMBLY AND DISASSEMBLY OF CYTOPLASMIC MICROTUBULES	5R01 GM25638-02	81,124
WILLIAMS, ROBLEY C, JR.	SHARED ELECTRON MICROSCOPE	1P41 GM27447-01	87,000
WILSON, BENJAMIN J.	NATURALLY OCCURRING FOOD TOXICANTS	5R01 ES00569-14	98,307
WILSON, FREDERICK A.	MECHANISMS FOR INTESTINAL BILE ACID TRANSPORT	5R01 AM21696-02	66,097
ORGANIZATION TOTAL	139	17,086,114	

OAK RIDGE

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ARNESON, RICHARD M.	ANTIOXIDANTS IN MOUSE NEUROBLASTOMA	7R01 CA27465-01	33,017
CENGOZIAN, NAZARETH	'AUTOIMMUNE' THROMBOCYTOPENIA	5R01 HL16757-05	120,489
LITTLEFIELD, L GAYLE	EVALUATION OF INDUCED CYTOGENETIC LESIONS IN OOCYTES	5R01 HD11709-02	165,593
LUSHBAUGH, CLARENCE C.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RS0746-07	39,150
RICHTER, CONRAD B.	MARMOSSET BREEDING FACILITY	5P40 RR01125-02	11,424

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
SNYDER, FRED L.....	ETHER LIPIDS IN CANCER-ENZYME MECHANISMS & INHIBITORS.....	5R01 CA11949-10	60,377
SNYDER, FRED L.....	SURFACTANT METABOLISM: ALVEOLAR CELLS & LUNG DISEASE.....	5R01 HL18181-05	61,534
ORGANIZATION TOTAL	7 491,584		
UNION CARBIDE CORPORATION—OAK RIDGE NATIONAL LABORATORY ZIP CODE 37830			
KENNEY, FRANCIS T.....	TURNOVER OF PROTEINS AND MRNAS IN MAMMALIAN CELLS.....	5R01 GM25210-02	61,876
WITSCHI, HANSPETER R.....	SYMPOSIUM OF TOXICITY ASSESSMENT.....	1R13 ES02185-01	15,000
ORGANIZATION TOTAL	2 76,876		
STATE TOTAL	317 34,053,313		
TEXAS			
ARLINGTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT ARLINGTON ZIP CODE 76010			
BELLION, EDWARD.....	BIOSYNTHESIS OF VITAMIN B1 (THIAMINE).....	5R01 GM24804-02	45,431
COX, VERNE C.....	INVESTIGATION OF LEARNED HEART-RATE CONTROL.....	5R01 HL21426-03	40,595
ERICKSON, JAMES R.....	INVESTIGATION OF LEARNED HEART-RATE CONTROL.....	3R01 HL21426-02S1	640
SCHACHAR, RONALD A.....	RAMAN SPECTROSCOPY OF THE LENS OF THE EYE.....	3R01 EY03410-01S1	1,439
STEWART, GEORGE L.....	PARASITE ALTERATION OF HOST CARBOHYDRATE METABOLISM.....	1R01 AI15704-01	28,790
ORGANIZATION TOTAL	5 116,895		
AUSTIN			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN ZIP CODE 78712			
BAKER, LEE E.....	QUANTIFICATION OF INTRATHORACIC FLUID BY IMPEDANCE.....	2R01 HL19678-02A1	28,263
BANKS, MARTIN S.....	THE DEVELOPMENT OF FORM PERCEPTION IN INFANCY.....	1R01 HD12572-01	50,827
BAULD, NATHAN L.....	SYNTHESIS USING B-CARBONYLEONLATE TRIANIONS.....	1R01 GM25905-01	36,340
BERRY, L JOE.....	RETICULOENDOTHELIAL INVOLVEMENT IN ENDOTOXEMIC EFFECTS.....	5R01 AI10087-10	43,256
BERRY, L JOE.....	IMMUNITY TO CHOLERA AND OTHER ENTEROTOXIC DISEASES.....	5R22 AI10466-08	58,318
BITTNER, GEORGE D.....	TROPHIC INTERACTIONS OF AXONS, GLIA, AND OTHER NEURONS.....	5R01 NS14412-02	35,270
BLOCH, DAVID P.....	SIMULTANEOUS FMF DETERMINATION OF DNA AND HISTONE.....	3R01 GM23331-02S1	2,640
BOSE, HENRY R.....	IMMUNOSUPPRESSION DURING ACUTE AVIAN LEUKEMIA.....	1R01 CA26169-01	70,774
BRITTON, LARRY N.....	BIOCHEMICAL BASIS OF AERO-INTOLERANCE IN ANAEROBES.....	1R01 AI15995-01	56,809
BRONSON, FRANKLIN H.....	PEROMONES AND REPRODUCTION IN MICE.....	1R01 HD13155-01	59,145
BROWN, DENNIS T.....	TOGAVIRUS GROWTH IN VERTEBRATE AND INVERTEBRATE CELLS.....	5R01 AI14710-02	78,822
BROWN, JAMES R.....	PRIMARY AND TERTIARY STRUCTURE OF PROTEINS.....	5R01 HD02899-12	44,983
COLE, GARRY T.....	STUDY OF GASTROINTESTINAL AND SYSTEMIC CANDIDIASIS.....	1R01 AI15583-01	109,250
DAVIS, PATRICK J.....	CHEMICAL AND MICROBIAL MODIFICATIONS OF COLCHICINE.....	5R23 CA24171-02	33,904
DESIJARDINS, CLAUDE.....	REPRODUCTIVE AGING IN MALE MICE.....	5R01 AG00958-02	193,931
DESIJARDINS, CLAUDE.....	HORMONAL REGULATION OF MALE REPRODUCTION.....	1R01 HD13470-01	79,033
DIEHL, RANDY L.....	SELECTIVE ADAPTATION TO SPEECH SOUNDS.....	5R01 NS13764-03	22,828
DILLER, KENNETH R.....	PHARMACOLOGICAL TREATMENT OF EDEMA IN BURN INJURY.....	5R01 GM22693-04	57,615
EBERHART, ROBERT C.....	ANALYSIS OF BLOOD TRAUMA FROM MICROPOROUS OXYGENATORS.....	5R01 HL19173-04	64,320
FALBO, TONI.....	FAMILY CONFIGURATION AND INTERPERSONAL BEHAVIOR.....	5R01 HD12605-02	53,158
FOLKERS, KARL.....	BIOLOGICAL INVESTIGATIONS OF SUBSTANCE P.....	3R01 HL18993-03S1	6,465
FOX, J LAWRENCE.....	ENZYME STRUCTURE.....	2R01 GM21688-04A1	44,465
FREEMAN, GARY L.....	THE ROLE OF EGG ORGANIZATION DURING EARLY DEVELOPMENT.....	2R01 GM20024-06	49,841
GALLE, OMER R.....	POPULATION RESEARCH CENTER.....	5P30 HD06160-09	177,795
GEISLER, WILSON S.....	VISUAL ADAPTATION IN CONE AND ROD SYSTEMS.....	1R01 EY02688-01	32,227
GIBSON, DAVID T.....	MICROBIAL DEGRADATION OF CARCINOGENIC HYDROCARBONS.....	2R01 CA19078-04	87,000
GIBSON, DAVID T.....	ENZYMATIC OXYGEN FIXATION INTO AROMATIC HYDROCARBONS.....	5R01 ES00537-09	68,853
GRANT, PHILIP G.....	CONTROL OF MUSCLE MIGRATION IN GROWING BONES.....	5R01 AM19632-03	59,607
HACKERT, MARVIN L.....	STRUCTURE AND FUNCTION OF SUPRA-MOLECULAR ASSEMBLAGES.....	2R01 GM23306-04	39,676
HAKES, DAVID T.....	THE EMERGENCE OF LINGUISTIC INTUITIONS IN CHILDREN.....	5R01 HD10969-02	40,944
HAMILTON, TERRELL H.....	CONTROL MECHANISMS IN REPRODUCTION.....	5P50 HD03803-11	433,061
HAMILTON, TERRELL H.....	RECEPTORS AND CHROMOSOMAL PROTEINS IN ESTROGEN ACTION.....	1R01 HD12967-01	97,001

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
HARDESTY, BOYD A.....	TRANSLATION CONTROL IN RETICULOCYTES AND LEUKEMIC CELLS.....	5R01 CA16608-05	126,216
HATCH, THOMAS P.....	ATTACHMENT, PENETRATION, AND GROWTH OF CHLAMYDIAE.....	2R01 AI13417-04	57,561
HIRAZUMI, YUICHIRO.....	GENETICS OF REPRODUCTIVE LONGEVITY IN DROSOPHILA.....	1R01 AG01934-01	64,920
HIRAZUMI, YUICHIRO.....	MALE RECOMBINATION-MUTATOR SYSTEM IN DROSOPHILA.....	2R01 GM19770-07	91,676
JEFFERY, WILLIAM R.....	STRUCTURE AND FUNCTION OF MESSENGER RIBONUCLEOPROTEIN.....	2R01 GM25119-03	84,263
KALTHOFF, KLAUS O.....	ANALYSIS OF A MORPHOGENETIC DETERMINANT IN AN EMBRYO.....	5R01 AI15046-02	66,803
LARIMER, JAMES L.....	NEURAL BASIS OF BEHAVIOR.....	5R01 NS05423-15	57,454
LEE, CHONG S.....	STUDIES OF DNA, CHROMATIN AND CHROMOSOMES OF DROSOPHILA.....	1R01 GM24495-01A1	64,279
MABRY, TOM J.....	THE FUNCTION AND SYSTEMATIC ROLE OF NATURAL PRODUCTS.....	5R01 HD04488-15	52,614
MACNEILAGE, PETER F.....	CONTROL OF MOVEMENT IN SPEECH APRAXIA.....	1R01 NS15336-01	96,758
MACGUIRE, MARJORIE P.....	CHROMOSOME STRUCTURES AND MEIOTIC MECHANISMS.....	2R01 GM19582-07	15,223
MANDY, WILLIAM J.....	STUDIES WITH ANTIGLOBULIN ANTIBODIES.....	5R01 AI07184-14	92,046
MARTIN, STEPHEN F.....	TOTAL SYNTHESIS OF THE ANTICANCER AGENT PRETAZETTINE.....	1R01 CA21860-01A2	59,212
MARTIN, STEPHEN F.....	A NOVEL SYNTHETIC APPROACH TO THE ERYTHRINA ALKALOIDS.....	1R01 GM25439-01	34,552
MC FADDEN, DENNIS.....	PSYCHOPHYSICS OF BINAURAL HEARING.....	5R01 NS08754-10	80,449
MEIER, STEPHEN P.....	MATRIX-CELL INTERACTION IN CRANIOFACIAL DEVELOPMENT.....	7R01 DE05616-01	43,282
MEYER, RICHARD J.....	REPLICATION AND HOST-RANGE OF RK2 AND ITS DERIVATIVES.....	5R01 GM25318-02	40,127
MOLEINEUX, IAN J.....	STUDIES OF DNA-BINDING PROTEINS AND T7 DNA SYNTHESIS.....	1R01 GM26183-01	82,529
PARKER, CHARLOTTE D.....	NEW APPROACHES TO PERTUSSIS VACCINE.....	5R01 AI12955-04	76,124
POLLAK, GEORGE D.....	A SINGLE UNIT ANALYSIS OF THE AUDITORY SYSTEM.....	5R01 NS13276-03	38,799
POWERS, EDWARD L.....	PHYSICOCHEMICAL STUDIES OF RADIATION EFFECTS IN CELLS.....	5R01 GM13557-13	73,535
POWERS, EDWARD L.....	CENTER FOR FAST KINETICS RESEARCH.....	3P41 RR00886-04S1	111,264
POWERS, EDWARD L.....	CENTER FOR FAST KINETICS RESEARCH.....	5P41 RR00886-05	221,792
RAVEL, JOANNE M.....	FACTORS CONTROLLING PROTEIN BIOSYNTHESIS.....	5R01 GM18775-08	52,745
REED, LESTER J.....	BIOCHEMISTRY OF ALPHA-KETO ACID DEHYDROGENASE COMPLEXES.....	5R01 GM06590-21	123,097
RIGGS, AUSTEN F, II.....	STRUCTURAL BIOCHEMISTRY OF HEMOGLOBINS AND HEMOCYANINS.....	2R01 GM21314-04	89,619
ROBERTUS, JON D.....	STRUCTURE AND ACTION OF THE ANTIVIRAL PROTEIN PAP.....	2R01 AI13584-04	68,053
RODGERS, MICHAEL A.....	SINGLET OXYGEN IN BIOLOGICAL ENVIRONMENTS.....	1R01 GM24235-01A1	63,748
SANDERS, BOB G.....	EMBRYONIC & VIRALLY INDUCED TUMOR-CELL MEMBRANE ANTIGENS.....	5R01 CA12851-08	40,006
SANDERS, BOB G.....	IMMUNODEFICIENCY STUDIES IN MUSCULAR DYSTROPHY.....	5R01 NS14252-02	47,660
SMITH, ROBERT V.....	METABOLISM OF APOMORPHINE AND ITS ANALOGS.....	2R01 NS12259-05	59,590
SNELL, ESMOND E.....	NUTRITION AND METABOLISM OF MICROORGANISMS.....	5R01 AI13940-04	85,604
SNELL, ESMOND E.....	CATALYTIC FUNCTIONS AND METABOLISM OF VITAMIN B6.....	2R01 AM19898-04	82,914
SUTTON, H ELDON.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07091-14	153,692
TABITA, FRED R.....	FUNCTION AND ASSEMBLY OF CO2 ASSIMILATORY ENZYMES.....	5R01 GM24497-02	44,837
WADE, CHARLES G.....	NMR RELAXATION OF LIQUID CRYSTAL SYSTEMS.....	5R01 HL12528-11	47,525
WALKER, JAMES R.....	REGULATION OF BACTERIAL CELL DIVISION.....	5R01 AI08286-11	8,712
WANG, KUAN.....	CONTRACTILE PROTEINS AND GROWTH CONTROL OF EUKARYOTES.....	5R01 AM20270-03	58,318
WHITESELL, JAMES K.....	THE TOTAL SYNTHESIS OF SARRACENIN.....	5R01 CA21852-03	43,859
WOODRUFF, WILLIAM H.....	COPPER BINDING IN PROTEINS: RESONANCE RAMAN STUDY.....	5R01 AM21333-02	44,761
ORGANIZATION TOTAL.....	72 5,162,639		
COLLEGE STATION			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS AGRICULTURAL AND MECHANICAL UNIV		ZIP CODE 77843	
ADAMS, EMORY T, JR.....	BILE SALT SYSTEMS—INTERACTIONS AND CATALYSIS.....	5R01 GM23877-03	66,570
BATES, GEORGE W.....	IRON TRANSPORT AND UTILIZATION IN THE RETICULOCYTE.....	5R01 AM17790-05	28,398
BERGBREITER, DAVID E.....	ELECTROPHILIC ASYMMETRIC SYNTHESSES.....	1R01 GM26268-01	49,512
COSTA, MAX.....	NICKEL CARCINOGENESIS IN TISSUE CULTURE.....	7R23 ES02254-01	32,740
COTTON, F ALBERT.....	STRUCTURE OF A MICROCOCCAL NUCLEASE.....	3R01 GM19455-07S1	8,000
COTTON, F ALBERT.....	STRUCTURE OF A MICROCOCCAL NUCLEASE.....	5R01 GM19455-08	87,319
FIFE, WILLIAM P.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07090-14	80,643
GRANGER, HARRIS J.....	PATHOPHYSIOLOGY OF EDEMA.....	5R01 HL21498-03	46,877
GRANGER, HARRIS J.....	PATHOBIOLOGY OF HYPERTENSIVE MICROVESSELS.....	1R01 HL25387-01	117,815
GUNN, J MARTYN.....	REGULATION OF INTRACELLULAR PROTEOLYSIS BY INSULIN.....	5R01 AM19891-02	51,687
HARDING, KENN E.....	SPIROCYCLIC SYSTEM SYNTHESIS—PI CATIONIC CYCLIZATION.....	1R01 GM26265-01	42,664
HOGG, JOHN L.....	PROTON INVENTORIES AND TRANSITION STATE STRUCTURE.....	1R01 GM25433-01	33,197
IHLER, GARRET M.....	MAPPING GENES BY BINDING RIBOSOMES TO DNA.....	2R01 GM24432-03	75,669
IPPEN-IHLER, KARIN.....	THE GENETICS OF PLASMID TRANSFER AND REPLICATION.....	5R01 AI14426-03	52,061

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
JONES, CARL E.....	INTERVENTIONS TO IMPROVE CARDIAC FUNCTION IN ISCHEMIA.....	5R01 HL20286-03	30,416
JONES, CARL E.....	ANTI-INFARCTION EFFECTS IN THE DENERVATED HEART.....	1R01 HL22243-01A1	42,329
KEELEY, LARRY L.....	NEUROHORMONAL REGULATION OF CYTOCHROME SYNTHESIS.....	5R01 AI15190-02	65,139
KEMP, WALTER M.....	ANTIGEN SHARING BETWEEN SCHISTOSOMES AND SNAILS.....	5R22 AI15057-02	34,247
MACFARLANE, RONALD D.....	BIOMEDICAL USE OF PLASMA DESORPTION MASS SPECTROMETRY.....	3R01 GM26096-01S1	16,040
MACFARLANE, RONALD D.....	BIOMEDICAL USE OF PLASMA DESORPTION MASS SPECTROMETRY.....	2R01 GM26096-02	102,948
MARIANO, PATRICK S.....	SYNTHESIS OF MITOMYCIN AND ITS ANALOGS.....	5R01 CA16695-04	43,332
MARTELL, ARTHUR E.....	REACTIONS OF METAL CHELATES OF VITAMIN B6.....	5R01 AM11694-14	45,784
MARTELL, ARTHUR E.....	GALLIUM (III) COMPLEXES IN AQUEOUS SOLUTION.....	5R01 CA22464-02	29,238
MC MURRAY, DAVID N.....	PROTEIN AND ZINC DEFICIENCY AND VACCINE EFFICACY.....	1R01 AI15495-01	53,099
MEYER, EDGAR F, JR.....	COMPUTER AIDED STUDY OF DRUG-RECEPTOR INTERACTIONS.....	1R01 GM25469-01	52,629
MILLER, GERALD E.....	IN VIVO MEASUREMENT OF WALL SHEAR STRESS IN THE AORTA.....	1R01 HL23388-01	38,931
NAGYVARY, JOSEPH J.....	DESIGN OF NUCLEOTIDE PRO-DRUGS.....	5R01 CA11389-08	22,737
O'BRIEN, BARBARA C.....	REGULATION OF LIPOGENESIS BY POLYUNSATURATED DIET FAT.....	5R01 AM20477-02	31,352
OPHEIM, DENNIS J.....	THE BIOLOGICAL FUNCTIONS OF ALPHA MANNOSIDASE IN YEAST.....	5R01 GM25528-02	38,375
PACE, CARLOS N.....	MECHANISM OF DEGRADATION OF ARGINASE IN RAT LIVER.....	5R01 AM19112-02	33,741
RENSHAW, HARLAND W.....	INTRANEUTROPHILIC MICROBICIDAL DEFECTS.....	7R01 AI15952-01	27,673
SCOTT, A IAN.....	BROAD-SPECTRUM AND ANTITUMOR ANTIBIOTICS-BIOSYNTHESIS.....	2R01 AI14481-02	82,892
SCOTT, A IAN.....	PORPHYRIN AND CORRINOID BIOSYNTHESIS.....	5R01 AM20528-03	131,337
SCOTT, A IAN.....	ANTITUMOR ALKALOIDS BIOSYNTHESIS & BIOGENETIC SYNTHESIS.....	5R01 CA22436-03	116,461
SEAGER, STEPHEN W.....	ANIMAL MODEL RESOURCE CENTER: A SPECIAL PROGRAM.....	5P40 RR01120-02	117,173
SIS, RAYMOND F.....	A MARMOSET COLONY FOR BIOMEDICAL RESEARCH.....	5P40 RR01060-03	108,098
TOLLEY, H DENNIS.....	EPIDEMIOLOGICAL RISK MODELING AND ESTIMATION.....	1R23 ES02067-01	35,768
WOOD, RANDALL.....	TUMOR LIPIDS: METABOLISM AND STRUCTURAL STUDIES.....	5R01 CA20136-03	69,689
ZINGARO, RALPH A.....	BIOMOLECULES CONTAINING THE SASR2 OR SEASR2 GROUP.....	5R01 CA16912-05	42,701
ZINGARO, RALPH A.....	CHARACTERIZATION OF ORGANOSELENIUM COMPOUNDS IN NATURE.....	1R01 ES02051-01	55,849
ORGANIZATION TOTAL	40	2,241,130	
DALLAS			
BAYLOR COLLEGE OF DENTISTRY	ZIP CODE 75226		
DILL, RUSSELL E.....	DRUG EFFECTS ON NUCLEUS ACCUMBENS.....	1R01 NS15020-01	55,463
FRAZIER, LOY W, JR.....	PLASMA FACTOR(S) WHICH STIMULATE H ₂ O & NH ₄ O EXCRETION.....	5R01 AM18689-05	26,354
TAYLOR, ALAN N.....	CALCIUM BINDING PROTEINS AND CALCIUM HOMEOSTASIS.....	1R01 AM25147-01	34,372
ORGANIZATION TOTAL	3	116,189	
BISHOP COLLEGE	ZIP CODE 75241		
COBO-FRENKEL, ADRIANA.....	UDP-GLUCURONYL-TRANSFERASE AND RADIOCONTRAST MEDIA.....	1R01 GM26992-01	54,474
FOWLKS, EDISON R.....	INTERDISCIPLINARY RESEARCH IN MOLECULAR BIOLOGY.....	5S06 RR08050-09	118,642
ORGANIZATION TOTAL	2	173,116	
SOUTHERN METHODIST UNIVERSITY	ZIP CODE 75275		
MC ALISTER, ROBERT O.....	MALARIA: IMMUNOGENIC PROPERTIES OF PARASITE ANTIGENS.....	1R01 AI15828-01	41,208
SOHAL, RAJINDAR S.....	AGE-ASSOCIATED CELLULAR ALTERATIONS IN THE HOUSEFLY.....	5R01 AG00171-03	34,583
UBELAKER, JOHN E.....	ULTRASTRUCTURE OF REPRODUCTION IN SCHISTOSOMES.....	5R22 AI14685-02	20,465
ORGANIZATION TOTAL	3	96,256	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS	ZIP CODE 75235		
ANDERSON, RICHARD G.....	AN INTEGRATED STUDY OF THE OVIDUCT BASAL BODY AND CILIUM.....	5R01 HD08987-05	64,466
ATKINS, JAMES M.....	CARDIOVASCULAR ADAPTATION TO STRESS IN DISEASE STATES.....	5R01 HL20678-03	55,620
BARNEA, AYALLA.....	ROLE OF HORMONES IN NEURONAL PROCESSING OF LH RH & TRH.....	1R01 AM25692-01	66,398
BARNEA, AYALLA.....	NEUROENDOCRINE MECHANISMS OF HYPOPHYSEAL SECRETION.....	5R01 HD10358-02	33,970
BASKIN, FRED.....	MEMBRANE BIOCHEMISTRY IN DRUG RESISTANT NEUROBLASTOMA.....	1R01 CA24820-01A1	142,959
BAXTER, CHARLES R.....	CIRCULATORY AND FLUID VOLUME CHANGES IN BURNS.....	2P01 GM21681-15	247,929
BAXTER, CHARLES R.....	LEUKOCYTE FUNCTION IN BURN AND TRAUMA PATIENTS.....	1R01 GM25504-01A1	98,514
BEER, ALAN E.....	IMMUNOREGULATION OF MAMMALIAN REPRODUCTION.....	5R01 HD10413-03	46,917
BELL, WILLIAM H.....	SURGICAL-ORTHODONTICS AND BONE HEALING.....	2R01 DE03794-07	100,256
BERGSTRESSER, PAUL R.....	MECHANISMS OF ALTERED GRANULOCYTE FUNCTION IN PSORIASIS.....	1R01 AM25563-01	55,425
BILHEIMER, DAVID W.....	LIPOPROTEIN METABOLISM IN RELATION TO ATHEROSCLEROSIS.....	5R01 HL15949-06	73,613

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
BILLINGHAM, RUPERT E.....	IMMUNOBIOLOGY OF TISSUE TRANSPLANTATION AND PREGNANCY.....	5R01 AI10678-08	297,966
BONTE, FREDERICK J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05426-18	201,413
BRATER, DONALD C.....	MODULATION BY DISEASE OF EFFECT OF FUROSEMIDE IN MAN.....	5R23 HL22882-02	37,708
BRUCE, LARRY A.....	HORMONE INFLUENCES ON GI MOTOR FUNCTION.....	5R01 AM21657-02	41,876
BUTOW, RONALD A.....	MECHANISMS OF BIOENERGETIC REACTIONS.....	2R01 GM19090-07	68,115
BUTOW, RONALD A.....	REGULATION OF MITOCHONDRIAL BIOGENESIS IN YEAST.....	2R01 GM22525-04	69,250
CAMPBELL, WILLIAM B.....	ANGIOTENSIN AND PROSTAGLANDIN CONTROL OF ALDOSTERONE.....	5R23 HL21066-03	33,713
CAPRA, J DONALD.....	IMMUNOGLOBULIN V REGION STRUCTURES: GENETIC IMPLICATION.....	2R01 AI12127-05	172,645
CAPRA, J DONALD.....	STUDIES ON THE H-2 LINKED SS PROTEIN AND HUMAN C4.....	5R01 AI14742-03	53,770
CASSIDY, SHARON S.....	CARDIOVASCULAR EFFECTS OF LUNG DISTENSION.....	5R01 HL22589-02	48,268
COMBES, BURTON.....	PROGRAM-PROJECT IN LIVER DISEASES.....	2P01 AM19329-04	523,643
COTTAM, GENE L.....	NATURE OF THE REGULATION OF LIVER PYRUVATE KINASE.....	2R01 AM19031-04	53,031
DIETSCHY, JOHN M.....	CONTROL OF CHOLESTEROL METABOLISM-BILE ACID TRANSPORT.....	5R01 HL09610-15	181,373
DOBBS, RICHARD E.....	HYPOTHALAMIC LESIONS AND PANCREATIC ISLET FUNCTION.....	1R01 AM25974-01	47,220
DOWBEN, ROBERT M.....	PROBE STUDIES OF ADRENERGIC RECEPTOR ADENYL CYCLASE.....	2R01 HL18272-04A1	61,391
DOWNEY, H FRED.....	REGIONAL, NON-ISCHEMIC MYOCARDIAL HYPOXIA.....	5R01 HL21657-02	46,629
DU BOSE, THOMAS D, JR.....	MECHANISM OF RENAL ACID-BASE HOMEOSTASIS.....	1R01 AM25730-01	75,858
ERDOS, ERVIN G.....	VASOACTIVE PEPTIDES WHICH STIMULATE SMOOTH MUSCLES.....	5R01 HL16320-06	78,430
ERDOS, ERVIN G.....	RENAL ENZYMES THAT REGULATE BLOOD PRESSURE.....	3R01 HL20594-02S1	1,500
ERDOS, ERVIN G.....	RENAL ENZYMES THAT REGULATE BLOOD PRESSURE.....	5R01 HL20594-03	90,294
ESTABROOK, RONALD W.....	HEPATIC MICROSOMAL DRUG OXIDATION.....	5R01 GM16488-12	275,772
ESTABROOK, RONALD W.....	PURCHASE OF A MASS SPECTROMETER.....	1P41 GM27506-01	164,172
FAWCETT, C PETER.....	HYPOTHALAMIC REGULATION OF THE ENDOCRINE PANCREAS.....	5R01 AM21163-03	45,099
FEIT, HOWARD.....	THE ROLE OF TUBULIN AT THE NERVE ENDING.....	2R01 NS12743-04	63,977
FINKELSTEIN, DAVID B.....	COORDINATION OF PERIODIC GENE EXPRESSION IN YEAST.....	1R01 GM25829-01	57,068
FINKELSTEIN, RICHARD A.....	CHOLERA EXO-ENTEROTOXIN AND IMMUNITY IN CHOLERA.....	5R22 AI08877-11	88,899
FINKELSTEIN, RICHARD A.....	THE CRITICAL ROLE OF IRON IN GONOCOCCAL VIRULENCE.....	1R01 AI15502-01	14,062
FIXLER, DAVID E.....	CARDIOVASCULAR FOLLOW-UP OF HYPERTENSIVE ADOLESCENTS.....	2R01 HL18456-04	154,086
FORDTRAN, JOHN S.....	GASTRIC ACID SECRETION AND BUFFER CONTENT AFTER EATING.....	5R01 AM16816-06	91,240
FORMAN, JAMES M.....	ANALYSIS OF H-2 MUTANT STRAINS.....	5R01 AI13111-04	89,140
FOSTER, DANIEL W.....	REGULATION OF KETOGENESIS IN TISSUES.....	5R01 AM18573-18	180,559
FRENKEL, EUGENE P.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18132-05	97,001
FRENKEL, EUGENE P.....	NEW IMMUNOLOGIC APPROACHES TO LYMPHOID NEOPLASMS.....	5P01 CA23115-02	466,839
FRENKEL, RENE A.....	FUNCTION AND REGULATION OF MAMMALIAN MALIC ENZYMES.....	5R01 AM17983-05	36,730
GALOSY, RICHARD A.....	CARDIOVASCULAR ADJUSTMENT TO BEHAVIORAL STRESS.....	3R01 HL19257-03S1	2,422
GALOSY, RICHARD A.....	CENTRAL NERVOUS SYSTEM CONTROL OF HYPERTENSION.....	1R01 HL24127-01	63,980
GANT, NORMAN F, JR.....	PLACENTAL FUNCTION IN NORMAL AND ABNORMAL PREGNANCY.....	5R01 HD08360-06	116,411
GARDINER, THOMAS H.....	TRANSPORT MECHANISMS IN PULMONARY ENDOTHELIUM.....	1R01 HL20623-01A1	35,140
GARRARD, WILLIAM T.....	STRUCTURE OF THE SUBUNITS OF EUKARYOTIC CHROMOSOMES.....	5R01 GM22201-05	74,450
GAULDEN, MARY E.....	CHROMOSOME MUTATIONS IN INFANTS AND CHILDREN.....	5R01 HD06832-08	90,378
GILLIAM, JAMES N.....	MECHANISMS IN THE PATHOGENESIS OF CUTANEOUS SLE.....	2R01 AM19101-04	86,856
GOLDSTEIN, JOSEPH L.....	MOLECULAR BASIS OF CHOLESTEROL METABOLISM.....	5P01 HL20948-03	622,828
GOMEZ-SANCHEZ, CELSO E.....	ROLE OF MINERALOCORTICIDS IN LOW RENIN HYPERTENSION.....	2R01 HL18730-04	77,384
GOMEZ-SANCHEZ, CELSO E.....	STEROIDS IN ADRENAL REGENERATION HYPERTENSION.....	5R01 HL21779-02	32,424
GONYEA, WILLIAM J.....	ADAPTATION OF MUSCLE TO HIGH-INTENSITY EXERCISE.....	5R01 AM17615-05	77,724
GRIFFIN, WILMA S.....	BRAIN DEVELOPMENT AND GRAFT VERSUS HOST DISEASE.....	5R01 AI14663-02	63,896
GRINNELL, FREDERICK L.....	MOLECULAR BASIS OF CELLULAR ADHESIVENESS.....	2R01 CA14609-07	89,171
GRINNELL, FREDERICK L.....	BLOOD-MATERIAL INTERACTIONS: ADSORPTION OF FIBRONECTIN.....	1R01 HL24221-01	33,298
HART, DAVID A.....	REGULATION OF LYMPHOCYTE ACTIVITY BY PROTEASES.....	5R01 CA24444-02	44,577
HELDERMAN, J HAROLD.....	INSULIN RECEPTOR RELATIONSHIP WITH IMMUNOCOMPETENT CELLS.....	5R01 AM22150-02	95,264
HERSH, LOUIS B.....	METHYLAMINE METABOLISM, STUDIES OF ENZYME HOMOLOGY.....	5R01 AM13443-11	58,949
HUMPHRIES, ERIC H.....	EXPRESSION OF AVIAN SARCOMA VIRUS IN RAT FIBROBLASTS.....	5R01 CA23041-02	55,078
HURD, ERIC R.....	IMMUNE MECHANISMS OF INJURY TO PULMONARY ENDOTHELIUM.....	1R01 HL25061-01	89,112
JACOBSON, HARRY R.....	TRANSPORT HETEROGENEITY IN MAMMALIAN PROXIMAL TUBULES.....	1R01 AM23091-01	33,955
JASIN, HUGO E.....	ROLE OF IMMUNE COMPLEXES IN CHRONIC INFLAMMATION.....	2R01 AM16209-06	63,455
JOHNSON, ALICE R.....	INTERACTION OF PEPTIDES AND TARGET CELLS IN LUNG.....	5R01 HL18826-05	52,626
JOHNSTON, JOHN M.....	INTESTINAL ABSORPTION AND METABOLISM OF LIPIDS.....	5R01 AM03108-21	70,073
KETTMAN, JOHN R, JR.....	THE RELATION OF HUMORAL AND CELL MEDIATED IMMUNITIES.....	5R01 AI11630-06	50,791
KOKKO, JUHA P.....	TRANSPORT PROPERTIES OF NEPHRONS.....	5R01 AM14677-10	296,086
LEBOVITZ, ROBERT M.....	VESTIBULO-COCHLEAR EFFECTS OF UHF-MICROWAVE RADIATION.....	5R01 ES01937-05	60,982

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
LINN, TRACY C.	REGULATION OF LIPOGENIC ENZYMES IN DIABETES.	5R01 AM21287-03	33,706
LIPSCOMB, MARY F.	CLEARANCE OF VIRUS FROM BRONCHO-ALVEOLAR SPACES.	1R01 HL23870-01	71,991
LIPTON, JAMES M.	EFFECTS OF AGING ON CENTRAL TEMPERATURE CONTROLS.	5R01 AG00109-03	48,833
LIPTON, JAMES M.	CENTRAL MECHANISMS IN FEVER.	5R01 NS10046-06	54,500
LONGHURST, JOHN C.	CARDIOVASCULAR EFFECTS FROM VISCERAL AFFERENTS.	5R23 HL22669-02	41,700
LOSPALLUTO, JOSEPH J.	LYMPHOBLAST CELL FUNCTION AND AGING.	5R01 AG00461-05	53,197
MACDONALD, PAUL C.	INITIATION OF HUMAN LABOR: PREVENTION OF PREMATURITY.	5P50 HD11149-03	830,587
MARKS, JAMES F.	THE ONTOGENY OF PUBERTY IN DIABETES MELLITUS.	5R01 AM20777-03	64,056
MARTIN, NANCY C.	TRANSCRIPTION AND ORGANIZATION OF MITOCHONDRIAL GENES.	1R01 GM27597-01	69,319
MARVER, DIANA H.	CHARACTERIZATION OF HORMONE TARGET SITES ON CHROMATIN.	5R01 AM21576-02	52,203
MASTERS, BETTIE S.	MICROSOMAL ELECTRON TRANSPORT IN LIVER AND HEART.	5R01 HL13619-10	72,282
MC CANN, SAMUEL M.	NEUROHUMORAL CONTROL OF THE ANTERIOR PITUITARY.	5R01 AM10073-14	81,044
MC CANN, SAMUEL M.	NEURAL CONTROL OF GONADOTROPIN AND PROLACTIN SECRETION.	5P01 HD09988-03	265,307
MIHALOFF, GREGORY A.	AN ANALYSIS OF STRUCTURE AND FUNCTION OF BASILAR PONS.	5R01 NS12644-02	37,632
MITCHELL, JERE H.	CARDIOVASCULAR AND PULMONARY ADAPTATION TO STRESS.	5P01 HL06296-19	402,890
MITCHELL, JERE H.	INTERNATIONAL SYMPOSIUM ON STATIC EXERCISE.	1R13 HL24665-01	22,000
MOSS, ROBERT L.	HYPOTHALAMIC PEPTIDES AND REPRODUCTIVE BEHAVIOR.	5R01 HD11814-02	46,358
MOSS, ROBERT L.	NEUROHUMORAL EVENTS IN CELLS ENDING IN MEDIAN EMINENCE.	5R01 NS10434-08	38,390
MUNFORD, ROBERT S.	ASSAYS FOR ENDOTOXIN IN PLASMA.	5R23 AI14942-02	45,356
MURPHY, F. KEVIN.	CELLULAR IMMUNITY IN HUMAN HERPES SIMPLEX INFECTION.	5R23 AI14591-02	39,795
NEAVES, WILLIAM B.	BIOLOGY OF AGING LEYDIG CELLS.	5R01 AG00793-02	35,483
OZANNE, BRADFORD W.	MAPPING OF POLYPEPTIDES TO MURINE SARCOMA VIRUS RNA.	5R01 CA23043-02	53,026
PAK, CHARLES Y.	THEORETICAL AND THERAPEUTIC ASPECTS OF CALCIFICATION.	5R01 AM10661-08	84,018
PAK, CHARLES Y.	FORMULATION OF RATIONAL THERAPY OF UROLITHIASIS.	5P50 AM20543-03	314,167
PARKER, JANET L.	CARDIAC MUSCLE FUNCTION IN CIRCULATORY SHOCK.	1R23 HL23423-01	45,699
PARNAVELAS, JOHN G.	VISUAL CORTEX DEVELOPMENT.	1R01 EY02964-01	65,973
PETTERSON, JULIAN A.	REGULATION OF MICROBIAL OXIDATION REACTIONS.	5R01 GM19036-11	58,752
PETTINGER, WILLIAM A.	NORADRENERGIC ROLES IN SEVERAL CLINICAL SYNDROMES.	1R01 HL23670-01	63,592
PETTINGER, WILLIAM A.	ALPHA-ADRENERGIC RECEPTOR REGULATION.	1R01 HL24480-01	78,656
PIERCE, ALAN K.	DEFENSE MECHANISMS OF THE LUNG.	5R01 HL21827-02	72,782
PORTER, JOHN C.	HORMONE DYNAMICS & TARGET ORGANS IN AGING MEN & WOMEN.	5P01 AG00306-03	322,104
PORTER, JOHN C.	SECRETION OF HYPOTHALAMIC AND PITUITARY HORMONES.	5R01 AM01237-24	98,962
PRICE, KENNETH P.	AUTONOMIC PREDICTORS OF HYPERTENSION IN CHILDREN.	3R01 HL20655-02S1	15,689
PROUGH, RUSSELL A.	BIOCHEMICAL-PHARMACOLOGICAL EVALUATION OF LUNG CELLS.	2R01 HL19654-04	71,381
RANNEY, DAVID F.	CHALONE REGULATION OF HUMAN LYMPHOID NEOPLASMS.	7R01 CA26031-01	55,707
RASKIN, PHILIP.	HYPERLIPIDEMIA AND DIABETES: GLUCOSE LIPID INTERACTIONS.	5R01 AM18179-05	54,745
REEVES, JOHN P.	REGULATION OF GLUCOSE TRANSPORT IN RAT THYMOCYTES.	2R01 GM21423-04A1	48,206
ROSENBERG, ROGER N.	BIOCHEMICAL EVENTS IN DIFFERENTIATING NEUROBLASTOMA.	5R01 CA21602-03	105,219
ROSENFELD, CHARLES R.	STUDIES OF UTERO-PLACENTAL CIRCULATION.	5R01 HD08783-06	100,479
SAID, SAMI I.	VASOACTIVE INTESTINAL & LUNG POLYPEPTIDES-TUMOR.	5R01 CA21570-03	40,926
SAID, SAMI I.	SUPPORT FOR CENTER FOR LUNG RESEARCH.	5P50 HL14187-08	697,578
SELDIN, DONALD W.	GENERAL CLINICAL RESEARCH CENTER.	2M01 RR00633-07	854,540
SHADDUCK, JOHN A.	ANIMAL RESOURCES DISEASE LABORATORY.	5P40 RR00890-06	105,496
SHADDUCK, JOHN A.	DIAGNOSIS AND TREATMENT OF MAMMALIAN ENCEPHALITOZOONOSIS.	5R24 RR00938-05	60,024
SHAY, JERRY W.	ANALYSIS OF HEART CELL CONTRACTION.	5R01 HL20643-03	56,193
SIMPSON, EVAN R.	LIPOPROTEINS AND STEROIDOGENESIS IN REPRODUCTION.	1R01 HD13234-01	97,866
SMILEY, JAMES D.	THE LOCAL IMMUNE RESPONSE IN RHEUMATOID SYNOVITIS.	5R01 AM08418-16	40,681
SMITH, R. GRAHAM.	DIFFERENTIATION ANTIGENS OF HUMAN LYMPHOBLASTOID CELLS.	5R01 CA22034-03	36,755
SMITH, THOMAS E.	KINETICS AND CHEMISTRY OF ALLOSTERIC INTERACTIONS.	5R01 GM21650-05	58,094
SNELL, WILLIAM J.	CELL SURFACE RECOGNITION AND CELL INTERACTIONS.	5R01 GM25661-02	47,383
SREBRO, RICHARD.	PSEUDORANDOM STIMULI FOR CLINICAL VEP TESTING.	1R01 EY03068-01	117,631
SRERE, PAUL A.	STRUCTURES AND MECHANISMS OF CITRATE ENZYMES.	5R01 AM11313-13	69,215
STASTNY, PETER.	HLA-D AND IA-LIKE ANTIGENS IN RHEUMATOID ARTHRITIS.	5R01 AI12563-05	110,468
STASTNY, PETER.	ENDOTHELIAL-MONOCYTE ALLOANTIGENS.	1R01 AM22185-01	83,189
STEIN-STREILEIN, JOAN E.	BIOLOGICAL FUNCTIONS OF ALPHA 2 MACROGLOBULIN.	1R01 CA26842-01	23,923
STREILEIN, J. WAYNE.	ANTERIOR CHAMBER INFLUENCE ON RESPONSE TO OCULAR ANTIGEN.	1R01 EY03119-01	93,877
STREILEIN, J. WAYNE.	PRODUCTION OF SYRIAN HAMSTER CONGENIC STRAINS.	5P40 RR01133-03	55,661
STULL, JAMES T.	ROLE OF PHOSPHOPROTEIN IN CARDIAC INOTROPIC RESPONSES.	5R01 HL23990-02	55,826
SUTKO, JOHN L.	SODIUM-CALCIUM INTERACTIONS IN MAMMALIAN MYOCARDIUM.	5R23 HL21262-03	33,818
TAUROG, ALVIN M.	THYROID FUNCTION AND IODINE METABOLISM.	5R01 AM03612-20	107,013

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
UHR, JONATHAN W.....	REGULATION OF THE IMMUNE RESPONSE.....	5R01 AI10967-07	109,223
UHR, JONATHAN W.....	THE BIOLOGY AND BIOCHEMISTRY OF THE LYMPHOCYTE SURFACE.....	2P01 AI11851-06	541,633
UNGER, ROGER H.....	THE GLUCOREGULATORY PEPTIDE HORMONES.....	5R01 AM02700-20	61,933
UYEDA, KOSAKU.....	STRUCTURE AND FUNCTION OF PHOSPHOFRUCTOKINASE.....	5R01 AM16194-08	46,211
VITETTA, ELLEN S.....	THE BIOLOGY AND BIOCHEMISTRY OF CELL SURFACE IGD.....	5R01 AI12789-05	106,839
VITETTA, ELLEN S.....	STRUCTURAL STUDIES OF TL, IA, AND QA-3 ANTIGENS.....	2R01 AI13448-04	67,226
WATERMAN, MICHAEL R.....	POLYMERIZATION OF DEOXYHEMOGLOBIN S.....	1R01 AM20659-01A1	58,396
WEISS, GEORGE B.....	MECHANISMS OF DRUG ACTION IN VASCULAR SMOOTH MUSCLE.....	5R01 HL14775-09	72,385
WILDENTHAL, C KERN.....	FETAL HEARTS IN ORGAN CULTURE.....	5R01 HL14706-08	84,258
WILDENTHAL, C KERN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07175-03	178,396
WILLERSON, JAMES T.....	ISCHEMIC HEART DISEASE CENTER (SCOR).....	5P50 HL17669-05	820,064
WILSON, CAROL M.....	THE GENETIC CONTROL OF RENIN ACTIVITY.....	1R01 GM26414-01	52,091
WILSON, JEAN D.....	ACTION OF HORMONES ON PROTEIN AND RNA METABOLISM.....	5R01 AM03892-21	138,388
WILSON, JEAN D.....	ONSET AND PROGRESSION OF PUBERTY.....	5R01 HD10909-02	45,182
WRIGHT, WOODRING E.....	GENE EXPRESSION IN AGING AND DEVELOPMENT.....	1R01 AG01228-01	59,778
ZIFF, MORRIS.....	IMMUNOLOGIC AND OTHER ASPECTS OF THE RHEUMATIC DISEASES.....	5P01 AM09989-15	448,596
ZIFF, MORRIS.....	AUTOANTIBODY FORMATION IN RHEUMATOID ARTHRITIS AND SLE.....	5R01 AM18505-05	79,042
ZIFF, MORRIS.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM20628-03	86,218
ORGANIZATION TOTAL	149 17,449,924		
DENTON			
NORTH TEXAS STATE UNIVERSITY	ZIP CODE 76203		
BORLAND, DOLORES M.....	PARENTAL SUBJECTIVE WELL-BEING: LATE LIFE TRANSITION.....	1R23 AG01264-01	16,098
CLEVELAND, DONALD B.....	LESS THAN FULLTEXT INDEXING USING THE INDIRECT METHOD.....	1R01 LM03259-01	30,203
GRACY, ROBERT W.....	THE EFFECTS OF AGING ON LYMPHOCYTE ACTIVATION.....	1R01 AG01274-01	37,635
GRACY, ROBERT W.....	MOLECULAR BASIS OF GENETIC DEFECTS OF GLYCOLYSIS.....	2R01 AM14638-09	75,696
HARRIS, BEN G.....	REGULATION OF METABOLISM IN PARASITIC HELMINTHS.....	2R01 AI12331-04A1	49,794
JACOBSON, MYRON K.....	ALTERATION OF NAD METABOLISM BY CHEMICAL CARCINOGENS.....	5R01 CA23994-02	44,291
JACOBSON, MYRON K.....	STRUCTURAL REQUIREMENTS FOR NITROSAMINE CARCINOGENICITY.....	5R01 ES01975-02	43,337
LACKO, ANDRAS G.....	SPECIAL INITIATIVE GRANT FOR GERONTOLOGICAL RESEARCH.....	1R21 AG01450-01	77,215
MROTEK, JAMES J.....	EFFECT OF AGING ON ADRENAL CELL RESPONSE TO ACTH.....	1R23 AG01055-01A1	44,163
THOMPSON, RICHARD F.....	HEPATIC CHOLESTEROL BIOSYNTHESIS IN DIABETIC RATS.....	1R01 HL25045-01	41,852
ORGANIZATION TOTAL	10 460,284		
TEXAS WOMAN'S UNIVERSITY	ZIP CODE 76204		
GROSS, GUENTER W.....	NEURONAL NETWORKS ON MULTIMICROELECTRODE SURFACES.....	1R01 NS15167-01	48,228
MILNER, ALICE N.....	BONE QUALITY CHANGES IN HUMANS: A 20-YEAR FOLLOW-UP.....	5R01 AM21518-02	31,639
RUDICK, MICHAEL J.....	THE MECHANISM OF GLYCOPROTEIN SECRETION.....	2R01 GM22707-04	38,432
ORGANIZATION TOTAL	3 118,299		
EDINBURG			
PAN AMERICAN UNIVERSITY	ZIP CODE 78539		
SAVAGE, NORMAN L.....	MINORITY BIOMEDICAL SUPPORT PROGRAM.....	5S06 RR08038-09	230,891
ORGANIZATION TOTAL	1 230,891		
EL PASO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT EL PASO	ZIP CODE 79968		
BRISTOL, JOHN R.....	BIOMEDICAL RESEARCH INTERN PROGRAM.....	5S06 RR08012-09	333,178
ORGANIZATION TOTAL	1 333,178		
FORT WORTH			
TEXAS CHRISTIAN UNIVERSITY	ZIP CODE 76129		
BABITCH, JOSEPH A.....	STUDIES OF THE MECHANISM OF NEUROTRANSMITTER RELEASE.....	5R01 NS12485-05	49,710
BARTLETT, PAUL D.....	SMALL MOLECULES IN ORGANIC AND ENVIRONMENTAL CHEMISTRY.....	5R01 ES01130-05	40,831
SELLS, SAUL.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07106-05	43,506

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
ORGANIZATION TOTAL	3	134,047	
TEXAS COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 76107			
TAI, HSIN-HSIUNG	BIOSYNTHESIS OF THROMBOXANE AND PROSTACYCLIN	3R01 GM25247-02S1	17,688
TAI, HSIN-HSIUNG	ENZYMES IN PROSTAGLANDIN METABOLISM	5R01 GM25247-03	44,699
YORIO, THOMAS	ROLE OF PHOSPHOLIPASES IN MEMBRANE PERMEABILITY	1R01 AM25639-01	29,865
ORGANIZATION TOTAL	3	92,252	
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON ZIP CODE 77550			
ABELL, CREED W	BIOCHEMISTRY OF NORMAL AND LEUKEMIC LYMPHOCYTES	5R01 CA14525-07	65,530
ADAMS, PAUL R	POSTJUNCTIONAL EVENTS IN ENDPLATES	1R01 NS14920-01	45,574
ADAMS, PAUL R	DRUG ACTIONS OF SYNAPTIC CHANNELS OF NEURONS	1R01 NS14986-01	29,825
AHMED, AHMED E	MELPHALAN: PHARMACOKINETICS AND MECHANISM OF ACTION	1R01 CA25505-01	58,627
AHMED, AHMED E	CHEMICAL PATHOLOGY OF ACRYLONITRILE BIOTRANSFORMATION	1R01 ES01871-01A1	64,081
ARNETT, DAVID W	FUNCTION OF NEURON NETWORKS IN VERTEBRATE VISUAL SYSTEMS	5R01 EY01897-04	78,815
BARNETT, DONALD R	PURIFICATION AND SUPPLEMENTATION OF A1-ANTITRYPSIN	1R01 HL24853-01	68,971
BARRANCO, SAM C	DRUG SENSITIVITY OF MAMMALIAN CELLS IN PLATEAU PHASE	2R01 CA15397-07	90,355
BARRANCO, SAM C	USE OF CELL KINETICS TO PLAN HUMAN TREATMENT	5P01 CA23114-02	113,315
BARRANCO, SAM C	DIFFERENTIAL DRUG SENSITIVITIES OF HUMAN TUMOR CELLS	5R01 CA23145-02	52,071
BOOR, PAUL J	MOLECULAR MECHANISMS OF CHEMICAL MYOCARDIOPATHIES	5R23 HL21327-03	41,477
BOWMAN, BARBARA H	THE BASIC DEFECT IN CYSTIC FIBROSIS	5R01 AM20606-02	47,420
BOWMAN, BARBARA H	GENETIC CONTROL OF THE STRUCTURE OF HUMAN PROTEINS	5R01 HD03321-13	116,393
BOX, EDITH D	HOST PARASITE RELATIONSHIPS OF SARCOCYSTIS SPECIES	1R01 AI15945-01	40,861
BRODOWICK, MALCOLM S	MEMBRANE PROPERTIES AND CHEMICAL NATURE OF PERMEATION	2R01 NS11963-04	48,263
BROWN, ARTHUR M	INNERVATION OF CORONARY ARTERIES AND HEART	5R01 HL16657-07	162,136
BROWN, ARTHUR M	NERVOUS AND IONIC FACTORS IN SUDDEN CARDIAC DEATH	5R01 HL18798-05	120,886
BROWN, ARTHUR M	IONIC MOVEMENTS ACROSS NERVE CELL BODY MEMBRANES	5R01 NS11453-05	86,578
BROWN, ARTHUR M	PHOTOTRANSDUCTION IN APLYSIA NEURONS	5R01 NS12655-05	55,343
BUHN, JOHN G	DEVELOPMENT OF POSITIVE HEALTH BEHAVIOR IN PRESCHOOLERS	1R01 HD13101-01	301,101
BRYAN, GEORGE T	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05427-18	187,279
BRYSK, MIRIAM M	CELL SURFACE CHANGES IN EPIDERMAL DIFFERENTIATION	7R01 CA27441-01	75,908
CARNEY, DARRELL H	ROLE OF CELL SURFACE IN REGULATING CELL PROLIFERATION	1R01 AM25807-01	82,198
CHAN, LEE-NIEN L	REGULATION OF HEMOGLOBIN SYNTHESIS IN CHICK EMBRYOS	5R01 HL24048-02	52,895
CHAN, TEH-SHENG	SOMATIC CELL HYBRIDS FOR STUDIES OF HUMAN DISEASES	5R01 GM26522-02	57,337
CHANG, JEFFREY P	CHARACTERIZATION OF CILIATED RESPIRATORY EPITHELIA	1R01 HL23851-01	100,099
CHRISTENSEN, BURGESS N	SYNAPTIC ORGANIZATION IN THE CENTRAL NERVOUS SYSTEM	5R01 NS14429-02	42,162
COGGESHALL, RICHARD E	UNMYELINATED FIBER SYSTEMS IN THE VERTEBRATE	5R01 NS10161-09	63,883
COSTANZI, JOHN J	SOUTHWEST CANCER CHEMOTHERAPY STUDY GROUP	5R10 CA03096-22	221,649
COSTANZI, JOHN J	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P30 CA17701-05	483,059
COSTANZI, JOHN J	GALVESTON CLINICAL CANCER EDUCATION PROGRAM	1R25 CA20643-01A1	121,091
COULTER, JOE D	CENTRAL ORGANIZATION OF SOMATOSENSORY SYSTEMS	2R01 NS12481-04A1	63,348
CRANFORD, JERRY L	NEURAL MECHANISMS OF BINAURAL HEARING	5R01 NS15323-02	39,633
DAVIS, CHARLES P	BLADDER INFECTIONS: PATHOGENESIS AND RESISTANCE	5R01 AI14508-02	42,488
DENNEY, RICHARD M	SOMATIC CELL GENETICS OF AMINOACYL-TRNA SYNTHETASES	5R01 GM25090-02	39,454
DUNCAN, DONALD	FINE STRUCTURE OF THE SUBSTANTIA NIGRA	2R01 NS13171-03	52,217
EATON, DOUGLAS C	MAMMALIAN URINARY BLADDER NA/IONS TRANSPORT MECHANISMS	5R01 AM20068-02	30,159
EWERT, ADAM	INTERACTIONS OF BRUGIA MALAYI AND MICROORGANISMS	5R01 AI11871-06	35,880
FILE, SHARON K	IN VITRO CYTOTOXICITY OF SCHISTOSOME EGGS	1R22 AI15569-01	39,774
FISHMAN, HARVEY M	FLUCTUATION PHENOMENA AND ION MOVEMENTS IN MEMBRANES	5R01 NS11764-07	43,638
FISHMAN, HARVEY M	STOCHASTIC AND KINETIC PROCESSES IN MEMBRANE FUNCTION	5P01 NS13778-03	235,271
FULLER, GERALD M	REGULATION OF PLASMA PROTEIN BIOSYNTHESIS	5R01 HL16445-06	68,273
GABEL, JOSEPH C	PULMONARY EDEMA: MECHANISMS AND THERAPY	1R01 HL23272-01	94,709
GALLAGHER, JOEL P	THE PHARMACOLOGY OF A GABA RECEPTOR	5R01 NS13727-03	42,644
GAN, JOSE C	PULMONARY FUNCTION AND STRUCTURE OF A1-ANTITRYPSIN	1R01 HL23547-01	79,398
GILES, WAYNE R	INITIATION OF THE HEARTBEAT—A VOLTAGE-CLAMP STUDY	7R01 HL25409-01	54,559
GRANT, J ANDREW	BASOPHILS AND MAST CELLS: ROLE IN IMMUNE REACTIONS	2R01 AI12621-04A1	70,618
GROSSMAN, ROBERT G	A CENTER FOR THE STUDY OF NERVOUS SYSTEM INJURY	5P50 NS07377-10	430,045

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
HABER, BERNARD	PURIFICATION OF ENDOTHELIAL MITOGEN CNS TUMOR ORIGIN	5R01 CA18877-03	58,779
HALL, CHARLES E	TRACE METALS, VASCULAR ACTIVITY AND HYPERTENSION	5R01 HL22603-02	35,997
HANCOCK, MICHAEL B	ORGANIZATION OF THE PELVIC INNERVATION	1R01 NS15546-01	29,346
HILLMAN, GILBERT R	EFFECTS OF ANTICHLINERGIC AGENTS ON SCHISTOSOMES	5R22 AI14103-03	48,375
HILLMAN, GILBERT R	IRREVERSIBLE ANTICHLINERGIC EFFECTS IN SCHISTOSOMES	1R22 AI15536-01	67,433
HOLOUBEK, VIKTOR	INTERFERENCE OF AZOCARCINOGENS WITH RNA PROCESSING	5R01 CA22559-02	44,457
HULET, WILLIAM H	CAPTURE AND MAINTENANCE OF LOIGINID SQUID	5P40 RR01024-04	152,907
KITTRIDGE, JAMES S	BAG CELL HORMONES: ISGLATION AND STRUCTURE	5R01 NS12952-02	53,239
KLEBE, ROBERT J	CELL ADHESION PROTEINS AND MALIGNANCY	2R01 CA19017-04	79,164
KLEBE, ROBERT J	SOMATIC CELL GENETICS OF DIFFERENTIATED PHENOTYPES	2R01 GM21433-06	72,915
KNUDSON, MARY S	ANTECEDENTS AND CONSEQUENCES OF CHILD BURN INJURIES	1R01 GM25016-01	39,083
LA BELLE, EDWARD F, JR	HORMONE EFFECTS ON RECONSTITUTED MEMBRANES	5R01 AM25244-02	39,434
LEVIN, WILLIAM C	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00073-17	723,295
MC ADDO, DAVID J	GLYCINE AS A NEUROTRANSMITTER IN IDENTIFIED NEURONS	5R01 NS13311-03	31,363
MEYER, WALTER J, III	HYPERTENSION AND VASCULAR STEROID RECEPTORS	5R01 HL20201-02	38,552
MOORE, LEE E	FLUCTUATION SPECTROSCOPY OF NERVE AND MUSCLE	2R01 NS13520-03A1	39,699
MOULTON, RICHARD G	LYMPHOKINES FORMED IN VIVO: ROLE IN TUMOR SUPPRESSION	1R01 CA26051-01	67,520
NELSON, THOMAS E	SKELETAL MUSCLE LESION IN MALIGNANT HYPERTHERMIA	2R01 GM23875-03	68,591
PARKENING, TERRY A	OVARIAN MORPHOLOGY AND FUNCTION IN THE AGED MOUSE	5R23 AG00757-03	39,471
PEREZ-POLO, JOSE R	NEURAL DIFFERENTIATION: NERVE GROWTH FACTOR PROTEINS	2R01 NS14034-03	61,421
PEREZ-POLO, JOSE R	RELATIONSHIP OF NERVE GROWTH FACTOR TO SCHIZOPHRENIA	1R01 NS15324-01	23,803
QUAY, WILBUR B	SEROTONERGIC MECHANISMS IN NEUROENDOCRINE CONTROL	5R01 HD11641-02	55,265
REMMERS, JOHN E	NEURAL MECHANISMS CONTROLLING MOTOR ACT OF BREATHING	5R01 HL18007-06	75,174
REYNOLDS, EDWARD S	CHEMICAL PATHOLOGY OF HALOETHYLENE INJURY	1R01 ES02102-01	109,143
RUSSELL, JOHN M	CHLORIDE TRANSPORT IN NERVE AND MUSCLE	5R01 NS11946-06	47,409
SANT'AMBROGIO, GIUSEPPE	OPERATIONAL MECHANISMS OF AIRWAY RECEPTORS	5R01 HL20122-03	56,062
SCHMALSTIEG, FRANK C, JR	ISOLATE, CHARACTERIZE-INHIBITOR TO LYMPHOCYTE MOTILITY	5R23 AI14245-03	45,230
SCHNEIDER, ROSE G	HEMOGLOBIN VARIANTS IN RELATION TO DISEASE	5R01 AM00780-29	57,953
SMITH, EDWARD R	CHARACTERIZATION OF UTERINE RESPONSE DURING AGING	1R23 AG00892-01A1	45,983
SMITH, LELAND L	POTENTIALLY CARCINOGENIC AND ATHEROGENIC STEROLS	5R01 CA21617-03	40,098
SMITH, LELAND L	AIR POLLUTANT-LIPID MEMBRANE INTERACTIONS	5R01 ES00944-06	47,228
SMITH, LELAND L	ORIGINS OF ATHEROSCLEROSIS	5R01 HL10160-14	65,054
SORDAHL, LOUIS A	MECHANISM(S) OF ALTERED CA2O TRANSPORT IN ISCHEMIC HEART	5R01 HL23153-02	33,274
SORIERO, ALICE A	ESTROGEN RECEPTOR CHANGES IN THE AGING UTERUS	1R23 AG01263-01	39,629
SRIVASTAVA, SATISH K	METABOLIC STUDIES IN NORMAL AND CATARACTOUS LENSES	5R01 EY01677-05	55,703
SRIVASTAVA, SATISH K	STUDIES OF OCULAR MANIFESTATIONS IN SPHINGOLIPIDOSES	5R01 EY02260-02	32,619
SRIVASTAVA, SATISH K	BIOCHEMICAL STUDIES IN NEURONAL CEROID-LIPOFUSCINOSIS	1R01 NS14966-01A1	72,957
STANTON, G JOHN	ACUTE HEMORRHAGIC CONJUNCTIVITIS AND INTERFERON	2R01 EY01715-04	107,071
SZABO, GABOR	STRUCTURE-FUNCTION RELATIONSHIPS FOR GATABLE CHANNELS	1R01 GM26897-01	46,664
SZABO, GABOR	PERMEABILITY TRANSIENTS OF CARRIERS, CHANNELS AND HEART	9R01 HL24820-03A1	54,913
SZABO, GABOR	STRUCTURE AND PERMEABILITY IN BILAYERS AND NERVE	5R01 NS14247-02	39,269
THOMPSON, JAMES C	SURGICAL STUDIES ON METABOLISM OF GI HORMONES	5R01 AM15241-09	101,442
THUESON, DAVID O	BASOPHILS: ROLE IN CELL MEDIATED IMMUNE REACTIONS	5R23 AI14879-02	46,596
WILLIAMS, BETTY J	CARDIOTOXICITY OF CHRONIC LEAD EXPOSURE	5R01 ES01767-02	50,539
WILLIAMS, JOHN F, JR	FACTORS ALTERING THE COURSE OF MYOCARDIAL DYSFUNCTION	5R01 HL13639-08	67,381
WILLIS, WILLIAM D, JR	SYNAPTIC CONNECTIONS OF SPINAL CORD NEURONS	5R01 NS09743-10	70,680
WILLIS, WILLIAM D, JR	COMPARATIVE NEUROBIOLOGY	2P01 NS11255-06	178,148
WONG, FULTON	CONDUCTANCE FLUCTUATIONS IN PHOTORECEPTORS OF LIMULUS	7R01 EY03308-01	28,467
YOUNES, MAGDY K	CONTROL OF BREATHING PATTERN IN HEALTH AND DISEASE	5R01 HL22910-02	75,328
ZIEGLER, MICHAEL G	CATECHOLAMINES, BLOOD PRESSURE AND CIRCULATION	5R01 HL21817-02	25,435
ORGANIZATION TOTAL	98 8,222,848		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE ZIP CODE 77025			
ALFORD, BOBBY R	OTOPHYSIOLOGY AND OTOPATHOLOGY RESEARCH CENTER	5P50 NS10940-07	438,075
ALFREY, CLARENCE P, JR	EFFECTS OF PHYSICAL FORCES ON BLOOD	3R01 HL16938-05S1	8,318
ANDERSON, ROBERT E	CHEMISTRY AND METABOLISM OF RETINA LIPIDS	3R01 EY00871-07S1	2,000
ANDERSON, ROBERT E	CHEMISTRY AND METABOLISM OF RETINA LIPIDS	5R01 EY00871-08	143,312

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
APPEL, STANLEY H.	ACETYLCHOLINE RECEPTOR TURNOVER IN MYASTHENIA GRAVIS.	5R01 NS14380-02	59,421
AUNE, KIRK C.	THE RIBOSOME: WHAT HOLDS IT TOGETHER?	2R01 GM22244-04	57,846
BAER, PAUL E.	HIGH BLOOD PRESSURE IN THE YOUNG, PREVALENCE & PRECURSOR	5R01 HL19929-04	131,896
BAKER, CAROL J.	HUMAN IMMUNITY TO GROUP B STREPTOCOCCUS.	2R01 AI13249-04	173,076
BARNES, EUGENE M, JR.	REGULATION OF TRANSPORT IN MAMMALIAN CELLS.	5R01 AM17436-06	55,016
BASINGER, SCOTT F.	RETINA: PHOTORECEPTOR MEMBRANE SYNTHESIS AND FUNCTION.	5R01 EY01406-05	99,873
BEATTIE, KENNETH L.	A BIOCHEMICAL STUDY OF ERROR-PRONE DNA SYNTHESIS.	5R01 GM25530-02	34,348
BEAUDET, ARTHUR L.	LYSOSOMAL LIPASES AND PHOSPHOLIPASES IN HUMAN DISEASE	5R01 GM25397-02	62,743
BIRNBAUMER, LUTZ	GONADOTROPHIN AND PROSTAGLANDIN ACTION IN THE OVARY	3R01 HD09581-03S1	17,099
BIRNBAUMER, LUTZ	CATECHOLAMINE ACTION ON THE HEART	3R01 HL19423-03S1	4,100
BLACK, HOMER S.	PHOTOCHEMICAL REACTIONS RELATED TO SKIN CANCER	2R01 CA13464-07	26,652
BOYD, AUBREY E, III.	SOMATOSTATIN SECRETION IN DIABETES.	3R01 AM21203-01S1	12,820
BOYD, AUBREY E, III.	SOMATOSTATIN SECRETION IN DIABETES.	5R01 AM21203-02	38,462
BOYD, AUBREY E, III.	SOMATOSTATIN SECRETION IN DIABETES.	5R01 AM21203-03	52,938
BOYD, AUBREY E, III.	ALTERATIONS IN THE CYTOSKELETON IN DIABETES.	1R01 AM23033-01A1	70,488
BRIDGES, C DAVID.	PHOTO- AND BIOCHEMICAL REACTIONS IN THE VISUAL SYSTEM.	2R01 EY02489-03	176,314
BRIDGES, C DAVID.	CENTER FOR RESEARCH ON THE VISUAL SYSTEM.	1P30 EY02520-01A1	169,960
BRINKLEY, B R.	CYTOSKELETON AND CELL TRANSFORMATION TO MALIGNANCY	5R01 CA22610-02	109,299
BRINKLEY, B R.	STUDIES OF MITOSIS IN NORMAL AND NEOPLASTIC CELLS.	5R01 CA23022-03	128,364
BRYAN, JOSEPH.	CHEMISTRY AND LOCALIZATION OF ACTIN GELLING PROTEINS	1R01 GM26091-01	87,058
BRYAN, JOSEPH.	FLUORESCENTLY LABELED MARKERS IN CELLS AND ORGANELLES.	1P41 GM27468-01	143,485
BRYAN, R NICK.	NEUROTOXICITY OF RADIOGRAPHIC CONTRAST AGENTS.	1R01 NS14907-01	31,354
BULLOCK, DAVID W.	UTERINE PROTEIN REGULATION IN EARLY PREGNANCY	5R01 HD09378-05	98,942
BUSCH, HARRIS	CANCER RESEARCH CENTER.	5P01 CA10893-12	1,170,739
BUTEL, JANET S.	BIOLOGICAL PROPERTIES OF SV40 EARLY PROTEINS.	5R01 CA22555-02	92,896
BUTEL, JANET S.	TUMOR VIRUS EFFECTS ON MOUSE MAMMARY EPITHELIAL CELLS.	1R01 CA25215-01	73,317
BUTLER, WILLIAM T.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00350-13	469,043
BUTLER, WILLIAM T.	BIOMEDICAL RESEARCH SUPPORT GRANT.	5S07 RR05425-18	201,413
CHAN, LAWRENCE C.	REGULATION OF LIPOPROTEIN SYNTHESIS.	1R01 HL23470-01A1	70,392
CLARK, JAMES H.	MAMMARY CANCER AND HORMONE INDUCED RESPONSES.	5R01 CA20605-03	70,841
CLARK, JAMES H.	EFFECT OF ESTROGEN ON NORMAL AND ABNORMAL CELL GROWTH	1R01 CA26112-01	150,281
CLARK, JAMES H.	ESTROGEN RECEPTORS AND REPRODUCTIVE FUNCTIONS	2R01 HD08436-07	147,607
COATS, ALFRED C.	HUMAN AUDITORY NERVE AND BRAINSTEM EVOKED POTENTIALS	2R01 NS12910-04	114,111
DE BAKEY, MICHAEL E.	DEMONSTRATION CENTER FOR HEART AND VESSEL DISEASE.	5P60 HL17269-05	4,411,667
DEDMAN, JOHN R.	BIOLOGICAL ROLE OF INTRACELLULAR CA20-BINDING PROTEINS	5R01 GM25557-02	40,747
DI FERRANTE, NICOLA M	GLYCOSAMINOGLYCANS AND LIPOPROTEINS OF HUMAN PLASMA	2R01 HL18692-04	96,095
DRESDEN, MARC H.	SCHISTOSOMA MANSONI: MECHANISMS OF PENETRATION	5R22 AI13802-03	36,504
DRESDEN, MARC H.	SCHISTOSOMA MANSONI: THE ACID PROTEASE OF ADULT WORMS.	1R22 AI15864-01	33,092
DRISCOLL, DAVID J.	CARDIOVASCULAR PHARMACODYNAMICS IN IMMATURE ANIMALS.	5R23 HL22309-02	40,455
ELIAS, CHERIN S.	PROBLEM SOLVING IN YOUNG AND ELDERLY ADULTS.	1R23 AG01494-01	43,396
ENTMAN, MARK L.	CONTROL OF MYOCARDIAL SARCOBUBULAR CALCIUM STORES.	5R01 HL13870-10	73,462
ENTMAN, MARK L.	BIOLOGY OF MYOCARDIAL ISCHEMIA.	5R01 HL23161-02	104,994
EPSTEIN, HENRY F.	THE MOLECULAR BASIS OF NEUROMUSCULAR DEVELOPMENT.	5R01 AG01302-03	98,489
EPSTEIN, HENRY F.	DEVELOPMENTAL GENETICS OF MUSCLE STRUCTURE.	5R01 HD12610-02	36,878
ESKIN, SUZANNE G.	RESPONSE OF CULTURED ENDOTHELIAL CELLS TO FLOW	1R01 HL23016-01A1	53,406
ESTES, MARY K.	CROHN'S DISEASE: STUDIES OF AN INFECTIOUS ETIOLOGY	1R01 AM25198-01	67,069
FEIGIN, RALPH D.	PROSPECTIVE EVALUATION OF CHILDHOOD MENINGITIS.	5R01 NS14292-03	102,093
FEIGIN, RALPH D.	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN.	2M01 RR00188-15	501,253
FERNBACH, DONALD J.	SOUTHWEST ONCOLOGY GROUP (PEDIATRIC).	5R10 CA03161-22	209,823
FIELD, JAMES B.	EFFECT OF TSH ON THYROID CARBOHYDRATE METABOLISM	7R01 AM26088-01	183,850
GERBA, CHARLES P.	HEPATITIS A AND GASTROENTERITIS VIRUSES IN MARINE LIFE	5R01 ES01738-02	48,585
GILBERT, HIRAM F.	ENZYME CATALYSIS OF PROTON TRANSFER FROM CARBON	1R01 GM25347-01	49,584
GLASSER, STANLEY R.	RAT TROPHOBLAST IN VITRO: STRUCTURE-FUNCTION CORRELATES.	1R01 HD12964-01	87,965
GLEZEN, WILLIAM P.	HOST FACTORS IN PATHOGENESIS OF RESPIRATORY DISEASE	5R01 HL19651-04	74,911
GOLDSTEIN, MARGARET A.	ANALYSIS OF Z BANDS IN HEART BY OPTICAL DIFFRACTION	5R01 HL17376-05	32,457
GREEN, MARY T.	RECURRENT OCULAR HERPES.	1R01 EY02724-01	69,906
HARDIN, JAMES.	ESTROGEN RECEPTOR IN VERY LOW DENSITY LIPOPROTEINS.	5R01 HL22367-02	59,742
HARMON, MAURICE W.	RAPID DIAGNOSIS OF VIRAL RESPIRATORY INFECTIONS.	5R01 AI15089-02	58,265
HARTLEY, CRAIG J.	ULTRASONIC INSTRUMENTATION FOR CARDIOVASCULAR STUDIES.	5R01 HL22512-02	59,681
HAZLEWOOD, CARLTON F.	ROLE OF WATER IN CANCER CELL DIVISION	5R01 CA21624-03	84,526

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
HOLLYFIELD, JOE G.	PHAGOCYTIC ACTIVITY OF THE PIGMENT EPITHELIUM	5R01 EY02362-03	51,154
HOLLYFIELD, JOE G.	DEVELOPMENT AND MAINTENANCE OF PHOTORECEPTOR CELLS	5R01 EY02363-03	111,116
HOLMQUIST, GERALD P.	G-BANDING MECHANISMS IN MAMMALIAN CHROMOSOMES	5R01 GM23905-03	73,424
HORNING, EVAN C.	RESEARCH IN ANALYTICAL BIOCHEMISTRY FOR HUMAN STUDIES	2P01 GM13901-14	464,144
HORNING, MARJORIE G.	CHEMICAL BASIS FOR DRUG TOXICITY	5R01 GM24092-02	280,268
HUCKINS, CLAIRE	CONTROL OF STEM CELL SPERMATOGONIA IN RODENT TESTES	5R01 HD07655-06	75,679
HUNT, J. N.	EFFECT OF VOLUME SWALLOWED ON ESOPHAGEAL EVENTS	1R01 AM25877-01	129,237
IGARASHI, MAKOTO	PARTIAL ABLATION OF VESTIBULAR SYSTEM AND EQUILIBRIUM	5R01 NS07237-12	64,606
JONES, DAN B.	ENDOGENOUS FUNGAL ENDOPHTHALMITIS	5R01 EY02714-02	126,803
JOSHI, VASUDEV C.	REGULATION OF FATTY ACID SYNTHESIS IN NEONATAL LIVER	5R01 HD07516-06	76,412
KAUFMAN, RAYMOND H.	PREGNANCY AND DES ASSOCIATED UPPER GENITAL ANOMALIES	5R01 HD10989-03	42,030
KELLAWAY, PETER	EPILEPSY RESEARCH CENTER	5P50 NS11535-05	466,103
KELLEMS, RODNEY E.	CONTROL OF HOST GENE EXPRESSION BY DNA TUMOR VIRUSES	1R01 CA24618-01	69,773
KIT, SAUL	BIOCHEMICAL ASPECTS OF VIRAL CARCINOGENESIS	5R01 CA06656-17	192,252
KNOX, JOHN M.	SEXUALLY TRANSMITTED DISEASES RESEARCH PROGRAM PROJECT	5P01 AI12618-05	65,210
KRETZER, FRANK L.	RETINA: ULTRASTRUCTURE OF PHOTORECEPTORS	5R01 EY02607-02	31,287
LAM, DOMINIC M.	NEUROTRANSMITTERS IN THE VISUAL SYSTEM	5R01 EY02423-03	62,601
LAM, DOMINIC M.	DEVELOPMENT AND REGENERATION OF THE VERTEBRATE RETINA	5R01 EY02608-02	89,550
LANE, MONTAGUE	SOUTHWEST ONCOLOGY GROUP	5R01 CA03392-22	126,520
LANE, MONTAGUE	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA24268-02	212,055
LIPSHULTZ, LARRY I.	SERTOLI CELL AND ACCESSORY SEX GLAND FUNCTION IN MAN	5R01 HD11479-02	47,514
MARTIN, R. RUSSELL	HUMAN MACROPHAGES AND OTHER CELLS IN CARCINOGENESIS	5R01 CA15784-05	53,845
MAYOR, HEATHER D.	GROWTH & MATURATION OF ADENOASSOCIATED SATELLITE VIRUSES	5R01 CA14618-06	66,524
MC BRIDE, RAYMOND A.	IMMUNOGENETIC ANALYSIS OF ROUS SARCOMA DEVELOPMENT	5R01 CA24497-02	204,954
MC CORMACK, SHIRLEY A.	A MODEL FOR INDUCTION OF CHORIOCARCINOMA IN THE RAT	5R01 CA20853-03	70,804
MEANS, ANTHONY R.	BIOLOGY OF THE TESTIS: ACTION OF FSH	5R01 HD07503-07	121,773
MEANS, ANTHONY R.	LIPOPROTEIN METABOLISM AND HORMONAL REGULATION	2R01 HL16512-05	66,675
MEDINA, DANIEL	CHEMICAL CARCINOGENESIS OF MOUSE MAMMARY GLANDS	5R01 CA11944-09	103,768
MEDINA, DANIEL	CHEMOTHERAPY OF MOUSE MAMMARY PRENEOPLASIAS	5R01 CA22591-02	65,480
MEYER, JOHN S.	CEREBROVASCULAR RESEARCH CENTER SUPPORT	5P50 NS09287-09	648,900
MITCHELL, JERRY R.	MOLECULAR BASIS OF HUMAN DRUG TOXICITY	1P01 GM26611-01	398,526
MOSES, ROBB E.	MECHANISMS OF CHROMOSOME REPLICATION	5R01 GM19122-08	75,116
MOSES, ROBB E.	CELLULAR DNA REPAIR MECHANISMS AND MUTAGENESIS	5R01 GM24711-02	89,614
NELSON, THOMAS E.	GLYCOGEN DEBRANCHING ENZYME IN MUSCLE GLYCOGENOLYSIS	2R01 AM17978-04A1	67,817
O'BRIEN, WILLIAM E.	BIOCHEMICAL BASIS FOR HYPERGLYCEMIA	5R01 HD12284-02	38,816
O'MALLEY, BERT W.	CENTER FOR POPULATION RESEARCH AND REPRODUCTION STUDIES	5P30 HD07495-07	591,293
O'MALLEY, BERT W.	SEX HORMONE RECEPTOR COMPONENTS AND THE CELL GENOME	5R01 HD07857-08	210,871
O'MALLEY, BERT W.	REPRODUCTIVE HORMONES: BIOLOGICAL & MOLECULAR ACTIONS	2R01 HD08188-08	225,171
PANKO, WALTER B.	ANOMALOUS RECEPTORS IN BREAST CANCER	1R01 CA26452-01	58,941
PATSCH, JOSEF R.	DIET EFFECT ON METABOLISM AND BLOOD LEVELS OF HDL	1R01 HL24759-01	160,223
PECK, ERNEST J, JR	NEUROENDOCRINE CONTROL OF PITUITARY HORMONE SECRETION	5R01 HD08389-06	52,083
PECK, ERNEST J, JR	GAMMA-AMINOBUTYRIC ACID RECEPTORS OF THE CEREBELLUM	5R01 NS11753-05	61,183
PIERSON, DUANE L.	CHARACTERIZATION OF HUMAN CARBAMYLPHOSPHATE SYNTHETASE	5R01 AM21989-02	41,010
PITTS, BARRY J.	PALMITOYL-CARNITINE INHIBITION OF ION PUMPS IN ISCHEMIA	5R01 HL22813-02	47,315
POWNALL, HENRY J.	DYNAMICS OF ATHEROGENESIS AND LIPOPROTEIN FORMATION	3R01 HL19459-03S1	3,006
RANDERATH, KURT	CHEMICAL STUDIES ON TUMOR NUCLEIC ACIDS	5R01 CA13591-08	86,375
RANDERATH, KURT	EFFECTS OF CARCINOGENS ON NUCLEOLAR DNA	1R01 CA25590-01	69,640
RICCARDI, VINCENT M.	DEL (11P) AS A CAUSE OF WILMS' TUMOR AND/OR ANIRIDIA	1R01 CA25597-01	50,006
RICH, ROBERT R.	REGULATION OF CELL-MEDIATED IMMUNE RESPONSES	5R01 AI13810-03	129,972
RICH, ROBERT R.	HUMAN IMMUNE RESPONSES TO HAPTENS IN VITRO	1R01 AI15394-01	70,077
ROSEN, JEFFREY M.	HORMONAL REGULATION OF BREAST CANCER	5R01 CA16303-05	97,476
ROSSEN, ROGER D.	VIRUSES, MYOPLASMA AND L FORMS IN RHEUMATIC DISEASES	5R01 AM06450-16	45,285
ROSSEN, ROGER D.	A ROLE FOR ANTIGLOBULIN IN GLOMERULONEPHRITIS	5R01 AM17555-06	47,858
ROSSEN, ROGER D.	ANTIGEN-ANTIBODY COMPLEXES IN CANCER PATIENTS' SERA	2R01 CA25043-04	68,092
SARTHY, VIJAY P.	GLIAL FUNCTION IN THE VERTEBRATE RETINA	1R01 EY03137-01	45,367
SCHWARTZ, ROBERT J.	DIFFERENTIATION OF ACTIN AND TROPOMYOSIN MYOGENESIS	1R01 NS15050-01	51,417
SEIDEL, CHARLES L.	VEIN ARTERIALIZATION FOLLOWING AORTOCORONARY GRAFTING	1R01 HL23811-01	71,025
SEIDEL, CHARLES L.	METABOLIC AND MORPHOLOGIC CORRELATES OF HYPERTENSION	1R01 HL25349-01	60,038
SHEARER, WILLIAM T.	STIMULATION OF TUMOR CELL GROWTH BY ANTIBODY	5R01 CA25567-02	83,056
SKINNER, JAMES E.	BRAIN REGULATION OF CARDIAC ARRHYTHMIA	5R01 HL17907-05	100,410

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
SMITH, LOUIS C.....	LIPID METABOLISM: TRANSPORT BY LATERAL DIFFUSION.....	3R01 HL15648-06S1	5,395
SUKI, WADI N.....	NEPHRONAL SITES OF DIVALENT ION TRANSPORT.....	5R01 AM21394-02	79,046
SYBERS, HARLEY D.....	MYOCARDIAL ISCHEMIA: ION REDISTRIBUTION.....	1R01 HL21218-01A1	44,376
TAVELLA, DANIELA.....	A STUDY OF LDL RECEPTORS OF FIBROBLASTS MEMBRANE.....	1R23 HL23179-01	41,083
TENG, CHING-SUNG.....	STUDY OF HORMONE-CONTROLLED SEX-ORGAN DIFFERENTIATION.....	5R01 HD08218-07	74,346
TENG, CHRISTINA T.....	MECHANISM OF AGING IN THE CHICK OVARY.....	2R01 AG00523-03	80,358
TERMAN, DAVID S.....	IMMUNOADSORBENTS FOR SPECIFIC IMMUNOTHERAPY.....	5R01 GM23517-03	72,310
TINDALL, DONALD J.....	PURIFICATION OF BINDING PROTEINS FOR ANDROGENS.....	1R01 HD12788-01	62,737
TRENTIN, JOHN J.....	IMMUNOGENETIC RESISTANCE TO LYMPHOMA-LEUKEMIA.....	5R01 CA03367-22	115,297
TRENTIN, JOHN J.....	CONTROL OF HEMOPOIETIC STEM CELL DIFFERENTIATION.....	5R01 CA22670-02	109,502
TWOMEY, JEREMIAH J.....	RHEUMATOID FACTOR AND TUMOR-HOST INTERACTION.....	2R01 CA15333-06	75,895
TWOMEY, JEREMIAH J.....	THYMIC ACTIVITY IN PLASMA WITH THYMUS DISORDERS.....	3R01 CA19538-03S1	17,676
VAN WINKLE, WALLACE B.....	LIPID-PROTEIN INTERACTIONS IN CARDIAC AND SKELETAL SR.....	1R01 HL22856-01	52,697
VON NOORDEN, GUNTER K.....	CLINICAL AND LABORATORY STUDIES OF AMBLYOPIA.....	5R01 EY01120-07	96,772
WAKIL, SALIH J.....	ROLE OF INSULIN IN FATTY ACID METABOLISM.....	5R01 AM21286-03	60,292
WAKIL, SALIH J.....	THE METABOLISM AND CONTROL OF FATTY ACIDS.....	5R01 GM19091-09	162,107
WARNER, MARLENE R.....	PERINATAL HORMONE-CARCINOGEN INTERACTIONS.....	3R01 CA18285-03S1	13,205
WILSON, JOHN H.....	SV40 GENETIC ANALYSIS OF MAMMALIAN RECOMBINATION.....	2R01 CA15743-06	62,206
WRAY, GRANVILLE W.....	ISOLATED CHROMOSOMES IN GENETICS AND CANCER RESEARCH.....	2R01 CA18455-04	60,353
WRAY, GRANVILLE W.....	PRECONDENSED CHROMOSOMES—STRUCTURE AND BIOCHEMISTRY.....	1R01 GM26415-01	53,765
WRENN, SIMEON.....	CARDIAC ADENYLYL CYCLASE-PURIFICATION-REGULATION.....	1R01 HL22366-01A1	79,103
WU, JANG-YEN.....	STUDIES OF NEURONAL AND GLIAL GLUTAMATE DECARBOXYLASES.....	2R01 NS13224-04	107,919
WYDE, PHILIP R.....	IMMUNOPATHOLOGY OF INFLUENZA VIRUS PNEUMONIA.....	2R01 AI13905-04	62,740
ORGANIZATION TOTAL	147	20,799,514	
RICE UNIVERSITY ZIP CODE 77001			
BENNETT, GEORGE N.....	STRUCTURE-FUNCTION STUDY OF BACTERIAL PROMOTERS.....	1R01 GM26437-01	66,712
BERGET, SUSAN M.....	GENE EXPRESSION IN ADENOVIRUS-INFECTED CELLS.....	1R01 AI15813-01	74,278
CAMPBELL, JAMES W.....	METABOLISM OF GASTROPOD MOLLUSCS.....	5R01 AI05006-16	38,715
GORDON, W E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07103-13	61,452
HELLUMS, JESSE D.....	EFFECTS OF PHYSICAL FORCES ON PLATELETS.....	2R01 HL18584-04	72,939
MATTHEWS, KATHLEEN S.....	FLUORESCENCE STUDIES OF THE LACTOSE REPRESSOR PROTEIN.....	2R01 GM22441-04	81,257
MC INTIRE, LARRY V.....	PERFUSION LUNG: ROLE OF TRAUMATIZED LEUKOCYTES.....	2R01 HL17437-04A1	61,881
MC INTIRE, LARRY V.....	SUBHEMOLYTIC DAMAGE TO ERYTHROCYTES: MODEL DEFECT.....	1R01 HL23313-01	46,146
OLSON, JOHN S.....	FUNCTIONAL PROPERTIES OF HEMOGLOBIN AND ERYTHROCYTES.....	5R01 HL16093-06	43,852
PALMER, GRAHAM A.....	MOLECULAR MECHANISMS OF BIOLOGICAL REDOX REACTIONS.....	2R01 GM21337-05	134,198
PARRY, RONALD J.....	METABOLISM OF CHIRALLY LABELED ADENOSINE.....	1R01 GM26166-01	52,370
PARRY, RONALD J.....	BIOSYNTHESIS OF ANTILEUKEMIC CEPHALOTAXUS ALKALOIDS.....	5R01 GM26569-02	48,922
QUIOCHO, FLORANTE A.....	STRUCTURE AND FUNCTION OF SUGAR BINDING PROTEINS.....	5R01 GM21371-05	65,567
QUIOCHO, FLORANTE A.....	STRUCTURE OF LEU, ILE, VAL-BINDING PROTEIN.....	1R01 GM26485-01	110,215
RUDOLPH, FREDERICK B.....	REGULATION OF METABOLISM BY PURINE INTERCONVERSIONS.....	5R01 CA14030-07	45,424
SASS, RONALD L.....	STRUCTURAL AND CHEMICAL STUDY OF TISSUE CALCIFICATION.....	5R01 AM18582-05	62,458
SCHROEPFER, GEORGE J, JR.....	INTERMEDIARY METABOLISM OF STEROLS.....	2R01 HL15376-07	156,402
SCHROEPFER, GEORGE J, JR.....	INHIBITORS OF CHOLESTEROL BIOSYNTHESIS.....	5R01 HL22532-02	216,933
WALKER, JAMES B.....	EFFECTS OF CYCLOCREATINE-P ON ISCHEMIC HEARTS.....	1R01 HL23797-01	56,400
WALKER, WILLIAM F.....	CAVITATION PHENOMENA NEAR PROSTHETIC DEVICES.....	5R01 HL17821-04	49,911
ORGANIZATION TOTAL	20	1,546,032	
TEXAS DEPARTMENT OF MENTAL HEALTH AND MENTAL RETARDATION—TEXAS RESEARCH INST OF MTL SCIENCES ZIP CODE 77030			
SMITH, ROBERT C.....	AGING AND TOXICITY OF CHRONIC NEUROLEPTIC DRUGS.....	5R23 AG00725-03	36,068
ORGANIZATION TOTAL	1	36,068	
TEXAS SOUTHERN UNIVERSITY ZIP CODE 77004			
CHAN, JARVIS T.....	ANTIOXIDANT REVERSED CYTOTOXICITY AND CARCINOGENESIS.....	5R01 CA23684-03	34,408
SESSION, JOHN J.....	BIOMEDICAL RESEARCH IMPROVEMENT PROGRAM.....	5S06 RR08061-09	495,715
ORGANIZATION TOTAL	2	530,123	
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON ZIP CODE 77004			
CATES, LINDLEY A, JR.....	TISSUE SPECIFIC AND IMINO-PHOSPHORUS ONCOLYTICS.....	3R01 CA24970-01S1	16,727
DYCKES, DOUGLAS F.....	A PROTEINASE INHIBITOR MODEL WITH CLINICAL POTENTIAL.....	3R01 HL19514-03S1	2,277

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
EICHBERG, JOSEPH	ROLE OF LIPIDS AND LIPOPROTEINS IN MEMBRANES	5R01 NS12493-04	60,265
GRATCH, GERALD	PIAGET'S THEORY OF INFANTS' OBJECT CONCEPTS	5R01 HD10252-03	45,300
GRAY, HORACE B, JR.	HYDRODYNAMICS OF CIRCULAR DNA FORMS	5R01 CA11761-09	51,260
GRAY, HORACE B, JR.	NUCLEIC ACID MODIFICATION WITH SPECIFIC ENDONUCLEASES	5R01 GM21839-05	54,021
GREGA, GEORGE J.	PATHOPHYSIOLOGY OF CIRCULATORY SHOCK	7R01 HL25257-01	57,351
HARWERTH, RONALD S.	BEHAVIORAL MEASURES OF BINOCULAR VISION	5R01 EY01139-05	55,583
HECHT, RALPH M.	GENETIC CONTROL OF EMBRYOGENESIS	5R01 HD11071-02	47,161
HENNING, SUSAN J.	ONTOGENY OF FEEDING CONTROLS IN THE RAT	7R01 HD14093-01	50,196
HENNING, SUSAN J.	REGULATION OF INTESTINAL DEVELOPMENT	7R01 HD14094-01	65,079
KADISH, KARL M.	REDOX REACTIONS OF HIGH SPIN IRON PORPHYRINS	5R01 GM25172-02	33,994
KIMBALL, AUBREY P.	MECHANISMS OF ACTION OF ANTICANCER DRUGS	5R01 CA12327-09	73,010
KIMBALL, AUBREY P.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07147-07	46,713
KLASS, MICHAEL R.	GENETIC AND BIOCHEMICAL ANALYSIS OF AGING	1R01 AG02115-01	40,636
KLASS, MICHAEL R.	CELL-SPECIFIC GENE EXPRESSION	1R01 GM26808-01	89,314
KOHN, HAROLD L.	A BLUEPRINT FOR NEW ANTICONVULSANT COMPOUNDS	1R01 NS15604-01	28,197
LACHMAN, JANET L.	SUBJECT ATTRITION IN COGNITIVE AGING RESEARCH	1R01 AG01378-01	25,197
LEVI, DENNIS M.	CONTRAST SENSITIVITY IN AMBLYOPIA	3R01 EY01728-03S1	5,159
LEVI, DENNIS M.	CONTRAST SENSITIVITY IN AMBLYOPIA	2R01 EY01728-04	68,589
LOKHANDWALA, MUSTAFA F.	PRESYNAPTIC REGULATORY MECHANISMS IN HYPERTENSION	5R01 HL22868-02	66,462
SCHRAM, KARL H.	DEVELOP CLINICAL GAS CHROMATOGRAPHY-MASS SPECTROMETRY	1R01 CA24690-01	188,598
TU, SHIAO-CHUN	STRUCTURE AND MECHANISM OF FLAVOPROTEIN HYDROXYLASE	1R01 GM25953-01	45,416
VESTAL, MARVIN L.	CROSSED-BEAM LC-MS INVOLATILE BIOLOGICAL SAMPLES	2R01 GM24031-03	214,684
ORGANIZATION TOTAL	24 1,431,189		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025			
ANDREOLI, THOMAS E.	TRANSPORT PROCESSES IN LIPID MEMBRANES & RENAL TUBULES	7R01 AM26554-01	121,323
ANTHONY, LUEAN E.	NUTRIENT DEFICIENCIES AND THE IMMUNE RESPONSE	1R22 AM25809-01	39,382
BOOTH, FRANK W.	DISUSE AND EXERCISE IN CONDITIONS OF MUSCULAR ATROPHY	2R01 AM19393-04	75,959
BOYAN-SALYERS, BARBARA D.	THE ROLE OF LIPOPROTEINS IN MICROBIAL CALCIFICATION	5R01 DE04212-05	33,435
BOYAN-SALYERS, BARBARA D.	PROTEOLIPIDS AND MINERALIZATION OF BONES AND TEETH	5R01 DE04919-02	26,895
BULGER, RUTH E.	RENAL ULTRASTRUCTURE AND FUNCTION	1R01 AM26134-01	61,108
BUTCHER, REGINALD W.	CONTROL OF CYCLIC AMP LEVELS	7R01 AM26943-01	80,927
BUTCHER, REGINALD W.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07148-06	57,878
CAPRIOLI, RICHARD M.	PROTEIN PRIMARY STRUCTURE THROUGH DIPEPTIDE ANALYSIS	5R01 GM25405-02	50,690
CASTRO, GILBERT A.	PHYSIOLOGIC BASIS OF IMMUNITY IN TRICHINOSIS	5R01 AI11361-06	55,062
CECH, IRINA	RELATION OF CANCER RATES AND SOURCE OF DRINKING WATER	1R01 CA24138-01	82,848
CLARK, RICHARD B.	REGULATION OF ADENYL CYCLASE BY ADENOSINE	7R01 GM27944-01	39,374
CRAWFORD, M L.	EXCITABILITY OF VISUAL PATHWAYS	5R01 EY00381-10	74,590
DE MOSS, JOHN A.	ASSEMBLY OF A MEMBRANE-BOUND MULTI-ENZYME COMPLEX	5R01 GM19511-08	72,586
DOUGLAS, TOMMY C.	CELL SURFACE ANTIGENS: IMMUNOGENICITY AND GENETICS	1R01 AI15772-01	67,794
DOWHAN, WILLIAM	STRUCTURE AND FUNCTION OF MEMBRANE PROTEINS	2R01 GM20478-07	74,795
DOWHAN, WILLIAM	MEMBRANE PROTEIN BIOSYNTHESIS AND ASSEMBLY	5R01 GM25047-02	40,284
ENNA, SALVATORE J.	NEUROBIOLOGY AND PHARMACOLOGY OF GABA RECEPTORS	5R01 NS13803-02	32,599
EVANS, DOLORES G.	VIROLENCE FACTORS OF E. COLI ENTEROTOXIGENIC FOR MAN	2R22 AI13385-04	72,841
FRIEDMANN, NAOMI	ROLE OF ION FLUXES IN THE HYPOGLYCEMIC RESPONSE	5R01 AM18083-06	58,253
FRIEDMANN, NAOMI	GLUCOCORTICOID CONTROL OF HEPATIC METABOLISM	5R01 AM19751-02	40,896
FRIZZELL, RAYMOND A.	ACTIVE CHLORIDE SECRETION BY MAMMALIAN COLON	7R01 AM26702-01	24,184
FURLONG, NORMAN B.	THE ANTITUMOR ACTION OF AMSA	1R01 CA24859-01	59,251
GILDENBERG, PHILIP L.	30-YEAR INDEX OF HUMAN STEREOTACTIC SURGERY LITERATURE	5R01 LM03073-02	2,848
GROTHAN, H EDWARD, JR.	GONADOTROPIN BIOSYNTHESIS—SUBCELLULAR ASPECTS	5R01 HD12006-02	43,619
GUYNN, ROBERT W.	KINETICS AND THERMODYNAMICS OF SERINE BIOSYNTHESIS	1R01 GM26488-01	43,226
GUYNN, ROBERT W.	EFFECT OF SEIZURE UPON ENERGY METABOLISM IN BRAIN	5R01 NS11484-05	56,474
HENKIN, JACK	PHOTOCHEMICAL MAPPING AND INACTIVATION OF ENZYMES	5R01 AM22079-02	30,017
HOFFMAN, NEVILLE E.	HEPATIC BILE ACID TRANSPORT	1R01 AM21504-01A2	79,246
HOWELL, R RODNEY	ROLE OF HUMAN MILK IN INFANT NUTRITION AND HEALTH	1P01 HD13021-01	467,743
JOHNSON, LEONARD R.	GI HORMONES EFFECT ON GI MUCOSA GROWTH & METABOLISM	5R01 AM16505-07	78,082
JOHNSON, LEONARD R.	ROLE OF FOOD IN THE GUT IN MAINTAINING GI FUNCTION	5R01 AM18164-05	60,116
KAHAN, BARRY D.	ANTIGENIC STIMULUS IN HUMAN COLON CARCINOMA IMMUNITY	3R26 CA22370-02S1	16,858
KAHAN, BARRY D.	ANTIGENIC STIMULUS IN HUMAN COLON CARCINOMA IMMUNITY	2R26 CA22370-03A1	115,813
KOHL, STEVE	IMMUNE CYTOTOXICITY TO HERPES SIMPLEX INFECTED CELLS	5R23 AI14450-02	28,390

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
KOZLOWSKI, GERALD P.....	IMMUNOTECHNIQUES FOR GN-RH AND RELATED NEUROPEPTIDES.....	5R01 HD12781-02	83,552
KOZLOWSKI, GERALD P.....	LIMBIC SYSTEM: VASOPRESSIN AND BEHAVIORAL CORRELATES.....	5R01 NS15337-02	29,249
LANDERS, TERRY A.....	ROLE OF TUMOR VIRUS STRUCTURAL PROTEINS IN INFECTION.....	5R01 CA21350-03	34,815
LEE, CHING Y.....	REGULATION OF GONADOTROPIN RECEPTOR & ADENYLATE CYCLASE.....	7R01 HD13905-01	20,619
LESTER, ROGER.....	NEONATAL NUTRITION: DEVELOPMENT OF FAT ABSORPTION.....	7R01 HD14198-01	74,662
LEVER, JULIA E.....	MECHANISMS OF REGULATION OF MEMBRANE FUNCTION.....	7R01 GM27055-01	73,974
LEWIS, VAHN A.....	THE CENTRAL MECHANISMS OF DENTAL PAIN AND ANALGESIA.....	5R23 DE04646-03	13,952
LICHTENBERGER, LENARD M.....	REGULATION OF GASTRIN SYNTHESIS AND RELEASE.....	5R01 AM20686-02	46,616
MAILMAN, MARY L.....	GINGIVAL COLLAGEN METABOLISM IN HEALTH AND DISEASE.....	5R23 DE04691-03	36,534
MARC, ROBERT E.....	CHROMATIC INPUTS OF RETINAL NEURONS.....	5R01 EY02576-02	35,668
MC HENRY, CHARLES S.....	REGULATION OF THE SYNTHESIS OF REPLICATION PROTEINS.....	5R01 GM25457-02	36,731
MILLER, THOMAS A.....	PROSTAGLANDINS AND GASTRIC ULCERS SURGICAL STUDIES.....	1R01 AM25838-01	45,218
MINER, MICHAEL E.....	SYSTEMIC EFFECTS OF INCREASING INTRACRANIAL PRESSURE.....	5R01 NS13251-03	22,077
MONTGOMERY, EDWARD H.....	INITIATORS AND MEDIATORS IN PERIODONTAL DISEASE.....	5R01 DE03743-07	53,521
MORRIS, FRANK H, JR.....	MATERNAL NUTRITIONAL REGULATION OF FETAL GROWTH.....	5R01 HD11337-02	53,130
MURPHY, SHELTON D.....	FACTORS AFFECTING PESTICIDE TOXICITY.....	5R01 ES01831-02	83,025
MURTHY, K KIRSHNA.....	LONG-SPINAL REFLEXES.....	1R01 NS15012-01	59,781
NALL, BARRY T.....	PROTEIN FOLDING—THE EFFECT OF SEQUENCE.....	5R01 GM25463-01	55,588
NEI, MASATOSHI.....	POPULATION DYNAMICS OF MUTANT GENES.....	2R01 GM20293-07	52,425
O'NEILL, PEGGY A.....	LYMPHOCYTE-MEDIATED CYTOTOXICITY IN PERIODONTAL DISEASE.....	5R01 DE04210-05	33,070
OBERDORFER, MICHAEL D.....	EYE DEVELOPMENT AND ABNORMAL VISUAL PATHWAYS.....	1R01 EY02926-01	32,353
OLSON, JOHN V.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05344-17	33,253
ORTEZ, RICHARD A.....	LYMPHOCYTE CYCLIC AMP-DEPENDENT PROTEIN KINASE.....	1R01 AI15396-01A1	49,317
OVERTURF, MERRILL L.....	EFFECTS OF RENIN ON ATHEROGENESIS.....	5R01 HL20189-02	110,505
POLLITT, ERNESTO.....	BEHAVIORAL EFFECTS OF IRON DEFICIENCIES.....	1R01 HD12638-01	27,131
POLLITT, ERNESTO.....	FUNCTIONAL BIOCHEMICAL IMPACT OF MICRONUTRIENT DEFICITS.....	1R01 HD12843-01	152,760
PRICHARD, HOWARD M.....	CARCINOGENIC IMPACT OF RADON IN WATER SUPPLIES.....	5R23 ES01742-02	51,615
RAMASWAMY, KRISHNAMURTHY.....	EFFECT OF DIABETES MELLITUS ON INTESTINAL FUNCTION.....	5R01 AM19876-03	42,781
REDBURN, DIANNA A.....	BIOCHEMICAL ANALYSIS OF TRANSMITTER AGENTS IN RETINA.....	2R01 EY01655-04	105,006
ROSE, GEORGE G.....	HUMAN GINGIVAL LYSOSOMES IN VIVO AND IN VITRO.....	5R01 DE04337-03	30,913
ROSENFELD, GARY C.....	HORMONAL REGULATION OF ISOLATED GASTRIC MUCOSAL CELLS.....	5R01 AM20431-02	70,758
RUTZKY, LYNNE P.....	SOCIAL BEHAVIOR OF CULTURED COLON ADENOCARCINOMA CELLS.....	5R23 CA23871-02	38,564
SANBORN, BARBARA M.....	UTERINE RELAXING FACTORS: MOLECULAR ASPECTS OF ACTION.....	2R01 HD09618-03	59,222
SCHULTZ, STANLEY G.....	MECHANISMS OF ION TRANSPORT BY EPITHELIAL TISSUES.....	7R01 AM26690-01	113,052
SHAW, MARGERY W.....	MEDICAL GENETICS CENTER AT HOUSTON.....	3P50 GM19513-05S2	224,598
SIRBASKU, DAVID A.....	ESTROGEN MEDIATED PITUITARY TUMOR CELL GROWTH.....	1R01 CA26617-01	101,626
SPEHLING, HARRY G.....	EFFECTS OF LIGHT ON THE RETINA.....	5R01 EY02388-06	75,162
SPEHLING, HARRY G.....	LIGHT HAZARDS IN OPHTHALMIC DIAGNOSIS AND TREATMENT.....	1R13 EY03248-01	23,350
STANCEL, GEORGE M.....	ESTROGEN CONTROL OF UTERINE GROWTH AND CELL DIVISION.....	5R01 HD08615-06	57,585
STEINBERGER, EMIL.....	MULTIDISCIPLINARY STUDY OF THE REPRODUCTIVE SYSTEM.....	5P50 HD08338-05	429,967
STROBEL, HENRY W.....	GASTROINTESTINAL HORMONES AND COLONIC CARCINOMA.....	3R26 CA19105-03S1	2,354
STROBEL, HENRY W.....	GASTROINTESTINAL HORMONES AND COLONIC CARCINOMA.....	2R26 CA19105-04A1	70,152
STROBEL, HENRY W.....	DRUG METABOLISM IN LIVER TUMORS.....	2R01 CA19621-04	67,319
THOMPSON, W JOSEPH.....	BIOLOGICAL ROLE OF CYCLIC NUCLEOTIDE PHOSPHODIESTERASES.....	5R01 GM21361-06	85,802
TOM, BALDWIN H.....	IN VITRO GENERATION OF IMMUNITY TO HUMAN COLON CANCER.....	3R01 CA24024-01S1	35,667
TSUCHITANI, CHIEYKO.....	SINGLE UNIT ANALYSIS OF THE SUPERIOR OLIVARY COMPLEX.....	5R01 NS11218-07	87,891
TUTTLE, ROBERT L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05745-07	125,880
VOGEL, JAMES J.....	CALCULUS FORMATION USING CALCIFIABLE LIPOPROTEIN ANALOGS.....	5R01 DE04439-02	28,657
WARNER, RAYMOND L.....	THE ROLE OF MONOAMINES IN SEXUAL DIFFERENTIATION.....	5R01 HD10848-03	25,601
WAYMIRE, JACK C.....	REGULATION OF ADRENERGIC METABOLISM.....	2R01 NS11061-04A2	68,587
WEEMS, WILLIAM A.....	INTESTINAL PROPULSION.....	1R01 AM23038-01	48,879
WEEMS, WILLIAM A.....	RENAL AND VASCULAR CONTROL BY SYMPATHETIC GANGLIA.....	2R01 HL21351-03	59,570
WEISBRODT, NORMAN W.....	ADAPTIVE CHANGES IN INTESTINAL SMOOTH MUSCLE.....	5R01 AM19886-03	25,402
WEISS, KENNETH M.....	AGING AND HETEROGENEITY IN MORTALITY RISKS.....	1R01 AG01028-01	48,213
WEISS, KENNETH M.....	GENETIC EPIDEMIOLOGY OF CANCER.....	5R01 CA19311-03	153,688
WIGGINS, RICHARD C.....	STARVATION-VULNERABLE BRAIN SUBCELLULAR MEMBRANES.....	5R01 NS13799-02	27,820
WIGGINS, RICHARD C.....	BRAIN TERATOGENESIS OF AMBIENT AIR HALOTHANE.....	5R01 NS14355-02	41,535
WRIGHT, ANTHONY A.....	HUE DISCRIMINATION STUDIES IN PRIMATES.....	5R01 EY01256-05	38,718
ORGANIZATION TOTAL.....	93.....	6,180,846.....	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER	ZIP CODE 77025		
ALEXANIAN, RAYMOND	SOUTHWEST ONCOLOGY GROUP	5R10 CA03195-22	66,213
ALLISON, JAMES P.	CELL-SURFACE ANTIGENS OF MURINE TUMORS	1R01 CA26321-01	114,784
ANSEVIN, ALLEN T.	A PHYSICAL APPROACH TO GENOMIC ANALYSIS	2R01 GM23067-04	58,722
ARLINGHAUS, RALPH B.	BIOSYNTHESIS OF RAUSCHER MURINE LEUKEMIA VIRAL PROTEINS	3R01 CA18248-03S1	7,824
ARLINGHAUS, RALPH B.	BIOSYNTHESIS AND CHARACTERIZATION OF MURINE ONCORNAVIRUS	1R01 CA25465-01	112,165
BECKER, FREDERICK F.	PHENOTYPIC ANALYSIS OR CHEMICAL CARCINOGENESIS	2R01 CA20657-04	131,442
BECKER, FREDERICK F.	ANALYSIS OF CELLULAR EVENTS IN CHEMICAL CARCINOGENESIS	5R01 CA20659-04	81,324
BLUMENSCHN, GEORGE R.	CLINICAL CANCER EDUCATION	2R25 CA19808-04	187,143
CLARKSON, JUDITH M.	IMPORTANCE OF DNA DAMAGE AND REPAIR FOR CELL SURVIVAL	1R01 CA24540-01	53,092
COPELAND, MURRAY M.	NATIONAL STUDY OF LARGE BOWEL CANCER	5R26 CA14140-07	526,258
CORRY, PETER M.	PREFERENTIAL KILLING OF MELANIZED TISSUES	5R01 CA17891-05	94,310
DICKE, KAREL A.	IRRADIATION WITH AUTOLOGOUS MARROW RESCUE IN NEOPLASIA	1P01 CA23077-01A1	389,946
DICKE, KAREL A.	EFFECT OF CHEMOTHERAPY ON STEM CELLS IN MICE	5R01 CA24770-02	27,320
DREWINKO, BENJAMIN	ANTITUMOR AGENTS ON HUMAN COLON CARCINOMA CELLS	5R26 CA16763-06	80,073
DREWINKO, BENJAMIN	EFFECTS OF NEW ANTICANCER DRUGS ON THE CELL CYCLE	5R01 CA23272-02	160,280
EAST, JAMES L.	RELATEDNESS OF RNA TUMOR VIRUSES AND HUMAN NEOPLASIA	5R01 CA16781-05	102,687
FLETCHER, GILBERT H.	EVALUATION OF SUPERVOLTAGE THERAPY	5R01 CA05654-19	62,293
FLETCHER, GILBERT H.	EXTENSION OF RADIOTHERAPY RESEARCH—FEMALE GENITAL TRACT	2P01 CA06294-18	1,857,583
FLETCHER, GILBERT H.	FAST NEUTRON THERAPY WITH TAMVEC CYCLOTOTRON	5P01 CA12542-08	1,062,964
FORD, RICHARD J, JR.	SIL MICE LYMPHOMAGENESIS AS A MODEL OF B-CELL LYMPHOMA	1R01 CA25411-01	54,235
FREIREICH, EMIL J.	SOUTHWEST ONCOLOGY GROUP	5R10 CA10376-12	189,686
FREIREICH, EMIL J.	THERAPEUTIC RESEARCH IN CANCER	2P01 CA11520-10	882,558
FREIREICH, EMIL J.	DEVELOPMENTAL THERAPEUTICS	3P01 CA14528-06S1	124,655
FURLONG, NORMAN B.	RAPID TESTS FOR ENVIRONMENTAL CARCINOGENS	5R01 ES01967-02	42,717
GEHAN, EDMUND A.	SOUTHWEST ONCOLOGY GROUP (STATISTICS)	5R10 CA12014-10	981,381
GRONIN, DAVID J.	RADIATION RESPONSE OF CELLS SEPARATED FROM TUMORS	2R01 CA18628-04	85,110
GUINEE, VINCENT F.	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	5R10 CA21784-03	80,686
HAIDLE, CHARLES W.	INTERACTION OF ANTICANCER DRUGS WITH MACROMOLECULES	2R01 CA13246-08	56,971
HERSH, EVAN M.	IMMUNOLOGICAL ASPECTS OF CANCER PROGNOSIS	3R01 CA14984-05S1	11,461
HICKEY, ROBERT C.	CANCER CLINICAL RESEARCH	2P01 CA05831-18	2,224,989
HICKEY, ROBERT C.	CANCER CENTER SUPPORT (CORE) GRANT (COMPREHENSIVE)	3P30 CA16672-04S1	16,000
HICKEY, ROBERT C.	CANCER CENTER SUPPORT (CORE) GRANT (COMPREHENSIVE)	5P30 CA16672-05	725,426
HICKEY, ROBERT C.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05511-17	201,413
HSU, T C.	MONITORING MUTAGENS WITH MAMMALIAN CHROMOSOMES	5R01 ES01304-04	127,461
HUMPHREY, RONALD M.	DNA REPAIR AND RECOVERY IN THE MAMMALIAN CELL CYCLE	5R01 CA04484-21	151,764
LOTZOWA, EVA	GROWTH CONTROL OF HUMAN HEMOPOIETIC CELLS	3R01 CA21062-03S1	3,950
LOTZOWA, EVA	NK CELLS IN RESISTANCE TO MARROW TRANSPLANTATION	2R01 CA21062-04	67,800
MAIZEL, ABBY L.	CHROMATIN STRUCTURE OF NORMAL AND MALIGNANT T-CELLS	5R01 CA21927-02	55,312
MC CREDIE, KENNETH B.	INFECTIONS IN CANCER PATIENTS	2R01 CA19806-04	130,948
MC KELVEY, EUGENE M.	SOUTHWEST ONCOLOGY GROUP	5R10 CA10379-11	119,412
MEISTRICH, MARVIN L.	MUTAGENIC ACTION OF CANCER THERAPY ON TESTIS CELLS	5R01 CA17364-05	89,593
MEYN, RAYMOND E, JR.	CELL CYCLE DEPENDENCE OF ANTICANCER DRUG CYTOTOXICITY	5R01 CA23270-02	67,181
MEYN, RAYMOND E, JR.	REPAIR OF RADIATION DAMAGE IN VITRO AND IN VIVO	1R01 CA26312-01	48,260
MURGOLA, EMANUEL J.	MISSENSE SUPPRESSION AND MUTATIONALLY ALTERED TRNAS	5R01 GM21499-05	46,087
NELSON, JAMES A.	MECHANISMS OF ACTION OF ANTITUMOR AGENTS	7R01 CA28034-01	65,200
NELSON, JAMES A.	PURINE METABOLISM IN LYMPHOCYTES	7R01 HD13951-01	31,702
NISHIOKA, KENJI	TYROSINASE AS A MARKER FOR HUMAN MALIGNANT MELANOMA	1R01 CA25381-01	65,860
PATT, YEHUDA Z.	EVALUATION OF THYMIC HORMONES IN HUMAN CANCER	1R01 CA26023-01	59,587
RAO, POTU N.	ROLE OF POLYAMINES IN MAMMALIAN CELL PROLIFERATION	5R01 CA23878-02	49,238
RICHIE, ELLEN S.	LYMPHOID CELL SUBPOPULATIONS IN LYMPHOCTIC LEUKEMIA	3R01 CA20763-03S1	5,570
ROBBERSON, DONALD L.	REGULATION OF MITOCHONDRIAL DNA REPLICATION	5R01 CA16527-05	68,412
SAUNDERS, GRADY F.	INSULIN GENE EXPRESSION DURING PANCREAS DEVELOPMENT	5R01 AM20383-03	57,393
SAUNDERS, GRADY F.	MESSANGER RNA OF NORMAL AND MALIGNANT HUMAN CELLS	5R01 CA20124-03	80,290
SAUNDERS, GRADY F.	ORGANIZATION AND EXPRESSION OF THE HUMAN GENOME	5R01 GM23965-02	84,015
SCHLAMOWITZ, MAX.	MULTIPLE MYELOMA: EVALUATION THROUGH RADIOIMMUNOASSAY	5R01 CA21587-02	64,119
SCHLAMOWITZ, MAX.	CELL MEMBRANE RECEPTORS FOR MATERNOFETAL TRANSFER OF IGG	5R01 HD07752-06	60,370
SHALEK, ROBERT J.	RADIOLOGICAL PHYSICS CENTER	5R10 CA10953-12	410,012
SICILIANO, MICHAEL J.	MULTIPLE LOCI SCREEN FOR MUTATIONS IN MAMMALIAN CELLS	5R01 ES01287-05	104,345

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
TRUJILLO, JOSE M.....	CYTOLOGICAL STUDIES IN HUMAN LEUKEMIA.....	5R01 CA12687-08	167,370
VAN EYS, JAN.....	SOUTHWEST ONCOLOGY GROUP (PEDIATRICS).....	5R10 CA03713-22	239,160
WARD, DARRELL N.....	CHEMISTRY OF LUTEINIZING AND RELATED HORMONES.....	5R01 AM09801-15	129,940
WITHERS, H RODNEY.....	RADIOBIOLOGY OF NORMAL TISSUES.....	2R01 CA11138-11	128,577
ZIMMERMAN, STUART O.....	BIOMATHEMATICS AND COMPUTING IN A CANCER INSTITUTE.....	5R01 CA11430-14	402,197
ORGANIZATION TOTAL	63 14,034,836		
KINGSVILLE			
UNIVERSITY SYSTEM OF SOUTH TEXAS—TEXAS AGRICULTURAL AND INDUSTRIAL UNIVERSITY ZIP CODE 78363			
PEREZ, JOHN C.....	BIOMEDICAL SCIENCES RESEARCH SUPPORT PROGRAM.....	5S06 RR08107-06	215,032
ORGANIZATION TOTAL	1 215,032		
LUBBOCK			
TEXAS TECH UNIVERSITY ZIP CODE 79409			
BARTSCH, RICHARD A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR07183-01	19,255
DIEDRICH, DANA L.....	LYSYL-DERIVED CROSS-LINKS IN BACTERIAL MEMBRANES.....	5R01 AI14961-02	31,119
EVERSE, JOHANNES.....	THROMBOLYTIC ACTIVITY OF IMMOBILIZED STREPTOKINASE.....	1R01 HL23842-01	37,160
HOLLY, FRANK J.....	INVESTIGATION OF TEAR FILM PHYSIOLOGY.....	3R01 EY03002-01S1	2,300
HOLLY, FRANK J.....	INVESTIGATION OF TEAR FILM PHYSIOLOGY.....	5R01 EY03002-02	96,396
HUGHES, MAYSIE J.....	THE CARDIAC HISTAMINE RECEPTOR.....	5R01 HL16240-06	48,290
JARZEMBSKI, WILLIAM B.....	CURRENT PATHWAYS IN TISSUE DUE TO ELECTRICAL STIMULUS.....	1R01 GM24104-01A1	35,966
KENNY, ALEXANDER D.....	CALCIUM HOMEOSTASIS: ENDOCRINE AND COMPARATIVE ASPECTS.....	2R01 AM19475-05	77,720
LEFKOWITZ, STANLEY.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05773-05	36,837
MARKWALD, ROGER R.....	MUCOPOLYSACCHARIDE METABOLISM IN CARDIAC ANOMALIES.....	2R01 HL19136-04	74,690
NATHAN, RICHARD D.....	VOLTAGE CLAMP OF EMBRYONIC HEART CELL AGGREGATES.....	5R01 HL20708-03	21,034
OREM, JOHN M.....	BREATHING IN SLEEP: AIRWAY CONTROL AND BLOOD GASES.....	5R01 HL21257-03	21,288
PANG, PETER K.....	VITAMIN D METABOLISM IN POIKILOOTHERMS.....	1R01 AM21822-01	29,592
POTTER, DAVID E.....	OCULAR EFFECTS OF SELECTIVE BETA-ADRENERGIC DRUGS.....	2R01 EY02156-03	37,580
PRICE, JAMES.....	EYE HISTAMINE: TISSUE LEVELS IN ALBINOS.....	1R01 EY02157-01A1	52,592
REDINGTON, RICHARD L.....	FORMIC ACID-WATER OXYGEN EXCHANGE KINETICS.....	1R01 GM24515-01	37,623
ROBERTS, LOU A.....	RESPONSE OF ATRIA TO HYPEROSMOLALITY—MECHANISMS.....	5R01 HL21145-03	26,375
ROBINSON, G WILSE.....	SUBNANOSECOND PRIMARY EVENTS IN BIOLOGY.....	5R01 GM23765-03	35,130
SELIGER, WILLIAM G.....	MATRIX-MEDIATED EXPRESSION IN CRANIOFACIAL EMBRYOLOGY.....	5R01 DE04603-02	38,899
SONG, PILL-SOON.....	SKIN-SENSITIZING & CARCINOGENIC FUROCUMARINS.....	2R01 CA13598-07A1	34,854
SONG, PILL-SOON.....	ANEURAL PHOTOSENSORY TRANSDUCTION IN STENTOR COERULEUS.....	1R01 NS15426-01	27,116
YANG, SHIANG P.....	EFFECT OF LIPID ON METABOLISM OF CHEMICAL CARCINOGENS.....	5R01 CA21020-02	55,680
ORGANIZATION TOTAL	22 877,496		
PRAIRIE VIEW			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—PRAIRIE VIEW AGRI. AND MECH. UNIVERSITY ZIP CODE 77445			
BERRY, JEWEL E.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08094-05	245,227
ORGANIZATION TOTAL	1 245,227		
RICHARDSON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT DALLAS ZIP CODE 75080			
BREMER, HANS.....	REGULATION OF BACTERIAL GROWTH.....	5R01 GM15142-11	92,471
BREMER, HANS.....	CONTROL OF DNA REPLICATION IN BACTERIA.....	1R01 GM25948-01A1	62,927
CLOWES, ROYSTON C.....	INFECTIOUS DRUG RESISTANCE PLASMIDS.....	5R01 AI10468-08	89,908
GRAY, DONALD M.....	SEQUENCE-DEPENDENCE OF POLYNUCLEOTIDE CONFORMATION-III.....	5R01 GM19060-08	63,489
HICKS, DONALD A.....	REASSESSING TRANSPORTATION NEEDS OF THE ELDERLY.....	1R01 AG01464-01	36,316
JAGGER, JOHN.....	ACTION OF NEAR-ULTRAVIOLET RADIATION ON CELLS.....	5R01 AM14893-10	113,623
JAGGER, JOHN.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07133-10	48,790
MARSH, ROBERT C.....	STRUCTURE OF BACTERIAL CHROMOSOME REPLICATION ORIGIN.....	5R01 GM23608-03	36,132
ROESER, ROSS J.....	CENTRAL AUDITORY PROCESSING IN COMMUNICATION DISORDERS.....	5R01 HD10422-03	85,492
RUPERT, CLAUD S.....	REPAIR OF RADIATION-DAMAGED NUCLEIC ACID.....	5R01 GM16547-14	95,261

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
SHERRY, ALLAN D.....	LANTHANIDE IONS AS PROBES OF CON A-CELL INTERACTIONS.....	5R01 AM16947-06	71,700
STILLMAN, ROBERT D.....	FREQUENCY FOLLOWING POTENTIALS IN HUMANS.....	1R01 NS15681-01	39,504
ORGANIZATION TOTAL	12 835,613		
SAN ANTONIO			
INCARNATE WORD COLLEGE ZIP CODE 78209			
HEALY, SISTER MARY D.....	MULTIDISCIPLINARY BIOMEDICAL RESEARCH PROGRAM.....	5S06 RR08170-02	364,948
ORGANIZATION TOTAL	1 364,948		
SOUTHWEST FOUNDATION FOR RESEARCH AND EDUCATION ZIP CODE 78284			
CASTRACANE, V DANIEL.....	PROSTAGLANDINS AND DECIDUAL TISSUE.....	5R01 HD11806-02	66,291
GELLER, IRVING.....	EFFECTS OF ATMOSPHERIC POLLUTANTS ON BEHAVIOR.....	5R01 ES01246-03	88,563
KALTER, SEYMOUR S.....	REFERENCE CENTER FOR THE STUDY OF VIRUSES.....	5P40 RR00361-13	351,772
KUNTZ, ROBERT E.....	SCHISTOSOMIASIS-SCHISTO HAEMATOBIMUM COMPLEX BIOLOGY.....	5R22 AI14999-11	117,909
MC GILL, HENRY C, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05519-17	75,739
MILLER, SAM S.....	CULTURED BONE CELLS: MECHANISMS OF AGING.....	1R01 AG01300-01	51,137
MOORE, GARY T.....	ESTABLISHMENT OF A BABOON BREEDING PROGRAM.....	5P40 RR01104-02	146,279
PURDY, ROBERT H.....	MUTAGENIC AND CARCINOGENIC POTENTIAL OF ESTROGENS.....	1R01 CA24629-01	111,800
SHAIKH, ABUBAKAR A.....	STEROID-INDUCED REGULATION OF OVULATION.....	1R01 HD11538-01A2	142,691
SHAIN, SYDNEY A.....	PROSTATIC SENESCENCE: A STEROID HORMONE MODEL.....	5R01 AG00090-03	90,192
SHAIN, SYDNEY A.....	PROSTATIC CARCINOGENESIS: DISDIFFERENTIATION IN AGING.....	5R01 CA21864-03	93,481
ORGANIZATION TOTAL	11 1,335,854		
TEXAS DEPARTMENT OF HEALTH RESOURCES—SAN ANTONIO STATE CHEST HOSPITAL ZIP CODE 78223			
COX, REBECCA A.....	C-ASW: A COCCIDIOIDES CELL WALL ANTIGEN.....	5R01 AI13573-03	22,569
COX, REBECCA A.....	IMMUNOGLOBULIN E IN COCCIDIOIDOMYCOSIS.....	1R01 AI16095-01	49,085
ORGANIZATION TOTAL	2 71,654		
U.S. DEPARTMENT OF THE ARMY—BROOKE ARMY MEDICAL CENTER ZIP CODE 78234			
MC CRACKEN, JOSEPH D.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA22411-02	27,671
ORGANIZATION TOTAL	1 27,671		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT SAN ANTONIO ZIP CODE 78285			
AYLING, JUNE E.....	INHIBITION OF PTERIDINE ENZYMES IN CANCER CHEMOTHERAPY.....	5R01 CA20708-04	88,728
CHAMPNEY, WILLIAM S.....	PROTEIN SYNTHESIS MUTANTS OF E COLI.....	1R01 GM27622-01	66,100
PHILLIPS, JERRY L.....	ROLE OF ZINC TRANSFERRIN IN LYMPHOCYTE TRANSFORMATION.....	3R01 HL19132-04S1	2,841
ORGANIZATION TOTAL	3 157,669		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284			
ADRIAN, ERLE K, JR.....	CELL PROLIFERATION IN INJURED NERVOUS TISSUE.....	5R01 NS08949-10	34,745
ALBIN, MAURICE S.....	GRADED BRAIN RETRACTION PRESSURE AND THERAPY.....	5R01 NS15316-02	35,315
AUST, J BRADLEY.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA12029-08	25,305
BARNES, LARRY D.....	MECHANISMS OF ANGIOTENSIN II: CYCLIC NUCLEOTIDES & CA20.....	5R01 AM21550-02	33,199
BARTKE, ANDRZEJ.....	INFLUENCE OF PROLACTIN ON THE TESTIS.....	5R01 HD12642-02	85,067
BARTKE, ANDRZEJ.....	HYPERPROLACTINEMIA AND MALE REPRODUCTIVE FUNCTIONS.....	1R01 HD12671-01	67,895
BISHOP, VERNON S.....	EVALUATION OF LEFT VENTRICULAR FUNCTION.....	5R01 HL12415-11	70,519
BRANS, YVES W.....	BODY COMPOSITION IN NEONATES OF DIABETIC MOTHERS.....	5R01 AM21283-02	34,219
BRUNELL, PHILIP A.....	IMMUNIZATION WITH A VARICELLA-ZOSTER VIRUS VACCINE.....	1R01 AI15492-01	85,502
CARRILLO, ALBERTO J.....	A NEUROENDOCRINOLOGICAL STUDY OF THE HIPPOCAMPUS.....	5R01 NS14581-02	51,021
CARRILLO, ALBERTO J.....	A NEUROENDOCRINE STUDY OF THE MEDIAL BASAL HYPOTHALAMUS.....	1R01 NS14544-01	47,277
CHAMNESS, GARY C.....	MECHANISM OF ANTIESTROGEN ACTION IN BREAST CANCER.....	5R01 CA22343-03	59,092
COLTMAN, CHARLES A, JR.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA22433-02	171,335
COLTMAN, CHARLES A, JR.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA26047-01	89,119
CRAWFORD, STANLEY E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05654-12	111,310
DOUGLAS, MICHAEL G.....	ASSEMBLY OF ENERGY TRANSDUCING MEMBRANES.....	5R01 GM25648-02	55,279
DOUGLAS, MICHAEL G.....	LIPID-PROTEIN ASSEMBLY DURING MEMBRANE BIOGENESIS.....	1R01 GM26713-01	30,201
DRUTZ, DAVID J.....	GONOCOCCAL ARTHRITIS.....	5R01 AI14272-03	56,319
DUFFEY, PAUL S.....	PROTECTIVE T-CELL SUBPOPULATION RESPONSES IN LEUKEMIA.....	1R01 CA21900-01A1	60,305

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
EIDELBERG, EDUARDO	PROGRAM OF RESEARCH IN SPINAL CORD INJURY	5P50 NS14546-02	248,823
ELBEIN, ALAN D	LIPID-LINKED SACCHARIDES IN GLYCOPROTEIN SYNTHESIS	5R01 AM21800-02	66,974
ELBEIN, ALAN D	COMPLEX CARBOHYDRATES: STRUCTURE, FUNCTION, SYNTHESIS	5R01 HL17783-03	33,738
FELPEL, LESLIE P	DOPAMINERGIC MECHANISMS IN TARDIVE DYSKINESIAS	5R01 NS14216-02	28,361
FRIEDBERG, SAMUEL J	O-ALKYL LIPIDS IN SURFACE MEMBRANES OF TUMOR CELLS	2R01 CA15047-05	77,766
GAUNTT, CHARLES J	STUDIES OF COXSACKIEVIRUS-INDUCED MYOCARDITIS IN MICE	5R01 HL21047-02	65,206
GEORGE, JAMES N	THE ROLE OF MEMBRANE PROTEINS IN PLATELET FUNCTION	5R01 HL19996-03	34,489
GIBBS, RONALD S	AMNIOTIC FLUID STUDIES & MATERNAL-FETAL MORBIDITY	1R01 HD12292-01A1	41,423
GOYAL, RAJ K	PATHOPHYSIOLOGY OF ESOPHAGEAL MOTOR DISORDERS	5R01 AM25609-02	110,059
GREEN, GARY M	NUTRITIONAL SIGNIFICANCE OF INTESTINAL PROTEOLYSIS	5R01 AM26757-02	104,358
GROSE, CHARLES F	ANTIGENIC DETERMINANTS OF VARICELLA VIRUS	5R23 AI14604-02	25,023
GUARINO, ARMAND J	BIOMEDICAL RESEARCH SUPPORT GRANT	1S07 RR07187-01	126,955
HAGINO, NOBUYOSHI	EXTEROCEPTIVE AND NEUROENDOCRINE CONTROL OF OVULATION	2R01 HD10071-04A1	75,454
HANAHAN, DONALD J	REGULATION OF ERYTHROCYTE CA20/MG20 ATPASE	1R01 AM25547-01	41,046
HANAHAN, DONALD J	BIOCHEMICAL STUDIES ON THE BLOOD COAGULATION PROCESS	5R01 HL18852-04	81,435
HANLEY, MICHAEL J	STUDY OF NEPHRON TRANSPORT IN ACUTE RENAL FAILURE	1R01 AM26154-01	37,005
HANSEN, JOHN T	ANTERIOVENTRAL COCHLEAR NUCLEUS DEGENERATION STUDY	5R01 NS15058-02	42,825
HERBERT, DAMON C	GONADOTROPHIC HORMONES IN MALNOURISHED RATS	5R01 HD10914-02	32,462
HERLIHY, JEREMIAH T	HYPOXIA-INDUCED RELAXATION OF VASCULAR SMOOTH MUSCLE	5R01 HL19082-02	29,113
HIGUCHI, JUNJI H	CELLULAR ADHERENCE AND RESPIRATORY TRACT COLONIZATION	1R23 HL24295-01	36,938
HOROWITZ, PAUL M	STRUCTURE-FUNCTION IN RHODANASE BY FLUOROMETRY	5R01 GM25177-02	40,066
HOROWITZ, PAUL M	A MULTIUSER CIRCULAR DICHOISM FACILITY	1P41 GM27379-01	53,700
HUFFMAN, RONALD D	SYNAPTIC MECHANISMS OF THE GLOBUS PALLIDUS	5R01 NS14091-02	30,300
JOHANSON, WALDEMAR G, JR	PULMONARY SCOR: ADULT RESPIRATORY FAILURE	1P50 HL23578-01	509,969
JOHNSON, JOHN M	REGULATION OF SKIN BLOOD FLOW IN MAN	5R01 HL20663-03	29,893
KEENAN, ROY W	THE METABOLISM AND FUNCTION OF THE POLYPRENOLS	5R01 AM17897-05	38,923
KING, RICHARD J	PHYSIOLOGICAL REGULATION OF PULMONARY SURFACTANT	5R01 HL16725-04	38,111
KING, RICHARD J	PHYSICOCHEMICAL INTERACTIONS IN PULMONARY SURFACTANT	5R01 HL19676-03	26,245
KOLB, WILLIAM P	COMPLEMENT ATTACK PROTEINS AS LYMPHOCYTE SURFACE AGS	3R01 CA24447-01S1	26,546
KUNAU, ROBERT T, JR	EFFECT OF PERFUSION PRESSURE & PGE2 ON NA/ION EXCRETION	5R01 HL18875-04	55,501
LEE, JOHN C	REGULATION OF FETAL HEMOGLOBIN SYNTHESIS IN HUMANS	5R01 HL20939-03	29,010
LEVINSON, CHARLES	PHOSPHATE TRANSPORT AND METABOLISM IN CARCINOMA CELLS	5R01 CA10917-11	39,974
LUDUENA, RICHARD F	MECHANISM OF ACTION OF THE ANTITUMOR DRUG MAYTANSINE	1R01 CA26376-01	49,334
LUDUENA, RICHARD F	CONTROL OF MICROTUBULE ASSEMBLY IN VITRO AND IN VIVO	1R01 GM23476-01A2	54,342
MASORO, EDWARD J	NUTRITIONAL PROBE OF THE AGING PROCESS	1P01 AG01188-01	271,989
MASORO, EDWARD J	PHYSIOLOGIC REGULATION OF LIPID METABOLISM	5R01 AM17476-06	66,444
MATTINGLY, STEPHEN J	GROUP B STREPTOCOCCI AND NEONATAL DISEASE	5R01 AI13836-02	46,351
MC GILL, HENRY C, JR	A/S SCOR: ATHEROSCLEROSIS IN NONHUMAN PRIMATES	5P50 HL19362-03	1,672,912
MC GUIRE, WILLIAM L	MECHANISM OF HORMONAL CONTROL OF MAMMARY CARCINOMA	5R01 CA11378-10	106,955
MEDINA, MIGUEL A	TOXIC EFFECTS OF PARAQUAT AND DIQUAT ON LUNG METABOLISM	5R01 ES01828-02	46,378
MORGAN, WILLIAM W	INPUT TO DOPAMINERGIC TUBEROINFUNDIBULAR NEURONS	1R01 NS14855-01	44,426
NATHAN, MARC A	MODELS OF SUSTAINED ARTERIAL HYPERTENSION	1R01 HL24529-01	67,548
NISHIMURA, JONATHAN S	STUDIES ON SUCCINIC THIOKINASE AND RELATED ENZYMES	5R01 GM17534-09	60,181
OLSON, MERLE S	REGULATION OF ENERGY METABOLISM IN LIVER	5R01 AM19473-04	40,428
OLSON, MERLE S	INTEGRATED REGULATION OF MYOCARDIAL ENERGY METABOLISM	2R01 HL20544-03	57,047
OLSON, MERLE S	REGULATION OF A-KETO ACID DEHYDROGENASES IN THE HEART	1R01 HL24654-01	116,747
OSBORNE, C KENT	CONTROL OF BREAST CANCER BY SERUM GROWTH FACTORS	1R01 CA24129-01A1	46,628
PAUERSTEIN, CARL J	PHYSIOLOGY AND PHARMACOLOGY OF TUBAL OVUM TRANSPORT	2R01 HD09309-04	58,980
PAUERSTEIN, CARL J	CONTROL MECHANISMS OF OVIDUCTAL SMOOTH MUSCLE	5R01 HD09339-05	45,814
PAUERSTEIN, CARL J	CENTER FOR RESEARCH IN REPRODUCTIVE BIOLOGY	5P30 HD10202-03	365,097
PINCKARD, ROBERT N	COMPLEMENT MEDIATED INJURY OF ISCHEMIC MYOCARDIUM	5R01 HL20394-04	98,803
PINCKARD, ROBERT N	STRUCTURE AND FUNCTION OF PLATELET ACTIVATING FACTOR	5R01 HL22555-02	165,607
POPE, RICHARD M	MUCOPEPTIDE IN THE ETIOLOGY OF RHEUMATOID ARTHRITIS	1R01 AM25530-01	42,076
PROPPE, DUANE W	CONTROL OF THE CIRCULATION IN HEAT-STRESS	5R01 HL20766-03	40,367
PROPPE, DUANE W	CONTROL OF CIRCULATION DURING HEAT STRESS AND FEVER	5R01 HL21451-02	36,936
REINECK, HENRY J	THE ETIOLOGY OF GENETIC HYPERTENSION	5R23 HL22438-02	38,453
RENNELS, EDWARD G	STUDIES ON A NEW CLONE OF NORMAL RAT PROLACTIN CELLS	5R01 AM12583-11	78,355
RENTHAL, ROBERT D	MOLECULAR MECHANISM OF A TRANSMEMBRANE PROTON PUMP	5R01 GM25483-02	38,678
ROBINSON, NEAL C	HYDROPHOBIC ASSOCIATIONS OF MEMBRANE COMPLEXES	5R01 GM24795-02	35,353
SEARS, DAVID A	ERYTHROCYTE & PLATELET MEMBRANE PROTEIN STUDIES	5R01 AM17137-05	45,915

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
SERWER, PHILIP.....	BIOCHEMISTRY AND BIOPHYSICS OF VIRUS CAPSID ASSEMBLY.....	1R01 AI16117-01	41,365
SERWER, PHILIP.....	BIOPHYSICS AND GENETICS OF VIRAL DNA PACKAGING.....	5R01 GM24365-03	43,734
SHEPHERD, ALBERT P, JR.....	MICROCIRCULATION AND OXYGENATION OF INTESTINE.....	1R01 HL23435-01	37,939
SHINO, MASATAKA.....	STUDIES OF FUNCTIONAL CLONAL GONADOTROPHS OF THE RAT.....	5R01 HD11826-02	41,469
STEIN, JAY H.....	PHYSIOLOGY AND PATHOPHYSIOLOGY OF KIDNEY FUNCTION.....	5P01 AM17387-07	536,672
STERN, MICHAEL P.....	DIABETES AND CARDIOVASCULAR RISK IN MEXICAN AMERICANS.....	1R01 HL24799-01	217,475
SUMAYA, CIRO V.....	EPSTEIN-BARR VIRUS: TRANSMISSION AND HOST RESPONSE.....	1R01 AI15646-01	34,000
SUMAYA, CIRO V.....	EPSTEIN-BARR VIRUS: EFFECTS ON HUMAN LYMPHOCYTES.....	1R01 CA25686-01	27,050
THOR, DANIEL E.....	HOMING LIPOSOMES IN CANCER IMMUNOCHEMOTHERAPY.....	1R01 CA25242-01	96,520
TICKU, MAHARAJ K.....	MOLECULAR MECHANISMS OF DRUGS ON GABA SYNAPTIC EVENTS.....	1R01 NS15339-01	36,708
VENKATACHALAM, MANJERI A.....	RENAL PATHOPHYSIOLOGY: NORMAL AND ALTERED STRUCTURE.....	7R01 AM27015-01	39,210
WARD, WALTER F.....	LYSOSOMAL ROLE IN INSULIN AND GLUCAGON DEGRADATION.....	5R01 AM25633-02	62,193
WEINER, MARC H.....	IMMUNODIAGNOSIS OF SYSTEMIC CANDIDIASIS.....	5R01 AI13770-03	49,021
WHARTON, DAVID C.....	PROPERTIES OF CYTOCHROME OXIDASE.....	5R01 HL16686-05	69,191
ORGANIZATION TOTAL	93	8,631,406	
SAN MARCOS			
SOUTHWEST TEXAS STATE UNIVERSITY ZIP CODE 78666			
IRVIN, JAMES D.....	ENZYMATIC INACTIVATION OF EUKARYOTIC RIBOSOMES.....	5R01 AI15344-02	37,290
ORGANIZATION TOTAL	1	37,290	
TEMPLE			
SCOTT AND WHITE MEMORIAL HOSPITAL ZIP CODE 76501			
COULTER, JOHN B, III.....	BIOCHEMICAL INTERACTIONS OF INSULIN WITH THE LENS.....	5R01 EY00404-08	48,630
ORGANIZATION TOTAL	1	48,630	
WACO			
BAYLOR UNIVERSITY ZIP CODE 76703			
FORDTRAN, JOHN S.....	WATER AND SOLUTE MOVEMENT IN THE HUMAN INTESTINE.....	7R01 AM26761-01	133,555
ORGANIZATION TOTAL	1	133,555	
STATE TOTAL	893	92,488,601	
UTAH			
LOGAN			
UTAH STATE HIGHER EDUCATION SYSTEM-UTAH STATE UNIVERSITY ZIP CODE 84322			
BOEKER, ELIZABETH A.....	ENZYME DISSOCIATION MECHANISM.....	5R01 GM25471-02	35,247
ELLIS, LE GRANDE C.....	PROSTAGLANDINS AND EPIDIDYMAL SPERM MATURATION.....	1R01 HD12325-01	64,718
EMERY, THOMAS F.....	MECHANISMS OF MICROBIAL IRON TRANSPORT.....	5R01 AI09580-08	63,275
GARDNER, ELDON J.....	STUDIES OF UTAH COLORECTAL CANCER FAMILIES.....	5R26 CA21623-02	138,440
HANSEN, ROGER G.....	PANTOTHENIC ACID NUTRITIONAL STATUS OF HUMANS.....	3R01 AM18746-03S1	22,989
JOHNSON, RALPH M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07093-12	27,660
OLSEN, RICHARD K.....	SYNTHESIS OF TRIOSTIN AND QUINOMYCIN ANTIBIOTICS.....	1R01 AI15759-01	56,826
OLSEN, RICHARD K.....	SYNTHESIS OF ANTIBIOTIC 593 A.....	5R01 CA22922-02	38,964
SPENCE, JACK T.....	THE FUNCTION OF MOLYBDENUM IN BIOLOGICAL SYSTEMS.....	2R01 GM08347-19	52,492
STINNER, WILLIAM F.....	RACE, AGING AND MIGRATION AMONG OLDER AMERICAN MEN.....	1R01 AG01910-01	51,589
TONEY, MICHAEL B.....	MIGRATION, LIFE CYCLE AND SOCIAL MOBILITY-1966-1976.....	1R01 HD12766-01	69,391
ORGANIZATION TOTAL	11	621,591	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
PROVO			
BRIGHAM YOUNG UNIVERSITY ZIP CODE 84602			
ANDERSEN, FERRON L.....	EPIDEMIOLOGY OF ECHINOCOCCOSIS.....	5R01 AI10588-08	58,066
GUBLER, CLARK J.....	PHYSIOLOGICAL FUNCTIONS AND METABOLISM OF THIAMINE.....	3R01 AM02448-19S1	4,844
ROBINS, ROLAND K.....	SYNTHESIS OF TUBERCIDIN 3',5'-CMP AS INTERFERON ENHANCER.....	1R01 AI15324-01	40,940
ROBINS, ROLAND K.....	2'-5' LINKED OLIGONUCLEOTIDES OR GROWTH REGULATORS.....	1R01 CA25778-01	73,844
SEEGMILLER, ROBERT E.....	CARTILAGE MATRIX IN HEREDITARY CHONDRODYSPLASIA IN MICE.....	5R01 AM21631-02	43,728
ORGANIZATION TOTAL	5 221,422		
SALT LAKE CITY			
INTERMOUNTAIN HEALTH CARE—LDS HOSPITAL ZIP CODE 84143			
BEAN, LEE L.....	POPULATION STUDIES OF MORMON GENEALOGIES.....	5R01 HD10267-04	96,380
BURKE, JOHN P.....	CONTROL OF HOSPITAL-ACQUIRED URINARY TRACT INFECTIONS.....	1R01 AI15655-01	43,439
CLAYTON, PAUL D.....	LEFT VENTRICULAR WALL MOTION ANALYSIS.....	5R01 HL24137-02	67,469
MORRIS, ALAN H.....	CAPILLARY & TISSUE VOLUME AND LYMPH FLOW IN LUNG EDEMA.....	5R01 HL21948-02	58,185
PLENK, HENRY P.....	RADIATION THERAPY ONCOLOGY GROUP.....	3R10 CA17906-03S1	4,242
PRYOR, T ALLAN.....	COMPUTER CONTROLLED TWO-DIMENSIONAL ECHOCARDIOGRAPHY.....	2R01 HL16487-06	62,430
SKOLNICK, MARK H.....	CANCER INCIDENCE AND RISK FACTORS BY KINSHIP.....	5R01 CA16573-05	225,895
WARNER, HOMER R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	1S07 RR05804-01	39,745
ORGANIZATION TOTAL	8 597,785		
INTERMOUNTAIN HEALTH CARE—PRIMARY CHILDREN'S MEDICAL CENTER ZIP CODE 84103			
CLARK, JUSTIN S.....	SYNCHRONOUS TRACER INJECTION FOR PULMONARY PARAMETERS.....	1R01 HL20355-01A2	81,535
ORGANIZATION TOTAL	1 81,535		
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112			
ABILDSKOV, J A.....	CARDIAC ELECTROPHYSIOLOGY.....	5P01 HL13480-10	569,888
ANDRADE, JOSEPH D.....	SYNTHETIC HYDROGELS AS BLOOD TOLERABLE MATERIALS.....	5R01 HL16921-06	122,441
ANDRADE, JOSEPH D.....	ALBUMIN AND HEMOCOMPATIBILITY.....	5R01 HL18519-04	111,319
ANDRADE, JOSEPH D.....	BLOOD INTERACTIONS OF TRIBLOCK COPOLYMERS.....	1R01 HL24474-01	81,374
ATHENS, JOHN W.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA13238-08	118,358
ATHENS, JOHN W.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18013-03A1	148,144
BAKER, WILLIAM K.....	GENETIC CONTROL OF DIFFERENTIAL CELL FUNCTION.....	5R01 GM23707-03	48,044
BAXTER, BRENT S.....	3-D TOMOGRAM VIEWER FOR CANCER DETECTION AND THERAPY.....	1R01 CA24822-01	133,719
BENTRUDE, WESLEY G.....	CYCLOC NUCLEOTIDE AND CYCLOPHOSPHAMIDE DERIVATIVES.....	2R01 CA11045-11	126,297
BROOM, ARTHUR D.....	POLYRIBONUCLEOTIDES AS TUMOR AND VIRUS INHIBITORS.....	2R01 CA11935-09	70,412
BROWN, HAROLD M.....	TRANSDUCTION MECHANISM OF PHOTORECEPTORS.....	5R01 EY00765-08	146,617
BURGESS, MARY J.....	BASIC AND CLINICAL STUDIES OF THE ST-T DEFLECTION.....	5R01 HL12611-11	82,835
BURGESS, MARY J.....	ELECTROCARDIOGRAPHIC METHODS OF QUANTIFYING INFARCT SIZE.....	5R01 HL21710-02	135,113
BURGESS, PAUL R.....	GROWTH AND INFORMATION SIGNALLING IN A SENSORY SYSTEM.....	5R01 NS08769-10	72,819
CAPECCHI, MARIO R.....	THE CONTROL, ASSEMBLY AND TERMINATION OF PROTEINS.....	5R01 GM21168-06	127,742
CARDINAL, JOHN R.....	CHOLESTEROL PRECIPITATION FROM SUPERSATURATED BILE.....	1R01 AM25221-01	50,460
CARROLL, DANA.....	A NOVEL FUNCTION OF THE SIMIAN VIRUS 40 GENOME.....	1R01 CA26128-01	36,735
CARROLL, DANA.....	DEVELOPMENTAL CONTROL AND EVOLUTION OF 5S RNA GENES.....	5R01 GM22232-05	63,864
CARTWRIGHT, GEORGE E.....	HEREDITARY HEMOCHROMATOSIS.....	1R01 AM20630-01A1	67,771
CASIENS, SHERWOOD R.....	HERETIOPHAGE P22 ASSEMBLY AND ITS GENETIC CONTROL.....	2R01 GM21975-04	50,760
CHRISTENSEN, DOUGLAS A.....	HYPERTHERMIA PRODUCTION AND MEASUREMENT IN TISSUES.....	5R01 CA22189-02	111,601
CHUANG, HANSON Y.....	PROTHROMBIN, THROMBIN, ATIII INTERACTION WITH MATERIALS.....	1R01 HL25807-01	79,564
CHUANG, HANSON Y.....	PLASMA PROTEINS ADSORBED TO ARTIFICIAL ORGANS.....	7R01 HL25808-01	52,393
COLE, BARRY C.....	MYCOPLASMA-CELL INTERACTIONS AND INTERFERON INDUCTION.....	5R01 AI12103-05	91,442
COLE, BARRY C.....	ROLE OF MYCOPLASMAS IN ANIMAL AND HUMAN DISEASE.....	5R01 AM02255-21	96,861
COLLINS, FRANKLIN D.....	NERVE REGENERATION INDUCED BY CONDITIONED MEDIUM.....	1R01 NS15130-01	64,218
DAYNES, RAYMOND A.....	ULTRAVIOLET LIGHT RADIATION AND IMMUNOREGULATION.....	5R01 CA22126-03	138,586
DAYNES, RAYMOND A.....	CELLULAR AND GENETIC ASPECTS OF ANTITUMOR IMMUNITY.....	1R01 CA25917-01	137,569
DE WITT, CHARLES W.....	STRUCTURAL BASIS OF THE FUNCTIONS OF MYOPLASM COMPLEMENT.....	5R01 AI13483-04	71,308
DETHLEFSEN, LYLE A.....	OPTIMIZATION OF RADIATION THERAPY.....	5R01 CA14165-07	175,568
DETHLEFSEN, LYLE A.....	INTERACTIONS OF DRUGS AND X-RAYS IN VIVO.....	5R01 CA22188-03	109,658

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
DICKINSON, WILLIAM J.	THE CONTROL OF ENZYME EXPRESSION IN DEVELOPMENT	5R01 HD10723-03	49,347
DURNEY, CARL H.	QUANTITATION OF DISTRIBUTION OF LUNG WATER BY NMR	1R01 HL23746-01	110,016
DUSTMAN, ROBERT E.	ELECTROPHYSIOLOGICAL INDICES OF AGING	5R01 AG00568-03	60,681
EDMUNDSON, ALLEN B.	IMMUNOGLOBULINS IN MULTIPLE MYELOMA AND AMYLOIDOSIS	5R01 CA19616-04	194,490
EHRENFELD, ELVERA R.	VIRUS-HOST CELL INTERACTIONS	5R01 AI12387-05	67,703
EICHWALD, ERNST J.	CELL MEDIATED HYPERACUTE REJECTION	3R01 CA23679-01S1	27,266
EPSTEIN, WILLIAM W.	NEW MODIFICATIONS OF CLAISEN REARRANGEMENT	1R01 GM25437-01A1	48,347
EPSTEIN, WILLIAM W.	PHOTOCHEMICAL TECHNIQUES ON BIOLOGICAL PROBLEMS	1R01 GM26245-01	64,104
EYRE, HARMON J.	LEUKOCYTE MYELOPEROXIDASE DEFICIENCY FAMILY STUDIES	5R01 GM25600-02	39,510
EYRING, EDWARD M.	FAST FOURIER TRANSFER PHOTOACOUSTIC SPECTROSCOPY—BLOOD	1R01 HL23378-01	66,763
EYRING, HENRY.	EFFECTS OF STRUCTURE ON BIOLOGICAL MECHANISMS	3R01 GM12862-14S1	28,463
EYZAGUIRRE, CARLOS E.	CHEMORECEPTOR ACTIVITY OF THE CAROTID BODY	5R01 NS05666-15	98,059
EYZAGUIRRE, CARLOS E.	NEUROPHYSIOLOGY PROGRAM PROJECT (PERIPHERAL AND CNS)	5P01 NS07938-11	362,490
FIDONE, SALVATORE J.	CHEMICAL TRANSMISSION IN SENSORY RECEPTORS	5R01 NS12636-05	68,467
FRANKLIN, MICHAEL R.	MODIFICATION OF PROCARCINOGEN ENZYMIC ACTIVATION	5R01 CA15760-06	39,684
FRANZ, DONALD N.	MONOAMINERGIC BULBOSPINAL SYMPATHETIC PATHWAYS	1R01 HL24085-01	49,069
GALANT, STANLEY P.	NEUTROPHIL (PMN) BETA ADRENERGIC RECEPTOR IN ASTHMA	1R01 AI16213-01	45,990
GARIBALDI, RICHARD.	NOSOCOMIAL INFECTION IN SURGICAL PATIENTS	5R01 AI14533-02	114,852
GEORGOPOULOS, CONSTANTINE	BACTERIAL FUNCTIONS IN PHAGE DEVELOPMENT	5R01 GM23917-03	58,235
GIBBS, FREDERIC A, JR.	HYPERTHERMIA—A DIFFERENTIAL RADIOSENSITIZER IN VIVO	5R01 CA20333-03	93,706
GIDDINGS, J CALVIN	BIOMEDICAL SEPARATIONS: OPTIMIZATION AND NEW METHODS	2R01 GM10851-22	131,031
GLASGOW, LOWELL A.	INTERFERON AND HOST RESISTANCE TO VIRAL INFECTIONS	5R01 AI10217-10	86,517
GLASGOW, LOWELL A.	INTERFERON TREATMENT OF A MURINE OSTEOGENIC SARCOMA	5R01 CA23475-02	83,853
GRANT, DAVID M.	CARBON-13 MAGNETIC RESONANCE—METHODS AND THEORY	5R01 GM08521-19	98,949
GRANT, DAVID M.	REGIONAL RESEARCH FACILITY IN NMR	3P41 RO00574-08S1	146,406
GRAY, WILLIAM R.	STRUCTURE, FUNCTION, GENETICS OF HISTIDINOL DHASE	5R01 GM24686-02	101,182
GREEN, JON A.	UNEXPRESSED, RESTORABLE DELAYED HYPERSENSITIVITY	5R01 AI15074-02	86,320
GURNEY, ELIZABETH T.	GROWTH CONTROL AND VIRAL GENE EXPRESSION	5R01 CA21797-03	71,872
GURNEY, THEODORE, JR.	DRY FRACTIONATION OF MAMMALIAN CELLS	1R01 GM26137-01	69,772
HERRICK, GLENN A.	OXYTRICHA GENE AND GENOME STRUCTURE AND FUNCTION	5R01 GM25203-02	68,995
HILL, HARRY R.	MECHANISM OF HOST RESISTANCE TO GROUP B STREPTOCOCCI	5R01 AI13150-03	69,482
HILL, HARRY R.	MECHANISMS OF DIABETIC PHAGOCYTE CONTROL BY INSULIN	5R01 AM21140-02	88,976
HORCH, KENNETH W.	SPECIFICITY IN REGENERATING SENSORY NEURONS	5R01 NS13283-03	37,771
HUANG, WAI M.	DNA INITIATION AND REPLICATION	5R01 GM21960-05	57,692
JACOBSEN, STEPHEN C.	A UNIFIED CONTROL THEORY FOR ARTIFICIAL LIMBS	5R01 GM23499-03	157,047
JANATA, JIRI	SENSITIVE FIELD-EFFECT TRANSDUCERS	5R01 GM22952-04	104,196
JANATA, JIRI	IMMUNOCHEMICALLY SENSITIVE FIELD EFFECT TRANSISTOR	1R01 GM26508-01	59,084
JARVIK, ROBERT K.	STUDIES WITH ELECTRIC TOTAL ARTIFICIAL HEARTS	1R01 HL24338-01	187,628
JOHANSON, CONRAD E.	ONTOGENY OF HOMEOSTATIC TRANSPORT IN CHGROID PLEXUS	5R01 NS13988-03	24,311
JOHNSON, STEVEN A.	CANCER HYPERTHERMIA THERMOMETRY BY ULTRASOUND	5R01 CA23430-02	77,680
KIM, SUNG-WAN	INITIAL EVENTS IN THROMBUS FORMATION ON SURFACES	5R01 HL17623-06	43,308
KIM, SUNG-WAN	A NOVEL APPROACH TO NONTHROMBOGENIC POLYMER SURFACES	5R01 HL20251-03	40,738
KOLAKOFSKY, DANIEL	REPLICATION OF PARAINFLUENZA VIRUS GENOMES	2R01 AI12921-04	92,880
KOLFF, WILLEM J.	STUDIES TOWARDS AN ACCEPTABLE ARTIFICIAL HEART FOR MAN	2P01 HL13738-09	485,422
KOLFF, WILLEM J.	INTRA-AORTIC BALLOON PUMPING IN SMALL ANIMALS	2R01 HL20803-03	64,835
KRALIOS, FANY A.	FUNCTIONAL AUTONOMIC DEVELOPMENT IN NEONATAL HEARTS	2R01 HL17367-06	87,047
KRUEGER, GERALD G.	IMMUNOLOGY OF PSORIASIS—2 COMPONENT GRANT	5R01 AM21405-02	66,795
KUBY, STEPHEN A.	STUDIES OF ADENOSINE TRIPHOSPHATE TRANSPHOSPHORYLASES	5R01 AM07824-17	71,319
KUBY, STEPHEN A.	STUDIES OF ENZYMES OF METABOLIC AND GENETIC INTEREST	5R01 AM22088-02	92,231
KUEHL, LEROY R.	NONHISTONE NUCLEAR PROTEIN STUDIES	5R01 GM13864-14	55,308
KUSHNER, JAMES P.	PORPHYRIN BIOSYNTHESIS IN NORMAL AND DISEASE STATES	5R01 AM20503-03	122,730
LAHEY, M EUGENE	CHILDREN'S CANCER STUDY GROUP A	2R10 CA10198-12	79,768
LARK, CYNTHIA A.	THE ROLE OF METHYLATION IN DNA REPLICATION AND REPAIR	5R01 GM19703-05	48,016
LARK, KARL G.	DNA REPLICATION IN EUKARYOTES AND PROKARYOTES	5R01 AI10056-10	169,858
LARK, KARL G.	DETECTING MUTATIONS INDUCED BY ENVIRONMENTAL POLLUTANTS	5R01 ES01498-02	123,767
LAZARUS, HARRISON M.	EFFECTS OF ORGAN STORAGE ON RENAL RNA METABOLISM	5R01 AM16184-08	103,107
LEE, G RICHARD	STUDIES IN COPPER AND IRON METABOLISM	5R01 AM20207-03	238,604
LEE, G RICHARD	BIOMEDICAL RESEARCH SUPPORT GRANT	5507 RR05428-18	201,413
LINKER, ALFRED	STRUCTURE AND FUNCTION OF MUCOPOLYSACCHARIDES	2R01 AM13412-19	51,998
LYMAN, DONALD J.	BIOMEDICAL ENGINEERING	5P50 GM24487-02	468,546

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
MASON, REGINALD G, JR	ENDOTHELIAL LININGS FOR ARTIFICIAL ORGANS	7R01 HL25805-01	68,796
MASON, REGINALD G, JR	AN INHIBITION OF PLATELET ADHESION TO ARTIFICIAL ORGANS	7R01 HL25806-01	45,114
MAYER, LEONARD	STUDIES OF GONOCOCCUS INFECTION	5R01 AI11073-07	61,039
MC CLOSKEY, JAMES A.	MASS SPECTROMETRY OF NUCLEIC ACIDS AND THEIR ANALOGS	5R01 CA18024-05	110,268
MC CLOSKEY, JAMES A.	MASS SPECTROMETRY OF NUCLEIC ACIDS AND THEIR ANALOGS	5R01 GM21584-05	193,385
MEECH, ROBERT W.	MEMBRANE MECHANISMS ASSOCIATED WITH PHOTOTRANSDUCTION	1R01 EY02290-01	63,720
MEIKLE, ALFRED W.	PROSTATIC CANCER: GENETIC AND ENDOCRINE RISK FACTORS	5R26 CA25031-02	118,618
MICHL, JOSEF	DIRECTIONAL OPTICAL PROPERTIES OF BIOMOLECULES	2R01 GM19450-06	50,840
MICHL, JOSEF	MAGNETIC CIRCULAR DICHROISM OF ORGANIC MOLECULES	5R01 GM21153-06	45,411
MILLER, SCOTT C.	OSTEOCLAST SPECIALIZATIONS IN BONE RESORPTION	5R23 DE04931-02	36,183
MOHAMMAD, SYED F.	PLATELET FACTOR & AND BLOOD-MATERIAL INTERACTIONS	1R01 HL25804-01	78,530
MOODY, FRANK G.	MECHANISMS OF GASTRIC ULCEROGENESIS	5R01 AM16233-09	85,013
MOODY, FRANK G.	TRAUMA AND BURN RESEARCH CENTER	5P50 GM23095-04	319,926
MORTENSEN, J. D.	CHRONIC TOTAL CARDIOPULMONARY MECHANICAL SUBSTITUTION	5R01 HL22661-02	181,864
MULLEN, RICHARD J.	DEVELOPMENTAL GENETICS OF THE CENTRAL NERVOUS SYSTEM	7R01 NS16156-01	36,362
NELSON, DON H.	CORTICOID EFFECT ON FAT CELL RESPONSE TO INSULIN	5R01 AM24038-02	91,042
NICHOLS, WILLIAM K.	CYCLIC NUCLEOTIDES AND ALVEOLAR MACROPHAGE ACTIVATION	5R01 HL20125-03	36,918
O'NEILL, FRANK J.	CONTROL OF NUCLEAR EVENTS IN NORMAL & NEOPLASTIC CELLS	5R01 CA15141-06	52,442
OLIVERA, BALDOMERO M.	A BIOCHEMICAL CHARACTERIZATION OF CONUS TOXINS	5R01 GM22737-02	72,179
OLIVERA, BALDOMERO M.	PYRIDINE NUCLEOTIDES—TURNOVER AND REGULATION	1R01 GM25654-01	38,636
OLIVERA, BALDOMERO M.	DISCONTINUOUS DNA SYNTHESIS IN VITRO	9R01 GM26107-09	84,693
OLSEN, DON B.	ARTIFICIAL HEART IMPLANT, LATER CARDIAC TRANSPLANT	1R01 HL24419-01	99,940
OLSEN, DON B.	PNEUMATIC ARTIFICIAL HEART STUDIES	1R01 HL24561-01	547,632
OLSON, RANDALL J.	CORNEAL PHYSIOLOGY AND KERATOPLASTY INDUCED GLAUCOMA	7R01 EY03294-01	78,188
OWEN, JEFFREY D.	CA 20 ELECTRODE MEASUREMENTS IN LIMULUS PHOTORECEPTORS	5R01 EY02402-02	59,095
PARKINSON, JOHN S.	GENETICS OF CHEMOTACTIC BEHAVIOR IN ESCHERICHIA COLI	2R01 GM19559-07	107,193
PARKS, THOMAS N.	AFFERENT INFLUENCES ON NERVOUS SYSTEM DEVELOPMENT	1R01 NS15132-01	81,865
PARMA, DAVID H.	THE GENETICS OF STRUCTURALLY ALTERED PHAGE T4 GENOMES	2R01 AI09943-09	36,952
PARTLOW, LESTER M.	NEURONAL GLIAL INTERACTIONS IN VITRO AND IN VIVO	5R01 NS12812-03	94,133
PETERS, JEFFREY L.	SINGLE AND BIVENTRICULAR CANNULAE CIRCULATORY SUPPORT	1R01 HL23279-01	129,847
PINCUS, SETH H.	ANTI-(T,G)-A-L IDIOTYPE EXPRESSION ON T-CELLS	1R01 AI15980-01	86,275
POULTER, C DALE	SUBSTRATE ANALOGS FOR TERPENE CONDENSATION REACTIONS	5R01 GM21328-05	70,813
POULTER, C DALE	STUDIES OF STEROL BIOSYNTHESIS	1R01 GM25521-01A1	57,131
RECHSTEINER, MARTIN C.	NAD METABOLISM AND CHROMOSOME LOSS IN HYBRID CELLS	5R01 GM24617-02	69,809
REED, DONAL J.	ROLE OF THE CHOROID PLEXUS IN REGULATING THE CSF	2R01 NS12869-04	60,654
RILLING, HANS C.	MECHANISMS AND ENZYMES OF TERPENE BIOSYNTHESIS	5R01 AM13140-19	109,955
RILLING, HANS C.	STRUCTURAL & SPECTROSCOPIC STUDIES ON PRENYLTRANSFERASE	5R01 AM21745-02	43,921
RINGHAM, GARY L.	CALCIUM AND TRANSMITTER RELEASE AT A CENTRAL SYNAPSE	5R01 NS13884-03	44,268
ROTH, JOHN R.	AN ANALYSIS OF GENES INVOLVED IN tRNA PRODUCTION	5R01 GM23408-03	115,202
ROTI ROTI, JOSEPH L.	RADIATION INDUCED ALTERATIONS OF CHROMOSOMAL PROTEINS	5R01 CA16465-05	95,392
SANDBERG, LAWRENCE B.	BIOCHEMICAL STUDIES OF BLOOD VESSEL FORMATION & DISEASE	5R01 HL11963-11	106,120
SANDBERG, LAWRENCE B.	CHEMICAL ANALYSIS OF HUMAN ARTERIAL ELASTIN	5R01 HL20546-03	32,410
SANDBERG, LAWRENCE B.	CHEMICAL & FUNCTIONAL STUDIES OF LOW COPPER IN LUNG	5R01 HL22446-02	68,714
SCHWEIZER, MARTIN P.	CARBON-13 NMR STUDIES OF tRNA SYNTHETASE INTERACTIONS	5R01 GM25512-02	63,989
SCHWEIZER, MARTIN P.	FUNCTION OF UNUSUAL NUCLEOSIDES IN TRANSFER RNA	1R01 GM25591-01	46,125
SKOLNICK, MARK H.	COMPUTER RESOURCE FOR GENETIC EPIDEMIOLOGY	1R01 GM27192-01	341,754
SMITH, CHARLES B.	INFECTIOUS ETIOLOGY OF CONNECTIVE TISSUE DISEASES	5R01 AM13463-10	88,085
SORENSEN, ANN W.	DIET AND COLON CANCER IN MAN: THE EFFECTS OF FIBER	1R01 CA25580-01	467,285
SORENSEN, JAMES A.	MOVING-SLIT RADIOGRAPHY: X-RAY CONTRAST ENHANCEMENT	5R01 GM24029-03	84,721
SPIKES, JOHN D.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07092-14	160,142
STANG, PETER J.	VINYL AND ALKYNYL TRIFLATE CHEMISTRY	5R01 CA16903-04	55,685
SUMMERS, DONALD F.	COMPOSITION, ASSEMBLY AND REPLICATION OF RNA VIRUSES	5R01 AI12316-05	149,153
SYNHORST, DAVID P.	EFFECT OF VASOACTIVE AGENTS ON LEFT-TO-RIGHT SHUNTS	5R23 HL21203-03	38,102
TUCKETT, ROBERT P.	NEURAL MECHANISMS OF PRURITUS	1R01 NS15102-01	64,295
TYLER, FRANK H.	CELLULAR MEMBRANE IN DUCHENNE MUSCULAR DYSTROPHY	1R01 NS14868-01	72,830
TYLER, FRANK H.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00064-15	576,439
UEDA, ISSAKU	ANESTHETIC INTERACTION WITH PHOSPHOLIPID MEMBRANES	5R01 GM25716-02	54,028
UEDA, ISSAKU	ANESTHETIC INTERACTION WITH MODEL PROTEINS	1R01 GM26950-01	77,995
WALKER, JOHN L.	INTRACELLULAR IONIC ACTIVITIES IN HEART MUSCLE	2R01 HL18053-04	94,487
WARNICK, C. TERRY	EFFECT OF ORGAN STORAGE ON NUCLEIC ACID METABOLISM	5R01 AM21395-02	44,226

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
WARTERS, RAYMOND L.....	NASCENT CHROMATIN: A ROLE IN HEAT-INDUCED CELL DEATH.....	1R01 CA25957-01	158,935
WECHSLER, JAMES A.....	CONTROL OF NORMAL AND ABNORMAL CHROMOSOME GROWTH.....	5R01 GM25476-02	72,060
WEST, CHARLES D.....	ROLE OF ADRENAL STEROIDS IN DIABETIC ATHEROSCLEROSIS.....	1R01 HL24211-01	92,846
WEST, DEE W.....	BLADDER CANCER RISK FACTORS IN UTAH.....	1R26 CA26362-01A1	66,671
WILLIAMS, ROGER R.....	GENETIC PATTERNS IN DEATHS FROM MI AND STROKE IN UTAH.....	5R01 HL21088-03	89,456
WILSON, DANA E.....	MASSIVE HYPERTRIGLYCERIDEMIA IN SELECTED FAMILIES.....	1R01 HL23535-01A1	75,884
WOLF, HAROLD H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05738-08	51,059
WOLSTENHOLME, DAVID R.....	STRUCTURE OF MITOCHONDRIAL DNA.....	5R01 GM18375-09	111,312
WOLSTENHOLME, DAVID R.....	VARIANTS OF RAT MITOCHONDRIAL DNA.....	1R01 GM26520-01	44,620
WOODBURY, DIXON M.....	THYROIDAL ANION TRANSPORT: MECHANISMS AND REGULATION.....	5R01 AM20935-02	84,396
WOODBURY, J WALTER.....	ION TRANSPORT THRU MEMBRANES AND CELL ACID-BASE STATE.....	5R01 AM20674-05	29,515
YOSHIKAMI, DOJU.....	IONIC SELECTIVITY OF SYNAPTIC CHANNELS IN NEURONS.....	1R01 NS15543-01	73,767
ORGANIZATION TOTAL	163 17,193,526		
STATE TOTAL	188 18,715,859		
VERMONT			
BENNINGTON			
INSTITUTE FOR MEDICAL RESEARCH OF BENNINGTON ZIP CODE 05201			
RHODE, SOLON L, III.....	REPLICON CONTROL IN NORMAL AND TRANSFORMING CELLS.....	3R01 CA26801-01S1	10,156
RHODE, SOLON L, III.....	REPLICON CONTROL IN NORMAL AND TRANSFORMING CELLS.....	5R01 CA26801-02	57,976
TOOLAN, HELENE W.....	VIRUSES & CANCER—ROLE OF LATENT VIRUSES IN RESISTANCE.....	3R01 CA25866-01S1	33,939
TOOLAN, HELENE W.....	ROLE OF LATENT VIRUSES IN RESISTANCE.....	2R01 CA25866-02	130,539
ORGANIZATION TOTAL	4 232,610		
PUTNAM MEMORIAL HOSPITAL ZIP CODE 05201			
ELLEM, KAY A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05811-02	16,468
ORGANIZATION TOTAL	1 16,468		
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05401			
ALBERTINI, RICHARD J.....	STUDIES OF LYMPHOCYTE-DEFINED HLA AND B-CELL ANTIGENS.....	5R01 CA25036-02	39,815
ALPERT, NORMAN R.....	ACTIVATION AND CONTRACTION HEAT IN ENLARGED HEARTS.....	3R01 HL17592-03S1	14,691
BEATY, HARRY N.....	PATHOGENESIS OF LEGIONNAIRES' DISEASE.....	1R01 AI15903-01	165,982
BEEKEN, WARREN L.....	STUDIES OF PATHOGENESIS OF INFLAMMATORY BOWEL DISEASE.....	5R01 AM21564-02	85,628
BRESNICK, EDWARD.....	POLYCYCLIC HYDROCARBON METABOLISM AND CARCINOGENESIS.....	2R01 CA20711-04	83,950
BRESNICK, EDWARD.....	IN VIVO-IN VITRO MODEL FOR IDENTIFICATION OF CARCINOGENS.....	5R01 CA21258-03	74,306
BRESNICK, EDWARD.....	DNA REPAIR AFTER POLYCYCLIC HYDROCARBON ADMINISTRATION.....	5R01 CA23514-02	87,145
BRESNICK, EDWARD.....	EXPRESSION OF CYTOCHROME P448 ENVIRONMENTAL INFLUENCES.....	5R01 ES01974-02	56,046
CHIU, JEN-FU.....	ALPHA-FETOPROTEIN REGULATION IN FETAL & CANCER LIVER.....	5R01 CA25098-02	78,086
CHIU, JEN-FU.....	MOLECULAR MECHANISMS IN LARGE BOWEL CARCINOGENESIS.....	3R26 CA25136-01S1	7,667
CHIU, JEN-FU.....	MOLECULAR MECHANISMS IN LARGE BOWEL CARCINOGENESIS.....	2R26 CA25136-02	84,327
CIDLOWSKI, JOHN A.....	INTEGRATION OF HORMONE ACTION ON THYMUS CELLS.....	1R01 AM20762-01	46,738
CIDLOWSKI, JOHN A.....	GLUCOCORTICOID RECEPTORS IN SYNCHRONIZED CELLS.....	5R01 AM20892-02	46,736
CLAPP, JAMES F, III.....	FETAL METABOLISM & BRAIN FUNCTION DURING CHRONIC HYPOXIA.....	5R01 HD11122-02	61,303
CRAIGHEAD, JOHN E.....	DIABETES MODELS INDUCED BY VIRAL AND IMMUNE INSULTS.....	5R01 AM20790-03	126,368
CRAIGHEAD, JOHN E.....	LUNG CENTER SUPPORT.....	5P60 HL17292-05	1,233,333
CUTRONEO, KENNETH R.....	COLLAGEN SYNTHESIS REGULATION DURING PULMONARY FIBROSIS.....	1R01 HL23607-01	64,646
DANFORTH, ELLIOT, JR.....	EFFECTS OF OVER- AND UNDERNUTRITION ON THYROID HORMONE.....	5R01 AM18535-05	144,554
ELLIOTT, C MICHAEL.....	MODELS FOR THE ACTIVE SITE IN CYTOCHROME C OXIDASE.....	1R01 GM26958-01	68,432
EVANS, JOHN N.....	MECHANICAL PROPERTIES OF ISOLATED SMALL BRONCHIOLES.....	5R23 HL21539-03	39,256
FOSTER, ROGER S, JR.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20203-03	30,308
GANS, JOSEPH H.....	ADAPTATION TO CHEMICAL INJURY.....	5R01 CA21863-03	48,901
GENNARI, F JOHN.....	RENAL TUBULAR PCO2 AND ACID-BASE EQUILIBRIUM.....	7R01 AM26699-01	36,957
GIBBONS, WALTER R.....	VOLTAGE CONTROL OF CONTRACTION IN HEART.....	2R01 HL14514-08	88,953

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VERMONT—Continued			
GRAHAM, WILLIAM G.....	ALTITUDE ADAPTATION IN CHRONIC LUNG DISEASE.....	5R01 HL21117-02	41,797
GUMP, DIETER W.....	CHLAMYDIA AND MYCOPLASMA IN HUMAN INFERTILITY.....	5R01 HD11441-02	74,525
HALPERN, WILLIAM.....	VISCOELASTIC AND OPTICAL PROPERTIES OF MUSCLE.....	5R01 AM17163-05	46,216
HALPERN, WILLIAM.....	CONTRACTILE PROPERTIES OF HYPERTENSIVE RAT ARTERIOLES.....	3R01 HL17335-05S1	10,496
HALPERN, WILLIAM.....	CONTRACTILE PROPERTIES OF HYPERTENSIVE ARTERIOLES.....	5R01 HL17335-06	90,893
HAMRELL, BURT B.....	ACTIVE TENSION AND SHORTENING IN CARDIAC HYPERTROPHY.....	5R01 HL21182-03	78,277
HAPP, GEORGE M.....	CONTROL OF REPRODUCTIVE MATURATION: AN INSECT MODEL.....	5R01 AI15662-02	44,284
HAPP, GEORGE M.....	EXOCRINE GLANDS: MODELS OF DIFFERENTIATIVE TRANSITIONS.....	1R01 GM26140-01	67,802
JAFFE, JULIAN J.....	ANTIMETABOLITE TARGETS IN SCHISTOSOMES AND FILARIAE.....	5R22 AI12060-05	80,258
KELLEHER, PHILIP C.....	ALPHA-FETOPROTEIN SYNTHESIS BY HEPATOMA CELLS IN VITRO.....	5R01 CA22099-03	57,796
KELLEY, JASON.....	COLLAGEN SYNTHESIS IN PULMONARY FIBROSIS CELLS.....	5R23 HL21504-03	44,070
KRAKOFF, IRWIN H.....	CANCER CENTER (CORE) SUPPORT GRANT.....	5P30 CA22435-02	437,508
KRAKOFF, IRWIN H.....	PROGRAM IN ANTICANCER DRUG DEVELOPMENT.....	1P01 CA24543-01	546,672
KUEHNE, MARTIN E.....	TOTAL SYNTHESIS OF INDOLE ALKALOIDS.....	5R01 CA12010-17	86,794
LAWSON, ROBERT B, JR.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07125-10	30,846
LITTEN, RAYE Z, III.....	THE RESPONSE OF CARDIAC MYOSIN TO HYPERTROPHIC STRESS.....	5R01 HL22845-02	44,559
LOW, ROBERT B.....	INSULIN AMINO ACID POOLS AND MUSCLE PROTEIN SYNTHESIS.....	5R01 AM21621-02	66,064
LOW, ROBERT B.....	CORRELATED STUDIES OF PULMONARY FIBROSIS.....	5P50 HL14212-08	781,196
LUGINBUHL, WILLIAM H.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00109-16	423,050
LUGINBUHL, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05429-18	158,640
MAUGHAN, DAVID W.....	SARCOMERE MECHANICS IN DISRUPTED VENTRICULAR MUSCLE.....	5R01 HL21312-02	53,157
MOEHRING, THOMAS J.....	MAMMALIAN CELL RESPONSE TO DIPHTHERIA TOXIN.....	2R01 AI09100-10	110,611
MOSSMAN, BROOKE T.....	ESTABLISHMENT OF INSULIN-SECRETING BETA CELL LINES.....	1R23 AM25821-01	38,289
NYBORG, WESLEY L.....	BIOPHYSICAL BASIS FOR THRESHOLDS IN BIO-ULTRASOUND.....	5R01 GM08209-15	110,113
PARSONS, RODNEY L.....	EXCITATION-CONTRACTION COUPLING IN ENLARGED HEARTS.....	5R01 HL22269-02	86,592
PARSONS, RODNEY L.....	KINETICS OF SYNAPTIC CURRENTS IN SYMPATHETIC GANGLIA.....	5R01 NS14552-02	55,695
PERL, DANIEL P.....	TRACE ELEMENTS IN AGED NEURONS AND SENILE DEMENTIA.....	1R01 AG01415-01	64,509
RUSH, STANLEY.....	EFFECT OF RESISTIVITY VARIATIONS ON ELECTROCARDIOGRAM.....	2R01 HL09831-13	148,214
SCHAEFFER, WARREN I.....	STUDIES OF IN VITRO CARCINOGENESIS WITH AFLATOXIN B1.....	5R01 CA12056-08	70,096
SCHWABER, JAMES S.....	AUTONOMIC-EMOTIONAL PATHWAY OF THE AMYGDALA.....	1R01 NS16107-01	36,058
SIMS, ETHAN A.....	METABOLIC INTERRELATIONSHIPS OF OBESITY AND DIABETES.....	3R01 AM10254-13S1	42,578
SIMS, ETHAN A.....	METABOLIC INTERRELATIONSHIPS OF OBESITY AND DIABETES.....	2R01 AM10254-14A1	131,236
THANASSI, JOHN W.....	REGULATORY ASPECTS OF VITAMIN B6 METABOLISM.....	1R01 AM25490-01	77,180
WHITEHORN, DAVID.....	BARORECEPTOR REFLEX-DEFENSE REACTION IN HYPERTENSION.....	1R01 HL24110-01	75,889
WOODWORTH, ROBERT C.....	IRON DELIVERY VIA BLOOD; STRUCTURAL ROLE OF TRANSFERRIN.....	1R01 AM21739-01	58,926
WOODWORTH, ROBERT C.....	HEPATOMA ALPHA-FETOPROTEIN: CHEMISTRY AND METABOLISM.....	5R01 CA15222-05	106,128
WOODWORTH, ROBERT C.....	IRON IN THE HEART, ITS BIOCHEMISTRY IN CARDIAC CELLS.....	1R01 HL23752-01	75,779
ORGANIZATION TOTAL	61	7,366,921	

WHITE RIVER JUNCTION

U.S. VETERANS ADMINISTRATION MEDICAL AND REGIONAL OFFICE CENTER ZIP CODE 05001

PHILLIPS, PHILIP G.....	BIOCHEMICAL PROBES OF MALIGNANT CELL SURFACES.....	5R01 CA25626-02	61,429
ORGANIZATION TOTAL	1	61,429	
STATE TOTAL	67	7,677,428	

VIRGINIA

ARLINGTON

ARLINGTON HOSPITAL ZIP CODE 22205

BUTLER, ROBERT C.....	ROLE OF MEDIATORS IN LEUKEMIC CELL IMMUNE RESPONSES.....	7R23 CA27415-01	25,676
ORGANIZATION TOTAL	1	25,676	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
BLACKSBURG			
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY ZIP CODE 24061			
BARNETT, RONALD E.....	STUDIES OF LIPID BILAYERS AND NATURAL MEMBRANES.....	5R01 GM24819-02	20,617
BUNCE, GEORGE E.....	CATARACT FROM A VEGETABLE PROTEIN BASED DIET.....	2R01 EY01060-09	49,461
CUMMINS, CECIL S.....	COMPARATIVE TESTING OF VACCINES FROM C. PARVUM.....	1R01 CA24729-01	93,698
EBEL, RICHARD E.....	MEMBRANE CONTROL OF MICROSOMAL CYTOCHROME P-450.....	5R23 CA24364-02	27,111
EBEL, RICHARD E.....	EFFECTS OF MIREX AND KEPONE ON CYTOCHROME P-450.....	1R01 ES02045-01	40,950
FALKINHAM, JOSEPH O, II.....	MEMBRANE INVOLVEMENT IN BACTERIAL CONJUGATION.....	5R01 AI14086-03	21,479
GOOD, IRVING J.....	PROBABILITY ESTIMATION.....	5R01 GM18770-08	79,219
GREGORY, EUGENE M.....	SUPEROXIDE DISMUTASE AND CATALASE IN B FRAGILIS.....	5R01 AI15250-02	63,470
GREGORY, EUGENE M.....	SOD AND CATALASE IN ANAEROBE AEROTOLERANCE.....	1R01 AI15465-01	45,245
JOHNSON, JOHN L.....	DNA HOMOLOGIES AMONG BACTERIA OF PERIODONTAL DISEASES.....	1R01 DE05218-01	88,917
KINGSTON, DAVID G.....	PLANT TUMOR INHIBITORS.....	5R01 CA12831-08	51,782
MOORE, WALTER E.....	RAPID IDENTIFICATION OF CLINICAL BACTERIA.....	1R01 AI15244-01A1	47,172
NIEHAUS, WALTER G, JR.....	STRUCTURE AND FUNCTION OF AMIDINATED HUMAN HEMOGLOBIN.....	5R01 HL20074-03	37,549
PATERSON, ROBERT A.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07095-12	47,340
RUTHERFORD, CHARLES L.....	ALTERNATE PATHWAYS IN CELLULAR AGING.....	2R01 AG00677-03	43,069
RUTHERFORD, CHARLES L.....	MICROANALYSIS OF CAMP ENZYMES IN HUMAN BREAST TUMORS.....	5R01 CA24150-02	44,591
SCHMIDT, ROBERT R.....	GENE-ENZYME CONTROL IN EUKARYOTIC CELL CYCLE.....	5R01 GM19871-07	70,899
SMIBERT, ROBERT M.....	T. PALLIDIUM CULTIVATION AND TREPONEME LIPID STUDIES.....	5R01 AI12726-05	60,508
TAMBLYN, TOBY M.....	IDENTIFICATION OF ACTIN AND MYOSIN IN MAMMALIAN SPERM.....	1R01 HD12504-01	40,800
TAYLOR, LARRY T.....	STRUCTURE AND REACTIVITY OF MANGANESE-OXYGEN COMPLEXES.....	2R01 GM21844-04	41,183
WILKINS, TRACY D.....	ISOLATION OF TOXINS FROM C DIFFICILE AND C SORDELLII.....	1R01 AI15749-01	67,999
WILKINS, TRACY D.....	RELATIONSHIPS OF FECAL MUTAGENS TO COLON CANCER.....	5R26 CA23857-02	44,980
WOLFE, JAMES F.....	SYNTHESIS OF NEW ANTICONVULSANT DRUGS.....	2R01 NS10197-05A3	53,398
ORGANIZATION TOTAL	23 1,181,437		
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA ZIP CODE 22903			
ADLER, PAUL N.....	GENETIC AND MOLECULAR CONTROL OF DEVELOPMENT.....	5R01 HD11763-02	48,966
AYERS, CARLOS R.....	RENAL HORMONES IN HYPERTENSION.....	2R01 HL16044-04A2	89,528
BARENHOLZ, YECHKEZEL.....	ROLE OF SPHINGOMYELIN IN BIOMEMBRANES AND BILAYERS.....	5R01 HL17576-05	57,147
BARNES, DENNIS W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07094-14	81,876
BENJAMIN, DAVID C.....	CELLULAR AND STRUCTURAL BASIS OF IMMUNOLOGICAL TOLERANCE.....	5R01 CA24431-08	69,169
BERNE, ROBERT M.....	BLOOD FLOW AND ADENINE NUCLEOTIDE METABOLISM.....	5R01 HL10384-14	179,335
BERNE, ROBERT M.....	STUDY OF VASCULAR SMOOTH MUSCLE.....	5P01 HL19242-03	528,959
BILTONEN, RODNEY L.....	MODEL CALCIUM TRANSPORT SYSTEM.....	1R01 GM26894-01	93,740
BLOCK, GENE D.....	NEURAL BASIS OF ORGANIZATION.....	1R01 NS15264-01	19,964
BOLTON, WARREN K.....	GENETICS IN MURINE EXPERIMENTAL IMMUNE NEPHROPATHIES.....	1R01 AM21484-01	48,860
BRADBEER, CLIVE.....	STUDIES ON THE TRANSPORT OF VITAMIN B12.....	5R01 AM12653-11	57,633
BROOKER, GARY.....	METABOLIC AND HORMONAL CONTROL OF CARDIAC CONTRACTION.....	5R01 HL15985-07	78,064
BROWN, JAY C.....	ROLE OF THE CELL SURFACE IN CANCER AND DEVELOPMENT.....	5R01 HD06390-08	52,053
BRUNI, CARLO.....	ELECTRON MICROSCOPY OF MUSCLE CARCINOGENESIS.....	1R01 CA22025-01A1	50,755
BRUNS, MARY E.....	DEVELOPMENTAL ASPECTS OF MAMMALIAN CALCIUM TRANSPORT.....	1R01 HD12335-01	62,211
CARDELL, ROBERT R, JR.....	SUBCELLULAR EFFECTS OF METABOLIC HORMONES ON RAT LIVER.....	5R01 AM11854-12	5,120
CAREY, ROBERT M.....	RENAL CATECHOLAMINES: PATHOPHYSIOLOGY OF HYPERTENSION.....	5R01 HL22306-02	55,476
CHEVALIER, ROBERT L.....	ADAPTATION TO REDUCED RENAL MASS IN EARLY DEVELOPMENT.....	1R01 AM25727-01	46,370
COLLINS, CAROLYN J.....	INTEGRATION OF RNA TUMOR VIRUSES IN MAMMALIAN CELLS.....	5R01 CA24137-02	66,205
CURNOW, RANDALL T.....	PROTEIN PHOSPHATASE IN NORMAL AND DIABETIC LIVER.....	5R01 AM20787-03	66,066
DAVIS, JOHN S, IV.....	IMMUNOLOGICAL MECHANISMS IN RHEUMATIC DISEASES.....	2R01 AM11766-10	144,845
DECK, J DAVID.....	TISSUE ORGANIZATION AND TURNOVER IN SEMILUNAR VALVES.....	2R01 HL16935-06	62,503
DULING, BRIAN R.....	LOCAL REGULATION OF MICROVASCULAR FUNCTION.....	2R01 HL12792-10	99,945
DUNN, JOHN T.....	THYROGLOBULIN IN THYROID DISEASE.....	5R01 AM11043-10	70,490
EMERSON, CHARLES P, JR.....	ORGANIZATION AND REGULATION OF MUSCLE GENES.....	1R01 GM26706-01	128,571
EMERSON, CHARLES P, JR.....	CONTROL OF MUSCLE PROTEIN SYNTHESIS DURING MYOGENESIS.....	5R01 HD07796-07	94,314
EMERSON, SUZANNE U.....	VESICULAR STOMATITIS VIRUS RNA SYNTHESIS.....	5R01 AI11722-06	63,884
FAGER, ROGER S.....	PREPARATION AND CHARACTERIZATION OF CONE PIGMENTS.....	5R01 EY01505-05	80,121

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
FRIESEN, WOLFGANG O.....	NEURAL CONTROL OF MOVEMENT.....	1R01 NS14965-01	24,939
GARRETT, REGINALD H.....	THE ENZYMOLOGY OF NITRATE ASSIMILATION.....	2R01 GM18955-11	57,175
GARRETT, REGINALD H.....	THE REGULATION OF NITRATE ASSIMILATION.....	2R01 GM22738-04	57,800
GARRISON, JAMES C. II.....	REGULATION OF GLUCONEOGENIC ENZYMES BY HORMONES.....	5R01 AM19952-03	30,757
GEAR, ADRIAN R.....	ERYTHROCYTE AND PLATELET AGGREGATION IN DIABETES.....	5R01 AM20727-02	35,251
GILMAN, ALFRED G.....	REGULATION OF CYCLIC NUCLEOTIDE METABOLISM.....	5R01 NS10193-08	115,723
GOLD, PAUL E.....	AGING IN THE RAT: PSYCHOBIOLOGY OF MEMORY AND AGING.....	1R21 AG01642-01	67,327
GRAINGER, ROBERT M.....	FUNCTIONAL ORGANIZATION OF A PURIFIED EUKARYOTIC GENE.....	5R01 GM24430-02	55,798
GRAINGER, ROBERT M.....	THE ROLE OF OOCYTE PROTEINS AND RNAS IN DEVELOPMENT.....	1R01 GM26139-01	83,320
GREENLEE, JOHN E.....	K VIRUS INFECTION IN MODEL.....	5R01 NS13982-02	50,322
GRISHAM, CHARLES M.....	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS.....	2R01 AM19419-04	54,957
HAMLIN, JOYCE L.....	CONTROL OF EUKARYOTIC DNA SYNTHESIS.....	5R01 GM26108-02	66,970
HARBERT, GUY M. JR.....	STUDIES OF PRIMATE UTERINE PHYSIOLOGY.....	5R01 HD02798-12	69,807
HARRISON, WILLARD W.....	BIOLOGICAL TRACE ANALYSIS BY HOLLOW CATHODE GLOW.....	2R01 GM14569-12	58,721
HAYNES, ROBERT C. JR.....	HORMONAL CONTROL OF HEPATIC GLUCONEOGENESIS.....	5R01 AM14347-11	85,424
HECHT, SIDNEY M.....	TOTAL SYNTHESIS OF BLEOMYCIN.....	7R01 CA27603-01	93,736
HENDLEY, J OWEN.....	CHARACTERIZATION OF THE CAPSULE ON NEISSERIA GONORRHOEA.....	5R01 AI14240-03	47,895
HENDLEY, J OWEN.....	MECHANISMS OF HUMAN IMMUNITY TO BORDETELLA PERTUSSIS.....	1R01 AI15582-01	31,523
HOLLOWAY, CAROLINE T.....	UNSATURATED FATTY ACID BIOSYNTHESIS IN THE AORTA.....	5R01 HL19936-03	62,600
HOLLOWAY, PETER W.....	THE DYNAMIC STATE OF CYTOCHROME B5 IN MEMBRANES.....	5R01 GM23858-02	44,797
HORWITZ, DAVID A.....	IMMUNOREGULATORY MECHANISMS IN THE RHEUMATIC DISEASES.....	1R01 AM20967-01	59,010
HOWARDS, STUART S.....	MICROPUNCTURE STUDIES OF THE TESTES AND EPIDIDYMIS.....	5R01 HD09490-05	73,432
HOWARDS, STUART S.....	IN VITRO ASSAY OF HUMAN SPERM FERTILIZING CAPACITY.....	5R01 HD11477-02	50,206
HUANG, CHING-HSIEN.....	PHOSPHOLIPID VESICLES—MODEL FOR BIOLOGICAL MEMBRANES.....	5R01 GM17452-08	52,528
HUANG, LAURA C.....	EFFECTS OF INSULIN ON PHOSPHOPROTEIN PHOSPHATASE.....	5R01 AM20983-03	38,455
IVEY, HALLAM H.....	THE USE OF NEBULIZED SURFACTANTS IN TREATMENT OF RDS.....	5R01 HD11192-03	66,754
JOHNSON, LEWIS B.....	DENTAL ALLOY WITH SMALL ADDITIONS OF OTHER MATERIALS.....	2R01 DE03965-06	65,361
KADNER, ROBERT J.....	GENE AMPLIFICATION AND MEMBRANE PROTEINS.....	5R01 GM19078-08	55,022
KEEFER, DONALD A.....	FACTORS AFFECTING SEX HORMONE RECEPTOR LEVELS.....	1R01 HD12173-01	46,191
KEEFER, DONALD A.....	BASAL FOREBRAIN ORGANIZATION.....	5R01 NS10972-07	22,190
KELLY, THADDEUS E.....	STUDIES IN LYSOSOMAL NEURAMINIDASE DEFICIENCY.....	5R01 HD11263-02	43,477
KHALIFAH, RAJA G.....	HUMAN ERYTHROCYTE CARBONIC ANHYDRASE.....	5R01 HL17963-05	54,769
KNORR, NORMAN J.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00847-06	477,673
KNORR, NORMAN J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05431-18	201,413
KONIGSBERG, IRWIN R.....	CONTROL OF PROLIFERATION DURING MUSCLE DEVELOPMENT.....	5R01 HD07083-07	132,857
KRETSINGER, ROBERT H.....	CRYSTALLOGRAPHY OF MODULATOR PROTEIN AND TROPONIN.....	5R01 AM16253-08	66,609
KRETSINGER, ROBERT H.....	DEVELOPMENT OF AN AREA X-RAY DIFFRACTOMETER.....	3P41 RR01135-01S1	82,984
KRETSINGER, ROBERT H.....	DEVELOPMENT OF AN AREA X-RAY DIFFRACTOMETER.....	5P41 RR01135-02	256,499
KUEHL, KAREN S.....	CHARACTERIZATION OF THE B PROTEINS OF SERUM LIPOPROTEINS.....	5R01 HL20712-03	46,030
KUEHL, W MICHAEL.....	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN MYELOMA CELLS.....	5R01 AI12525-05	63,731
KUTCHAI, HOWARD C.....	RED CELLS AND CHICK HEART: TRANSPORT AND FLUIDITY.....	3R01 GM24168-02S1	5,363
KUTCHAI, HOWARD C.....	RED CELLS AND CHICK HEART: TRANSPORT AND FLUIDITY.....	5R01 GM24168-03	34,783
KUTCHAI, HOWARD C.....	LIMITING FACTORS IN OXYGEN UPTAKE IN THE LUNG.....	5R01 HL17967-05	27,844
KUTCHAI, HOWARD C.....	LACTATE TRANSPORT IN AORTA: NORMALS VS DIABETICS.....	1R01 HL24460-01	53,387
LARNER, JOSEPH.....	CHEMICAL MECHANISM OF ACTION OF INSULIN.....	5R01 AM14334-11	148,610
LARNER, JOSEPH.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM22125-02	634,222
LARNER, JOSEPH.....	CHOLINERGIC & ALPHA-ADRENERGIC RESPONSE IN THE PAROTID.....	1R01 NS14992-01	27,914
LEE, JEN-SHIH.....	MONITORING PULMONARY FILTRATION BY DENSITY COMPARATOR.....	1R01 HL23769-01	38,755
LEVY, WILLIAM B.....	SYNAPSES AS INFORMATION PROCESSING & MEMORY ELEMENTS.....	1R01 NS15488-01	57,782
LITMAN, BURTON J.....	EFFECT OF MICROENVIRONMENT ON DISC MEMBRANE FUNCTION.....	5R01 EY00548-08	44,095
LONGNECKER, DAVID E.....	ANESTHETICS AND MICROVASCULAR RESPONSE TO HEMORRHAGE.....	5R01 HL17091-06	56,826
LOONEY, WILLIAM B.....	THE EFFECT OF RADIOTHERAPY ON EXPERIMENTAL SOLID TUMORS.....	5R01 CA20516-04	141,031
MACLEOD, ROBERT M.....	CONTROL OF PITUITARY GLAND AND PITUITARY TUMOR HORMONES.....	2R01 CA07535-16	105,480
MANDELL, GERALD L.....	MECHANISMS OF LEUKOCYTE BACTERICIDAL ACTIVITY.....	5R01 AI09504-10	72,035
MARTIN, R BRUCE.....	ANTITUMOR COMPLEXES.....	5R01 CA14832-05	41,891
MARTIN, R BRUCE.....	CALCIUM PROBES.....	1R01 GM24875-01	45,300
MELLON, DE FOREST, JR.....	NERVOUS CONTROL OF MUSCLE TRANSFORMATION.....	1R01 NS15006-01	51,070
MILLER, EDWARD D, JR.....	ANESTHETIC EFFECTS—RENIN/SYMPATHETIC NERVOUS SYSTEM.....	5R23 GM24313-03	23,755
MILLER, OSCAR L, JR.....	ULTRA STRUCTURAL STUDIES OF GENETIC ACTIVITY.....	5R01 GM21020-03	109,338
MURAD, FERID.....	REGULATION OF CYCLIC NUCLEOTIDE FORMATION AND ACTION.....	2R01 AM15316-09	137,180

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
MURAD, FERID	CYCLIC NUCLEOTIDE METABOLISM IN LUNG TISSUES	5R01 HL18260-05	70,043
NOLAN, STANTON P.	FUNCTION AND STRUCTURE OF SEMILUNAR VALVES	5R01 HL17969-05	79,937
OLIPHANT, EDWARD E.	OVIDUCT ROLE IN BLASTOCYST DEVELOPMENT	2R01 HD06573-07A1	80,756
OLIPHANT, EDWARD E.	MECHANISM OF INDUCTION OF THE SPERM ACROSOME REACTION	5R01 HD08573-05	71,862
PAULSEN, ELSA P.	COMPARATIVE STUDIES OF THREE FORMS OF CHILDHOOD DIABETES	5R01 AM20520-03	55,085
PAULSEN, ELSA P.	RETINAL/RENAL CAPILLARY LEAKAGE IN CHILDHOOD DIABETES	1R01 EY03187-01	113,655
PAULSEN, ELSA P.	ISLET AND PLACENTA CHANGES IN INFANTS OF DIABETIC WOMEN	1R01 HD11528-01A1	9,925
POHL, STEPHEN L.	CELL BIOLOGY OF THE ADIPOCYTE	5R01 AM19361-03	30,223
QUESENBERRY, PETER J.	ENDOTHELIAL COLONY-STIMULATING ACTIVITY	1R01 CA27466-01	74,948
RALL, THEODORE W.	CYCLIC AMP IN ACTIONS OF NEUROHORMONES	5R01 NS12764-05	117,557
REBHUN, LIONEL I.	THE ANTICANCER AGENT MAYTANSINE: MECHANISM OF ACTION	5R01 CA21732-06	140,722
REBHUN, LIONEL I.	CONTROL OF SULFHYDRYLS OF TUBULIN AND OTHER PROTEINS	2R01 GM22407-04	66,305
REBHUN, LIONEL I.	ISOLATION AND CHARACTERIZATION OF MITOTIC ORGANELLES	1R01 GM26784-01	72,240
RITCHIE, WALLACE P., JR.	REFLUX OF BILE ACID AS A FACTOR IN GASTRIC DISEASE	5R01 AM17591-06	45,205
RITTER, ROGERS C.	MAGNETIC SUSPENSION BALANCES	2R01 GM19682-07A1	31,144
ROACH, PETER J.	HORMONAL CONTROL OF GLYCOGEN METABOLISM	1R23 AM25939-01	44,338
ROCHESTER, DUDLEY F.	PERFORMANCE OF RESPIRATORY MUSCLES UNDER STRESS	5R01 HL21500-03	63,231
ROCHESTER, DUDLEY F.	RESPIRATORY MUSCLE DYSFUNCTION IN RESPIRATORY FAILURE	5R01 HL22022-02	53,575
RODEWALD, RICHARD D.	TRANSCELLULAR TRANSPORT OF IMMUNOGLOBULINS	5R01 AI11937-05	52,379
ROGOL, ALAN D.	STRUCTURE AND PROPERTIES OF DIABETOGENIC PEPTIDES	5R01 AM19271-03	32,249
ROSS, ELLIOTT M.	EFFECTS OF MEMBRANE STRUCTURE ON ADENYLATE CYCLASE	1R01 GM26445-01	53,566
ROSS, WILLIAM T., JR.	LIVER MORPHOLOGY AFTER MODIFIED HALOTHANE METABOLISM	1R23 GM25117-01	41,868
RUBEL, EDWIN W.	AFFERENT INFLUENCES ON AUDITORY SYSTEM ONTOGENY	1R01 NS15395-01	61,944
RUBEL, EDWIN W.	ONTOGENY OF SENSORY PROCESSES	1R01 NS15478-01	75,432
SCHNAITMAN, CARL A.	CELL SURFACE MEMBRANE PROTEINS	5R01 GM18006-08	48,184
SEROW, WILLIAM J.	ETHNIC ELDERLY: COMPARISON AND CHANGE, 1960-1970	1R01 AG01522-01	51,899
SHEBILSKE, WAYNE L.	VISUOMOTOR COORDINATION	5R01 EY02291-02	22,415
SHERMAN, S. MURRAY	EFFECTS OF VISUAL DEPRIVATION ON THE VISUAL SYSTEM	3R01 EY01565-04S1	6,523
SPERELAKIS, NICK	ELECTROPHYSIOLOGY OF HEART CELLS	5R01 HL18711-04	57,642
SPYKER, DANIEL A.	MEDICAL INFORMATION SYSTEM WITH CLINICAL DATA CAPTURE	1R23 LM03379-01	44,940
STEINBERG, WILLIAM	REGULATION OF BACTERIAL SPORE DEVELOPMENT	2R01 GM19236-07	79,163
STEWART, OSWALD	POST-LESION PLASTICITY OF NEURONAL CIRCUITRY	5R01 NS12333-05	45,952
SUNDBERG, RICHARD J.	COORDINATION CHEMISTRY OF IMIDAZOLE DERIVATIVES	5R01 GM25294-02	66,963
TAYLOR, RONALD P.	CHARACTERIZATION OF PATHOGENIC DNA-ANTIBODY COMPLEXES	1R01 AM24083-01	69,735
THOMPSON, THOMAS E.	A STUDY OF PHOSPHOLIPID BILAYER MEMBRANES	5R01 GM14628-14	80,163
THOMPSON, THOMAS E.	PROPERTIES OF BILAYERS CONTAINING GLYCOSPHINGOLIPIDS	5R01 GM23573-03	46,513
THOMPSON, THOMAS E.	MEMBRANE STRUCTURE BY FLUORESCENCE TECHNIQUES	1P41 GM27553-01	54,700
VILLAR-PALASI, CARLOS	CONTROL OF HEART CONTRACTILE PROTEIN PHOSPHORYLATION	1R01 HL24487-01	50,065
WAGNER, ROBERT R.	CELLULAR RESISTANCE TO VIRAL INFECTION	5R01 AI11112-13	166,586
WAGNER, ROBERT R.	CANCER CELL AND VIRUS MEMBRANES: STRUCTURE AND FUNCTION	3P01 CA18701-03S1	44,327
WANEBO, HAROLD J.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17990-05	79,505
WAWNER, FRANKLIN E.	A STUDY OF REINFORCEMENTS IN DENTAL COMPOSITES	5R01 DE03925-05	46,909
WILEY, LYNN M.	CELL SURFACE-CYTOSKELETAL FUNCTION IN MORPHOGENESIS	5R01 HD11788-02	40,463
WILSON, JAMES R.	DEVELOPMENT OF CENTRAL VISUAL PATHWAYS	7R01 EY03345-01	68,609
WRIGHT, THEODORE R.	ONTOGENY AND THE GENETIC CONTROL OF ENZYME ACTIVITY	5R01 GM19242-08	155,169
WYANDT, HERMAN E.	SOMATIC STUDIES OF HUMAN RING CHROMOSOMES	5R01 GM25244-03	65,490
ORGANIZATION TOTAL	134 10,438,968		
FAIRFAX			
GEORGE MASON UNIVERSITY	ZIP CODE 22030		
KOWALSKI, JOHN C.	ANTIBODY LEVELS DURING FILARIAL NEMATODE INFECTION	7R01 AI16699-01	12,139
ORGANIZATION TOTAL	1 12,139		
HARRISONBURG			
JAMES MADISON UNIVERSITY	ZIP CODE 22801		
ACTON, JEAN D.	EFFECT OF NITROGEN DIOXIDE ON PULMONARY MONOCYTES	5R01 ES02136-02	40,775
ORGANIZATION TOTAL	1 40,775		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
NORFOLK			
EASTERN VIRGINIA MEDICAL AUTHORITY—EASTERN VIRGINIA MEDICAL SCHOOL ZIP CODE 23507			
CASTLE, MANFORD C.....	PHARMACOKINETICS OF DIGOXIN AND DIGITOXIN IN HUMANS.....	5R23 HL21083-03	33,081
CONRAD, MARGARET C.....	COMPENSATORY RESPONSES TO ARTERIAL OCCLUSION.....	5R01 HL21034-02	41,201
COOKE, WILLIAM J.....	HEPATIC EXCRETION OF ANIONIC DRUGS.....	5R01 AM21374-03	32,165
FAULCONER, ROBERT J.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18067-05	81,930
MC COMBS, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05771-03	25,208
MC COMBS, ROBERT M.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09028-03	85,084
MERCHANT, DONALD J.....	CHARACTERIZATION OF CELLS GROWN FROM HUMAN PROSTATE.....	5R26 CA23699-02	99,632
NORTHROP, THOMAS E.....	CELLULAR ACTIONS OF INSULIN IN THE KIDNEY CORTEX.....	7R01 AM27094-01	63,424
ROSENTHAL, MIRIAM D.....	POLYUNSATURATED FATTY ACID METABOLISM OF HUMAN CELLS.....	1R23 HL23658-01	37,820
WILLIAMS, PATRICIA B.....	CHARACTERIZATION OF COLLATERAL BLOOD VESSELS.....	2R01 HL19275-04	45,165
WRIGHT, GEORGE L, JR.....	PURIFICATION OF PROSTATE CARCINOMA-ASSOCIATED ANTIGENS.....	1R26 CA26659-01	33,857
ORGANIZATION TOTAL	11 578,567		
NORFOLK STATE COLLEGE ZIP CODE 23504			
BEMPONG, MAXWELL A.....	BIOLOGICAL EFFECTS OF MUTAGENS AND ANTICANCER DRUGS.....	5S06 RR08033-09	198,114
ORGANIZATION TOTAL	1 198,114		
OLD DOMINION UNIVERSITY ZIP CODE 23508			
SITZ, THOMAS O.....	RNA METHYLATION: A PARADOX IN NORMAL AND CANCER CELLS.....	5R01 CA23632-02	70,026
SONENSHINE, DANIEL E.....	PHEROMONES OF DISEASE TRANSMITTING TICKS.....	2R01 AI10986-06	30,879
ORGANIZATION TOTAL	2 100,905		
PETERSBURG			
VIRGINIA STATE COLLEGE ZIP CODE 23803			
DIVERS, FRED C.....	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES.....	5S06 RR08090-08	218,806
ORGANIZATION TOTAL	1 218,806		
RICHMOND			
UNIVERSITY OF RICHMOND ZIP CODE 23173			
TOPHAM, RICHARD W.....	PHYSIOLOGICAL ROLE OF THE INTESTINAL FERROXIDASE.....	2R01 AM20148-03	59,927
ORGANIZATION TOTAL	1 59,927		
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
ARCHER, GORDON L.....	ENDOCARDITIS ON PROSTHETIC HEART VALVES.....	5R01 HL19818-03	31,375
BARNES, ROBERT W.....	DIAGNOSTIC TECHNIQUES IN VENOUS THROMBOEMBOLISM.....	5R01 HL22852-02	57,692
BARNES, ROBERT W.....	PREVENTION OF PERIOPERATIVE STROKE.....	1R01 HL23568-01	47,125
BECKER, DONALD P.....	HEAD INJURY CLINICAL RESEARCH CENTER.....	2P50 NS12587-04	958,231
BLACKARD, WILLIAM G.....	PATHOGENESIS OF DIABETES MELLITUS.....	2R01 AM18903-04A1	91,745
BOGDANOVE, EMANUEL M.....	ENDOCRINE-INFLUENCING CENTERS IN THE HYPOTHALAMUS.....	5R01 HD06600-08	80,049
BOND, JUDITH S.....	INTRACELLULAR PROTEIN CATABOLISM IN DIABETES MELLITUS.....	5R01 AM19691-03	26,368
BURGESS, F NORMAN.....	CA UPTAKE BY NORMAL AND FAILED CARDIAC (CA & MG) ATPASE.....	5R01 HL19485-04	36,913
CABRAL, GUY A.....	HERPESVIRUS ANTIGENS IN TRANSFORMED CELLS.....	5R01 CA25737-02	50,064
CHELBOWSKI, JAN F.....	ASSEMBLY, ACTIVATION AND REGULATION OF ENZYMES.....	7R01 GM27493-01	53,230
CHING, MELVIN C.....	BRAIN RELEASING HORMONES IN PITUITARY PORTAL BLOOD.....	5R01 HD12276-03	47,600
CLAMANN, H PETER.....	MOTOR POOL ORGANIZATION IN SYNERGISTIC INTERACTION.....	5R01 NS11677-05	36,250
CLEARY, STEPHEN F.....	MICROWAVE EFFECTS ON EXCITABLE MEMBRANE SYSTEMS.....	5R01 ES01938-02	46,841
COHEN, IRWIN K.....	COLLAGEN METABOLISM IN WOUND REPAIR AND KELOID.....	5R01 GM20298-06	88,704
COLLINS, JAMES M.....	DNA SYNTHESIS IN TRANSFORMED CELLS.....	3R01 CA24158-01S1	29,241
CONRAD, DANIEL H.....	CHARACTERIZATION OF CELL RECEPTORS FOR IGE AND C3.....	1R01 AI15812-01	56,576
CORLEY, KARL C, JR.....	BEHAVIORAL STRESS AND CARDIOMYOPATHY.....	5R01 HL13454-09	53,884
DE SIMONE, JOHN A.....	A PHYSICOCHEMICAL INVESTIGATION OF TASTE.....	5R01 NS13767-03	36,950
DE VRIES, GEORGE H.....	ISOLATE/CHARACTERIZE PERIPHERAL NS NERVE FRACTIONS.....	1R01 NS15408-01	42,867
DIASIO, ROBERT B.....	MECHANISM OF CLINICAL TOXICITY OF 5-FLUOROCYTOSINE.....	5R01 CA23412-02	48,597
ECKBERG, DWAIN L.....	AUTONOMIC MECHANISMS IN MAN.....	5R01 HL22296-02	34,360

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
ECKBERG, DWAIN L.....	BARORECEPTOR REFLEX MECHANISMS IN MAN.....	2R01 HL22546-03	53,221
ECKBERG, DWAIN L.....	NEUROCIRCULATORY CONTROL IN DIABETES MELLITUS.....	5R01 HL22581-03	40,007
ELFORD, HOWARD L.....	RIBONUCLEOTIDE REDUCTASE AND CANCER CHEMOTHERAPY.....	5R01 CA21305-03	48,358
ELZAY, RICHARD P.....	CLINICAL CANCER EDUCATION PROGRAM (DENTAL).....	2R25 CA19294-04	33,856
EVANS, HERBERT J.....	EFFECTS OF SNAKE VENOMS ON HEMOSTASIS.....	1R01 HL24281-01	31,447
FABIATO, ALEXANDRE.....	CONTRACTILE ACTIVATION OF SKINNED CARDIAC CELLS.....	2R01 HL19138-04	116,325
FALLON, HAROLD J.....	LIVER METABOLISM PROGRAM PROJECT.....	5P01 AM18976-04	460,439
FORD, GEORGE D.....	SARCOPLASMIC CA ²⁺ /IONS REGULATION IN AORTIC SMOOTH MUSCLE.....	1R01 HL23764-01	43,597
FRANSON, RICHARD C.....	MECHANISMS OF MEMBRANE AND TISSUE DAMAGE IN LUNG.....	5R23 HL21116-03	38,708
FREEDLENDER, ARTHUR E.....	VASOACTIVE HORMONE RECEPTORS IN THE KIDNEY.....	1R01 AM23000-01	63,856
FREER, RICHARD J.....	CIRCULATORY SYSTEM EFFECTS OF ANGIOTENSIN ANALOGS.....	2R01 HL19653-04	106,705
FREER, RICHARD J.....	EFFECTS OF HYPERTENSION: AN INTEGRATED APPROACH.....	1R01 HL25383-01	117,891
GARRETTSON, LORNE K.....	THEOPHYLLINE: AGE-DEPENDENT DISPOSITION AND EFFECTS.....	5R01 GM24187-02	47,385
GLAUSER, FREDERICK L.....	PULMONARY ALVEOLAR-CAPILLARY PERMEABILITY CHARACTERISTIC.....	5R01 HL22435-03	48,318
GOLDBERG, STEPHEN J.....	INPUTS TO ABDUCENS NEURONS: AN INTRACELLULAR STUDY.....	5R01 EY01442-05	39,233
GOLDMAN, I DAVID.....	TRANSPORT & METABOLISM OF FOLATES IN RAT HEPATOCYTES.....	1R01 AM25716-01	56,537
GOLDMAN, I DAVID.....	CELLULAR PHARMACOKINETICS OF ANTICANCER AGENTS.....	5R01 CA16906-06	125,742
GROGAN, W MCLEAN.....	POLYENOIC ACID IN TESTIS DIFFERENTIATION AND FUNCTION.....	1R01 HD13019-01	54,610
GUZELIAN, PHILIP S, JR.....	PHARMACOKINETICS & TOXICITY OF KEPONE R.....	5R01 ES01519-03	101,832
HARKINS, STEPHEN W.....	BRAIN ELECTRICAL POTENTIALS IN AGING AND DEMENTIA.....	7R01 AG02290-01	33,330
HARRIS, THOMAS M.....	OCULAR BASEMENT MEMBRANE CHANGES IN CORNEAL PATHOLOGY.....	1R01 EY02991-01	59,042
HAWKRIIDGE, FRED M.....	A ROUTINE SCREENING ANALYSIS FOR MYOGLOBINEMIA.....	5R01 HL22821-02	51,399
HAZRA, TAPAN A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA22032-03	144,549
HESS, MICHAEL L.....	MYOCARDIAL FUNCTION, CORONARY FLOW, AND ENDOTOXIN SHOCK.....	1R01 HL24502-01	46,558
HOLMES, WALTER M.....	GENE ORGANIZATION AND EXPRESSION OF TRNA.....	1R01 GM25871-01	42,467
HYLEMON, PHILIP B.....	BACTERIAL 7-A-DEHYDROXYLATION AND COLON CARCINOGENESIS.....	5R01 CA17747-05	40,980
JACOBSON, ERIC S.....	BIOCHEMICAL GENETICS OF CRYPTOCOCCUS NEOFORMANS.....	1R01 AI15752-01	44,971
JAMES, G WATSON, III.....	CANCER AND LEUKEMIA GROUP B CHEMOTHERAPY PROTOCOLS.....	3R10 CA03735-21S1	28,124
JOHNSON, JAMES H.....	NEUROENDOCRINE CONTROL OF GONADOTROPINS AT PUBERTY.....	5R01 HD11247-03	45,090
JOHNSON, JAMES H.....	ANALYSIS OF NEURAL INHIBITION OF PITUITARY LH RELEASE.....	5R01 HD12165-02	48,196
KALIMI, MOHAMMED Y.....	GLUCOCORTICOID ACTION IN DEVELOPING RAT LIVER.....	7R01 AM26904-01	77,011
KAPLAN, ALAN M.....	THE CELLULAR BASIS OF ACQUIRED IMMUNOLOGIC TOLERANCE.....	5R01 AI11561-05	79,834
KONTOS, HERMES A.....	CEREBRAL MICROCIRCULATION IN EXPERIMENTAL HYPERTENSION.....	5R01 HL21851-02	127,805
KOONTZ, WARREN W, JR.....	EVALUATION AND MANAGEMENT OF BLADDER CARCINOMA.....	5R26 CA15492-06	75,345
LAMB, ROBERT G.....	TOXINS AND HEPATIC GLYCOLIPID BIOSYNTHESIS.....	1R01 AM21924-01	53,184
LAWRENCE, WALTER, JR.....	COOPERATIVE CANCER CENTER CORE SUPPORT.....	2P30 CA16059-04	429,703
LAWRENCE, WALTER, JR.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	5R10 CA20195-03	25,775
LAYCHOCK, SUZANNE G.....	PUTATIVE MEDIATORS OF INSULIN SECRETION.....	1R23 AM25705-01	45,099
LIBERTI, JOSEPH P.....	PURIFICATION AND BIOCHEMISTRY OF SOMATOMEDIN.....	5R01 AM16457-06	54,099
LITTMAN, BRUCE H.....	REGULATION OF CELLULAR COOPERATION BY SOLUBLE FACTORS.....	5R01 AM20317-03	42,087
LORIA, ROGER M.....	DIABETES HEREDITY AND VIRAL PANCREOPATHY.....	5R01 AM21872-02	73,577
LORIA, ROGER M.....	DIABETES MELLITUS: IMMUNOLOGICAL AND VIRAL INTERACTIONS.....	1R01 AM24097-01A1	29,972
MACRINA, FRANCIS L.....	STUDIES ON THE GENETICS OF ORAL MICROFLORA.....	5R01 DE04224-05	46,923
MAKHLOUF, GABRIEL M.....	HORMONAL INTEGRATION OF EXOCRINE AND ENDOCRINE ORGANS.....	2R01 AM15564-08	105,044
MARTINEZ-CARRION, MARINO.....	PROBES OF MOLECULAR FUNCTION IN PYRIDOXAL ENZYMES.....	5R01 GM24885-03	68,305
MARTINEZ-CARRION, MARINO.....	ISOZYMES OF HEART GLUTAMATE ASPARTATE TRANSAMINASE.....	5R01 HL22265-03	72,650
MAURER, HAROLD M.....	INTERGROUP RHABDOMYOSARCOMA STUDY.....	1R10 CA24507-01	143,938
MORAHAN, PAGE S.....	MACROPHAGE EXTRINSIC ACTIVITY VS VIRUSES.....	1R01 CA24686-01	69,429
MULLINAX, PERRY F.....	IMMUNOGLOBULINS AS GLYCOPROTEINS.....	9R01 AM26187-04	128,549
MURRAY, BYRON K.....	VACCINATION AGAINST ORAL HERPETIC LESIONS.....	5R01 DE04700-03	80,463
NANCE, WALTER E.....	MEDICAL COLLEGE OF VA HUMAN TWIN PANEL-TWINNING BIOLOGY.....	5P01 HD10291-04	373,806
NANCE, WALTER E.....	THIRD INTERNATIONAL CONGRESS OF TWIN STUDIES.....	1R13 HD13561-01	8,830
OKEN, DONALD E.....	MICROPUNCTURE STUDIES OF AMINO ACID TRANSPORT.....	1R01 AM21928-01A1	79,727
OKEN, DONALD E.....	PATHOPHYSIOLOGY OF ACUTE RENAL FAILURE.....	5R01 HL19463-03	84,864
PANG, DAVID C.....	CONTRACTILITY IN CARDIAC FAILURE.....	5R01 HL21493-03	27,763
PETERSON, DARRELL L.....	STRUCTURE OF HEPATITIS B SURFACE ANTIGEN PROTEINS.....	1R01 AI15955-01	63,957
PITTMAN, ROLAND N.....	VASODILATION AND MICROVASCULAR OXYGEN DELIVERY.....	5R01 HL18292-05	40,755
PRICE, STEVEN.....	A MOLECULAR GENETIC APPROACH TO OLFACTION.....	5R01 DE04271-04	66,235
QUATTROPANI, STEVEN L.....	OVARIAN AGING: MORPHOGENESIS OF A SEROUS CYSTADENOMA.....	5R01 AG00652-02	35,243
QURESHI, GHULAM D.....	REGULATION OF FIBRINOGEN SYNTHESIS.....	1R01 HL24554-01	40,425

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
RANNEY, RICHARD R.....	PERIODONTAL DISEASES: MICROBIOLOGICAL STUDIES.....	1R01 DE05054-01	159,895
RANNEY, RICHARD R.....	CLINICAL RESEARCH CENTER FOR PERIODONTAL DISEASE.....	5P50 DE05139-02	521,982
RANNEY, RICHARD R.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05724-08	59,406
RAO, GOPALA.....	A SEALED CHAMBER IONOGRAPHIC X-RAY IMAGING SYSTEM.....	5R01 GM23838-02	85,367
ROGERS, MICHAEL E.....	MESOIONIC PURINONES AS PHOSPHODIESTERASE INHIBITORS.....	5R01 HL22566-02	56,939
ROSENBLUM, WILLIAM I.....	SUPPORT OF FLUOROCARBON TRANSFUSED PRIMATES.....	2R01 HL16643-03A2	2,220
ROSENBLUM, WILLIAM I.....	MICROVASCULAR EFFECTS OF TRAUMA TO BRAIN MICROVESSELS.....	2R01 HL18932-04	116,599
ROSENBLUM, WILLIAM I.....	PLATELET AGGREGATION IN BRAIN VESSELS OF DIABETIC MICE.....	1R01 HL23560-01	47,225
RUBIN, RONALD P.....	THE ACTION OF CALCIUM ON SECRETION.....	5R01 AM18066-06	57,214
RUDDY, SHAUN.....	CELLULAR INTERACTIONS WITH COMPLEMENT AND PROPERDIN.....	5R01 AI13049-04	91,917
RUFFOLO, JOHN J.....	PRIMATE OCULAR PHOTOPATHOLOGY OF THE LENS AND RETINA.....	5R01 EY02324-02	90,473
SCHWARTZ, CHARLES C.....	CHOLESTEROL METABOLISM IN PLASMA LIPOPROTEINS AND LIVER.....	1R01 AM25920-01	54,144
SCOTT, ROBERT B.....	DIFFERENTIATION AND FUNCTION OF HEMATOPOIETIC CELLS.....	2R01 CA08482-14	80,764
SHELTON, KEITH R.....	NONHISTONE PROTEINS OF REACTIVATED ERYTHROCYTE NUCLEI.....	5R01 CA15923-05	69,622
SHIPLEY, PATRICIA L.....	ADHERENCE ANTIGENS OF ENTEROPATHOGENIC E COLI.....	1R01 AI15586-01	36,761
SMITH, WADE K.....	NEUTROPHIL ANTIGENS IN IMMUNE NEUTROPENIA.....	5R01 CA25045-02	48,940
SPENCER, NANCY J.....	DIFFERENCES BETWEEN WHAT IS SAID AND WHAT IS HEARD.....	1R01 HD13392-01	24,205
SPENCER, ROBERT F.....	ANATOMY OF OCULOMOTOR SYSTEMS.....	5R01 EY02191-02	40,775
STEINFELD, JESSE.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00065-17	670,488
STEINFELD, JESSE.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05430-18	199,390
STILL, WILLIAM J.....	PATHOGENESIS OF ATHEROSCLEROSIS.....	2R01 HL09622-15	54,125
STREET, SIBYL F.....	TENSION BEARING CELL COMPONENTS OF FROG MYOFIBERS.....	5R01 AM22001-02	8,350
SWELL, LEON.....	MECHANISM OF CHOLESTEROL GALLSTONE FORMATION IN MAN.....	5R01 AM14668-09	70,007
TAUB, ROBERT N.....	ANTISERA TO HUMAN LEUKEMIA-ASSOCIATED ANTIGENS.....	5R01 CA22128-02	99,772
TERZ, JOSE J.....	INTRATUMORAL IMMUNOTHERAPY PRIOR TO SURGERY.....	5R01 CA23338-02	101,794
THOMAS, FRANCIS T.....	CLINICAL STUDIES OF RABBIT ANTITHYMOCYTE GLOBULIN.....	2R01 AI18222-04A1	85,964
THOMAS, JUDITH M.....	CELLULAR IMMUNITY IN RENAL TRANSPLANT RECIPIENTS.....	5R01 AM19644-03	29,179
THORNER, MICHAEL O.....	CONTROL OF GONADOTROPIN RELEASE & SYNTHESIS IN VITRO.....	1R01 HD13197-01	77,649
TUCKER, HENRY S.....	MACROPHAGE ROLE IN IMMUNITY TO MURINE LEUKEMIA VIRUS.....	5R23 CA24172-02	32,722
VAN TUYLE, GLENN C.....	MOLECULAR PACKAGING OF RAT LIVER MITOCHONDRIAL DNA.....	2R01 GM22597-04	60,324
VLAHCEVIC, ZDRAVKO R.....	ELUCIDATION OF BILE ACID METABOLISM PATHWAYS IN MAN.....	1R01 AM23028-01	39,916
WAMPLER, GALEN L.....	ANALYSIS OF COMPLEX DOSE RESPONSE SURFACES.....	5R01 CA23333-02	57,079
WEAVER, WARREN E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05697-10	37,324
WEBB, STANLEY R.....	DIABETES MELLITUS: ROLE OF HOST GENETICS AND VIRUSES.....	5R01 AM21730-02	54,778
WEGLICKI, WILLIAM B.....	MYOCARDIAL ORGANELLE LIPID STRUCTURE AND FUNCTION.....	5R01 HL19148-04	132,080
WEGLICKI, WILLIAM B.....	MECHANISMS OF MEMBRANE INJURY IN MYOCARDIAL ISCHEMIA.....	5R01 HL23142-02	92,202
WEIR, GORDON C.....	STUDIES OF PANCREATIC SOMATOSTATIN.....	5R01 AM19343-03	48,988
WEIR, GORDON C.....	SOMATOSTATIN, GLUCAGON, AND DIABETES.....	2R01 AM20349-03A1	81,159
WITORSCH, RAPHAEL J.....	PROLACTIN BINDING IN NORMAL AND NEOPLASTIC PROSTATE.....	5R26 CA23653-02	35,313
WOLF, BARRY.....	GENETICS AND BIOCHEMISTRY OF PROPIONIC ACIDEMIA.....	1R01 AM25675-01	42,183
WOLF, BARRY.....	TREATMENT OF PROPIONIC ACIDEMIA.....	1R01 AM26127-01	22,262
ORGANIZATION TOTAL	122	10,595,328	
STATE TOTAL	298	23,450,642	

WASHINGTON

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SHEARER, RUTH W.....	MOLECULAR GENETICS OF TUMORS.....	5R01 CA20781-04	87,555
STUART, KENNETH D.....	MITOCHONDRIAL DNA OF NORMAL AND MUTANT TRYPAANOSOMES.....	5R01 AI14102-04	97,609
ORGANIZATION TOTAL	2	185,164	

OLYMPIA

WASHINGTON DEPARTMENT OF SOCIAL AND HEALTH SERVICES ZIP CODE 98504

LANDESMAN-DWYER, SHARON J.....	A PROSPECTIVE STUDY OF RESIDENTIAL ALTERNATIVES.....	5R01 HD11551-02	63,868
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
ORGANIZATION TOTAL	1	63,868	
PULLMAN			
WASHINGTON STATE UNIVERSITY ZIP CODE 99163			
BROSEMER, RONALD W.	THE ROLE OF GLYOXYLIC ACID IN DISEASE	5R01 NS14317-02	33,263
BUSTAD, LEO K.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05465-17	49,629
CAMPBELL, KENNETH B.	MECHANICAL INTERACTIONS BETWEEN VENTRICLE ARTERIES	5R23 HL21462-03	41,608
CARLSON, JAMES R.	3-METHYLINDOLE-INDUCED PULMONARY EDEMA AND EMPHYSEMA	2R01 HL13645-12	124,818
CHEEVERS, W P.	STUDIES OF VIRAL PERSISTENCE IN EQUINE INFECTIOUS ANEMIA	5R01 AI07471-13	99,554
CLARK, ROBERT W, JR.	NEURAL CONTROL OF MANDIBULAR MOVEMENT	1R23 DE05310-01	18,942
DUNKER, A KEITH.	HYDROPHOBIC PEPTIDES FROM SARCOPLASMIC RETICULUM	5R01 GM25097-02	32,641
DUNKER, A KEITH.	LASER RAMAN STUDIES OF LIPID/PROTEIN INTERACTIONS	1R01 GM25937-01	40,714
GOLINICK, PHILIP D.	SUBCELLULAR RESPONSE OF HEART TO FUNCTIONAL OVERLOAD	5R01 HL18527-04	98,938
GRISWOLD, MICHAEL D.	HORMONAL REGULATION OF SERTOLI CELL MATURATION	5R01 HD10808-03	41,473
HARDING, JOSEPH W.	THE ROLE OF CARNOSINE IN OLFACTION	1R01 NS15217-01	67,187
HAYTON, WILLIAM L.	EFFECTS OF AGING ON DRUG BIOAVAILABILITY	5R23 AG00674-03	15,560
HAYTON, WILLIAM L.	ENVIRONMENTAL EFFECTS ON XENOBIOTIC KINETICS IN FISH	1R01 ES01995-01	56,370
HEGREBERG, GERALD A.	REFERENCE TOOLS ON ANIMAL MODELS OF HUMAN DISEASE	5R01 LM03071-02	37,487
HILL, HERBERT H.	DEVELOPMENT OF SELECTIVE IONIZATION DETECTORS	1R01 GM24970-01	48,397
HOSICK, HOWARD L.	CULTURE OF PRENEOPLASTIC MAMMARY CELLS OF THE MOUSE	5R01 CA16392-06	49,700
KOLATTUKUDY, P E.	BIOCHEMISTRY OF NATURAL PRODUCTS	5R01 GM18278-09	114,151
KRAMER, JOHN W.	A NEW ANIMAL MODEL OF INHERITED DIABETES MELLITUS	5R01 AM20462-03	77,631
LOEWUS, FRANK A.	INOSITOL METABOLISM	2R01 GM22427-05	98,475
MAGNUSON, JAMES A.	METAL ION ACTIVATION OF CONCANAVALIN A	5R01 CA14496-07	53,209
MC DONALD, THOMAS L.	VIRUS INDUCED BLOCKING FACTORS AND TUMOR ENHANCEMENT	1R01 CA25351-01	59,558
MC FADDEN, BRUCE A.	BIOCHEMISTRY OF MEMBRANE AND CATALYTIC PROTEINS	5R01 GM19972-10	82,684
MC FADDEN, BRUCE A.	ACQUISITION OF A SHARED AMINO ACID ANALYZER	1P41 GM27484-01	102,535
MEADOWS, GARY G.	NUTRITIONAL APPROACH TO MELANOMA TREATMENT	1R01 CA26533-01	56,934
MEYERS, KENNETH M.	ROLE OF ARACHIDONATE AND ADP/SHT IN PLATELET ACTIVATION	1R01 HL24277-01	62,030
MOFFETT, DAVID F.	POTASSIUM TRANSPORT BY INSECT MIDGUT	1R01 GM26287-01	42,917
MOFFETT, STACIA B.	REGENERATION OF CENTRAL NERVOUS PATHWAYS	5R01 NS14333-02	41,975
NEWBREY, JARRETT W.	THE ROLE OF MACROPHAGES IN IN VITRO BONE RESORPTION	5R23 DE04847-02	30,387
NILAN, ROBERT A.	DEVELOPMENT OF EUKARYOTIC 'AMES TYPE' MUTAGEN MONITOR	1R01 ES02224-01	47,697
NYMAN, C J.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07097-14	71,229
PALL, MARTIN L.	CYCLOC NUCLEOTIDES IN NEUROSPORA CRASSA	1R01 GM24368-01A2	55,831
PAZNOKAS, JOHN L.	PYRUVATE KINASE AND DEVELOPMENT IN MUCOR	5R01 GM24670-02	43,164
PERRYMAN, LANCE E.	INVESTIGATIONS OF COMBINED IMMUNODEFICIENCY	5R01 HD08886-06	104,352
REEVES, O RAYMOND	HISTONE HYPERACETYLATION AND MOUSE CELL GENE ACTIVITY	1R01 GM26702-01	74,173
RITTER, WILMA S.	PSYCHOBIOLOGY OF STRESS-INDUCED BEHAVIORAL DEFICITS	5R01 NS14450-02	50,817
RONALD, ROBERT C.	NOVEL ANTIBIOTICS FROM CYTOSPORA	5R01 AI15296-02	41,323
SCHROEDER, ALICE L.	NEUROSPORA DNA REPAIR	5R01 CA22587-02	54,771
SCHROEDER, ALICE L.	POST-REPLICATION-REPAIR OF DNA IN NEUROSPORA	1R01 CA26314-01	21,757
SCHROEDER, PAUL C.	MECHANISMS OF LOWER VERTEBRATE OVULATION	1R01 HD12499-01	65,042
STEVENS, CARL M, II	MECHANISMS OF CHAIN ELONGATION OF ALPHA-KETO ACIDS	2R01 GM21996-04	26,437
WAY, JAMES L.	CYANIDE LIBERATION BY ALKYLPHOSPHATE ANTAGONISTS	5R01 ES00945-03	39,789
WILSON, ROBERT B.	ANIMAL MODELS FOR COMPARATIVE MEDICAL RESEARCH	5P40 RR00515-11	139,122
YOUNT, RALPH G.	INTERACTION OF ATP ANALOGS WITH MYOSIN	5R01 AM05195-19	65,868
ORGANIZATION TOTAL	43	2,580,139	
RICHLAND			
BATTELLE MEMORIAL INSTITUTE—PACIFIC NORTHWEST LABORATORIES ZIP CODE 99352			
FREE, MICHAEL J.	TESTICULAR AND EPIDIDYMAL FUNCTION IN VIVO	5R01 HD08868-04	88,639
SIKOV, MELVIN R.	EFFECT OF EXPOSURE OF THE PRENATAL RAT TO ULTRASOUND	5R01 GM20661-06	119,100
WESTERMAN, RICHARD E.	POROUS METAL DENTAL ANCHORS IN LONG-TERM FUNCTION	5R01 DE03938-05	49,424
ORGANIZATION TOTAL	3	257,163	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
SEATTLE			
BATTELLE MEMORIAL INSTITUTE ZIP CODE 98105			
DAVIS, MARADEE A.....	LIVING ARRANGEMENTS AND DIETARY PATTERNS: U S ADULTS.....	1R23 AG01799-01	46,548
MARINI, MARGARET M.....	SEX DIFFERENCES IN OUTCOMES OF ADOLESCENT EXPERIENCE.....	5R01 HD09637-03	75,057
MARINI, MARGARET M.....	WOMEN'S LABOR FORCE PARTICIPATION AND FERTILITY.....	5R01 HD11807-02	50,559
MICKLIN, MICHAEL.....	ADOLESCENT SOCIALIZATION AND HETEROSEXUAL BEHAVIOR.....	5R01 HD11061-02	84,218
MICKLIN, MICHAEL.....	ADOLESCENT SOCIALIZATION AND HETEROSEXUAL BEHAVIOR.....	2R01 HD11061-03	81,125
ORGANIZATION TOTAL	5 337,507		
CHILDREN'S ORTHOPEDIC HOSPITAL AND MEDICAL CENTER ZIP CODE 98105			
BLEYER, WERNER A.....	CLINICAL PHARMACOLOGY OF INTRATHECAL METHOTREXATE.....	5R01 CA16525-05	39,398
CHARD, RONALD L, JR.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA10382-13	168,008
DOCTER, JACK M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05655-09	32,295
HARTMANN, JOHN R.....	CLINICAL CANCER EDUCATION PROGRAM (PEDIATRIC).....	5R25 CA18039-05	79,194
PENDERGRASS, THOMAS W.....	ENVIRONMENTAL EXPOSURES AND CHILDHOOD LEUKEMIA.....	5R23 CA24186-02	31,595
SMITH, ARNOLD L.....	DEVELOPMENT AND UTILIZATION OF MICRO-ENZYMATIC ASSAYS.....	5R01 GM26337-02	107,461
SMITH, ARNOLD L.....	AMINOGLYCOSIDE PHARMACOLOGY IN CHILDREN.....	5R01 GM26550-02	68,666
STREETER, DANIEL D, JR.....	FIBER GEOMETRY IN HYPERTROPHY AND CARDIOMYOPATHY.....	2R01 HL20883-03	82,997
ORGANIZATION TOTAL	8 609,614		
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
BERNSTEIN, IRWIN D.....	MECHANISMS OF BCG-MEDIATED SUPPRESSION OF TUMOR GROWTH.....	5R01 CA19170-04	61,607
BERNSTEIN, IRWIN D.....	MONOCLONAL ANTIBODY THERAPY OF CANCER.....	1R01 CA26386-01	117,356
EISENMAN, ROBERT N.....	CONTROL MECHANISMS IN AVIAN ONCORNAVIRUS REPLICATION.....	5R01 CA20525-03	61,319
FLETCHER, T LLOYD.....	APPROACHES TO CHEMICAL CARCINOGENESIS MECHANISMS.....	5R01 CA19279-03	95,671
GALLOWAY, DENISE A.....	HERPES VIRUS EXPRESSION IN TRANSFORMATION AND LATENCY.....	1R01 CA26001-01	35,235
HAKOMORI, SEN-ITIROH.....	RELATION OF BLOOD GROUP AND HUMAN TUMOR ANTIGENS.....	5R01 CA19224-04	44,823
HAKOMORI, SEN-ITIROH.....	IMMUNOSPECIFIC GLYCOLIPIDS OF NORMAL AND CANCER CELLS.....	5R01 CA20026-04	50,603
HAKOMORI, SEN-ITIROH.....	ANTICARBOHYDRATE ANTIBODY IN CELL BIOLOGY.....	5R01 GM23100-04	40,143
HELLSTROM, INGEGERD E.....	TRANSPLANTATION ANTIGENICITY OF VIRUS INDUCED TUMORS.....	2R01 CA19149-05	111,628
HELLSTROM, KARL E.....	LYMPHOCYTE ALLOGENEIC INHIBITION AND TUMOR IMMUNITY.....	2R01 CA19148-05	90,203
HELLSTROM, KARL E.....	CELL SURFACE ANTIGENS OF CHEMICALLY INDUCED SARCOMAS.....	1R01 CA25558-01	92,008
HENNEY, CHRISTOPHER S.....	IN VITRO STUDIES OF CELL MEDIATED IMMUNITY.....	3R01 AI15383-01S1	19,525
HENNEY, CHRISTOPHER S.....	IMMUNOBIOLOGY OF CYTOTOXIC LYMPHOID CELLS.....	5R01 AI15384-02	113,483
HENNEY, CHRISTOPHER S.....	MURINE EFFECTOR CELLS.....	5R01 CA24537-02	67,017
HUTCHINSON, WILLIAM B.....	CANCER CENTER SUPPORT GRANT (COMPREHENSIVE).....	3P30 CA15704-05S2	276,192
HUTCHINSON, WILLIAM B.....	CANCER CENTER SUPPORT GRANT (COMPREHENSIVE).....	5P30 CA15704-06	2,150,737
HUTCHINSON, WILLIAM B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05761-05	138,117
LINIAL, MAXINE L.....	VIRAL CODED FUNCTIONS IN ROUS SARCOMA VIRUS.....	2R01 CA18282-04	90,431
MEYERS, JOEL D.....	VIRAL INFECTION AND IMMUNITY AFTER MARROW TRANSPLANT.....	1R23 AI15689-01	35,215
NEIMAN, PAUL E.....	MOLECULAR MECHANISMS IN NEOPLASIA.....	5R01 CA20068-04	105,628
NELSON, KAREN A.....	ANTIGEN-SPECIFIC SUPPRESSION OF ANTITUMOR IMMUNITY.....	1R23 CA26116-01	28,752
NOWINSKI, ROBERT C.....	IMMUNOLOGICAL ASPECTS OF MOUSE LEUKEMIAS.....	3R01 CA18074-04S1	62,586
NOWINSKI, ROBERT C.....	MOUSE LEUKEMIA VIRUSES; IMMUNOGENETIC STUDIES.....	1R01 CA24706-01	77,259
POLLACK, SYLVIA B.....	SPECIFIC ANTITUMOR ACTIVITY BY 'ARMED' LYMPHOID CELLS.....	5R01 CA18647-05	54,516
PRENTICE, ROSS L.....	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL.....	5R10 CA21193-03	90,931
PRENTICE, ROSS L.....	STATISTICAL METHODS FOR CASE-CONTROL STUDIES.....	5R01 GM24472-02	26,106
REEDER, RONALD H.....	ISOLATION AND STUDY OF RIBOSOMAL GENE CHROMATIN.....	5R01 GM26560-02	64,289
REEDER, RONALD H.....	CONTROL OF RIBOSOMAL GENE TRANSCRIPTION.....	1R01 GM26624-01	49,418
RILEY, DONALD E.....	GENE REGULATION AT THE LEVEL OF CHROMATIN STRUCTURE.....	1R01 GM25815-01	47,301
ROHRSCHEIDER, LARRY R.....	MECHANISMS OF ONCORNAVIRUS-INDUCED TRANSFORMATION.....	5R01 CA20551-03	30,726
STORR, RAINER F.....	MARROW GRAFTING IN TREATMENT OF HEMATOLOGIC MALIGNANCIES.....	5P01 CA18221-05	342,986
THOMAS, E DONNALL.....	ADULT LEUKEMIA RESEARCH CENTER.....	2P01 CA18029-04	2,604,332
THOMAS, E DONNALL.....	SEPARATION OF BLOOD BY CONTINUOUS CENTRIFUGES.....	5R01 CA18579-05	121,163
TOROK-STORR, BEVERLY J.....	EFFECT OF LYMPHOCYTES ON HEMATOPOIESIS.....	1R23 HL24439-01	32,689
WARREN, REED P.....	STUDY OF GROUP 5 ANTIGENS IN HEMATOLOGIC MALIGNANCIES.....	1R01 CA25139-01	55,113
WEIDEN, PAUL L.....	IMMUNOTHERAPY STUDIES OF SPONTANEOUS MALIGNANCY.....	5R01 CA18105-04	98,505
WEINTRAUB, HAROLD M.....	CELL TRANSFORMATION BY RSV.....	7R01 CA26663-01	37,485

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
WEINTRAUB, HAROLD M.....	THE COMPLEXITY OF CHROMOSOME STRUCTURE AND ASSEMBLY.....	1R01 GM26176-01	56,541
WEISS, NOEL S.....	EPIDEMIOLOGY OF FRACTURES IN AGING WOMEN.....	1R01 AG01764-01	60,672
WEISS, NOEL S.....	EPIDEMIOLOGY OF MYELOMA AND LYMPHOCYTIC LEUKEMIA.....	3R01 CA23350-01S1	104,466
WOODBURY, RICHARD G.....	THE MOLECULAR NATURE OF TUMOR ANTIGENS.....	1R23 CA26584-01	29,386
WRIGHT, PETER W.....	MECHANISMS OF ALLOGRAFT TOLERANCE.....	5R01 CA17481-05	77,887
YOSHIMURA, FAYTH K.....	DNA FORMS OF MURINE LEUKEMIA VIRUSES.....	1R01 CA25461-01	58,669
ZAKIAN, VIRGINIA A.....	DNA REPLICATION AND CHROMOSOME STRUCTURE IN YEAST.....	1R01 GM26938-01	60,749
ORGANIZATION TOTAL	44	8,069,468	
INSTITUTE OF APPLIED PHYSIOLOGY AND MEDICINE ZIP CODE 98122			
REID, JOHN M.....	NON-INVASIVE ASSESSMENT OF CORONARY BYPASS GRAFTS.....	1R01 HL23868-01	88,131
REID, JOHN M.....	ULTRASONIC SCATTERING STUDIES IN TISSUE CHARACTERIZATION.....	1R01 HL24805-01	234,395
SPENCER, MERRILL P.....	ULTRASONIC DETECTION OF THE ATHEROSCLEROTIC PLAQUE.....	2R01 HL19341-04	94,810
SPENCER, MERRILL P.....	PATHOPHYSIOLOGICAL FACTORS IN DECOMPRESSION SICKNESS.....	1R01 HL24321-01	98,298
ORGANIZATION TOTAL	4	515,634	
PACIFIC NORTHWEST RESEARCH FOUNDATION ZIP CODE 98104			
HUTCHINSON, WILLIAM B.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05520-17	18,931
JOHNSTONE, MURRAY A.....	FACTORS REGULATING AQUEOUS OUTFLOW IN GLAUCOMA.....	5R01 EY01906-03	60,757
SCRIBNER, JOHN D.....	EARLY AND CRITICAL EVENTS IN CHEMICAL CARCINOGENESIS.....	5R01 CA23712-02	161,315
ORGANIZATION TOTAL	3	241,003	
PUGET SOUND BLOOD CENTER ZIP CODE 98104			
GIBLETT, ELOISE R.....	COMMUNITY BLOOD RESOURCE CENTER SUPPORT.....	5P60 HL17265-05	803,952
ORGANIZATION TOTAL	1	803,952	
SEATTLE PACIFIC UNIVERSITY ZIP CODE 98119			
MC HENRY, DELBERT S, JR.....	EXPECTATIONS AND RELOCATION STRESS OF THE ELDERLY.....	5R01 AG00857-02	27,488
ORGANIZATION TOTAL	1	27,488	
SWEDISH HOSPITAL MEDICAL CENTER ZIP CODE 98104			
CHANDLER, JOHN W, JR.....	IMMUNOPATHOLOGY AND THERAPY OF CORNEAL DISEASE.....	5R01 EY02673-02	101,592
CHANDLER, JOHN W, JR.....	HERPETIC KERATITIS: EARLY VIRUS-NEURON INTERACTIONS.....	5R01 EY02902-02	39,956
RIVKIN, SAUL E.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA20319-03	55,462
ORGANIZATION TOTAL	3	197,010	
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE-PHS HOSPITAL ZIP CODE 98114			
NISHIMURA, EDWIN T.....	CATALASE ISOZYMES IN NORMAL AND NEOPLASTIC TISSUES.....	5R01 CA24966-02	46,442
ORGANIZATION TOTAL	1	46,442	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 98108			
HALTER, JEFFREY B.....	THE PATHOGENESIS OF IMPOTENCE IN DIABETES MELLITUS.....	5R01 AM20754-03	39,516
ORGANIZATION TOTAL	1	39,516	
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
ADAMSON, JOHN W.....	STUDIES OF IN VITRO ERYTHROPOIETIC REGULATION.....	5R01 AM19410-04	43,698
AFROMOWITZ, MARTIN A.....	IMPLANTABLE SOLID-STATE HYBRID ION-SENSITIVE DEVICE.....	5R01 GM23417-03	15,278
AGABIAN, NINA.....	REGULATION OF CELL SURFACE DEVELOPMENT IN CAULOBACTER.....	5R01 GM25527-02	74,126
ALBERS, JOHN J.....	LECITHIN-CHOLESTEROL ACYLTRANSFERASE.....	2R01 HL15263-07	44,775
ALBERS, JOHN J.....	HIGH DENSITY LIPOPROTEIN QUANTITATION.....	1R01 HL22285-01A1	54,509
ALEXANDER, E RUSSELL.....	CLINICAL EPIDEMIOLOGY-PATHOGENESIS OF GENITAL HERPES.....	5R01 AI14495-02	129,837
ALEXANDER, E RUSSELL.....	NEONATAL CHLAMYDIA INFECTION: INCIDENT AND TREATMENT.....	1R01 AI16110-01	148,790
ALMERS, WOLFHARD.....	ELECTRIC STUDIES OF MUSCLE EXCITATION AND CONTRACTION.....	5R01 AM17803-06	54,560
ANDERSEN, NIELS H.....	THE MOLECULAR BASIS OF PROSTAGLANDIN BIOCHEMISTRY.....	5R01 GM20848-05	53,531
ANDERSEN, NIELS H.....	ASSAY METHODS FOR ARACHIDONIC ACID METABOLITES.....	1R01 GM26935-01	79,737
ANDERSEN, NIELS H.....	PROSTACYCLIN-TXA2 ANALOG CHEMISTRY AND PHARMACOLOGY.....	5R01 HL23103-02	20,175
ANDERSON, MARJORIE E.....	ELECTROPHYSIOLOGICAL & ANATOM ANALYSIS OF BASAL GANGLIA OUTPUT.....	1R01 NS15017-01	33,111
APPLEBAUM-BOWDEN, DEBORAH.....	HEPATIC TRIGLYCERIDE LIPIASE.....	1R23 HL22381-01A1	32,118
AUTH, DAVID C.....	ENDOSCOPIC INSTRUMENTS FOR CONTROL OF BLEEDING.....	5R01 GM25262-02	76,211
BAGDADE, JOHN D.....	MECHANISMS OF ATHEROGENESIS IN CHRONIC UREMIA.....	5R01 HL16219-06	98,650

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
BAGDADE, JOHN D.....	POLYAMINES AS CELLULAR MEDIATORS OF ATHEROGENESIS.....	5R01 HL22623-02	98,355
BAKER, DONALD W.....	NONINVASIVE CARDIOVASCULAR MEASUREMENTS.....	5P01 HL02793-18	787,489
BASSINGTHWAIGHTE, JAMES B.....	HETEROGENEITY OF REGIONAL MYOCARDIAL BLOOD FLOW.....	5R01 HL19135-05	86,702
BASSINGTHWAIGHTE, JAMES B.....	DISPERSION OF DIFFUSIBLE INDICATORS IN THE BODY.....	5R01 HL19139-04	117,671
BEASLEY, R PALMER.....	HEPATOCELLULAR CARCINOMA RISK IN HEPATITIS B CARRIERS.....	1R01 CA25327-01	156,529
BEAVO, JOE A.....	METABOLISM AND FUNCTION OF CYCLIC NUCLEOTIDES.....	5R01 AM21723-02	52,079
BENDICH, ARNOLD J.....	REPEATED DNA SEQUENCES AND LAND PLANT EVOLUTION.....	2R01 GM22870-04	120,576
BENDITT, EARL P.....	MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	1P30 ES02190-01	120,626
BENDITT, EARL P.....	MECHANISMS OF ACUTE VASCULAR REACTION TO INJURY.....	5P01 HL03174-24	632,634
BENSINGER, RICHARD E.....	SUPEROXIDE DISMUTASE: TRANSPORT, AGING AND DEGENERATION.....	5R01 EY02726-02	35,788
BERGER, ALBERT J.....	RESPIRATORY SYSTEM INTEGRATION BY THE BRAIN STEM.....	1R01 NS14857-01	52,370
BERNSTEIN, ILENE L.....	LEARNED FOOD AVERSION: A COMPONENT OF CANCER ANOREXIA.....	1R01 CA26419-01	56,276
BIERMAN, EDWIN L.....	AGING, METABOLISM AND ATHEROSCLEROSIS.....	5P01 AG00299-09	309,215
BIERMAN, EDWIN L.....	PATHOBIOLOGY OF DIABETES MELLITUS.....	5P01 AM02456-21	334,394
BINDER, MARC D.....	DESIGN FEATURES OF SEGMENTAL MOTOR SYSTEM.....	1R01 NS15404-01	48,803
BLANDAU, RICHARD J.....	PROGRAM PROJECT ON GAMETE TRANSPORT IN MAMMALS.....	5P50 HD03752-10	219,205
BONICA, JOHN J.....	DENTAL/OROFACIAL PAIN—MECHANISMS BEHAVIOR & MODULATION.....	1P01 DE05130-01	231,796
BOOTHE, RONALD G.....	DEVELOPMENT OF SPATIAL VISION.....	5R01 EY02510-02	74,062
BORNSTEIN, PAUL.....	BIOGENESIS AND FUNCTION OF CONNECTIVE TISSUE PROTEINS.....	5R01 AM11248-13	73,242
BRADY, LYNN R.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09082-01A1	240,198
BRUCE, ROBERT A.....	CORONARY BYPASS GRAFTING & CARDIAC CAPACITY IMPROVEMENT.....	1R01 HL23404-01	82,876
BRUNZELL, JOHN D.....	PATHOPHYSIOLOGY OF GENETIC HYPERTRIGLYCERIDEMIAS.....	5R01 HL18687-04	64,312
BUCHANAN, THOMAS M.....	IMMUNOCHEMISTRY & PATHOGENIC ROLE OF GONOCOCCAL PILI.....	2R01 AI13149-04	67,581
BUCHANAN, THOMAS M.....	SERODIAGNOSIS OF SUBCLINICAL LEPROSY (PROPOSAL I).....	1R21 AI16290-01	43,091
BUCK, STEVEN L.....	INTERACTION IN THE VISUAL SYSTEM.....	1R01 EY03221-01	50,090
BUNT, ANN H.....	PROTEIN TRANSPORT IN RETINAL PHOTORECEPTORS AND AXONS.....	5R01 EY01311-06	72,992
BUTLER, JOHN.....	PULMONARY HEMODYNAMICS IN LUNG EDEMA DURING PEEP.....	5R01 HL20690-03	91,439
BUTLER, JOHN.....	PULMONARY EDEMA IN ARDS—BASIC MECHANISMS AND TREATMENT.....	1P01 HL24163-01	764,523
BYERS, BRECK E.....	MOLECULAR CYTOLOGY OF THE YEAST CELL CYCLE.....	5R01 GM18541-08	90,446
BYERS, MARGARET R.....	DISTRIBUTION AND ULTRASTRUCTURE OF DENTAL INNERVATION.....	1R01 DE05159-01	77,003
CALVIN, WILLIAM H.....	NEURON REPETITIVE FIRING MECHANISMS.....	5R01 NS09677-09	36,892
CAMERMAN, ARTHUR.....	STEREOCHEMISTRY OF THYROID HORMONES AND ANALOGS.....	2R01 AM16417-03A1	27,364
CAMERMAN, ARTHUR.....	STEREOCHEMICAL PRINCIPLES FOR ANTICANCER DRUGS.....	5R01 CA15879-05	76,137
CARRICO, C JAMES.....	SYSTEMIC RESPONSE TO MECHANICAL AND THERMAL INJURY.....	5P50 GM24990-02	736,389
CARTER, DENNIS R.....	FATIGUE DAMAGE AND REPAIR IN BONE.....	5R01 AM20190-02	12,257
CATTERALL, WILLIAM A.....	THE MOLECULAR BASIS OF ELECTRICAL EXCITABILITY.....	5R01 HL22239-02	54,427
CHAMPOUX, JAMES J.....	BIOCHEMICAL STUDIES ON THE DNA UNTWISTING ENZYME.....	2R01 GM23224-04	94,461
CHAPMAN, C RICHARD.....	ACUPUNCTURE AND PERCEPTION OF DENTAL PAIN IN MAN.....	5R01 DE04004-05	69,644
CHAPMAN, WARREN H.....	EXPERIMENTAL BLADDER TUMORS.....	5R01 CA03842-21	47,376
CHAPMAN, WARREN H.....	IMMUNOLOGY OF BLADDER TUMORS.....	2R26 CA14135-07	136,461
CHATRIAN, GIAN E.....	RESPONSES TO TOOTH PULP STIMULATION IN HUMANS.....	5R01 DE03485-06	56,536
CHENEY, FREDERICK W, JR.....	CHRONIC ANIMAL MODEL OF PULMONARY VASCULAR INJURY.....	5R01 HL20612-03	58,027
CHRISTIAN, GARY D.....	A VIDEO FLUOROMETER FOR BIOLOGICAL ANALYSES.....	5R01 GM22311-04	70,943
CLAGETT, JAMES A.....	PERIODONTAL DISEASES: B CELLS ACTIVATED BY MITOGENS.....	5R01 DE04887-02	49,764
CLOPTON, BEN M.....	DEVELOPMENT OF NEURAL MECHANISMS IN HEARING.....	5R01 NS13052-05	38,188
COHEN, M MICHAEL, JR.....	CRANIOFACIAL ANOMALY SYNDROMES.....	5R01 DE04502-03	63,953
COLOCOSIS, JOHN S.....	ALGORITHMIC FLUID AND DRUG THERAPY OF BURN SHOCK.....	1R01 GM26695-01	25,608
CONRAD, JOHN T.....	STRETCH CHANGES IN THE RABBIT CERVIX BY PROSTAGLANDIN.....	5R01 HD11227-02	44,299
COONEY, MARION K.....	RHINOVIRUS ANTIGENIC VARIATION AND ANTIBODY RESPONSE.....	5R01 AI15018-02	77,185
COREY, LAWRENCE.....	THE IMMUNOLOGY OF GENITAL HERPES.....	5R23 AI14415-02	37,026
CRILL, WAYNE E.....	PANCREATIC ISLET ELECTRICAL ACTIVITY AND SECRETION.....	5R01 AM21185-03	31,494
DALE, BEVERLY A.....	KERATOLYALIN IN KERATINIZATION: ORAL MUCOSA AND SKIN.....	2R01 DE04660-04	74,180
DALE, DAVID C.....	MARROW REGULATION IN CYCLIC HEMATOPOIESIS.....	3R01 AM18951-03S1	14,806
DALE, DAVID C.....	MARROW REGULATION IN CYCLIC HEMATOPOIESIS.....	2R01 AM18951-04	59,199
DAVIDSON, ERNEST R.....	ELECTRONIC STRUCTURE OF BIOCARBONYLS.....	2R01 GM22937-04	57,627
DAVIE, EARL W.....	PROTEINS OF BLOOD COAGULATION.....	2R01 HL16919-06	403,039
DAY, ROBERT W.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05714-09	83,985
DE TORNYAY, RHEBA.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05758-06	60,783
DETWILER, PETER B.....	A STUDY OF ELECTRICAL COUPLING IN VERTEBRATE RETINA.....	5R01 EY02048-03	23,698
DILLARD, DAVID H.....	SURGICAL APPROACH TO CONGENITAL HEART DISEASES.....	3R01 HL19203-03S1	8,686

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
DOBSON, MARGARET V.....	CLINICAL ASSESSMENT OF VISUAL ACUITY.....	5R01 EY02581-02	64,893
DODGE, HAROLD T.....	SUDDEN CARDIAC DEATH AND LETHAL ARRHYTHMIAS.....	5R01 HL18805-05	465,505
DODGE, HAROLD T.....	FUNCTIONAL CHARACTERISTICS OF THE LEFT HEART.....	5R01 HL19451-04	145,967
DOERMANN, AUGUST H.....	INVESTIGATION OF GENETIC PROBLEMS WITH BACTERIOPHAGES.....	5R01 GM13280-16	159,976
EDWARDS, JOHN S.....	NEURAL DEVELOPMENT.....	5R01 NS07778-12	90,411
EMANUEL, IRVIN.....	RESEARCH IN MENTAL RETARDATION AND CHILD DEVELOPMENT.....	5P30 HD02274-14	819,710
EMLEN, JAMES W.....	THE ROLE OF DNA IN SYSTEMIC LUPUS.....	1R01 AM24015-01A1	53,619
ENSINCK, JOHN W.....	REGULATION OF BIOSYNTHESIS AND SECRETION OF GLUCAGON.....	5R01 AM16008-07	84,723
EVANS, CHARLES A.....	FLORA OF HUMAN SKIN.....	5R01 AM22082-04	38,783
FALKOW, STANLEY.....	NATURE OF ENTEROTOXIN PRODUCTION BY E COLI & V CHOLERAEE.....	5R22 AI10885-08	42,407
FANGMAN, WALTON L.....	EUKARYOTIC CHROMOSOME STRUCTURE AND REPLICATION.....	5R01 GM18926-08	95,450
FANTEL, ALAN G.....	BIOTRANSFORMATION OF TERATOGENS.....	1R01 HD12717-01	111,505
FEEER, ALEXANDER.....	ADOPTIVE CHEMOIMMUNOTHERAPY OF TUMORS IN MICE.....	5R01 CA10777-11	115,021
FETZ, EBERHARD E.....	NEURAL CONTROL OF MUSCLE ACTIVITY.....	5R01 NS12542-05	77,501
FIALKOW, PHILIP J.....	HUMAN CANCER—ORIGIN AND GENETIC MARKERS.....	5R01 CA16448-05	63,321
FINCH, CLEMENT A.....	KINETIC STUDIES OF THE BLOOD.....	5R01 HL06242-19	362,476
FINK, B RAYMOND.....	LARYNGEAL BIOMECHANICS IN PULMONARY THERAPY.....	5R01 HL19975-03	32,054
FISCHER, EDMOND H.....	RELATION OF STRUCTURE TO FUNCTION OF ENZYMES.....	5R01 AM07902-17	156,542
FORDYCE, WILBERT E.....	PREVENTION OF CHRONIC PAIN.....	1R01 NS15428-01	82,410
FRANK, ROBERT.....	INHALED AEROSOLS: BEHAVIOR, EFFECTS, AND CLEARANCE.....	5P01 ES01478-03	265,479
FUCHS, ALBERT F.....	NEUROPHYSIOLOGY OF THE OCULOMOTOR SYSTEM.....	2R01 EY00745-09	89,176
FUCHS, ALBERT F.....	NEUROANATOMY OF THE OCULOMOTOR SYSTEM.....	1R01 EY03212-01	53,500
FUJIMOTO, WILFRED Y.....	CELL ISLET FUNCTION IN TISSUE CULTURE AND DIABETES.....	5R01 AM15312-08	81,060
FUTTERMAN, SIDNEY.....	RETINAL METABOLISM.....	2R01 EY00343-14	57,645
FUTTERMAN, SIDNEY.....	INTERDISCIPLINARY VISION AND OPHTHALMIC RESEARCH CENTER.....	5P30 EY01730-04	124,296
GALLANT, JONATHAN A.....	CONTROL OF CELL GROWTH.....	2R01 GM13626-13	88,798
GERACI, JOSEPH P.....	LATE EFFECTS IN NEUTRON RADIOTHERAPY.....	5R01 CA22431-02	110,009
GIBALDI, MILO.....	PLASMA AND TISSUE PROTEIN BINDING IN DRUG DISPOSITION.....	1R01 GM25745-01	31,730
GIBLIN, ELIZABETH C.....	RESPIRATORY IMPAIRMENT: SLEEP AND BREATHING PATTERNS.....	1R01 HL22540-01A1	92,240
GLOMSET, JOHN A.....	PLASMA CHOLESTEROL METABOLISM.....	5R01 HL10642-19	38,185
GOODNER, CHARLES J.....	CNS REGULATION OF FUEL MOBILIZATION AND STORAGE.....	5R01 AM10866-14	91,702
GORDON, ALBERT M.....	CONTROL OF CONTRACTION IN STRIATED MUSCLE.....	5R01 NS08384-11	38,934
GOULD, KENNETH L.....	CORONARY FLOW RESERVE—NONINVASIVE DETECTION.....	2R01 HL18492-04	53,926
GRAUBARD, KATHERINE.....	GRADED SYNAPTIC TRANSMISSION IN LOCAL NEURAL CIRCUITS.....	1R01 NS15697-01	99,290
GRAYSTON, J THOMAS.....	EPIDEMIOLOGY OF CHLAMYDIA TRACHOMATIS INFECTIONS.....	1R01 AI16222-01	116,298
GRAYSTON, J THOMAS.....	PREVENTION OF TRACHOMA & RELATED INFECTIONS.....	3R01 EY00219-18S1	193,401
GRAYSTON, J THOMAS.....	REGIONAL PRIMATE RESEARCH CENTER.....	5P40 RR00166-19	2,660,082
GREENLEE, THEODORE K, JR.....	COLLAGEN TYPES IN INJURED TENDONS.....	1R01 AM25749-01	103,030
GRIFFIN, THOMAS W.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA12260-08	45,225
GRIFFIN, THOMAS W.....	FAST NEUTRON BEAM RADIOTHERAPY.....	2P01 CA12441-07A2	393,535
GROMAN, NEAL B.....	PHAGE-BACTERIAL EFFECTS ON VIRULENCE OF C DIPHTHERIAE.....	5R01 AI10492-08	68,691
GUEST, AVERY M.....	ATTACHMENT OF METROPOLITAN NEIGHBORHOOD & COMMUNITY AREA.....	5R01 HD11930-02	71,125
GUEST, AVERY M.....	U S FERTILITY IN 1900.....	1R01 HD13080-01	61,183
GUNTHEROTH, WARREN G.....	HYPOXIA IN SUDDEN INFANT DEATH SYNDROME.....	5R01 HD10340-03	67,699
HALBERT, SHERIDAN A.....	ANALYSIS OF THE MECHANISMS OF OVIDUCTAL TRANSPORT.....	5R01 HD10988-03	83,990
HALL, BENJAMIN D.....	EXPRESSION AND REGULATION OF EUKARYOTIC GENES.....	5R01 GM11895-16	113,178
HALTER, JEFFREY B.....	AGING AND SYMPATHETIC NERVOUS SYSTEM FUNCTION IN MAN.....	1R01 AG01926-01	70,823
HARKER, LAURENCE A.....	PLATELET MECHANISMS IN DISEASE.....	5R01 HL11775-12	115,467
HARRIKINS, STEPHEN W.....	BRAIN ELECTRICAL POTENTIALS IN AGING AND DEMENTIA.....	5R01 AG00573-03	22,577
HARRIS, FREDRIC A.....	DENTAL CARE OF THE CEREBRAL PALSIED CHILD.....	2R01 DE04179-04	35,600
HARTWELL, LELAND H.....	GENETIC ANALYSIS OF THE EUKARYOTIC CELL CYCLE.....	5R01 GM17709-10	111,183
HASCHKE, RICHARD H.....	RETROGRADE AXONAL TRANSPORT IN THE VISUAL SYSTEM.....	2R01 EY01756-04	144,034
HAUSCHKA, STEPHEN D.....	CLONAL ANALYSIS OF SKELETAL MUSCLE DEVELOPMENT.....	5R01 AM18860-04	70,597
HAZZARD, WILLIAM R.....	ROLE OF APOLIPOPROTEIN-E IN LIPOPROTEIN METABOLISM.....	5R01 HL22607-02	64,419
HAZZARD, WILLIAM R.....	METABOLIC CONTROL OF HIGH DENSITY LIPOPROTEINS.....	1R01 HL23474-01	62,403
HENDERSON, WILLIAM R, JR.....	SUPEROXIDE AND PEROXIDE IN IMMEDIATE HYPERSENSITIVITY.....	1R23 AI14805-01A1	43,110
HENDRICKSON, ANITA E.....	PRIMATE VISUAL SYSTEM DEVELOPMENT AND DEPRIVATION.....	5R01 EY01208-06	111,085
HILLE, BERTIL.....	MOLECULAR PROPERTIES OF IONIC PERMEABILITY IN NERVE.....	5R01 NS08174-11	112,092
HILLE, MERRILL B.....	ACTIVATION OF PROTEIN SYNTHESIS IN ECHINOIDEA EMBRYOS.....	5R01 HD11070-03	47,000
HILLMAN, ROBERT S.....	FOLATE AND PYRIDOXINE METABOLISM.....	5R01 AM20192-03	71,812

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
HODSON, WILLIAM A	PEDIATRIC PULMONARY SCOR. HYALINE MEMBRANE DISEASE	5P50 HL19187-03	502,212
HOFFMAN, ALLAN S	SURFACE THROMBOGENESIS: MECHANISMS AND PREVENTION	3P01 HL22163-01S1	26,638
HOFFMAN, ALLAN S	SURFACE THROMBOGENESIS: MECHANISMS AND PREVENTION	5P01 HL22163-02	500,509
HOGNESS, JOHN R	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07096-14	194,676
HOLLOWAY, G ALLEN, JR	SKIN BLOOD FLOW AS A PREDICTOR OF AMPUTATION SUCCESS	1R01 HL23711-01	30,258
HOLMES, KING K	VENEREAL DISEASE RESEARCH PROGRAM PROJECT	5P01 AI12192-05	442,081
HORBETT, THOMAS A	CELLULAR INTERACTIONS WITH FOREIGN MATERIALS	5R01 HL19419-04	144,998
HORNBEIN, THOMAS F	ANESTHETIC MONITORING OF BRAIN HYPOXIA	1R01 GM25824-01	97,946
HORNBEIN, THOMAS F	CHEMICAL REGULATION OF VENTILATION	1R01 HL23390-01	89,734
HUNTSMAN, LEE L	NONINVASIVE DETERMINATION OF AORTIC BLOOD VELOCITIES	5R01 HL16830-06	64,603
HUNTSMAN, LEE L	MECHANICAL PROPERTIES OF ISOLATED MYOCARDIUM	5R01 HL20613-03	12,147
HWANG, KARL J	A FUNDAMENTAL STUDY ON LIPOSOME-ENCAPSULATED INSULIN	1R01 AM25608-01	66,632
JENSEN, LYLE H	STRUCTURE OF BIOLOGICALLY IMPORTANT COMPOUNDS	2R01 GM10828-24	36,325
JENSEN, LYLE H	CRYSTALLOGRAPHIC STUDY OF PROTEINS	5R01 GM13366-15	97,034
JOHNSON, DALE E	ENERGY LOSS MICROANALYSIS OF MYOCARDIAL CATIONS	5R01 HL21371-03	7,263
JOHNSON, DORTHEA A	EFFECT OF PAROTID FUNCTION ON SALIVA AND CELLS	5R01 DE04468-03	56,251
JONES, ROBERT F	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA21880-03	37,534
JUCHAU, MONT R	METABOLISM OF DRUG SUBSTRATES BY HUMAN PLACENTA	5R01 HD04839-09	48,351
KEHL, THEODORE H	SUPPORT FOR PHYSIOLOGY AND BIOPHYSICS COMPUTER	5P41 RR00374-13	282,553
KENNEY, NANCY J	CNS REGULATION OF BODY FLUIDS	5R01 AM22024-02	27,737
KENNY, GEORGE E	ANTIGEN COMPOSITION OF MYCOPLASMA PNEUMONIAE	5R01 AI06720-13	87,587
KIYAK, ASUMAN	CLINICAL TEST: PREVENTIVE DENTISTRY FOR THE AGED	1R23 DE05235-01	31,432
KLEBANOFF, SEYMOUR J	ANTIMICROBIAL EFFECT OF PEROXIDASE IN LEUKOCYTES	5R01 AI07763-13	87,614
KLEBANOFF, SEYMOUR J	UTERINE EOSINOPHIL STRUCTURE AND FUNCTION	3R01 HD02266-13S1	12,836
KLEBANOFF, SEYMOUR J	UTERINE EOSINOPHIL STRUCTURE AND FUNCTION	2R01 HD02266-14	57,245
KRANING, KENNETH K	SWEATING RESPONSES IN NORMAL AND ALLERGIC SUBJECTS	1R01 AI16636-01	57,362
KUO, CHO-CHOU	IMMUNOLOGY OF CHLAMYDIA TRACHOMATIS GENITAL INFECTION	5R01 AI14180-03	77,052
LAIRD, CHARLES D	NUCLEOTIDE SEQUENCE CHANGES IN EVOLUTION	5R01 GM19179-08	95,293
LARSON, STEVEN M	MECHANISM OF 67GA UPTAKE BY EMT-6 SARCOMA BALB/C MICE	1R01 CA24598-01A1	60,819
LEITCH, CYNTHIA J	PSYCHOSOMATIC PREDICTORS OF HEART DISEASE IN ADOLESCENCE	3R01 HL22378-01S1	9,829
LEITCH, CYNTHIA J	PSYCHOSOMATIC PREDICTORS OF HEART DISEASE IN ADOLESCENCE	5R01 HL22378-02	62,227
LOBE, LAWRENCE A	THE FIDELITY OF DNA REPLICATION IN HUMAN LYMPHOCYTES	5R01 CA24845-02	99,570
LOBE, LAWRENCE A	GENETIC MISCODING BY METALS	1R01 CA24998-01	82,912
LUND, JENNIFER S	STRUCTURAL BASIS FOR PROCESSING VISUAL INFORMATION	3R01 EY01086-06S1	5,843
LUND, RAYMOND D	DEVELOPMENT AND PLASTICITY OF VISUAL CONNECTIONS	3R01 EY00596-10S1	11,455
LUND, RAYMOND D	DEVELOPMENT AND PLASTICITY OF VISUAL CONNECTIONS	2R01 EY00596-11	50,213
LUSCHEI, ERICH S	NEURAL PROCESSES IN SOMATIC MOVEMENT	5R01 DE04884-11	47,776
MACKLER, BRUCE	STUDIES OF BIOLOGICAL OXIDATIONS	5R01 GM23006-20	60,636
MACKLER, BRUCE	STUDIES OF HUMAN AND MAMMALIAN DEVELOPMENT	5P01 HD05961-09	348,156
MAKOUS, WALTER L	DUPPLICITY THEORY AND THE STILES-CRAWFORD EFFECT	2R01 EY00788-07	58,927
MANNIK, MART	STUDIES OF THE RENAL DISEASE OF SYSTEMIC LUPUS	5R01 AM11476-13	104,684
MANNIK, MART	RHEUMATOID ARTHRITIS IMMUNOLOGY STUDIES	5R01 AM12849-11	74,775
MARTIN, GEORGE M	ABNORMAL PROTEINS IN THE PATHOGENESIS OF DISEASE	5R01 AG00592-19	96,459
MARTIN, GEORGE M	GENE ACTION IN THE PATHOBIOLOGY OF AGING	1P01 AG01751-01	398,222
MARTIN, JOAN C	CONTRIBUTION OF IRON DEFICIENCY TO MENTAL RETARDATION	3P01 HD11680-01S1	5,608
MARTIN, JOAN C	CONTRIBUTION OF IRON DEFICIENCY TO MENTAL RETARDATION	5P01 HD11680-02	418,483
MARTIN, ROY W	AIR EMBOLI DETECTION BY ULTRASONIC CATHETER METHODS	1R01 GM26187-01	70,420
MARTIN, ROY W	SIDS, ULTRASONIC SPECTROSCOPY AND INFANT AIRWAY GLANDS	1R01 HD13040-01	77,971
MARTIN, ROY W	BLOOD FLOW MEASUREMENT BY ULTRASONIC CATHETER TIP METHOD	2R01 HL14645-08	92,450
MATSEN, FREDERICK A, III	INCREASED PRESSURE IN COMPARTMENTS OF THE EXTREMITIES	2R01 AM18642-03	53,103
MAYO, MICHAEL E	MECHANICAL EFFECTS OF URETERAL CALCULI	5R01 AM20671-02	54,539
MC CLEAN, MICHAEL D	AFFERENT FUNCTION IN LIP MOTOR CONTROL FOR SPEECH	5R01 NS14048-02	1,294
MELTZOFF, ANDREW N	IMITATION IN INFANCY	1R01 HD11501-01	51,382
MELTZOFF, ANDREW N	IMITATION IN THE FIRST YEAR OF LIFE	1R01 HD13024-01	62,737
MILLER, JOSEF M	AUDITORY THALAMO-CORTICAL PROJECTIONS	5R01 NS08181-08	74,586
MILLER, JOSEF M	STUDIES OF THE COCHLEAR PROSTHESIS	5P50 NS13056-04	208,787
MINSHAW, BARBARA H	GENETICS OF ESCHERICHIA COLI VIRULENCE FACTORS	5R01 AI14740-02	34,124
MOORE, ALTON W	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05346-18	74,788
MORITZ, WILLIAM E	ULTRASONIC MEASUREMENT OF CARDIAC GEOMETRY AND FLOW	5R01 HL16759-06	40,190
MORRIS, DAVID R	BIOSYNTHESIS AND BIOLOGICAL FUNCTION OF POLYAMINES	5R01 GM13957-13	79,924

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
MOTTET, N KARLE	METHYLMERCURY EMBRYOPATHY.....	3R01 ES00677-08S1	12,749
MOTTET, N KARLE	METHYLMERCURY EMBRYOPATHY.....	5R01 ES00677-09	212,091
MOTULSKY, ARNO G.	SUPPORT FOR STUDY OF INHERITED DISEASES.....	5P50 GM15253-13	1,173,242
NELSON, SIDNEY D.	HYDRAZINE METABOLISM AS IT RELATES TO TOXICITY.....	5R23 ES01717-02	27,640
NELSON, SIDNEY D.	ALTERATION OF METABOLISM BY STRUCTURAL MODIFICATION.....	5R01 GM25418-02	34,804
NELSON, WENDEL L.	METABOLISM OF BETA-ADRENERGIC BLOCKERS-CHEMICAL ASPECTS.....	1R01 GM25373-01	54,221
NESTER, EUGENE W.	MOLECULAR BASIS OF CROWN GALL TUMORIGENESIS.....	5R01 CA13015-08	180,199
NEURATH, HANS	BIOLOGICAL CONTROL BY LIMITED PROTEOLYSIS.....	5P01 GM15731-12	338,072
NORWOOD, THOMAS H.	CLONAL SENESENCE OF SOMATIC CELLS.....	5R01 AG00257-05	108,060
NUTE, PETER E.	HEMOGLOBIN γ -CHAIN GENES: EVOLUTION AND INDUCIBILITY.....	5R01 HL20961-03	73,972
ODLAND, GEORGE F.	INTERDISCIPLINARY BASIC RESEARCH IN DERMATOLOGY.....	1P01 AM21557-01	177,814
PAGE, ROY C.	SUPPORT FOR ORAL BIOLOGY RESEARCH CENTER.....	5P50 DE02600-13	1,480,276
PAGE, ROY C.	CONNECTIVE TISSUE OF PERIODONTIUM COLLAGEN MATURATION.....	2R01 DE03301-09	125,601
PALMITER, RICHARD D.	HORMONAL CONTROL OF DIFFERENTIATION AND GENE ACTION.....	5R01 HD09172-05	109,743
PAULSEN, C ALVIN	STUDIES IN REPRODUCTIVE MEDICINE.....	1P50 HD12629-01	338,763
PEHLKE, D MICHAEL	REGULATION OF EPIDERMAL STEROL METABOLISM IN AGING.....	1R01 AG01830-01	35,577
PETERSDORF, ROBERT G.	PATHOGENESIS OF ENDOCARDITIS.....	2R01 HL17751-04	75,650
PIOUS, DONALD A.	GENETIC STRUCTURE AND FUNCTION IN HUMAN CELLS.....	5R01 GM15883-15	103,753
POCKER, YESHAYAU.	PHYSICO-CHEMICAL STUDIES OF ENZYMIC HYDRATION.....	5R01 AM09221-15	80,847
POLLACK, GERALD H.	MYOCARDIAL SARCOMERE MECHANICS.....	2R01 HL18676-04A1	133,165
POLLACK, GERALD H.	MECHANISM OF CARDIAC PACEMAKING.....	5R01 HL22235-02	50,973
POLLAKOWSKI, HENRY O.	ECONOMIC DETERMINANTS OF POPULATION DISTRIBUTION.....	5R01 HD07413-04	6,232
PORTE, DANIEL, JR.	NEURAL REGULATION OF PANCREATIC HORMONE SECRETION.....	5R01 AM12829-11	83,511
PORTE, DANIEL, JR.	DIABETES-ENDOCRINOLOGY RESEARCH CENTER.....	5P30 AM17047-05	368,593
PRINZ, PATRICIA N.	SLEEP AND OTHER NEUROBIOLOGICAL CHANGES WITH AGING.....	5R01 AG00667-03	30,019
PULLUM, THOMAS W.	CENTER FOR STUDIES IN DEMOGRAPHY AND ECOLOGY.....	5P30 HD09397-04	115,851
RAUCHER, STANLEY	ELEPHANTOPIN SYNTHESIS VIA SIGMATROPIC REARRANGEMENTS.....	1R01 CA25977-01	101,988
RAUSCH, ROBERT L.	REGULATIONS OF ECHINOCOCCUS SPECIES AND HYATID DISEASE.....	5R01 AI15172-02	52,315
RICHMOND, VIRGINIA L.	LUNG ELASTIC TISSUE CHARACTERISTICS.....	5R01 HL18931-03	48,234
RIDDIFORD, LYNN M.	STUDIES OF JUVENILE HORMONE ACTION.....	2R01 AI12459-04A1	81,297
ROBERTSON, THOMAS.	VENTILATION/PERFUSION DISTRIBUTION IN THE LUNG.....	5R01 HL12174-12	128,890
RODIECK, ROBERT W.	PRIMATE COLOR VISION.....	1R01 EY02923-01	161,429
ROSEN, JONATHAN J.	TISSUE CELL INTERACTIONS WITH VASCULAR PROSTHESES.....	5R23 HL21805-02	44,637
ROSS, RUSSELL	WOUND REPAIR, INFLAMMATION AND CONNECTIVE TISSUE.....	5R01 AM13970-18	81,629
ROSS, RUSSELL	BIOLOGY OF THE ARTERY WALL AND ATHEROSCLEROSIS.....	5P01 HL18645-04	539,834
ROSSE, CORNELIUS.	LYMPHOCYTE PRODUCTION AND TRAFFIC IN THE BONE MARROW.....	3R01 CA20823-03S1	10,696
RUBIN, CYRUS E.	THE PATHOGENESIS OF HUMAN ALIMENTARY MUCOSAL DISEASE.....	5R01 AM16059-21	253,702
SAARI, JOHN C.	BIOCHEMISTRY OF THE RETINA AND PIGMENT EPITHELIUM.....	5R01 EY02317-03	63,416
SACKETT, GENE P.	PREMATURITY IN PRIMATES: CAUSES, EFFECTS, PREVENTION.....	5P01 HD08633-06	305,669
SANDLER, LAURENCE M.	CYTOGENETICS OF MEIOSIS AND DEVELOPMENT IN DROSOPHILA.....	5R01 GM09965-17	104,725
SCHER, ALLEN M.	REGULATION OF THE PERIPHERAL CIRCULATION.....	2P01 HL16910-06	734,043
SCHER, ALLEN M.	CARDIAC FIBER DIRECTION AND THE QRS COMPLEX.....	5R01 HL20273-03	80,672
SCHINKE, STEVEN P.	DETERMINANTS OF ADOLESCENT FERTILITY.....	5R01 HD11095-02	117,633
SCHROEDER, THOMAS E.	CELL CORTEX AND CONTRACTILE RING FORMATION IN EGGS.....	2R01 GM19464-07	78,742
SCHUBIGER, GEROLD A.	DETERMINATION AND DIFFERENTIATION IN DROSOPHILA.....	5R01 GM24879-02	84,494
SCHWARTZKROIN, PHILIP A.	DEVELOPMENT OF ACTIVITY AT A CNS SYNAPSE.....	3R01 NS15317-01S1	23,309
SCHWARTZKROIN, PHILIP A.	DEVELOPMENT OF ACTIVITY AT A CNS SYNAPSE.....	5R01 NS15317-02	28,619
SCOTT, C RONALD	BIOCHEMICAL CAUSES OF CHILD IMMUNE DEFICIENCY STATES.....	5R01 AI12617-05	93,962
SEMBROWICH, WALTER L.	SUBCELLULAR MECHANISMS OF MUSCULAR FATIGUE.....	1R01 HL25439-01	75,628
SHAPIRO, BENNETT M.	FERTILIZATION: MOLECULAR EVENTS OF CORTICAL REACTION.....	5R01 GM23910-03	50,251
SHEPARD, THOMAS H.	LABORATORY FOR THE STUDY OF HUMAN EMBRYOS AND FETUSES.....	2R01 HD00836-16	63,946
SIBLEY, CAROL H.	MEMBRANE IMMUNOGLOBULINS: STRUCTURE, FUNCTION, CONTROL.....	5R01 CA20314-03	37,434
SIMPSON, JOHN B.	CIRCUMVENTRICULAR SITES OF PRESSOR ACTION OF ANGIOTENSIN.....	5R01 HL21799-02	13,092
SIMPSON, JOHN B.	ANGIOTENSIN EFFECTS ON WATER INTAKE AND EXCRETION.....	5R01 HL21800-02	20,928
SPARKS, DAVID W.	INVESTIGATION OF A TACTUAL SPEECH-TRANSMISSION AID.....	5R01 NS14177-02	55,510
SPENCE, ALEXANDER M.	IMMUNITY AGAINST NITROSOURA-INDUCED RAT BRAIN TUMORS.....	3R01 CA18385-03S1	3,500
STAMATOYANNPOPOULOS, GEORGE.	CELLULAR MECHANISMS OF HEMOGLOBIN F REGULATION.....	5R01 HL20899-03	107,647
STANTON, THOMAS H.	GENETICS AND BIOCHEMISTRY OF MOUSE ALLOANTIGENS.....	1R01 AI16048-01	65,750
STEINER, ROBERT A.	NEUROENDOCRINE CONTROL: PUBERTY AND GONADOTROPINS.....	1R01 HD12625-01	64,521
STIRLING, CHARLES E.	ACTIVE TRANSPORT IN EPITHELIA.....	5R01 AM13182-11	46,686

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
STIRLING, CHARLES E.....	RETINAL TRANSPORT MECHANISMS.....	5R01 EY02393-02	45,131
STOEL-GAMMON, CAROL.....	ASPECTS OF NORMAL & ABNORMAL PHONOLOGICAL DEVELOPMENT.....	1R01 HD12695-01	59,628
STORR, URSULA B.....	CONTROL OF IMMUNOGLOBULIN SYNTHESIS.....	9R01 CA25754-07A1	80,147
STORM, DANIEL R.....	MECHANISM OF ACTION FOR BACITRACIN, POLYMYXIN AND EM 49.....	1R01 AI14801-01A1	56,990
STORM, DANIEL R.....	CYCIC NUCLEOTIDE METABOLISM IN HEART MUSCLE.....	1R01 HL23606-01	68,446
STRANDNESS, DONALD E, JR.....	LONG-TERM STUDY OF DIABETIC VASCULAR DISEASE.....	5R01 HL20381-04	148,212
STRANDNESS, DONALD E, JR.....	ULTRASONIC EVALUATION IN DIRECT ARTERIAL SURGERY.....	2R01 HL20898-03	199,593
STRANDNESS, DONALD E, JR.....	NATURAL HISTORY OF THE POSTPHLEBITIC SYNDROME.....	5R01 HL21572-02	40,689
SU, JUDY Y.....	MECHANISM OF ANESTHETIC-INDUCED MYOCARDIAL DEPRESSION.....	5R01 HL20754-03	60,147
SWANSON, PHILLIP D.....	ENERGY UTILIZING PROCESSES IN THE CENTRAL NERVOUS SYSTEM.....	5R01 NS05424-14	96,629
TAMARIN, ARNOLD.....	VISCERAL ARCHES AND ORO-FACIAL MORPHOGENESIS.....	1R01 DE05138-01	52,785
TELLER, DAVID C.....	STUDIES OF ASSOCIATION REACTIONS OF ENZYMES.....	5R01 GM13401-14	67,777
TELLER, DAVID A.....	PSYCHOPHYSICAL STUDIES OF VISION.....	1R01 EY02920-01	37,529
TENG, LIN-NAR L.....	MOLECULAR MODIFICATION OF HEPARIN BY CHEMICAL MEANS.....	5R01 HL22035-02	58,696
THOMAS, E DONNALL.....	IRRADIATION AND MARROW TRANSPLANTATION IN LARGE ANIMALS.....	5R01 CA18047-16	153,062
TOWE, ARNOLD L.....	SINGLE UNIT ANALYSIS IN THE SOMATOSENSORY SYSTEM.....	2R01 NS00396-27	26,846
TOWE, ARNOLD L.....	HIGH-SPEED DATA ACQUISITION AND COMPUTER ANALYSIS.....	5R01 NS05136-16	82,748
TRAGER, WILLIAM F.....	PRODUCT RATIOS AND MICROSOMAL MULTIPLICITY.....	5R01 GM25136-02	33,630
TRUMAN, JAMES W.....	HORMONE ACTION ON THE CENTRAL NERVOUS SYSTEM.....	2R01 NS13079-04	89,593
VAN CITTERS, ROBERT L.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00037-19	646,072
VAN CITTERS, ROBERT L.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05432-18	201,413
VAN HOOSIER, GERALD L, JR.....	ANIMAL RESOURCES DEVELOPMENT.....	5P40 RR01095-03	53,162
VAN HOOSIER, GERALD L, JR.....	ANIMAL DIAGNOSTIC AND INVESTIGATIVE LABORATORY.....	1P40 RR01203-01	344,343
VERDUGO, PEDRO J.....	CILIARY ACTIVITY OF THE LUNG STUDIED BY LASER SCATTERING.....	2R01 HL20192-03	76,881
VINCENZI, FRANK F.....	RED BLOOD CELL CALCIUM IN HEALTH AND DISEASE.....	3R01 AM16436-05S1	10,057
VINCENZI, FRANK F.....	RED BLOOD CELL CALCIUM IN HEALTH AND DISEASE.....	5R01 AM16436-06	49,883
WALSH, KENNETH A.....	INSTRUMENT SYSTEM FOR PROTEIN STRUCTURE ANALYSIS.....	1P41 GM27335-01	148,298
WARD, ARTHUR A, JR.....	EPILEPSY RESEARCH SUPPORT.....	2P50 NS04053-18	662,353
WARD, RICHARD H.....	DEMOGRAPHY OF NATIVE AMERICAN POPULATIONS IN 1900.....	3R01 HD11708-01S1	9,600
WARD, RICHARD H.....	GENETIC EPIDEMIOLOGY OF PRECURSORS OF HYPERTENSION.....	5R01 HL20159-04	51,370
WATSON, EILEEN L.....	SALIVARY SECRETION-ROLE OF CALCIUM.....	1R01 DE05249-01	70,099
WEDGWOOD, RALPH J.....	DEVELOPMENTAL AND GENETIC DEFECTS OF IMMUNITY.....	5R01 AI07073-13	71,593
WEINSTEIN, PHILIP.....	DENTIST COMMUNICATION VARIABLES AND FEAR IN CHILDREN.....	1R01 DE04770-01A1	53,778
WESTRUM, LESNICK E.....	TEETH AND TRIGEMINAL PATHWAYS.....	5R01 DE04942-02	42,444
WESTRUM, LESNICK E.....	FINE STRUCTURE OF DEAFFERENTATION.....	5R01 NS09678-08	71,255
WEYMULLER, E A, JR.....	EXTENDED ORBITAL RESECTION.....	1R01 CA26967-01	5,820
WHITE, THOMAS T.....	PANCREATIC DUCTAL VERSUS DUODENAL SECRETIONS.....	2R01 CA14380-07	97,823
WHITELEY, HELEN R.....	REGULATION OF RNA SYNTHESIS.....	2R01 GM20784-05	79,086
WHITELEY, HELEN R.....	PHAGE-INFECTED B. SUBTILIS; PROMOTER STUDIES.....	1R01 GM26100-01	47,650
WOODRUM, DAVID E.....	ETIOLOGY OF RECURRENT APNEA AND SIDS.....	5R01 HD10356-03	92,415
WOODS, STEPHEN C.....	INSULIN AND CNS CONTROL OF BODY WEIGHT AND FEEDING.....	5R01 AM17844-05	58,630
WYLER, ALLEN R.....	OPERANT CONTROL OF CORTICAL NEURONS.....	1R01 NS14590-01	45,597
YOUNG, ELTON T, II.....	CONTROL OF FUNCTIONAL MESSENGER RNA SYNTHESIS.....	5R01 AI09456-10	61,329
YOUNG, ELTON T, II.....	GENETIC REGULATION OF ALCOHOL METABOLISM IN YEAST.....	1R01 GM26079-01	91,156
ZICK, GREGORY L.....	DIRECT DETERMINATION OF PO2 IN THE CLINICAL ENVIRONMENT.....	5R01 HL20354-03	33,843
ORGANIZATION TOTAL	300	38,515,052	
VIRGINIA MASON RESEARCH CENTER ZIP CODE 98101			
BEAN, MICHAEL A.....	CELLULAR IMMUNE RESPONSES TO HUMAN BLADDER CARCINOMA.....	2R26 CA19165-05	98,333
CUMMINGS, KENNETH B.....	EVALUATION AND MANAGEMENT OF BLADDER CARCINOMA.....	5R26 CA17466-05	97,376
D'Aoust, BRIAN G.....	VASCULAR BUBBLES & ETIOLOGY OF DECOMPRESSION SICKNESS.....	2R01 HL17503-04	84,556
D'Aoust, BRIAN G.....	ISOBARIC VASCULAR BUBBLES AND DECOMPRESSION SICKNESS.....	5R01 HL22406-02	56,103
GIBBONS, ROBERT P.....	CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER.....	3R26 CA15421-05S1	38,268
GIBBONS, ROBERT P.....	CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER.....	2R26 CA15421-06	120,212
GLEISNER, JOHN M.....	ENZYMES OF M. TUBERCULOSIS & OBSTRUCTIVE LUNG DISEASE.....	5R01 HL21095-03	59,365
HILDEBRANDT, JACOB.....	LUNG AND TISSUE MECHANICS.....	5R01 HL14854-08	59,377
HOUCK, JOHN C.....	BACTERIAL SUPPRESSION OF LYMPHOCYTE TRANSFORMATION.....	1R01 AI15957-01	32,960
HOUCK, JOHN C.....	MACROPHAGE PERMEABILITY FACTOR IN LUNG EDEMA.....	1R01 HL22369-01	45,840
HOUCK, JOHN C.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05588-13	50,390
LAI, YIH-LOONG.....	RESPIRATION DURING PROLONGED HYPERCAPNIA.....	2R01 HL20568-04	42,137

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
MARTIN, CARROLL J.....	LUNG ELASTIC RECOIL: AGE AND DISEASE.....	5R01 HL22313-02	41,601
SCURLOCK, JAMES E.....	ULTRALONG NERVE BLOCK AND UNCONVENTIONAL ANESTHETICS.....	5R23 GM26136-02	32,479
SUTTON, DWIGHT.....	LYMBIC AND NEOCORTEX MECHANISMS IN PHONATION.....	5R01 NS12165-05	61,627
TAYLOR, EUGENE M.....	HYPOXEMIA IN INFANT PRIMATES.....	5R01 HD10761-03	113,634
ORGANIZATION TOTAL	16	1,034,258	
STATE TOTAL	436	53,523,278	
WEST VIRGINIA			
HUNTINGTON			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER		ZIP CODE 25704	
BURCH, ROBERT E.....	AGING: TISSUE TRACE ELEMENTS AND ENZYMATIC ACTIVITY.....	5R01 AG01003-03	34,286
ORGANIZATION TOTAL	1	34,286	
MORGANTOWN			
WEST VIRGINIA UNIVERSITY		ZIP CODE 26506	
BARANOWSKI, TOM.....	A RURAL MINING COMMUNITY HYPERTENSION CONTROL PROJECT.....	5R01 HL22802-02	95,802
BLAIR, JAMES B.....	HORMONAL REGULATION OF GLUCONEOGENESIS.....	5R01 AM17664-06	58,994
BROWN, PAUL B.....	ORGANIZATION OF CUTANEOUS NEURONS OF THE DORSAL HORN.....	2R01 NS12061-05A1	55,624
BUTCHER, ROY L.....	ALTERATIONS IN THE OOCYTE DURING PREOVULATORY AGING.....	5R01 HD11679-03	53,457
CHARON, NYLES W.....	A GENETIC-BIOCHEMICAL ANALYSIS OF SPIROCHETE MOTILITY.....	5R23 DE04645-02	26,410
COLASANTI, BRENDA K.....	ADRENERGIC AND CHOLINERGIC INTERACTIONS IN THE EYE.....	5R01 EY01217-06	29,312
COLBY, HOWARD D.....	ADRENAL CARCINOGEN METABOLISM.....	5R01 CA22152-03	69,525
ELLINGSON, JOHN S.....	METABOLISM OF PHOSPHOLIPIDS IN SECONDARY LYSOSOMES.....	5R01 GM23807-02	40,471
FLEMING, WILLIAM W.....	MECHANISM OF NONSPECIFIC SUPPERSENSITIVITY TO DRUGS.....	2R01 NS08300-11	80,548
HAINES, DUANE E.....	CEREBELLAR EVOLUTION AND FUNCTION.....	2R01 NS11327-05	65,800
HARRIS, CHARLES L.....	ROLE OF THIONUCLEOTIDES IN TRANSFER RNA.....	5R01 GM25620-02	42,437
HEDGE, GEORGE A.....	NEUROENDOCRINE REGULATION OF ACTH AND TSH SECRETION.....	5R01 AM21348-03	73,517
IRISH, JAMES M., III.....	ISOLATED RENAL TUBULE PHYSIOLOGY OF ORGANIC IONS.....	1R01 AM25765-01	29,407
JOHNSON, DAVID C.....	QUANTITATIONS OF HUMAN PULP INNERVATION.....	2R01 DE04091-03A1	20,358
JONES, BARBARA.....	ACUTE LEUKEMIA GROUP B.....	3R10 CA07757-14S1	45,621
JONES, JOHN E.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05433-18	72,731
KENNEDY, ROLAND L.....	FETAL UPTAKE AND DISTRIBUTION OF LOCAL ANESTHETICS.....	1R01 HD13085-01	91,104
KLABUNDE, RICHARD E.....	BLOOD FLOW REGULATION IN CONTRACTING SKELETAL MUSCLE.....	1R01 HL25412-01	48,067
KLETZIEN, ROLF F.....	GLUCOCORTICOID PERMISSIVE EFFECTS ON GLUCONEOGENESIS.....	5R01 AM24051-02	39,301
MAWHINNEY, MICHAEL G.....	METABOLISM AND INHIBITION OF PROSTATIC NEOPLASIA.....	5R01 CA13103-08	52,358
MC CUSKEY, ROBERT S.....	HEPATIC MICROVASCULAR REGULATORY MECHANISMS.....	3R01 HL23604-01S1	5,578
MENGOLI, HENRY F.....	IGG FC-RECEPTOR ON ORAL STREPTOCOCCI.....	5R01 DE04631-02	36,820
MILLER, MICHAEL R.....	CONTROL OF DNA REPLICATION IN THE ANIMAL CELL CYCLE.....	5R01 GM25677-02	57,791
QUINLAN, DENNIS C.....	MEMBRANE DYNAMICS IN NORMAL AND TUMOR CELLS.....	5R01 GM24556-02	47,333
RADIN, ERIC L.....	BONE-CEMENT INTERFACE AFTER TOTAL JOINT REPLACEMENT.....	7R01 AM27119-01	84,007
RAFTER, GALE W.....	LEUKOCYTE DISULFIDE-METABOLIZING ENZYME.....	1R01 AM21447-01A1	45,181
RAICH, PETER C.....	SUPPRESSOR T-CELLS IN MALIGNANT LYMPHOMA.....	3R01 CA25072-01S1	25,411
REASOR, MARK J.....	EFFECTS OF AMPHIPHILIC DRUGS ON ALVEOLAR MACROPHAGES.....	1R01 HL24305-01	42,747
REYER, RANDALL W.....	LENS AND NEURAL RETINA DEVELOPMENT AND REGENERATION.....	5R01 EY00196-22	36,843
ROWLES, GRAHAM D.....	THE GEOGRAPHICAL EXPERIENCE OF THE ELDERLY.....	5R23 AG00862-02	23,989
SANDER, EUGENE G.....	BIOCHEMICAL MECHANISMS OF PYRIMIDINE ALKYLATION.....	3R01 CA221167-03S1	36,517
STAUBER, WILLIAM T.....	LYSOSOMAL IMPAIRMENT IN HYPERTENSIVE VASCULAR SM MUSCLE.....	1R01 HL25388-01	41,548
STRATFORD, EUGENE S.....	SYNTHESIS OF POTENTIAL NEW ANTICONVULSANT COMPOUNDS.....	1R01 NS15442-01	20,280
WATNE, ALVIN L.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA19530-04	6,189
WIMMER, MARY J.....	MECHANISMS OF ENERGY-COUPLED ATP SYNTHESIS/HYDROLYSIS.....	1R01 GM26334-01	56,912
WIMMER, MARY J.....	MASS SPECTROMETRIC APPROACHES TO BIOCHEMICAL PROBLEMS.....	1P41 GM27514-01	152,325
WIRTZ, GEORGE H.....	RADIOIMMUNOASSAY OF A FAT SOLUBLE VITAMIN.....	5R01 AM19716-02	38,835
ORGANIZATION TOTAL	37	1,849,150	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WEST VIRGINIA—Continued			
SHEPHERDSTOWN			
SHEPHERD COLLEGE ZIP CODE 25443			
FIALA, SILVIO E.....	THE ROLE OF CARCINOGEN IN NUCLEIC ACID METABOLISM.....	5R01 CA14084-07	33,368
ORGANIZATION TOTAL	1 33,368		
STATE TOTAL	39 1,916,804		
WISCONSIN			
KENOSHA			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-PARKSIDE ZIP CODE 53140			
CHEN, CHONG-MAW.....	MOLECULAR CONTROL OF CELL DIVISION AND DIFFERENTIATION.....	5R01 GM22543-03	23,603
ORGANIZATION TOTAL	1 23,603		
MADISON			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
ABBS, JAMES H.....	NEUROGENIC SPEECH DISORDERS.....	5P50 NS13274-03	310,287
ADLER, JULIUS.....	BEHAVIOR OF BACTERIA-BIOCHEMISTRY AND GENETICS.....	2R01 AI08746-11	113,963
ALLEN, CAROL A.....	THE STRUCTURAL BASIS OF TISSUE CELL MOTILITY.....	5R01 GM25133-02	32,142
ALLEN, JAMES R.....	PATHOBIOLOGICAL RESPONSE OF PRIMATES TO BIPHENYLS.....	5P01 ES00958-05	51,511
ALLEN, JAMES R.....	IMPLICATIONS OF LOW LEVEL EXPOSURE TO DIOXINS.....	5R01 ES01339-03	59,218
ALLEN, JAMES R.....	DIGXIN INDUCED TOXICITY AND CARCINOGENICITY.....	5R01 ES01839-03	40,312
ALLEN, JAMES R.....	RESPONSE OF PRIMATES TO POLYBROMINATED BIPHENYLS.....	5R01 ES01943-02	59,590
ANDERSON, LAURENS.....	CHEMICAL SYNTHESIS OF OLIGOSACCHARIDES.....	2R01 AM10588-14	65,295
ATLEE, JOHN L.....	CARDIAC CONDUCTION AND ARRHYTHMIAS DURING ANESTHESIA.....	5R23 GM25064-02	43,398
AUERBACH, ROBERT.....	DEVELOPMENT OF IMMUNITY.....	5R01 AI14607-02	87,473
AUERBACH, ROBERT.....	ANGIOGENESIS IN THE MOUSE EYE.....	1R01 EY03243-01	78,292
AZEN, EDWIN A.....	GENETIC POLYMORPHISMS OF SALIVA.....	5R01 EO03658-15	34,537
BACH, FRITZ H.....	GENETIC FACTORS IN TRANSPLANT SURVIVALS.....	5R01 AI08439-12	164,375
BACH, FRITZ H.....	T LYMPHOCYTE HYBRIDS AND LYMPHOBLASTOID VARIANTS.....	1R01 AI15486-01	96,288
BACH, FRITZ H.....	ORGAN TRANSPLANTATION STUDIES.....	1R01 AI15588-01	221,972
BACH, FRITZ H.....	PROGRAM PROJECT IN TUMOR & ALLOGRAFT IMMUNITY.....	5P01 CA16836-05	320,382
BALISH, EDWARD.....	IMMUNITY TO CANDIDA ALBICANS IN NUDE MICE.....	1R01 AI14537-01A1	67,918
BALISH, EDWARD.....	IMMUNITY TO DERMATOPHYTES.....	1R01 AI15119-01A1	70,636
BALL, LAURENCE A.....	MECHANISM OF ACTION OF INTERFERON.....	1R01 AI16356-01	60,644
BASS, PAUL.....	MOTOR, ELECTRIC PROPERTIES OF STOMACH AND SMALL BOWEL.....	5R01 AM15417-06	44,365
BAVISTER, BARRY D.....	PHYSIOLOGICAL AND BIOCHEMICAL STUDY OF SPERM MOTILITY.....	7R01 HD14235-01	41,000
BEINERT, HELMUT.....	COMPONENTS AND PATHWAYS IN BIOLOGICAL OXIDATIONS.....	5R01 GM12394-16	98,512
BELZER, FOLKERT O.....	ORGAN PRESERVATION STUDIES.....	2R01 AM18624-04	112,365
BELZER, FOLKERT O.....	IMPROVED MATCHING TECHNIQUES IN RENAL TRANSPLANTATION.....	5R01 AM21579-02	67,736
BENEVENGA, NORLIN J.....	EFFECT OF AGE ON SULFUR AMINO ACID METABOLISM.....	5R01 AM15227-08	42,026
BENJAMIN, ROBERT M.....	AUTONOMIC AND NEURAL CORRELATES OF OLFACTORY STIMULI.....	1R01 NS15591-01	71,460
BERGDOLL, MERLIN S.....	PURIFICATION AND CHEMISTRY OF THE ENTEROTOXINS.....	2R01 AI07615-13A1	68,250
BERKOFF, HERBERT A.....	RELATION OF MITOCHONDRIAL CHANGES TO CARDIAC FAILURE.....	3R01 HL19378-03S1	32,199
BISGARD, GERALD E.....	PERIPHERAL AND CENTRAL VENTILATORY CONTROL.....	5R01 HL15473-05	59,025
BLATTNER, FREDERICK R.....	REGULATORY SITES IN PRO- AND EUKARYOTIC GENOMES.....	5R01 GM21812-05	104,658
BOCK, ROBERT M.....	REGIONAL PRIMATE RESEARCH CENTER SUPPORT.....	5P40 RR00167-19	1,943,559
BOCK, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR07098-14	201,413
BORISY, GARY G.....	MECHANISM AND CONTROL OF MICROTUBULE ASSEMBLY.....	5R01 GM25062-02	105,459
BOWMAN, ROBERT E.....	EFFECTS OF LEAD ON FETAL AND NEONATAL DEVELOPMENT.....	5R01 ES01062-05	150,443
BOWMAN, ROBERT E.....	EFFECTS OF PCBs ON FETAL AND NEONATAL DEVELOPMENT.....	5R01 ES01847-02	134,956
BOWNS, M DERIC.....	MOLECULAR BIOLOGY OF VISUAL RECEPTOR OUTER SEGMENTS.....	5R01 EY00463-11	110,075
BREMEL, ROBERT D.....	OXYTOCIN IN EXCITATION-CONTRACTION COUPLING.....	2R01 HD09764-04	80,665
BRESNICK, GEORGE H.....	ELECTRORETINOGRAPHIC STUDIES IN DIABETIC RETINOPATHY.....	1R01 EY03084-01	79,711

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
BRIDSON, WILLIAM E.....	HYPOTHALAMIC-PITUITARY-TESTICULAR DEVELOPMENT.....	5R01 HD10533-03	66,926
BRILL, WINSTON J.....	MOLYBDENUM METABOLISM.....	5R01 GM22130-05	81,633
BRYAN, GEORGE T.....	CARCINOGENICITY AND METABOLISM OF 5-NITROFURANS.....	2R01 CA11946-09	74,180
BUCHLER, DOLORES A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18397-05	144,980
BUCKNER, CARL K.....	AUTONOMIC RECEPTORS OF THE PULMONARY VASCULATURE.....	5R01 HL23209-02	45,823
BUMPASS, LARRY L.....	CENTER FOR POPULATION RESEARCH.....	5P30 HD05876-08	380,583
BUMPASS, LARRY L.....	CENTER FOR POPULATION RESEARCH.....	2P30 HD05876-09	423,097
BURRIS, ROBERT H.....	BIOLOGICAL FIXATION OF NITROGEN BY MICROORGANISMS.....	5R01 AI00848-24	52,339
BUSSE, WILLIAM W.....	MECHANISMS OF VIRUS INDUCED ASTHMA.....	1R01 AI15685-01	80,186
CALDWELL, WILLIAM L.....	MULTIDISCIPLINARY PROGRAM IN RADIATION ONCOLOGY.....	3P01 CA19278-03S1	127,382
CARBONE, PAUL P.....	CLINICAL CANCER CENTER SUPPORT (COMPREHENSIVE).....	3P30 CA14520-06S1	370,663
CARBONE, PAUL P.....	CLINICAL CANCER CENTER SUPPORT (COMPREHENSIVE).....	5P30 CA14520-07	1,540,238
CARBONE, PAUL P.....	CLINICAL ONCOLOGY (MULTIDISCIPLINARY).....	2P01 CA20432-03	662,709
CARBONE, PAUL P.....	EASTERN COOPERATIVE ONCOLOGY-WISCONSIN STUDIES.....	5R10 CA21076-04	296,669
CARBONE, PAUL P.....	EASTERN COOPERATIVE ONCOLOGY GROUP OPERATIONS OFFICE.....	5R10 CA21115-04	764,317
CARLSON, STANLEY D.....	NEUROPILE RECONSTRUCTION BY HVEM AND OTHER METHODS.....	3R01 EY01686-03S1	25,212
CHANDRA, SURESH R.....	MACULAR PHOTOCOAGULATION STUDY.....	1R10 EY03284-01	54,300
CHESNEY, RUSSELL W.....	INDUCERS OF MATURATION OF RENAL AMINO ACID TRANSPORT.....	5R01 AM19489-02	51,571
CHU, FUN S.....	IMMUNOCHEMICAL STUDIES ON CARCINOGENIC MYCOTOXINS.....	2R01 CA15064-07	47,833
CLARK, ALLEN W.....	TRANSMITTER RELEASE FROM THE NEUROMUSCULAR JUNCTION.....	5R01 NS11445-05	45,801
CLELAND, W WALLACE.....	DETERMINATION OF ENZYME MECHANISMS BY KINETIC STUDIES.....	5R01 GM18938-08	73,187
CLIFTON, KELLY H.....	RADIATION IN VITRO-MAMMARY NEOPLASM CELL SURVIVAL.....	2R01 CA13881-07	127,193
COLAS, ANTONIO E.....	BIOCHEMICAL AND CLINICAL ASPECTS OF STEROID RECEPTORS.....	3R01 CA23921-01S1	31,572
COOPER, STUART L.....	PROTEIN AND THROMBUS DEPOSITION ON VASCULAR GRAFTS.....	5R01 HL21001-02	66,886
COOPER, STUART L.....	TRANSIENT THROMBOTIC EVENTS AT POLYMERIC SURFACES.....	1R01 HL24046-01	84,448
CRAVEN, GARY R.....	THE STRUCTURE AND ASSEMBLY OF THE 30S RIBOSOME.....	5R01 GM24109-03	129,124
CRIPPS, DEREK J.....	ACTION SPECTRA AND BIOCHEMISTRY OF PHOTODERMATOSES.....	2R01 AM09995-14	54,773
CROW, JAMES F.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05435-18	201,413
CROWLEY, JOHN J.....	EXPLORATORY STUDIES ON CANCER PATIENT DATA.....	5R10 CA21077-03	101,124
CULBERTSON, MICHAEL R.....	FRAMESHIFT SUPPRESSORS AND TRANSFER RNA IN YEAST.....	1R01 GM26217-01	69,034
D'ALESSIO, DONN J.....	EPIDEMIOLOGY AND COURSE OF VIRAL MYOPERICARDITIS.....	3R01 HL18535-03S1	14,787
DAHLBERG, JAMES E.....	SMALL RNAS OF RNA TUMOR VIRUSES.....	5R01 CA15166-06	87,437
DAVIES, JULIAN E.....	MECHANISMS OF ANTIBIOTIC RESISTANCE IN MICROORGANISMS.....	2R01 AI10076-13	107,301
DAVIES, JULIAN E.....	MACROMOLECULAR SYNTHESIS IN YEAST-GENETICS/BIOCHEMISTRY.....	2R01 AI12448-06	77,373
DAVIS, GARY A.....	CAMP AND CATECHOLAMINES IN REPRODUCTIVE FUNCTION.....	5R01 HD11515-02	38,798
DAVIS, LARRY D.....	CELLULAR POTENTIAL CHANGES CAUSING CARDIAC ARRHYTHMIA.....	5R01 HL13375-10	17,319
DE FOLIART, GENE R.....	TRANSMISSION AND CONTROL OF CALIFORNIA-GROUP VIRUSES.....	5R01 AI07453-13	64,892
DE LUCA, HECTOR F.....	METABOLISM AND FUNCTION OF THE FAT-SOLUBLE VITAMINS.....	5P01 AM14881-09	412,321
DE MARS, ROBERT I.....	GENETIC STUDIES WITH CULTIVATED MAMMALIAN CELLS.....	5R01 GM06983-20	163,425
DE VENECIA, GUILLERMO B.....	THE EYE IN MALIGNANT HYPERTENSION.....	5R01 EY01007-06	46,132
DE VENECIA, GUILLERMO B.....	PRIMATE RETINA AND CHOROID IN MALIGNANT HYPERTENSION.....	5R01 EY02034-03	65,408
DEMPSEY, JEROME A.....	HUMAN VENTILATORY ADAPTATION.....	5R01 HL15469-07	61,252
DEMPSEY, JEROME A.....	VALIDATION OF INDIRECT TESTS OF SMALL AIRWAYS FUNCTION.....	5R01 HL20815-03	36,325
DEMPSEY, JEROME A.....	NEUROPHYSIOLOGY OF CHEMORECEPTORS IN CHRONIC HYPOXIA.....	1R01 HL24429-01	49,871
DEUTSCH, HAROLD F.....	HUMAN BLOOD AND TISSUE PROTEINS.....	2R01 CA01786-25	132,889
DIMOND, RANDALL L.....	REGULATION OF DIVERGENT PATHWAYS OF DEVELOPMENT.....	1R01 GM26632-01	75,734
EBENHOLTZ, SHELDON M.....	DETERMINANTS OF PERCEPTUAL ORIENTATION.....	5R01 EY02264-02	38,071
ENGERMAN, RONALD L.....	STUDY OF DIABETIC RETINOPATHY.....	5R01 EY00300-14	208,622
ENSGIN, JERALD C.....	EXPLANATION OF WHY STREPTOMYCES PRODUCE ANTIBIOTICS.....	5R01 AI13948-03	46,860
ERNEST, J TERRY.....	PATHOPHYSIOLOGY OF THE OCULAR CIRCULATION.....	5R01 EY02526-02	105,840
FAHIEN, LEONARD A.....	REGULATION OF MAMMALIAN AMINO ACID METABOLISM.....	5R01 AM17587-05	55,867
FARRELL, PHILIP M.....	FETAL LUNG DEVELOPMENT IN THE DIABETIC PREGNANCY.....	5R01 HD11429-02	88,086
FERRY, JOHN D.....	VISCOELASTIC PROPERTIES OF BIOLOGICAL MACROMOLECULES.....	5R01 GM21652-05	58,623
FILLINGAME, ROBERT H.....	PROTON-TRANSLOCATING SECTOR OF E. COLI ATPASE COMPLEX.....	2R01 GM23105-04	60,781
GANETZKY, BARRY S.....	NEUROGENETICS OF TS-PARALYTIC MUTANTS.....	1R01 NS15390-01	69,941
GANTHER, HOWARD E.....	ORGANOSELENIUM COMPOUNDS: BIOSYNTHESIS AND FUNCTION.....	5R01 AM14184-10	84,393
GIBBONS, WILLIAM A.....	STRUCTURE, SPECTROSCOPY AND FUNCTION OF NEUROPEPTIDES.....	5R01 AM18604-05	80,767
GILBERT, ENID F.....	MECHANISMS OF CARDIOVASCULAR TERATOGENESIS.....	5R01 HL18050-05	69,245
GILBOE, DAVID D.....	METABOLISM OF THE BRAIN.....	5R01 NS05961-14	145,181
GOLDFARB, STANLEY.....	CHOLESTEROL METABOLISM IN HEPATIC NEOPLASMS.....	5R01 CA15664-06	65,792

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
GOLDSTEIN, ROBERT.....	AUTOMATED THRESHOLD AUDIOMETRY.....	2R01 NS09278-07A1	93,010
GORSKI, JACK.....	PROLACTIN IN NORMAL AND NEOPLASTIC PITUITARY TISSUE.....	5R01 CA18110-05	68,072
GORSKI, JACK.....	ESTROGEN REGULATION OF UTERINE GROWTH AND FUNCTION.....	5R01 HD08192-07	131,183
GRAHAM, FRANCES K.....	SHORT-TIME AND ORIENTING SYSTEMS IN INFANCY.....	2R01 HD01490-12	49,986
GREASER, MARION L.....	THIN FILAMENT CONTROL OF HEART CONTRACTION.....	3R01 HL18612-03S1	8,869
GREEN, DAVID E.....	MOLECULAR BIOLOGY OF MEMBRANE SYSTEMS.....	5P01 GM12847-14	287,782
GREGER, JANET L.....	EFFECT OF ALUMINUM & TIN ON HUMAN MINERAL METABOLISM.....	1R01 AM25666-01	43,788
HABERLY, LEWIS B.....	NEURONAL INTEGRATION IN THE PIRIFORM CORTEX.....	1R01 NS15004-01	45,610
HALL, TIMOTHY C.....	INFECTIVE ROLE OF AMINO ACID BINDING BY VIRAL RNA.....	5R01 AI11572-07	75,532
HANING, RAY V, JR.....	CONTROL FACTORS FOR PLACENTAL HORMONES.....	5R01 HD11990-02	43,442
HARPER, ALFRED E.....	EFFECTS OF ALTERED DIET AND PLASMA AMINO ACID PATTERN.....	5R01 AM10747-14	101,723
HARPER, ALFRED E.....	EFFECT OF DIET AND HORMONES ON ENZYMES AND METABOLISM.....	5R01 AM10748-13	60,118
HARPER, ALFRED E.....	ESTABLISHMENT OF A CLINICAL NUTRITION RESEARCH UNIT.....	1P30 AM26659-01	300,127
HARTING, JOHN K.....	CORTICAL EFFECTS OF SENSORY DEPRIVATION.....	5R01 EY01277-05	49,802
HAYES, COLLEEN E.....	T LYMPHOCYTE-SPECIFIC IA ANTIGENS IN THE MOUSE.....	1R01 AI15728-01	41,240
HEBER, RICK F.....	WISCONSIN CENTER ON MENTAL RETARDATION—CORE SUPPORT.....	5P30 HD03352-12	597,503
HIND, JOSEPH E.....	RESEARCH PROGRAM ON THE NEURAL BASIS OF HEARING.....	5P01 NS12732-05	694,121
HOKIN, LOWELL E.....	REGULATION OF NAK-ATPASE—TURNOVER AND BIOGENESIS.....	1R01 GM26000-01	83,716
HOKIN, LOWELL E.....	BIOCHEMISTRY AND PHARMACOLOGY OF NAK-TRANSPORT.....	5R01 HL16318-22	140,566
HOKIN, MABEL R.....	CONTROL OF MEMBRANE ACTIVITY BY NEUROTRANSMITTERS.....	5R01 NS13878-03	81,446
HONG, RICHARD.....	ALLERGIC DISEASE CENTER.....	3P50 AI10404-08S1	16,533
HONG, RICHARD.....	ALLERGIC DISEASE CENTER.....	2P50 AI10404-09	66,513
HONG, RICHARD.....	CLINICAL AND EXPERIMENTAL STUDIES OF CULTURED THYMUS.....	5R01 AI14354-03	141,951
HONG, RICHARD.....	STUDY AND THERAPY OF IMMUNE DEFICIENCY.....	5R01 HD07778-07	91,459
HOROWITZ, SHELDON D.....	T CELL DIFFERENTIATION BY THYMIC POLYPEPTIDES.....	1R01 AI15723-01	39,900
HOWE, MARTHA M.....	ANALYSIS OF INTEGRATION MECHANISM OF BACTERIOPHAGE MU.....	2R01 AI12731-04A1	49,807
HSIA, MONG-TSENG S.....	TOXICOLOGY OF POLYCHLORINATED AZOXY AND AZOBENZENES.....	5R23 ES01737-02	40,056
HUTCHINSON, C RICHARD.....	CHEMISTRY/METABOLISM OF NATURAL ANTITUMOR COMPOUNDS.....	2R01 CA17127-06	42,638
HUTCHINSON, C RICHARD.....	ANTHRACYCLINE ANTIBIOTIC SYNTHESIS FROM NATURAL PRODUCTS.....	5R01 CA22937-02	62,256
HUTCHINSON, C RICHARD.....	STEREOCHEMISTRY OF POLYKETIDE ANTIBIOTIC BIOSYNTHESIS.....	1R01 GM25799-01	27,080
INMAN, ROSS B.....	STRUCTURE AND REPLICATION OF DNA.....	5R01 GM14711-13	168,939
JEFCOATE, COLIN R.....	CHOLESTEROL METABOLISM AND MITOCHONDRIAL CYTOCHROME P450.....	2R01 AM18585-04A1	59,121
JEFCOATE, COLIN R.....	CYTOCHROME P450, CHEMICAL CARCINOGENESIS BENZO(a)PYRENE.....	5R01 CA16265-05	51,684
JONES, JEFFREY M.....	RADIOIMMUNOASSAYS FOR DIAGNOSIS OF SEVERE CANDIDIASIS.....	1R01 AI15682-01	57,168
KAESBERG, PAUL J.....	STRUCTURE OF BIOLOGICAL MACROMOLECULES.....	5R01 AI01466-23	94,885
KAESBERG, PAUL J.....	TRANSLATION OF RNA VIRUS MESSENGERS.....	9R01 AI15342-06	109,295
KAHAN, LAWRENCE.....	IMMUNOCHEMICAL ANALYSIS OF 30S RIBOSOME STRUCTURE.....	5R01 GM22150-05	53,109
KAHAN, LAWRENCE.....	CELL SORTING CORE FACILITY.....	1P41 GM27408-01	38,534
KALIL, KATHERINE.....	DEVELOPMENTAL STUDIES OF THE MOTOR SYSTEM.....	5R01 NS14428-02	45,949
KALIL, RONALD E.....	DEVELOPMENTAL STUDIES OF THE VISUAL SYSTEM.....	5R01 EY01331-06	94,012
KARAVOLAS, HARRY J.....	STERIOD BIOCHEMISTRY OF THE HYPOTHALAMIC-OVARIAN AXIS.....	3R01 HD05414-07S1	14,022
KARAVOLAS, HARRY J.....	STERIOD BIOCHEMISTRY OF THE HYPOTHALAMIC-OVARIAN AXIS.....	2R01 HD05414-08	61,744
KAUFMAN, PAUL L.....	ANTERIOR OCULAR SEGMENT PHYSIOLOGY AND PHARMACOLOGY.....	1R01 EY02698-01	72,792
KEESEY, RICHARD E.....	PHYSIOLOGICAL REGULATION OF BODY WEIGHT.....	5R01 AM19944-15	62,242
KENDRICK, JOHN E.....	NEURAL INTEGRATION OF THE CARDIOVASCULAR REFLEXES.....	5R01 HL22715-02	34,779
KLEIN, RONALD.....	EPIDEMIOLOGICAL STUDY OF DIABETIC RETINOPATHY.....	1R01 EY03083-01	143,991
KLOTZ, JEROME H.....	LONG-TERM ANALYSIS OF CENTRAL ONCOLOGY GROUP DATA.....	5R10 CA12271-07	39,888
KLOTZ, JEROME H.....	STATISTICAL PROBLEMS IN CLINICAL CANCER RESEARCH.....	5R01 CA18332-05	70,650
KUNG, CHING.....	GENETIC DISSECTION OF BEHAVIOR IN PARAMECIUM.....	5R01 GM22714-05	115,960
LAISHES, BRIAN A.....	PROLIFERATION CONTROL DURING HEPATOCARCINOGENESIS.....	1R01 CA24818-01	46,500
LARDY, HENRY A.....	CONTROL PROCESSES IN MAMMALIAN CELLS.....	5R01 AM10334-14	262,433
LARDY, HENRY A.....	REGULATION OF GLUCONEOGENESIS IN DIABETES.....	5R01 AM20678-03	43,048
LEMANSKI, LARRY F.....	GENETIC CARDIOMYOPATHIES IN VERTEBRATES.....	2R01 HL22550-03	83,850
LEVENTHAL, HOWARD.....	PATIENT EDUCATION FOR HYPERTENSION CONTROL.....	1R01 HL24543-01	119,656
LIEBERMAN, MARA E.....	REGULATION OF PROLACTIN AND GROWTH HORMONE SYNTHESIS.....	1R01 AM25694-01	69,031
LIGHTFOOT, EDWIN N.....	EVALUATION OF ELECTROPOLARIZATION CHROMATOGRAPHY.....	5R01 GM24747-02	114,274
LINKSWILER, HELLEN M.....	MECHANISMS OF PROTEIN-INDUCED HYPERCALCAURIA IN MAN.....	5R01 AM19290-03	61,842
LIPTON, BRUCE H.....	SATELLITE CELLS AND REGENERATION IN DYSTROPHIC MUSCLE.....	2R01 NS12171-04A1	60,509
LIPTON, PETER.....	K/ION ACTIVATED PROTEIN SYNTHESIS ON BRAIN CELL FUNCTION.....	5R01 NS14175-02	35,768
LUDWIG, DANA W.....	COMPUTER AIDED MEDICAL DIAGNOSIS PROJECT.....	1R23 LM03376-01	29,252

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
MACDONALD, MAURICE M.....	RELATIVE INCOME AND FERTILITY: LONGITUDINAL ANALYSIS.....	5R01 HD10751-02	74,939
MADSEN, PAUL O.....	PATHOGENESIS AND THERAPY OF BACTERIAL PROSTATITIS.....	5R01 AM20474-03	50,333
MANNING, DEAN D.....	MECHANISM AND USES OF ANTI-IG IMMUNOSUPPRESSION.....	5R01 CA17531-05	48,195
MARLETT, JUDITH A.....	MEASURING DIETARY FIBER.....	5R01 AM21712-02	38,657
MARSH, RICHARD F.....	SLOW INFECTION BY CONVENTIONAL/UNCONVENTIONAL VIRUSES.....	5R01 NS14822-07	123,990
MARTIN, THOMAS F.....	HORMONAL REGULATION OF URIDINE UPTAKE IN ANIMAL CELLS.....	1R01 AM25861-01	51,441
MAZESS, RICHARD B.....	TOTAL BODY ABSORPTIOMETRY.....	5R01 AM17892-05	43,126
MAZESS, RICHARD B.....	MULTIWIRE PROPORTION COUNTER FOR AREA ABSORPTIOMETRY.....	5R01 AM20364-03	27,204
MC CLAIN, WILLIAM H.....	GENETIC ANALYSIS OF TRNA'S CODED BY PHAGE T4.....	2R01 AI10257-08	164,352
METZENBERG, ROBERT L, JR.....	THE GENETIC CONTROL OF PROTEIN SYNTHESIS.....	2R01 GM08995-18	90,628
MILLER, JAMES A.....	BIOCHEMICAL STUDIES IN CHEMICAL CARCINOGENESIS.....	5P01 CA22484-02	872,340
MONTERO, VICENTE M.....	NORMAL AND ABNORMAL VISUAL PATHWAYS IN MAMMALS.....	1R01 EY02877-01	83,183
MOSHER, DEANE F, JR.....	STUDIES OF FIBRONECTIN AND RELATED GLYCOPROTEINS.....	5R01 HL21644-02	51,102
MOSHER, DEANE F, JR.....	ISOLATION OF FIBRONECTIN FOR THERAPEUTIC USE.....	1R01 HL24885-01	86,137
MUELLER, GERALD C.....	REGULATORY MECHANISMS IN TUMOR BIOLOGY.....	5P01 CA23076-02	1,136,287
MUKERJEE, PASUPATI.....	MICROENVIRONMENTAL STUDIES ON PHOSPHOLIPID SYSTEMS.....	1R01 GM26078-01	27,202
MUNKRES, KENNETH D.....	MOLECULAR BIOLOGY OF INFORMATION TRANSFER DURING AGING.....	1R01 AG00930-01	53,388
NELSEN, STEPHEN F.....	RADICAL ION REACTION.....	5R01 GM25428-02	30,672
NOMURA, MASAYASU.....	GENETICS AND BIOCHEMISTRY OF RIBOSOME BIOSYNTHESIS.....	5R01 GM20427-07	214,666
NORRBACK, DIANE H.....	CARCINOGENIC ACTION OF POLYCHLORINATED BIPHENYLS.....	5R01 CA22140-03	42,162
NORRIS, DALE M.....	STEROIDAL HORMONE DEFICIENCY AND ACCELERATED AGING.....	1R01 AG01271-01	54,483
NORTHROP, DEXTER B.....	KINETIC MECHANISMS OF ANTIBIOTIC INACTIVATING ENZYMES.....	2R01 AI11603-04	53,455
ODELL, GERARD B.....	MATURATION OF LIVER FOR THE METABOLISM OF BILIRUBIN.....	5R01 AM21668-03	103,172
OLSEN, WARD A.....	INTESTINAL MUCOSAL FUNCTION IN DIABETES.....	2R01 AM13927-10	24,806
OLSON, EARL B, JR.....	METABOLISM IN PERFUSED FETAL AND NEWBORN RABBIT LUNGS.....	2R01 HL18952-04	42,476
OPITZ, JOHN M.....	PROGRAM PROJECT IN CLINICAL GENETICS.....	9P01 HD12994-06	351,515
ORME-JOHNSON, WILLIAM, III.....	STRUCTURES AND MECHANISM OF ELECTRON TRANSFER.....	2R01 GM17170-08	134,049
ORSINI, MARGARET W.....	ENDOCRINOLOGY AND MORPHOLOGY OF HAMSTER IMPLANTATION.....	1R01 HD12683-01	56,227
PAMUKCU, A M.....	URINARY BLADDER CARCINOGENESIS BY BRACKEN FERN.....	2R26 CA14523-06A1	141,889
PARASCANDOLA, JOHN L.....	JOHN ABEL & THE DEVELOPMENT OF AMERICAN PHARMACOLOGY.....	1R01 LM03300-01	26,085
PARIZA, MICHAEL W.....	MODE OF ACTION OF CLOSTRIDIUM PERFRINGENS ENTEROTOXIN.....	1R01 AI15693-01	41,479
PATE, JACK L.....	BIOLOGY OF ASTICACAULUS BIPROSTHECUM.....	2R01 GM19859-07	56,261
PERLMAN, DAVID.....	MICROBIAL METABOLITE INHIBITION OF TUMOR B12 BINDING.....	5R01 CA16904-06	54,182
PETERSON, RICHARD E.....	ENVIRONMENTAL POLLUTANTS AND TOXICOLOGY OF THE LIVER.....	5R01 ES01332-05	48,035
PILIAVIN, JANE A.....	DEVELOPING COMMITMENT TO ALTRUISTIC BLOOD DONATION.....	1R01 HL24425-01	78,033
PITOT, HENRY C.....	CANCER RESEARCH AT THE MC ARDLE LABORATORY.....	3P30 CA07175-16S1	750,565
POLAND, ALAN P.....	TOXICOLOGY OF CHLORINATED DIBENZO-P-DIOXINS.....	5R01 ES01884-03	76,096
PORTER, JOHN W.....	ENZYMATIC SYNTHESIS OF FATTY ACIDS AND CHOLESTEROL.....	5R01 AM01383-23	103,811
PORTER, JOHN W.....	REGULATION OF LIPOGENESIS BY INSULIN AND GLUCAGON.....	5R01 AM21148-03	57,407
PORTER, JOHN W.....	REGULATION OF LIPID BIOSYNTHESIS.....	2R01 HL16364-05	59,994
POTTER, VAN R.....	ONCOGENY AS BLOCKED ONTOGENY: STUDIES OF LIVER CANCER.....	5R01 CA17334-04	140,852
RAETZ, CHRISTIAN R.....	SYNTHESIS AND FUNCTION OF MEMBRANE PHOSPHOLIPIDS.....	5R01 AM19551-03	56,841
RAETZ, CHRISTIAN R.....	BIOGENESIS OF MEMBRANE LIPIDS IN ANIMAL CELLS.....	5R01 AM21722-02	49,700
RANKIN, JOHN H.....	REGULATION OF UTERINE BLOOD FLOW.....	5R01 HD06736-06	46,343
RECORD, M THOMAS, JR.....	ION EFFECTS ON INTERACTIONS OF RNA POLYMERASE AND DNA.....	5R01 GM23467-03	55,197
REICH, HANS J.....	THE CHEMISTRY OF SELENENIC ACIDS.....	1R01 AM23042-01	33,816
RICH, DANIEL H.....	STUDIES OF ENZYME SUBSTRATES AND INHIBITORS.....	1R01 AM20100-01A2	63,755
RICH, DANIEL H.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5507 RR05456-17	39,047
RIS, HANS.....	SUBMICROSCOPIC ORGANIZATION OF CHROMOSOMES.....	5R01 GM04738-24	73,884
RIS, HANS.....	ELECTRON MICROSCOPE FACILITY FOR BIOMEDICAL RESEARCH.....	5P41 RR00570-09	132,763
ROBINSON, JERRY A.....	CHANGES IN THE REPRODUCTIVE SYSTEMS OF AGED MONKEYS.....	1R01 AG01612-01	62,457
ROSE, DAVID P.....	PITUITARY AND THYROID FUNCTION IN BREAST CANCER.....	5R01 CA17579-05	45,820
ROSS, LEONARD E.....	DEVELOPMENTAL PROCESSES IN CHILDREN AT RISK FOR MR.....	5P01 HD08240-06	152,620
ROWND, ROBERT H.....	THE CONTROL OF THE REPLICATION OF BACTERIAL EPISOMES.....	5R01 GM14398-14	126,927
ROWND, ROBERT H.....	ORGANIZATION AND REPLICATION OF YEAST RIBOSOMAL DNA.....	1R01 GM26527-01	88,691
ROYCE, GEORGE J.....	THALAMIC CONNECTIONS.....	5R01 NS13453-03	34,765
RUECKERT, ROLAND R.....	STRUCTURE AND SYNTHESIS OF AVIAN RNA TUMOR VIRUSES.....	5R01 CA08662-13	77,682
RUOHO, ARNOLD E.....	MOLECULAR CHARACTERIZATION OF BETA-ADRENERGIC RECEPTORS.....	5R01 NS12392-05	66,777
SAUTER, STEVEN L.....	BEHAVIORAL COMPONENTS OF THE SMOKING WITHDRAWAL SYNDROME.....	1R23 ES02105-01	41,564
SHAHIDI, NASRULLAH T.....	CHILDREN'S CANCER STUDY GROUP A.....	2R10 CA05436-19	65,750

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
SHANAHAN, MICHAEL F.....	EFFECTS OF INSULIN ON HEXOSE TRANSPORT IN SARCOLEMMMA.....	1R23 AM26093-01	41,180
SHAPIRO, SANDER S.....	INDUCTION OF PROTEIN SYNTHESIS IN HUMAN ENDOMETRIUM.....	5R01 HD11726-02	31,642
SHRAGO, EARL S.....	CONTROL MECHANISMS IN INTERMEDIARY METABOLISM.....	2R01 GM14033-13	52,808
SHUG, AUSTIN L.....	METABOLIC CHANGE DURING CARDIAC ISCHEMIA.....	5R01 HL17736-05	74,392
SIEGEL, FRANK L.....	EFFECTS OF HYPERTHERMIA ON MAMMALIAN DEVELOPMENT.....	5R01 HD12001-02	70,466
SIEGEL, FRANK L.....	CALCIUM-BINDING PROTEINS IN NERVOUS TISSUE.....	5R01 NS11652-06	75,109
SIH, CHARLES J.....	PROSTAGLANDINS AND OTHER PHYSIOLOGICALLY-ACTIVE LIPIDS.....	5R01 AM09688-15	72,678
SIH, CHARLES J.....	SYNTHESIS OF ANTICANCER ANTHRACYCLINE ANTIBIOTICS.....	5R01 CA21387-03	29,364
SIMPSON, DAVID P.....	ACID-BASE BALANCE REGULATION OF RENAL METABOLISM.....	2R01 AM18351-05A1	106,850
SMITH, DEAN O.....	SYNAPTIC STRUCTURE AND FUNCTION DURING SENESCENCE.....	1R01 AG01572-01	16,634
SMITH, DEAN O.....	MECHANISMS OF AXON CONDUCTION BLOCK.....	5R01 NS13600-03	22,940
SMITH, EVERETT L.....	EXERCISE, A MODALITY FOR BONE ACCRETION IN THE AGED.....	1R01 AG01029-01A1	69,531
SMITHIES, OLIVER.....	DNA CONTROLLING THE SYNTHESIS OF HUMAN HEMOGLOBINS F & A.....	5R01 AM20120-03	87,961
SMITHIES, OLIVER.....	GENETIC CONTROL OF PROTEIN STRUCTURE AND SYNTHESIS.....	5R01 GM20069-07	186,508
SOKOWICZ, HANNA M.....	NEURONAL PATTERNS AND SYNAPSES IN CULTURED COCHLEA.....	1R01 NS15061-01	82,265
SPEAR, PETER D.....	VISUAL INTEGRATION IN THE BRAIN.....	5R01 EY01916-04	48,920
SPEAR, PETER D.....	BINOCULAR INTERACTIONS IN VISUAL SYSTEM DEVELOPMENT.....	5R01 EY02545-02	55,505
STEELE, THOMAS H.....	THE SPONTANEOUSLY HYPERTENSIVE KIDNEY.....	5R01 HL22836-02	56,638
STONE, WILLIAM H.....	IMMUNOGENETICS AND REPRODUCTION IN RHESUS MONKEYS.....	2R01 HD07385-06	84,923
STONE, WILLIAM H.....	IMMUNOGENETIC STUDIES OF A SPERM ENZYME PGK-B.....	5R01 HD11200-02	62,022
STONE, WILLIAM H.....	MEASURE OF INBREEDING IN NONHUMAN PRIMATES.....	1R24 RR01216-01	35,150
STRETTON, ANTONY O.....	PHYSIOLOGICAL STUDIES OF A PARASITIC NEMATODE.....	1R01 AI15429-01	73,257
STRETTON, ANTONY O.....	ACETYLCHOLINE FUNCTIONS IN NEMATODE ASCARIS.....	1R01 AI15890-01	50,385
SUGIYAMA, HIROSHI.....	MICE AS MODEL FOR STUDYING BOTULISM OF HUMAN INFANTS.....	1R01 AI15336-01	41,120
SUGIYAMA, HIROSHI.....	STRUCTURE-TOXICITY RELATIONSHIP OF BOTULINUM TOXIN.....	5R01 ES01822-06	29,807
SUNDARALINGAM, MUTTAIYA.....	X-RAY STUDIES OF NUCLEIC ACID CONSTITUENTS.....	5R01 GM17378-10	65,700
SUNDARALINGAM, MUTTAIYA.....	X-RAY DIFFRACTION STUDIES OF RIBONUCLEIC ACIDS.....	2R01 GM18455-06A1	68,949
SUTTIE, JOHN W.....	NUTRITIONAL AND METABOLIC EFFECTS OF FLUORIDES.....	5R01 AM15521-08	42,671
SUTTIE, JOHN W.....	PEPTIDE SUBSTRATES TO STUDY VITAMIN K ACTION.....	5R01 AM21472-02	47,442
SWEET, JAMES A.....	RECENT CHANGE IN ACTIVITIES AND STATUS OF YOUNG WOMEN.....	5R01 HD11366-02	149,976
SWICK, ROBERT W.....	PROTEIN TURNOVER IN PROTEIN AND CALORIE DEPRIVATION.....	5R01 AM14704-09	50,526
SWICK, ROBERT W.....	ISOZYME INTERRELATIONSHIPS IN GLUCONEOGENESIS.....	5R01 AM19215-02	29,352
TAEUBER, KARL E.....	MIGRATION AND REDISTRIBUTION: SMSA DETERMINANTS.....	2R01 HD10666-02	52,610
TAKAYAMA, KUNI K.....	MECHANISM OF ACTION OF ISONIAZID ON TUBERCLE BACILLUS.....	5R22 AI11297-07	55,402
TAKAYAMA, KUNI K.....	ANTITUMOR ACTIVITY OF GLYCOLIPID-ENDOTOXIN MIX.....	5R01 CA21790-03	72,677
TEMIN, HOWARD M.....	MOLECULAR BIOLOGY AND GENETICS OF TUMOR VIRUSES.....	5P01 CA22443-02	451,864
TERASAWA, EI.....	HYPOTHALAMIC CONTROL OF PUBERTY.....	5R01 HD11355-02	55,210
THOMPSON, WAYNE H.....	LA CROSSE ARBOVIRUS STUDIES IN FORESTED AREAS.....	2R01 AI11547-07	117,915
TROST, BARRY M.....	NOVEL SYNTHETIC APPROACHES TO ANTITUMOR AGENTS.....	5R01 CA20916-03	60,174
TROST, BARRY M.....	MACROLIDES, STEROIDS, PROSTANOIDS, ETC.—SYNTHETIC DESIGN.....	5R01 GM13598-14	109,685
TULUNAY-KEESEY, ULKER.....	VISUAL PROCESSES WITH A MOTIONLESS RETINAL IMAGE.....	5R01 EY00308-12	87,410
TULUNAY-KEESEY, ULKER.....	MOTION OF RETINAL IMAGE AND CONTRAST SENSITIVITY.....	5R01 EY02483-02	82,775
UEHLING, DAVID T.....	BACTERIAL ADHERENCE IN URINARY TRACT INFECTIONS.....	5R01 AM21426-02	42,755
UPDIKE, STUART J.....	IMMOBILIZED ENZYMES TO ALTER AND ANALYZE METABOLISM.....	2R01 GM16133-12	67,281
UPDIKE, STUART J.....	EXTRACORPOREAL RESPIRATORY GAS EXCHANGE: NEW APPROACH.....	2R01 HL15668-07	66,575
VAN RYZIN, JOHN R.....	ESTIMATORS AND TESTS FOR CENSORED SURVIVAL DATA.....	5R01 GM23129-04	26,724
VEDEJS, EDWIN.....	CYTOTOXIC MACROCYCLES: CYTOCHALASIN ANALOGS.....	5R01 CA17918-05	72,752
WALKER, DUARD L.....	STUDY OF A NEW HUMAN PAPOVAVIRUS.....	5R01 AI11217-07	130,882
WALLOW, INGOLF H.....	THE BLOOD-RETINAL BARRIER IN DIABETIC RETINOPATHY.....	2R01 EY01634-04	83,438
WEBSTER, JOHN G.....	ORIGIN OF THE ELECTRICAL IMPEDANCE PULSE IN MAN.....	1R01 HL23442-01	28,530
WELKER, WALLACE I.....	TRIGEMINAL LOCALIZATION OF TACTILE CODING FUNCTION.....	5R01 NS14748-02	121,480
WELLING, PETER G.....	FACTORS INFLUENCING GASTROINTESTINAL DRUG ABSORPTION.....	2R01 GM20327-04A1	50,224
WELLS, ROBERT D.....	DNA STRUCTURE AND GENE REGULATION.....	5R01 CA20279-02	97,881
WHITLOCK, HOWARD W, JR.....	A PRACTICAL SYNTHESIS OF DAUNOMYCIN.....	5R01 CA23837-02	50,381
WIRTANEN, GEORGE W.....	MULTIDISCIPLINARY PROGRAM IN RADIATION ONCOLOGY.....	2P01 CA19278-04	866,610
WOOLSEY, CLINTON N.....	MAMMALIAN NERVOUS SYSTEM COMPARATIVE STUDIES.....	5R01 NS03641-12	46,697
YATVIN, MILTON B.....	ROLE OF MEMBRANE LIPIDS IN HYPERTHERMIC KILLING.....	5R01 CA23754-02	56,386
YATVIN, MILTON B.....	MEMBRANE COMPOSITION AND HYPERTHERMIC CELL DEATH.....	3R01 CA24872-01S1	15,887
YIN, TOM C.....	CENTRAL NERVOUS SYSTEM CONTROL OF EYE MOVEMENTS.....	5R01 EY02606-02	70,589
YODA, ATSUNOBU.....	INTERACTION OF CARDIAC AGLYCONES WITH NAK-ATPASE.....	5R01 HL16549-05	47,738

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
YU, HYUK	MEMBRANE FLUIDITY AND PHOTORECEPTOR FUNCTION	5R01 EY01483-06	61,194
YUILL, THOMAS M.	WILDLIFE RESERVOIRS OF ARBOVIRUSES	5R01 AI00771-24	63,218
ZACHMAN, RICHARD D.	CONVERSION OF CHOLINE TO PHOSPHATIDYLCHOLINE IN LUNG	5R01 HL22500-02	31,024
ZAGZEBSKI, JAMES A.	DEVELOPMENT OF ULTRASONIC BREAST TISSUE PHANTOM	1R01 CA25634-01	34,389
ZARLING, JOYCE M.	CELLULAR IMMUNITY TO TUMORS AND HERPES INFECTIONS	5R01 CA20409-03	47,929
ZIMMERMAN, HOWARD E.	PHOTOCHEMISTRY OF ORGANIC MOLECULES	5R01 GM07487-19	109,861
ZIMMERMAN, STEPHEN W.	NEPHROTOXIC EFFECTS OF ENVIRONMENTAL HYDROCARBONS	5R01 ES01480-03	54,887
ZU RHEIN, GABRIELE M.	MORPHOLOGY OF CHRONIC VIRAL INFECTIONS OF THE BRAIN	2R01 NS11129-07	84,494
ORGANIZATION TOTAL	286 32,988,869		
MARSHFIELD			
MARSHFIELD MEDICAL FOUNDATION	ZIP CODE 54449		
TEWKSURY, DUANE A.	A BIOCHEMICAL STUDY OF ANGIOTENSINOGEN	1R01 HL23707-01	93,507
ORGANIZATION TOTAL	1 93,507		
MILWAUKEE			
BLOOD CENTER OF SOUTHEASTERN WISCONSIN	ZIP CODE 53233		
ASTER, RICHARD H.	HEMORRHAGIC DISEASES	5R01 HL13629-09	52,756
ASTER, RICHARD H.	HEMORRHAGIC DISEASES	2R01 HL13629-10	123,200
DUQUESNOY, RENE J.	IMMUNOBIOLOGY OF HLA AND ITS CLINICAL APPLICATIONS	5R01 AI12507-05	98,267
ORGANIZATION TOTAL	3 274,223		
MARQUETTE UNIVERSITY	ZIP CODE 53233		
BRANTLEY, WILLIAM A.	IMPROVED BENDING ANALYSIS FOR ORTHODONTIC WIRES	1R01 DE05226-01	14,740
FITTS, ROBERT H.	ALTERATIONS IN SKELETAL MUSCLE WITH USE AND DISUSE	1R01 AM22037-01A1	76,228
IORIO, ROBERT J.	CRANIOFACIAL ABNORMALITIES IN MICE WITH VDDR	1R01 DE05024-01	47,217
KLITGAARD, HOWARD M.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09016-03	52,608
KUMARAN, A KRISHNA	GENETIC AND HORMONAL FACTORS IN DROSOPHILA AGING	1R01 AG01975-01	65,349
MUNROE, STEPHEN H.	RNA-PROTEIN COMPLEXES AND ADENOVIRUS NUCLEAR RNA	1R01 AI16042-01	70,104
ROSKA, A KAY	HYPERSENSITIVITY PNEUMONITIS IN GUINEA PIGS	5R23 HL21918-02	43,602
ORGANIZATION TOTAL	7 369,848		
MEDICAL COLLEGE OF WISCONSIN	ZIP CODE 53233		
AMMON, HELMUT V.	BILE ACIDS, FATTY ACIDS AND INTESTINAL FUNCTION	2R01 AM17941-04	57,641
ANKEL, HELMUT K.	INTERFERON RECEPTORS	1R01 AI15007-01A2	90,794
AUER, HENRY E.	THE BETA PLEATED SHEET IN POLYPEPTIDES AND PROTEINS	1R01 GM26637-01	38,000
BARBORIAK, JOSEPH J.	LIPEMIAS AND RECONSTRUCTIVE CARDIAC SURGERY	5R01 HL14378-08	97,452
BORELLA, LUIS D.	IMMUNOCOMPETENT CELLS IN ACUTE LYMPHOCYTIC LEUKEMIA	5R01 CA18602-05	106,913
BUCKMIRE, FRANCIS L.	SPECIFIC ENVELOPE COMPONENTS OF H. INFLUENZAE TYPE B	5R01 AI13808-02	39,281
CALVANICO, NICKOLAS J.	STUDIES OF THE ALLERGENS OF ASPERGILLUS FUMIGATUS	1R01 AI15700-01	60,618
CAMITTA, BRUCE M.	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P30 CA17700-05	206,048
CASPER, JAMES T.	CHILDHOOD NEUROBLASTOMA. ANTIGENIC CHARACTERISTICS	1R01 CA26226-01	67,720
CATLIN, B WESLEY	DEOXYRIBONUCLEIC ACIDS AND NUCLEASES OF BACTERIA	5R01 AI02353-22	52,236
CHUSID, MICHAEL J.	IN VIVO GRANULOCYTE FUNCTION AFTER TRANSFUSION	1R01 AI15454-01	59,430
COX, JAMES D.	CLINICAL CANCER EDUCATION GRANT	2R25 CA17986-04	87,890
DAVIS, STARKEY D.	EXPERIMENTAL PSEUDOMONAS KERATITIS	5R01 EY01665-05	87,598
DAWSON, CHRISTOPHER A.	PULMONARY HEMODYNAMICS	2R01 HL19298-04	40,873
DAWSON, CHRISTOPHER A.	PULMONARY ABSORPTION OF INHALED SOLUBLE ANTIGENS	2R01 HL19733-04	44,108
DODDS, WYLIE J.	ESOPHAGEAL MOTION IN HEALTH AND DISEASE	5R01 AM15540-08	46,079
DODDS, WYLIE J.	GASTROESOPHAGEAL REFLUX CLEARANCE AND REFLUX DISEASE	1R01 AM25731-01	61,958
DUCK, STEPHEN C.	THERAPY-INDUCED GROWTH DISORDERS IN CHILDHOOD CANCER	5R01 CA23968-02	74,535
EDELHAUSER, HENRY F.	PATHOGENESIS OF CORNEAL EDEMA AFTER INTRAOCULAR SURGERY	2R01 EY00933-07	126,220
FINK, JORDAN N.	SUPPORT FOR PULMONARY DISEASE RESEARCH CENTER	5P50 HL15389-08	958,508
FRANKLIN, RONALD B.	TOXICOLOGY AND PHYSIOLOGY OF THE CLARA CELL	1R01 HL24262-01	53,890
FRERMAN, FRANK E.	STUDIES OF LIPID TRANSPORT	2R01 AM15527-09	67,058
FRERMAN, FRANK E.	UTILIZATION OF KETONES AND FATTY ACIDS IN HEART	5R01 AM22104-02	44,420
FRERMAN, FRANK E.	ACYL COA DEHYDROGENASES: REGULATION OF B-OXIDATION	5R01 GM25486-02	83,120

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
FUJIMOTO, JAMES M.	ALTERATION IN DRUG METABOLISM BY CERTAIN CARBAMATES	5R01 GM16503-11	53,043
GHAZARIAN, JACOB G.	CONTROL OF ENZYMES IN THE VITAMIN D3 ENDOCRINE COMPLEX	2R01 AM19145-04	70,636
GLICK, DAVID M.	GASTRIC ZYMOGENS, PROTEASES AND INHIBITORS	5R01 AM09826-14	73,977
GOLDMAN, ARNOLD I.	FACTORS CONTROLLING DISC SHEDDING AND PHAGOCYTOSIS	1R01 EY02975-01	87,927
GRAUSZ, JOHN P.	NEWBORN LUNG FUNCTION DURING MECHANICAL VENTILATION	5R01 HL22636-02	71,969
GRAY, RICHARD W.	CONTROL OF 1,25 (OH) ₂ D LEVELS IN MALE AND FEMALE RATS	5R01 AM22014-02	41,793
GROSSBERG, SIDNEY E.	MOLECULAR MECHANISMS OF ANTIVIRAL RESISTANCE	5R01 AI13818-03	101,293
HARDMAN, HAROLD F.	EFFECTS OF DRUGS UPON MYOCARDIAL HYPOXIA	2R01 HL08311-15	79,048
HAUGHTON, VICTOR M.	ARACHNIDITIS FOLLOWING MYELOGRAPHY	5R01 NS14274-02	63,270
HOLCENBERG, JOHN S.	PROGRAM FOR RESEARCH WITH ENZYMES AS ANTITUMOR AGENTS	5R01 CA20061-03	61,334
HOPWOOD, LARRY E.	RESPONSE OF HUMAN CELLS TO HYPERTHERMIA AND RADIATION	5R01 CA23564-02	56,253
HOPWOOD, LARRY E.	ANALYSIS OF X-RAY AND HEAT-INDUCED MUTAGENESIS	1R01 CA25192-01	36,368
HUSSA, ROBERT O.	ECTOPIC HCG-BETA FROM PURE BETA-PRODUCING CELLS	5R01 CA23357-02	51,848
HYDE, JAMES S.	NITROXIDE RADICAL SPIN LABEL METHODS	2R01 GM22923-04	95,370
ITSKOVITZ, HAROLD D.	SURGICAL AND PHYSIOLOGIC STUDIES OF ISOLATED KIDNEYS	5R01 HL12677-11	142,485
JELSEMA, CAROLE L.	THE ACTION OF ARAC AND 5-AZAC ON MEMBRANE SYNTHESIS	5R23 CA25783-02	32,258
JOHN, KAVANAKUZKIYIL V.	ROLE OF RETINOLYCOLIPIDS IN GLYCOPROTEIN BIOSYNTHESIS	1R01 GM25464-01	40,777
JONES, FRANK E.	CHEMOPREVENTION OF DMH-INDUCED COLORECTAL NEOPLASMS	1R26 CA25886-01	27,107
JORDON, ROBERT E.	IMMUNOPATHOLOGY OF BULLOUS SKIN DISEASES	5R01 AI14550-03	72,492
KALKHOFF, RONALD K.	METABOLIC EFFECTS OF INSULIN ANTAGONISM & DEFICIENCY	5R01 AM10305-14	62,551
KALKHOFF, RONALD K.	OBESITY AND DIABETES IN PREGNANCY: PROSPECTIVE STUDIES	1R01 AM22105-01A1	84,568
KAMPINE, JOHN P.	SYMPATHETIC AFFERENT ACTIVITY OF CARDIAC ORIGIN	5R01 HL16511-05	62,804
KISSEBAH, AHMED H.	METABOLISM OF 'REMNAINT VLDL' IN DIABETES	5R01 AM24087-02	63,544
KOSTREVA, DAVID R.	CARDIOPULMONARY REFLEXES AND THEIR ANATOMICAL BASIS	5R23 HL21042-02	36,471
LECH, JOHN J.	METABOLISM OF ENVIRONMENTAL CONTAMINANTS BY FISH	3R01 ES01080-04S1	400
LECH, JOHN J.	METABOLISM OF ENVIRONMENTAL CONTAMINANTS BY FISH	5R01 ES01080-05	34,040
LECH, JOHN J.	FRESHWATER BIOMEDICAL CENTER SUPPORT	5P30 ES01985-02	153,189
LEMANN, JACOB, JR.	SUGAR INGESTION, CALCULI, CRYSTALLURIA, AND STONES	5R01 AM15089-10	113,023
LENNON, EDWARD J.	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR05434-18	166,974
LINEHAN, JOHN H.	LUNG METABOLISM OF VASOACTIVE HORMONES	1R01 HL24349-01	39,332
LOMBARD, JULIAN H.	MICROCIRCULATORY FUNCTION IN HYPOTENSION	5R23 HL22972-02	37,814
MADDEN, JANE A.	DIETARY MAGNESIUM: INFLUENCE ON CARDIOVASCULAR TISSUE	1R23 HL25506-01	39,000
MC CARTY, DANIEL J.	STUDIES OF CRYSTAL DEPOSITION DISEASE	5R01 AM18074-06	75,563
MC CARTY, DANIEL J.	STUDY OF THE PARTICULATE MATTER OF SYNOVIAL FLUID	1R01 AM26062-01	71,890
MC CARTY, DANIEL J.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00058-18	587,523
MEHLER, ALAN H.	STRUCTURE AND FUNCTION OF AMONOACYL-TRNA SYNTHETASES	2R01 GM13037-14A1	105,816
MEREDITH, TRAVIS A.	MACULAR PHOTOCOAGULATION STUDY	1R10 EY02548-01	47,239
MIZIORKO, HENRY M.	HMG-COA-CYCLE CONTROL IN NORMAL AND DIABETIC LIVER	5R01 AM21491-02	43,635
MOORE, VERNON L.	IMMUNOGENETICS OF CHRONIC PULMONARY INFLAMMATION	5R01 HL22301-02	48,099
MOULDER, JOHN E.	KIDNEY RESPONSE TO FRACTIONED RADIATION	1R01 CA24652-01	62,522
MURPHY, JEROME V.	ENZYMATIC DETECTION OF NEURODEGENERATIVE DISORDERS	2R01 HD09842-03A1	54,915
MURRAY, M. PATRICIA	KINEMATIC STUDIES OF NORMAL AND ABNORMAL LOCOMOTION	5R01 AM13854-16	73,511
O'BRIEN, WILLIAM J.	METABOLISM OF ANTIVIRAL COMPOUNDS BY OCULAR TISSUES	1R01 EY02834-01	98,204
SANCES, ANTHONY, JR.	ELECTRICAL BURN INJURY STUDIES	1R01 GM26956-01	113,530
SCHULTZ, RICHARD O.	DIABETES MELLITUS AND THE ANTERIOR SEGMENT OF THE EYE	5R01 EY02901-02	57,161
SKIBBA, JOSEPH L.	LIVER THERMOCHEMOTHERAPY BY ISOLATED PERFUSION	5R01 CA25790-02	55,415
SOERGEL, KONRAD H.	PATHOPHYSIOLOGY OF DIARRHEA	2R01 AM18526-04	63,262
SOERGEL, KONRAD H.	PATHOPHYSIOLOGY OF DIARRHEA	5R01 AM18526-05	95,477
SOERGEL, KONRAD H.	GASTROINTESTINAL FUNCTION IN DIABETES MELLITUS	5R01 AM22090-02	55,005
SPURR, GERALD B.	NUTRITION & DEVELOPMENT OF PHYSICAL FITNESS IN CHILDREN	5R22 HD10814-02	88,171
STOWE, DAVID F.	INTRINSIC CONTROL OF CORONARY BLOOD FLOW BY CHEMICALS	5R23 HL21434-03	34,489
SWARTZ, HAROLD M.	BIOMEDICAL ESR SPECTROSCOPY CENTER	1R01 GM27665-01	197,822
SWARTZ, HAROLD M.	BIOMEDICAL ESR SPECTROSCOPY CENTER	3P41 RR01008-03S1	168,950
SWARTZ, HAROLD M.	BIOMEDICAL ESR SPECTROSCOPY CENTER	2P41 RR01008-04	4,500
TAKETA, FUMITO C.	STRUCTURE AND FUNCTION OF HEMOGLOBIN	5R01 AM15770-11	59,473
VAN HORN, DIANE L.	REGENERATIVE CAPACITY OF CORNEAL ENDOTHELIUM	5R01 EY01436-05	75,059
VAN HORN, DIANE L.	OPHTHALMIC RESEARCH CENTER	5P30 EY01931-03	116,188
WERLIN, STEVEN L.	DEVELOPMENT OF PANCREATIC EXOCRINE FUNCTION	1R01 HD12447-01	58,675
WINKELHAKE, JEFFREY L.	ANTIBODY METABOLISM DURING AGING	5R23 AG00648-03	43,740
ORGANIZATION TOTAL	83	7,361,182	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
MILWAUKEE CHILDREN'S HOSPITAL	ZIP CODE 53233		
CAMMITA, BRUCE M	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17997-05	54,821
ORGANIZATION TOTAL	1 54,821		
MOUNT SINAI MEDICAL CENTER	ZIP CODE 53233		
BORTIN, MORTIMER M	SPECIFIC ADOPTIVE IMMUNOTHERAPY OF AKR LEUKEMIA	2R01 CA20484-03	86,856
TRUITT, ROBERT L	GERMFREE TECHNIQUES APPLIED TO ADOPTIVE IMMUNOTHERAPY	5R01 CA18440-05	47,965
ORGANIZATION TOTAL	2 134,821		
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MILWAUKEE	ZIP CODE 53201		
BALMER, ROBERT T	ENTROPY AND METABOLISM: A MACROSCOPIC VIEW OF AGING	5R01 AG00498-03	39,704
COOK, JAMES M	SYNTHESIS OF ALPHA AND BETA ADRENERGIC ANTAGONISTS	5R01 HL17897-04	13,710
MC FARLAND, JAMES T	RESONANCE RAMAN PROBE STUDIES OF FLAVOPROTEINS	5R01 GM21916-05	42,584
MOON, MARILYN L	INTERGENERATIONAL TRANSFERS AND PUBLIC POLICY	1R23 AG01323-01	42,743
PETERING, DAVID H	METAL COMPLEXES OF KNOWN ANTITUMOR AGENTS	5R01 CA22184-03	45,340
PETERING, DAVID H	METALLOTHIONEIN: STRUCTURE-FUNCTION RELATIONSHIPS	5R01 ES01504-03	72,701
WATTERS, KENNETH L	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07181-02	48,844
ORGANIZATION TOTAL	7 305,626		
STATE TOTAL	391 41,606,500		
WYOMING			
LARAMIE			
UNIVERSITY OF WYOMING	ZIP CODE 82070		
ATHERTON, ROBERT W	NUCLEOTIDE PROTEIN INTERACTIONS IN MAMMALIAN SPERMATOZOA	1R01 HD11991-01	41,120
BARDEN, ROLAND E	AFFINITY LABELS FOR ACYL-CoA UTILIZING ENZYMES	5R01 GM20077-05	43,239
HALEY, BOYD E	APPLICATION OF PHOTO AFFINITY NUCLEOTIDE ANALOGS	5R01 GM21998-05	75,423
JENKINS, ROBERT A	INTRANUCLEAR SPINDLE AS A MODEL FOR MITOSIS	5R01 GM23878-03	31,328
JI, TAE H	CROSSLINKS OF BINDING PROTEINS TO RECEPTORS	5R01 GM23586-03	42,503
KAISER, IVAN I	NUCLEOTIDE ANALOGS AS STRUCTURAL & FUNCTIONAL PROBES	5R01 GM20326-06	37,984
MEYER, E GERALD	BIOMEDICAL RESEARCH SUPPORT GRANT	5S07 RR07157-04	22,848
ROSE, JAMES D	ELECTROPHYSIOLOGY OF THE GENITAL SENSORY SYSTEM	5R01 NS13748-04	41,674
SMITH, DAVID V	ADAPTATION AND SENSORY CODING IN TASTE	5R01 NS10211-07	24,176
ORGANIZATION TOTAL	9 360,295		
STATE TOTAL	9 360,295		
PUERTO RICO			
MAYAGUEZ			
UNIVERSITY OF PUERTO RICO MAYAGUEZ CAMPUS	ZIP CODE 00708		
MISKIMEN, GEORGE W	SUPPORT FOR STUDY OF BIOMEDICAL SCIENCES	2S06 RR08103-06	255,666
ORGANIZATION TOTAL	1 255,666		
PONCE			
CATHOLIC UNIVERSITY OF PUERTO RICO	ZIP CODE 00731		
INFANTE, GABRIEL	BIOMEDICAL RESEARCH SUPPORT GRANT	5S06 RR08067-09	286,777
ORGANIZATION TOTAL	1 286,777		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
PUERTO RICO—Continued			
SAN JUAN			
INTER AMERICAN UNIVERSITY OF PUERTO RICO ZIP CODE 00936			
FRAME, ANNE D.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S06 RR08159-02	108,055
ORGANIZATION TOTAL	1 108,055		
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS ZIP CODE 00936			
BRUSH, JAMES S.....	PLASMA INHIBITORS OF INSULIN PROTEASE.....	5R01 AM20050-03	34,802
DEL CASTILLO, JOSE.....	LABORATORY OF NEUROBIOLOGY.....	5P01 NS07464-12	116,780
DIAZ, EUSEBIO A.....	E M CYTOCHEMISTRY OF THE STRESSED P D L.....	1R23 DE05548-01	25,755
HABEEB, AHMED F.....	DETERMINATION OF THE ANTIGENIC STRUCTURE OF LYSOZYME.....	5R01 AI14791-03	40,325
KICHLITER, E EARL, JR.....	RETINAL PROJECTIONS FOR WAVE LENGTH DISCRIMINATION.....	3R01 EY02500-02S1	12,406
MAHGOUN, AHMED.....	EFFECTS OF VITAMIN D3 METABOLITES ON BONE, IN VITRO.....	5R01 AM19989-03	30,370
MARCIAL, VICTOR A.....	RADIATION THERAPY ONCOLOGY GROUP.....	2R10 CA12258-08	144,400
ROMAN-FRANCO, ANGEL A.....	CANCER CENTER SUPPORT GRANT—COMPREHENSIVE.....	2P30 CA16598-04	167,882
SANTIAGO-BORRERO, PEDRO J.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18927-04	171,763
SANTIAGO-BORRERO, PEDRO J.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S07 RR05419-18	38,109
SPECHT, SUSAN C.....	AXONAL TRANSPORT DURING VISUAL DEVELOPMENT.....	5R01 EY02334-02	43,408
VAZQUEZ, JOSE L.....	THE DEMOGRAPHIC EFFECTIVENESS OF FEMALE STERILIZATION.....	1R01 HD12914-01	29,827
VELEZ-GARCIA, ENRIQUE O.....	SOUTHEASTERN CANCER STUDY GROUP.....	5R10 CA12223-08	207,944
ORGANIZATION TOTAL	13 1,063,771		
UNIVERSITY OF PUERTO RICO RIO PIEDRAS CAMPUS ZIP CODE 00931			
HILLYER, GEORGE V.....	BIOMEDICAL RESEARCH SUPPORT GRANT.....	5S06 RR08102-08	648,386
ORGANIZATION TOTAL	1 648,386		
STATE TOTAL	17 2,362,655		
OTHER COUNTRIES			
ARGENTINA			
BUENOS AIRES			
INSTITUTE OF BIOLOGY AND EXPERIMENTAL MEDICINE			
GUTNISKY, ABRAHAM.....	HUMAN URINARY ERYTHROPOIETIN COLLECTION.....	3R01 HL16675-05S1	5,574
GUTNISKY, ABRAHAM.....	HUMAN URINARY ERYTHROPOIETIN COLLECTION.....	5R01 HL16675-06	57,350
ORGANIZATION TOTAL	2 62,924		
NAVAL INSTITUTE OF SCIENTIFIC AND TECHNICAL RESEARCH			
CASTRO, JOSE A.....	MECHANISM OF CARBON TETRACHLORIDE HEPATOTOXICITY.....	2R01 AM13195-10	65,496
ORGANIZATION TOTAL	1 65,496		
UNIVERSITY OF BUENOS AIRES			
FRYDMAN, BENJAMIN J.....	BIOSYNTHETIC INTERMEDIATES OF PORPHYRINS.....	5R01 GM11973-14	16,040
ORGANIZATION TOTAL	1 16,040		
COUNTRY TOTAL	4 144,460		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
AUSTRALIA			
CANBERRA			
AUSTRALIAN NATIONAL UNIVERSITY			
AIR, GILLIAN M.....	RNA & PROTEIN SEQUENCING OF INFLUENZA VIRUS VARIANTS.....	1R01 AI15343-01	64,840
WHITE, MICHAEL J.....	CYTOGENETICS—CHROMOSOME REARRANGEMENTS.....	5R01 GM22710-04	21,772
ORGANIZATION TOTAL	2 86,612		
KENSINGTON			
UNIVERSITY OF NEW SOUTH WALES			
STONE, JONATHAN.....	STUDIES OF THE RETINA AND VISUAL PATHWAYS.....	1R01 EY02671-01	76,059
WICKEN, ANTHONY J.....	VARIATIONS IN THE SURFACE STRUCTURES OF ORAL BACTERIA.....	5R01 DE04175-05	58,242
ORGANIZATION TOTAL	2 134,301		
MELBOURNE			
ROYAL SOUTHERN MEMORIAL HOSPITAL			
ZIMMET, PAUL Z.....	DIABETES IN THE PACIFIC-GENETIC-ENVIRONMENT INTERACTIONS.....	1R01 AM25446-01	149,247
ORGANIZATION TOTAL	1 149,247		
WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH			
ADAMS, JERRY M.....	STRUCTURE OF IMMUNOGLOBULIN MESSENGER RNAS AND GENES.....	5R01 CA12421-08	40,522
METCALF, DONALD.....	REGULATION OF B-LYMPHOCYTE COLONIES.....	5R01 CA22492-03	53,580
METCALF, DONALD.....	DIFFERENTIATION OF GRANULOCYTES AND MONOCYTES.....	5R01 CA22556-02	34,567
METCALF, DONALD.....	LEUKEMIA INDUCTION IN MULTIPOTENTIAL IN VITRO COLONIES.....	1R01 CA25972-01	44,801
NOSSAL, GUSTAV J.....	MECHANISMS OF LYMPHOCYTE-ANTIGEN INTERACTIONS.....	5R01 AI03958-19	74,758
ORGANIZATION TOTAL	5 248,228		
MURDOCH			
MURDOCH UNIVERSITY			
HOWELL, JOHN M.....	POMPE'S DISEASE IN CATTLE: A MODEL FOR HUMAN DISEASE.....	1R01 AM22096-01	28,050
RENFREE, MARILYN B.....	DELAYED IMPLANTATION AND DEVELOPMENT IN MARSUPIALS.....	5R01 HD09387-03	19,402
ORGANIZATION TOTAL	2 47,452		
PARKVILLE			
UNIVERSITY OF MELBOURNE			
AUGUSTEYN, ROBERT C.....	THE MECHANISM OF SENILE CATARACT FORMATION.....	5R01 EY01525-05	25,606
MC KENZIE, IAN F.....	IA ANTIGENIC SPECIFICITIES IN MOUSE AND MAN.....	5R01 CA21224-03	44,339
MC KENZIE, IAN F.....	CELL SURFACE ANTIGENS OF LYMPHOCYTES AND TUMOR CELLS.....	1R01 CA22080-01A2	63,315
NIALL, HUGH D.....	CHEMICAL STUDIES OF RELAXIN AND ITS RECEPTORS.....	5R01 HD11908-02	104,165
ORGANIZATION TOTAL	4 237,425		
SYDNEY			
INSTITUTE OF DENTAL RESEARCH			
KNOX, KENNETH W.....	VARIATIONS IN THE SURFACE STRUCTURE OF ORAL BACTERIA.....	5R01 DE04174-05	53,661
ORGANIZATION TOTAL	1 53,661		
UNIVERSITY OF SYDNEY			
MC AVOY, JOHNSTON W.....	STUDY LENS CELL DIFFERENTIATION.....	1R01 EY03177-01	41,513
ORGANIZATION TOTAL	1 41,513		
COUNTRY TOTAL	18 998,439		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
BELGIUM			
BRUSSELS			
CATHOLIC UNIVERSITY OF LOUVAIN			
BAZIN, HERVE.....	REGULATION OF THE RAT IGE SYNTHESIS	5R01 AI12840-05	50,092
HERS, HENRI-GERY	INBORN ERRORS OF CARBOHYDRATE METABOLISM.....	5R01 AM09235-14	35,000
ORGANIZATION TOTAL	2 85,092		
EUROPEAN ORGANIZATION FOR RESEARCH ON TREATMENT OF CANCER			
TAGNON, HENRI J.....	COOPERATIVE CLINICAL CANCER STUDY (COORDINATING/DATA).....	2R10 CA11488-10	298,058
ORGANIZATION TOTAL	1 298,058		
FREE UNIVERSITY OF BRUSSELS			
CHRISTOPHE, JEAN P.....	MOLECULAR BASIS OF SECRETION IN THE EXOCRINE PANCREAS	5R01 AM17010-05	25,000
VASSART, GILBERT M.....	STUDY OF THE EXPRESSION OF THE THYROGLOBULIN GENE.....	5R01 AM21732-02	24,000
ORGANIZATION TOTAL	2 49,000		
LIEGE			
UNIVERSITY OF LIEGE			
GHUYSEN, JEAN-MARIE.....	THE PENICILLIN TARGETS IN BACTERIA	2R01 AI13364-04	33,000
ORGANIZATION TOTAL	1 33,000		
COUNTRY TOTAL	6 465,150		
CANADA			
CALGARY			
UNIVERSITY OF CALGARY			
TAN, YIN-HWEE.....	HUMAN INTERFERON PRODUCTION FOR ANTITUMOR STUDIES.....	2R01 CA19721-04	59,365
ORGANIZATION TOTAL	1 59,365		
EDMONTON			
UNIVERSITY OF ALBERTA			
LOWN, J WILLIAM.....	THE MODE OF ANTITUMOR ACTION OF NITROSOUREAS.....	5R01 CA21488-03	24,223
ORGANIZATION TOTAL	1 24,223		
GUELPH			
UNIVERSITY OF GUELPH			
SAFE, STEPHEN H.....	METABOLISM & CARCINOGENICITY OF HALOAROMATIC POLLUTANTS.....	5R01 CA21814-02	32,715
ORGANIZATION TOTAL	1 32,715		
HALIFAX			
DALHOUSIE UNIVERSITY			
CYNADER, MAX S.....	ETIOLOGY OF STRABISMUS IN ANIMALS.....	5R01 EY02248-02	29,975
REGAN, DAVID.....	PSYCHOPHYSICAL AND EP ASSESSMENT OF VISUAL PATHOLOGY	1R01 EY03058-01	106,705
ORGANIZATION TOTAL	2 136,680		
HAMILTON			
AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE			
SMITH, WESLEY D.....	LOEB CLASSICAL LIBRARY, HIPPOCRATES, VOLUME SIX.....	5R01 LM03047-02	5,100
ORGANIZATION TOTAL	1 5,100		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CANADA—Continued			
MC MASTER UNIVERSITY			
COTT, ARTHUR	BEHAVIORAL TREATMENT OF EPILEPSY AND HEADACHE	1R01 NS14906-01	61,800
DIAMOND, JACK	PLASTICITY IN THE DEVELOPING NERVOUS SYSTEM	1R01 NS14951-01A1	32,469
DIAMOND, JACK	TWO-WAY INTERACTIONS AT MECHANOSENSORY JUNCTIONS	1R01 NS15592-01	35,623
EPAND, RICHARD M.	THE ROLE OF GLUCAGON IN DIABETES	5R01 AM21285-02	24,196
SINCLAIR, JOHN C.	DETERMINANTS OF GROWTH IN LOW-BIRTH-WEIGHT INFANTS	1R01 HD12469-01	59,200
ORGANIZATION TOTAL	5 213,288		
KINGSTON			
QUEEN'S UNIVERSITY AT KINGSTON			
WYATT, GERARD R.	BIOCHEMISTRY OF DEVELOPMENT AND REGULATION	5R01 HD07951-06	50,880
ORGANIZATION TOTAL	1 50,880		
LONDON			
UNIVERSITY OF WESTERN ONTARIO			
BARNETT, HENRY J.	EXTRACRANIAL/INTRACRANIAL ARTERIAL ANASTOMOSIS STUDY	5R10 NS14164-03	862,775
CHERIAN, M. GEORGE	NATURE OF LEAD AND MERCURY BINDING NUCLEAR PROTEINS	5R01 ES01535-03	16,650
DALES, SAMUEL	ALTERATIONS OF NUCLEOPROTEINS AND MEMBRANES	5R01 AI13395-03	103,404
MORRIS, VINCENT L.	CONTROL OF EXPRESSION OF MOUSE MAMMARY TUMOR VIRUS	5R01 CA21311-03	35,263
PERCY, DEAN H.	HERPETIC OPHTHALMITIS	2R01 EY01833-03	16,000
STAVRAKY, KATHLEEN M.	FACTORS AFFECTING PREVALENCE OF HERPESVIRUS TYPE II	1R01 AI15974-01	52,516
TREVITHICK, JOHN R.	EYE LENS EPITHELIAL CELL DIFFERENTIATION AND CATARACT	5R01 EY01927-03	43,382
ORGANIZATION TOTAL	7 1,129,990		
MONTREAL			
CLINICAL RESEARCH INSTITUTE OF MONTREAL			
HAMET, PAVEL	GROWTH OF VASCULAR SMOOTH MUSCLE IN DIABETES MELLITUS	5R01 AM21299-03	30,682
ORGANIZATION TOTAL	1 30,682		
JEWISH GENERAL HOSPITAL			
MARGOLESE, RICHARD G.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	5R10 CA20156-03	24,943
ORGANIZATION TOTAL	1 24,943		
MAISONNEUVE HOSPITAL			
GAGNAN-BRUNETTE, MICHELE	STUDY OF PHOSPHATASE ACTIVITY ALONG THE NEPHRON	1R01 AM25615-01	29,065
ORGANIZATION TOTAL	1 29,065		
MC GILL UNIVERSITY			
CHANG, HSIN-KANG	PULMONARY ARTERIAL, CAPILLARY AND VENOUS HEMODYNAMICS	1R01 HL24348-01	33,350
MC KENZIE, JOHN M.	PATHOGENESIS OF HYPERTHYROIDISM	5R01 AM04121-18	58,029
PATEL, YOGESH C.	STUDIES OF PANCREATIC SOMATOSTATIN PHYSIOLOGY	5R01 AM21373-02	37,910
POSNER, BARRY I.	POLYPEPTIDE HORMONE RECEPTORS	5R01 AM19573-03	49,703
SMITH, CHARLES E.	QUANTITATIVE STUDIES OF LYSOSOMES IN THE AMELOGENESIS	1R23 DE05424-01	25,000
SNIDERMAN, ALLAN D.	REPERFUSION INJURY RELATION TO POSTOPERATIVE INFARCTION	5R01 HL22098-02	22,656
SOLOMON, SAMUEL	FORMATION, METABOLISM AND ROLE OF HORMONES IN PREGNANCY	5R01 HD04365-18	65,778
TANNENBAUM, GLORIA S.	CHARACTERIZATION OF SPONTANEOUSLY DIABETIC WISTAR RATS	1R01 AM25888-01	29,479
ORGANIZATION TOTAL	8 321,905		
ROYAL VICTORIA HOSPITAL			
SHIBATA, HENRY R.	PRIMARY BREAST CANCER THERAPY GROUP	5R10 CA20321-03	49,086
ORGANIZATION TOTAL	1 49,086		
ST. JUSTINE HOSPITAL			
MOMPARLER, RICHARD L.	PHARMACOLOGY OF AN ANTILEUKEMIC AGENT 5-AZADEOXYTYRIDINE	5R01 CA23340-02	50,051
ORGANIZATION TOTAL	1 50,051		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
CANADA—Continued			
SAINT JOHNS			
MEMORIAL UNIVERSITY OF NEWFOUNDLAND			
LAIRD, MARSHALL	LABORATORY BIOCONTROL EVALUATIONS AGAINST SIMULIIDAE.....	5R01 AI14754-02	21,380
ORGANIZATION TOTAL	1 21,380		
SASKATOON			
UNIVERSITY OF SASKATCHEWAN			
WARRINGTON, ROBERT C.....	L-HISTIDINOL IN THE BIOLOGY AND THERAPY OF CANCER.....	1R01 CA23823-01A1	39,202
ORGANIZATION TOTAL	1 39,202		
SHERBROOKE			
UNIVERSITY OF SHERBROOKE			
GIBSON, DAVID M	GENETIC CONTROL OF IMMUNOGLOBULIN LIGHT CHAINS.....	5R01 AI15202-02	22,478
ORGANIZATION TOTAL	1 22,478		
TORONTO			
ONTARIO CANCER INSTITUTE			
ARCHER, MICHAEL C.....	MECHANISM OF NITROSAMINE ALKYLATION OF DNA AND RNA.....	1R01 CA26651-01	30,401
ORGANIZATION TOTAL	1 30,401		
UNIVERSITY OF TORONTO			
CAMERMAN, NORMAN.....	STEREOCHEMICAL BASIS OF ANTICONVULSANT DRUG ACTIVITY.....	2R01 NS09839-09	23,525
DOSTROVSKY, JONATHAN O.....	DENTAL PAIN: STUDIES ON TRIGEMINAL NUCLEUS CAUDALIS.....	1R01 DE05404-01	24,686
EYLAR, EDWIN H.....	GUILLIAN-BARRE SYNDROME AND ALLERGIC NEURITIS.....	5R01 NS14422-02	55,719
FARBER, EMMANUEL.....	PATHOGENESIS OF LIVER CANCER INDUCED BY CHEMICALS.....	5R01 CA21157-03	62,060
FARBER, EMMANUEL.....	A SHORT TERM IN VIVO ASSAY FOR CARCINOGENS.....	1R01 CA25094-01	57,614
FRITZ, IRVING B.....	HORMONE ACTIONS ON SERTOLI CELLS IN SPERMATOGENESIS.....	5R01 HD11741-02	108,324
LUCIER, GREGORY E.....	NEURAL MECHANISMS IMPLICATED IN SUDDEN INFANT DEATH.....	5R01 HD10983-02	31,898
MARLISS, ERROL B.....	THE SPONTANEOUSLY DIABETIC 'BB' WISTAR RAT.....	1R01 AM25371-01	45,540
SADOWSKI, PAUL D.....	BACTERIOPHAGE DEVELOPMENT.....	5R01 GM24361-02	66,683
SARMA, D S.....	DNA REPAIR/REPLICATION IN CHEMICAL CARCINOGENESIS.....	5R01 CA23958-02	49,781
SCHACHTER, HARRY.....	GLYCOPROTEIN-GLYCOLIPID METABOLISM IN SPERMATOGENESIS.....	5R01 HD07889-06	46,915
SEFTON, MICHAEL V.....	HEPARINIZED MATERIAL AND BLOOD INTERACTION.....	1R01 HL24020-01	29,945
SEN, AMAR K.....	MECHANISMS REGULATING ACTIVITY OF (NA & K) ATPASE.....	5R01 AM20425-02	35,303
SESSLE, BARRY J.....	DENTAL AND OROFACIAL PAIN: BRAIN STEM MECHANISMS.....	5R01 DE04786-02	50,313
ORGANIZATION TOTAL	14 688,310		
VANCOUVER			
UNIVERSITY OF BRITISH COLUMBIA			
CANDIDO, E PETER.....	BIOCHEMICAL STUDIES IN DROSOPHILA MELANOGASTER.....	2R01 GM22753-04	47,800
DENNIS, PATRICK P.....	REGULATION OF TRANSCRIPTION AND TRANSLATION ELEMENTS.....	5R01 GM24010-03	25,000
DOLPHIN, DAVID H.....	PORPHYRIN IONS AND RADICALS IN METABOLIC PROCESSES.....	2R01 AM17989-05	80,964
MOLDAY, ROBERT S.....	A STUDY OF RETINAL PHOTORECEPTOR MEMBRANE PROTEINS.....	5R01 EY02422-02	29,940
VANCE, DENNIS E.....	HORMONAL CONTROL OF PHOSPHOLIPID BIOSYNTHESIS.....	1R01 AM20691-01	42,290
WADA, Juhn A.....	CHRONIC FOCAL EPILEPTOGENIC LESION AND DEEP STRUCTURES.....	5R01 NS02812-19	37,462
ORGANIZATION TOTAL	6 263,456		
WINNIPEG			
UNIVERSITY OF MANITOBA			
FRIESEN, HENRY G.....	PLACENTAL & PITUITARY PROTEIN & POLYPEPTIDE HORMONES.....	5R01 HD07843-06	75,660
NIJAR, M S.....	ROLE OF CYCLIC AMP AND RELATED ENZYMES.....	1R01 HL24515-01	42,600
SEHON, ALEC.....	SUPPRESSION OF THE IGE RESPONSE.....	5R01 AI14526-02	79,933

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
CANADA—Continued				
ORGANIZATION TOTAL	3	198,193		
COUNTRY TOTAL	59	3,421,393		
DENMARK				
AARHUS				
UNIVERSITY OF AARHUS				
HEIMER, LENNART.....		BASAL FOREBRAIN ORGANIZATION.....	1R01 NS15510-01	15,500
MAGNUSSON, STAFFAN M.....		PROTEIN STRUCTURE IN COAGULATION AND FIBRINOLYSIS.....	5R01 HL16238-06	45,516
ORGANIZATION TOTAL	2	61,016		
COPENHAGEN				
UNIVERSITY OF COPENHAGEN				
EBBESSEN, PETER.....		SENESCENCE OF SKIN, LEUKEMIA & SKIN CANCER.....	1R01 CA26109-01	30,500
ORGANIZATION TOTAL	1	30,500		
COUNTRY TOTAL	3	91,516		
FINLAND				
HELSINKI				
UNIVERSITY OF HELSINKI				
KONTIAINEN, SIRKKA K.....		STIMULATION OF T-CELLS WITH PROTEIN ANTIGENS.....	3R01 AI13145-03S1	8,055
KONTIAINEN, SIRKKA K.....		REGULATION OF IMMUNE RESPONSES BY SPECIFIC FACTORS.....	2R01 AI13145-04	33,445
SAKSELA, EERO J.....		NATURAL AND TISSUE-SPECIFIC IMMUNITY TO HUMAN NEOPLASMS.....	1R01 CA23809-01	38,000
VAHERI, ANTTI I.....		FIBRONECTIN AND ITS LOSS IN MALIGNANT TRANSFORMATION.....	1R01 CA24605-01	34,200
ORGANIZATION TOTAL	4	113,700		
TURKU				
UNIVERSITY OF TURKU				
HARTIALA, KAARLO J.....		GASTROINTESTINAL AND PULMONARY METABOLIC FUNCTIONS.....	5R01 ES01684-18	57,040
ORGANIZATION TOTAL	1	57,040		
COUNTRY TOTAL	5	170,740		
FRANCE				
PARIS				
NATURE AND BIOLOGICAL SOCIETY				
ROBEL, PAUL.....		STUDY OF STEROID RECEPTORS IN BPH CELL TYPES.....	1R01 AM25461-01	31,600
ORGANIZATION TOTAL	1	31,600		
ST. LOUIS HOSPITAL				
BERNARD, JEAN.....		COOPERATIVE STUDY OF ACUTE LEUKEMIA.....	3R10 CA13239-06S1	33,330
ORGANIZATION TOTAL	1	33,330		
COUNTRY TOTAL	2	64,930		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
GERMANY FED R			
ESSEN			
UNIVERSITY OF ESSEN			
RAJEWSKY, MANFRED F.....	NERVOUS SYSTEM-SPECIFIC CHEMICAL CARCINOGENESIS.....	5R01 CA20017-03	43,657
ORGANIZATION TOTAL	1	43,657	
TUBINGEN			
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE—INSTITUTE FOR BIOLOGY			
KLEIN, JAN.....	POLYMORPHISM OF THE MAJOR HISTOCOMPATIBILITY COMPLEX.....	5R01 AI14736-02	71,558
ORGANIZATION TOTAL	1	71,558	
COUNTRY TOTAL	2	115,215	
GUATEMALA			
GUATEMALA			
PAN AMERICAN HEALTH ORGANIZATION—INSTITUTE OF NUTRITION OF CENTRAL AMERICA AND PANAMA			
URRUTIA, JUAN J.....	EFFECT OF OPSONINS REPLACEMENT IN SEVERE MALNUTRITION.....	1R22 HD11844-01	79,663
ORGANIZATION TOTAL	1	79,663	
COUNTRY TOTAL	1	79,663	
IRELAND			
DUBLIN			
ST. VINCENT'S HOSPITAL			
MC KENNA, TERENCE J.....	HORMONAL DISTURBANCES IN ANOVULATORY-HIRSUTE PATIENTS.....	5R01 HD12248-02	49,818
ORGANIZATION TOTAL	1	49,818	
COUNTRY TOTAL	1	49,818	
ISRAEL			
HAIFA			
TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY			
GERSHON, DAVID.....	STUDY OF FAULTY PROTEIN MOLECULES IN SENESCENCE.....	5R01 AG00459-06	47,200
ORGANIZATION TOTAL	1	47,200	
JERUSALEM			
HADASSAH UNIVERSITY HOSPITAL			
COHEN, ALAN M.....	EPIDEMIOLOGY OF DIABETES AMONG NEW IMMIGRANT YEMENITES.....	5R01 AM20733-02	51,744
COHEN, ARTHUR M.....	CHANGE OF THE HORMONAL STATUS IN DIABETIC RETINOPATHY.....	5R01 EY01837-03	47,673
EISENBERG, SHLOMO.....	PLASMA LIPOPROTEINS CONVERSIONS—PATHWAYS & MECHANISMS.....	1R01 HL23864-01	56,000
SLAVIN, SHIMON.....	A NEW APPROACH TO MARROW AND ORGAN TRANSPLANTATION.....	1R01 AI15387-01	69,725
STEIN, YEchezkiel.....	DIETS FOR PREVENTION OF CHD AND HDL METABOLISM.....	1R01 HL24680-01	79,250
ORGANIZATION TOTAL	5	304,392	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ISRAEL—Continued			
HEBREW UNIVERSITY OF JERUSALEM			
CEDAR, HOWARD.....	TRANSCRIPTION AND MODIFICATION OF CHROMATIN DNA	5R01 GM20483-06	54,757
CERASI, EROL.....	STUDIES ON THE PATHOGENESIS OF DIABETES MELLITUS	5R01 AM21598-02	108,525
DIKSTEIN, SHABTAY.....	GABA AND THE RABBIT CORNEAL ENDOTHELIAL PUMP	1R01 EY02919-01	29,700
GATT, SHIMON.....	METABOLISM OF THE SPHINGOLIPIDS AND C24 FATTY ACIDS.....	5R01 NS02967-19	48,645
GLASER, GAD.....	STRUCTURE AND CONTROL OF E COLI PROMOTER ACTIVITY	5R01 GM25286-02	28,400
LEVITZKI, ALEXANDER.....	THE B-ADRENERGIC RECEPTOR ADENYLATE CYCLASE COMPLEX.....	1R01 GM26604-01	46,100
NAOR, DAVID.....	IMMUNE RESPONSE TO MOLONEY INDUCED YAC TUMOR	5R01 CA23874-02	48,508
ROTSCHENKER, SHLOMO.....	RESPONSE OF INTACT MOTOR NEURONS TO NEURONAL LESION	1R01 NS14507-01	28,865
SCHRAMM, MICHAEL.....	ENZYME SECRETION AND ITS METABOLIC CONTROL	5R01 AM10451-14	73,811
SHAFRIR, ELEAZAR.....	METABOLISM OF LOW INSULIN RESPONDING SPINY MOUSE	5R01 AM21228-02	38,860
SHOSHAN, SHMUEL.....	COLLAGEN IN GENETICALLY SELECTED DIABETIC RATS	5R01 AM21239-02	31,338
VERMAN, ROBERT.....	THE MOTONEURON IN SPINAL CORD SLICES.....	5R01 NS13935-03	32,856
ORGANIZATION TOTAL	12 570,365		
ISRAEL JOURNAL OF MEDICAL SCIENCE			
HILLMAN, PETER.....	BISTABLE VISUAL PIGMENTS.....	1R01 LM03260-01	10,513
ORGANIZATION TOTAL	1 10,513		
REHOVOTH			
KAPLAN HOSPITAL			
BENTWICH, ZVI H.....	VARIATION IN CANCER PATIENT SURVIVAL BY RACE.....	5R01 CA24418-02	50,000
ORGANIZATION TOTAL	1 50,000		
WEIZMANN INSTITUTE OF SCIENCE			
ALONI, YOSEF.....	CONTROL OF GENE EXPRESSION IN TUMOR VIRUSES AND CELLS.....	5R01 CA14995-06	52,524
BERENBLUM, ISAAC.....	NEW APPROACHES TO SYSTEMIC TWO-STAGE CARCINOGENESIS.....	5R01 CA21088-03	42,361
COHEN, IRUN R.....	RECRUITMENT OF T CELL IMMUNITY TO ANTIGENS AND TUMORS.....	5R01 CA21329-03	62,669
GRINVALD, AMIRAM.....	PLASTICITY AND REGENERATION IN THE CNS.....	1R01 NS14716-01A1	34,035
HAGLER, ARNOLD T.....	MONTE CARLO SIMULATION OF WATER IN BIOLOGICAL SYSTEMS.....	5R01 GM24117-02	24,548
SCHLESSINGER, JOSEPH.....	RECEPTORS & GROWTH FACTORS FOR NEOPLASTIC CELLS.....	1R01 CA25820-01	53,255
SILBERBERG, ALEXANDER.....	MUCUS CLEARANCE IN SECRETORY OTITIS MEDIA.....	5R01 NS10048-09	44,944
ORGANIZATION TOTAL	7 314,336		
TEL AVIV			
TEL AVIV UNIVERSITY			
WITZ, ISAAC P.....	TUMOR-BOUND IG-AN EXPRESSION OF ANTITUMOR IMMUNITY.....	5R01 CA20088-03	59,714
ORGANIZATION TOTAL	1 59,714		
TEL HASHOMER			
CHIAM SHEBA MEDICAL CENTER			
MODAN, MICHAELA.....	RISK FACTORS IN GLUCOSE INTOLERANCE.....	1R01 AM23090-01	217,550
ORGANIZATION TOTAL	1 217,550		
COUNTRY TOTAL	29 1,574,070		
ITALY			
CAGLIARI			
UNIVERSITY OF CAGLIARI			
CAO, ANTONIO.....	MANAGEMENT AND CONTROL OF B THALASSEMIA.....	1R01 HL24173-01	39,290
ORGANIZATION TOTAL	1 39,290		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
ITALY—Continued			
MILAN			
MARIO NEGRI INSTITUTE FOR PHARMACOLOGICAL RESEARCH			
GARATTINI, SILVIO	PHARMACOBIOLOGICAL ASPECTS OF METASTATIC CANCER CELLS	2R01 CA12764-07	44,000
ORGANIZATION TOTAL	1 44,000		
PISA			
UNIVERSITY OF PISA			
POMPEIANO, OTTAVIO	SENSORY MECHANISMS AND MOTOR CONTROL	5R01 NS07685-11	15,400
ORGANIZATION TOTAL	1 15,400		
ROME			
UNIVERSITY OF ROME			
MONACO, FABRIZIO	COMPARATIVE ROLE OF CARBOHYDRATES IN THYROGLOBULIN	5R01 AM16932-06 /	22,050
ORGANIZATION TOTAL	1 22,050		
COUNTRY TOTAL	4 120,740		
JAPAN			
KAWASAKI			
ST. MARIANNA UNIVERSITY			
TOYODA, JUN-ICHI	IONIC BASIS OF RETINAL CELL POTENTIAL	5R01 EY02392-02	19,460
ORGANIZATION TOTAL	1 19,460		
TOKYO			
JUNTENDO UNIVERSITY			
KABASAWA, IZUMI	AGING LENS PROTEINS AND CATARACT	5R01 EY02900-02	15,100
ORGANIZATION TOTAL	1 15,100		
SCIENCE UNIVERSITY OF TOKYO			
SATOH, KENSHI	CALCIUM-INDUCED AGGREGATION OF HUMAN LENS PROTEIN	5R01 EY01879-03	12,500
ORGANIZATION TOTAL	1 12,500		
COUNTRY TOTAL	3 47,060		
KOREA REP OF			
SEOUL			
KOREA ADVANCED INSTITUTE OF SCIENCE			
SHIM, SANG C.	PHOTOCHEMISTRY OF DIMETHOXYCOUMARIN	5R01 CA21729-03	11,430
ORGANIZATION TOTAL	1 11,430		
COUNTRY TOTAL	1 11,430		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
MEXICO			
MEXICO			
NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO			
PASANTES-MORALES, HERMINIA.....	TAURINE AND IONIC FLUXES IN RETINA.....	5R01 EY02540-02	12,284
ORGANIZATION TOTAL	1 12,284		
NATIONAL POLYTECHNIC INSTITUTE			
RUDOMIN, PEDRO.....	DISCHARGE PATTERNS OF MOTONEURONS.....	5R01 NS09196-08	39,992
ORGANIZATION TOTAL	1 39,992		
COUNTRY TOTAL	2 52,276		
NETHERLANDS			
LEIDEN			
STATE UNIVERSITY OF LEIDEN			
SOBELS, FREDERIK H.....	INDUCTION OF GENETIC DAMAGE BY CHEMICAL MUTAGENS.....	5R01 ES01027-06	139,000
ORGANIZATION TOTAL	1 139,000		
WAGENINGEN			
STATE AGRICULTURAL UNIVERSITY			
DE BOER, PETER.....	CHEMICALLY INDUCED NON-DISJUNCTION IN MUTANT MICE.....	1R01 ES01921-01	40,708
ORGANIZATION TOTAL	1 40,708		
COUNTRY TOTAL	2 179,708		
NEW ZEALAND			
PALMERSTON NORTH			
MASSEY UNIVERSITY			
JOLLY, ROBERT D.....	MANNOSIDOSIS—A MODEL FOR LYSOSOMAL STORAGE DISEASES.....	2R01 NS11238-06	47,700
ORGANIZATION TOTAL	1 47,700		
COUNTRY TOTAL	1 47,700		
S AFR REP OF			
PRETORIA			
UNIVERSITY OF PRETORIA			
FALKSON, GEOFFREY.....	EASTERN COOPERATIVE ONCOLOGY GROUP STUDIES.....	5R10 CA21692-03	56,120
ORGANIZATION TOTAL	1 56,120		
COUNTRY TOTAL	1 56,120		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
SWEDEN			
GOTHENBURG			
GOTHENBURG UNIVERSITY			
ABRAHAMSSON, SIXTEN	MOLECULAR ARRANGEMENT IN COMPLEX LIPIDS	5R01 GM11653-19	44,783
BJORNTORP, PER A	OBESITY, DIABETES, AND ADIPOSE TISSUE DEVELOPMENT	1R01 AM25173-C1	45,600
ERHOLM, RAGNAR E	THYROID FUNCTIONAL MORPHOLOGY	5R01 AM18842-03	27,000
LINDHE, JAN T	PLAQUE CONTROL—HEALING FOLLOWING PERIODONTAL SURGERY	1R01 DE04890-01	74,636
LINNER, ERIK E	PROSPECTIVE STUDY OF OCULAR HYPERTENSIVE SUBJECTS	1R01 EY03035-01	50,875
ORGANIZATION TOTAL	5	242,894	
LUND			
UNIVERSITY OF LUND			
FALCK, BENGT O	NEW METHODS FOR THE STUDY OF AMINE TRANSMITTERS	3R01 NS06701-12S1	7,483
FALCK, BENGT O	NEW METHODS FOR THE STUDY OF AMINE TRANSMITTERS	2R01 NS06701-13	32,317
SIESJO, BO K	MECHANISM OF CELLULAR DAMAGE IN THE BRAIN	5R01 NS07838-11	44,830
SJOGREN, HANS O	IMMUNITY TO BOWEL NEOPLASMS IN RATS AND MAN	5R26 CA14924-07	120,103
ORGANIZATION TOTAL	4	204,733	
STOCKHOLM			
CAROLINE INSTITUTE			
BLOMBACK, BIRGER E	STRUCTURE AND FUNCTION OF FIBRINOGEN	5R01 HL07379-14	61,224
KLEIN, EVA	NATURAL KILLER CELLS: GENETIC CONTROL AND ROLE	1R01 CA25250-01	55,000
KLEIN, GEORGE	MALIGNANT BEHAVIOR AND CELLULAR ANTIGEN EXPRESSION	3R01 CA14054-06S1	45,000
ORGANIZATION TOTAL	3	161,224	
WENNER-GREN INSTITUTE FOR EXPERIMENTAL BIOLOGY			
VON DER DECKEN, ALEXANDRA	PROTEIN NUTRITION AND PRIMARY ACTION OF A CARCINOGEN	1R01 CA26642-01	30,420
ORGANIZATION TOTAL	1	30,420	
UPPSALA			
UNIVERSITY OF UPPSALA			
BARANY, ERNST H	COMPARATIVE STUDIES OF GLAUCOMA	5R01 EY00231-15	87,925
BILL, ANDERS A	NUTRITION OF THE EYE	2R01 EY00475-13	64,600
PETERSON, PER A	RETINOL METABOLISM WITH SPECIAL REGARD TO THE EYE	5R01 EY02417-02	57,500
RANDALL, LINDA L	EXPORT OF PROTEINS IN ESCHERICHIA COLI	1R01 GM26699-01	56,278
ORGANIZATION TOTAL	4	266,303	
COUNTRY TOTAL	17	905,574	
SWITZERLAND			
BASEL			
UNIVERSITY OF BASEL			
ERB, PETER	IMMUNOGENETIC REGULATION OF T-MACROPHAGE INTERACTIONS	1R01 AI14513-01A1	45,117
ORGANIZATION TOTAL	1	45,117	
GENEVA			
INTERNATIONAL UNION AGAINST CANCER			
DELAFRESNAYE, JOHN F	CANCER CENTER SUPPORT GRANT	5R01 CA05096-18	106,103
HUTCHINSON, WILLIAM B	THIRTEENTH INTERNATIONAL CANCER CONGRESS	1R13 CA27210-01	65,000
ORGANIZATION TOTAL	2	171,103	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator	Project title	Grant number	Dollars
SWITZERLAND—Continued			
UNIVERSITY OF GENEVA			
JEANRENAUD, BERNARD	CENTRAL NERVOUS SYSTEM CONTROL OF ENDOCRINE PANCREAS	1R01 AM25220-01	40,000
ORGANIZATION TOTAL	1 40,000		
COUNTRY TOTAL	4 256,220		
THAILAND			
BANGKOK			
MAHIDOL UNIVERSITY			
LAMB, ADRIAN J.	METABOLISM AND FUNCTION OF CAROTENOIDS AND VITAMIN A	5R01 AM11367-12	46,900
VALYASEVI, AREE	STUDIES OF BLADDER STONE DISEASE IN THAILAND	2R22 AM13066-10	20,000
WASI, PRAWASE	THALASSEMIAS, HEMOGLOBINOPATHIES AND RELATED PROBLEMS	5R01 AM09805-12	20,000
ORGANIZATION TOTAL	3 86,900		
COUNTRY TOTAL	3 86,900		
UNITED KINGDOM			
BLETCHLEY			
OPEN UNIVERSITY			
ELLIOTT, GERALD F.	X-RAY AND NEUTRON DIFFRACTION STUDIES OF CORNEAL STROMA	1R01 EY02710-01	22,149
ORGANIZATION TOTAL	1 22,149		
BRISTOL			
UNIVERSITY OF BRISTOL			
PURVES, MICHAEL J.	THE CONTROL OF BREATHING BEFORE AND AFTER BIRTH	2R01 HD09457-04	72,357
SINNOTT, MICHAEL L.	BRAIN GLYCOSIDASES—MECHANISM AND SPECIFICITY	5R01 GM22769-02	16,815
ORGANIZATION TOTAL	2 89,172		
CAMBRIDGE			
AGRICULTURAL RESEARCH COUNCIL—INSTITUTE OF ANIMAL PHYSIOLOGY			
HOWARD, JONATHAN C.	GENETICS OF RESPONSE TO HISTOCOMPATIBILITY ANTIGENS	2R01 AI13162-04	76,086
ORGANIZATION TOTAL	1 76,086		
EDINBURGH			
UNIVERSITY OF EDINBURGH			
WILLETTS, NEIL S.	GENETIC ANALYSIS OF PSEUDOMONAS R FACTORS	5R01 AI12899-03	17,529
ORGANIZATION TOTAL	1 17,529		
LEEDS			
UNIVERSITY OF LEEDS			
POWELL, KENNETH L.	HERPES SIMPLEX VIRUS NON-STRUCTURAL PROTEINS	5R01 AI15034-02	45,808
ORGANIZATION TOTAL	1 45,808		
LONDON			
AGRICULTURAL RESEARCH COUNCIL			
SETCHELL, BRIAN P.	FUNCTION OF THE BLOOD-TESTIS BARRIER	1R01 HD12312-01	38,850

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1979—Continued

Principal investigator		Project title	Grant number	Dollars
UNITED KINGDOM—Continued				
ORGANIZATION TOTAL	1	38,850		
ST. MARK'S HOSPITAL				
MORSON, BASIL C.....		RANDOMIZED TRIAL OF AN ANTIOXIDANT IN POLYPOSIS COLI.....	5R26 CA23760-02	33,220
ORGANIZATION TOTAL	1	33,220		
UNIVERSITY OF LONDON				
BELOFF-CHAIN, ANNE.....		REGULATION OF INSULIN SECRETION BY THE PITUITARY.....	5R01 AM19488-03	23,824
BIRD, ALAN C.....		DISCIFORM MACULAR DISEASE: CONTROLLED TREATMENT TRIAL.....	3R01 EY02168-01S1	60,188
BROOKES, PETER.....		BIOLOGICAL RESULT OF CARCINOGEN INDUCED DAMAGE TO DNA.....	1R01 CA25807-01	75,500
FELDMANN, MARC.....		IMMUNOGENETIC REGULATION OF T-MACROPHAGE INTERACTION.....	1R01 AI15636-01	48,188
FELDMANN, MARC.....		REGULATION OF IMMUNE RESPONSES BY SPECIFIC FACTORS.....	1R01 AI15653-01	24,200
PAULING, PETER J.....		THE THREE-DIMENSIONAL STRUCTURE OF PROTEIN MOLECULES.....	5R01 GM25435-02	20,153
SIMS, PETER.....		METABOLIC ACTIVATION OF THE POLYCYCLIC HYDROCARBONS.....	3R01 CA21959-02S1	9,788
STEEL, G GORDON.....		THERAPEUTIC RESPONSE OF HUMAN TUMOR XENOGRAFTS.....	5R01 CA20519-03	76,362
STEEL, G GORDON.....		THERAPEUTIC RESPONSE OF HUMAN TUMOR XENOGRAFTS.....	1R01 CA26059-01	104,723
WILLIAMSON, ROBERT.....		GENE SEQUENCES ACTIVATING GAMMA-GLOBIN GENE TRANSCRIPTON.....	5R01 AM20125-02	57,135
ORGANIZATION TOTAL	10	500,061		
OXFORD				
OXFORD AREA HEALTH AUTHORITY				
CHENG, HUNG.....		CATARACT MANAGEMENT—A RANDOMIZED CONTROLLED TRIAL.....	1R01 EY02677-01	127,335
ORGANIZATION TOTAL	1	127,335		
UNIVERSITY OF OXFORD				
BALDWIN, JACK E.....		CHELATING AGENTS AS BLOOD SUBSTITUTES.....	5R01 HL23120-02	53,187
PIRIE, ANTOINETTE.....		STUDIES OF SERIOUS CORNEAL XEROPHTHALMIA.....	5R01 EY01937-03	27,927
WEATHERALL, DAVID J.....		SYNTHESIS OF FETAL HEMOGLOBIN IN HUMAN ERYTHROID CELLS.....	5R01 HL20905-03	35,753
ORGANIZATION TOTAL	3	116,867		
COUNTRY TOTAL	22	1,067,077		
YUGOSLAVIA				
BELGRADE				
UNIVERSITY OF BELGRADE				
LUKATELA, GEORGIJE L.....		PROCESSES BASIC TO READING IN SERBO-CROATIAN.....	2R01 HD08495-04	36,200
ORGANIZATION TOTAL	1	36,200		
COUNTRY TOTAL	1	36,200		

**Table 3.—NIH Research Career Program Awards by Area,
Organization, and Awardee, Fiscal Year 1979**

Awardee	Project title	Grant number
ALABAMA		
BIRMINGHAM		
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294		
CASSELL, GAIL H.....	MURINE CRD: A MODEL OF CHRONIC PULMONARY INFLAMMATION.....	5K04 HL00387-03
GRIFFIN, FRANK M. JR.....	FUNCTIONS OF PHAGOCYTIC RECEPTORS OF MACROPHAGES.....	1K04 AI00135-01A2
KEARNEY, JOHN F.....	REGULATION OF B CELL CLONAL DIVERSITY.....	1K04 AI00338-01
LAMON, EDDIE W.....	VIRAL TUMOR IMMUNOLOGY.....	5K04 CA00059-05
OYSTER, CLYDE W.....	NEURAL INTERACTIONS IN THE RETINA AND VISUAL PATHWAYS.....	5K04 EY00033-05
PACE, CAROLINE S.....	ELECTROPHYSIOLOGICAL STUDIES OF CULTURED ISLET CELLS.....	5K04 AM00499-02
REYNERTSON, RICHARD H.....	GLOMERULAR B.M. GLYCOSYLTRANSFERASE RADIOIMMUNOASSAY.....	5K08 AM00465-02
SCHUTZBACH, JOHN S.....	BIOCHEMISTRY—SYNTHESIS OF CELL SURFACE GLYCOCONJUGATION.....	1K04 CA00526-01
MOBILE		
UNIVERSITY OF SOUTH ALABAMA ZIP CODE 36688		
BASS, JOHN B. JR.....	PULMONARY MEDICINE.....	5K07 HL00125-05
FUNKHOUSER, JANE D.....	FETAL LUNG DEV. & DIFFERENTIATION IN ORGAN CULTURE.....	5K04 HD00210-02
GREENBERG, STANLEY.....	VASCULAR SMOOTH MUSCLE MECHANISMS IN HYPERTENSION.....	5K04 HL00428-03
MC CORD, JOE M.....	SUPEROXIDE AND SUPEROXIDE DISMUTASE IN HUMAN DISEASE.....	1K04 AM00595-01
ARIZONA		
TUCSON		
UNIVERSITY OF ARIZONA ZIP CODE 85721		
CUSANOVICH, MICHAEL A.....	BIOLOGICAL ELECTRON TRANSPORT/VISUAL PROCESS.....	5K04 EY00013-05
HALONEN, MARILYN J.....	ANIMAL MODEL OF IGE-INDUCED PULMONARY DISEASE.....	5K04 HL00463-02
KIM, HYUN D.....	MEMBRANE-LIMITED METABOLISM IN MAMMALIAN RED CELLS.....	5K04 AM00316-03
MEEZAN, ELIAS.....	GLYCOPROTEIN STRUCTURE AND METABOLISM IN DIABETES.....	5K04 AM00256-03
PUTNAM, ANNE H.....	BIOMECHANICS OF NORMAL & DISORDERED SPEECH PRODUCTION.....	5K07 NS00303-02
RUSSELL, DIANE H.....	POLYAMINES IN GROWTH—NORMAL AND NEOPLASTIC.....	5K04 CA00072-05
ARKANSAS		
FAYETTEVILLE		
UNIVERSITY OF ARKANSAS ZIP CODE 72701		
GEREN, COLLIS R.....	VENOM COMPONENTS: ISOLATION, CHARACTERIZATION AND USE.....	1K04 ES00052-01

NOTE.—Grants are listed according to the State and city of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
ARKANSAS—Continued		
LITTLE ROCK		
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES CAMPUS ZIP CODE 72201		
BONE, ROGER C.....	PULMONARY MEDICINE.....	1K07 HL00518-01
FEWELL, JAMES E.....	PULMONARY MEDICINE.....	3K08 HL00445-01S1
FEWELL, JAMES E.....	PULMONARY MEDICINE.....	5K08 HL00445-02
CALIFORNIA		
BERKELEY		
UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720		
FREEMAN, RALPH D.....	VISUAL DEVELOPMENT & DEPRIVATION IN HUMANS & ANIMALS.....	5K04 EY00092-03
WILSON, MARTIN C.....	SYNAPTIC TRANSMISSION IN THE OUTER PLEXIFORM LAYER.....	1K07 EY00159-01
DAVIS		
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616		
CHOLE, RICHARD A.....	VITAMIN A ROLE IN INNER EAR PRESBYCUSIN-AGING.....	1K07 NS00396-01
GERSHWIN, M ERIC.....	THE PATHOGENESIS OF AUTOIMMUNITY IN NEW ZEALAND MICE.....	5K04 AI00193-03
JOHNSON, CHRIS A.....	PSYCHOPHYSICAL EXAMINATION OF THE VISUAL FIELDS.....	5K07 EY00095-02
KING, BARRY F.....	FUNCTIONAL CYTOLOGY OF THE PLACENTA & FETAL MEMBRANES.....	5K04 HD00238-03
LEWIS, ALVIN E.....	ANALYTIC PATHOLOGY.....	5K10 LM00007-02
MEARES, CLAUDE F.....	BIFUNCTIONAL CHELATING AGENTS IN TUMOR LOCALIZATION.....	1K04 CA00462-01
OVERSTREET, JAMES W.....	SPERM MOTILITY, TRANSPORT AND FERTILITY IN MAMMALS.....	5K04 HD00224-02
TROY, FREDERIC A.....	MEMBRANE-BOUND ENZYME INTERACTIONS AND GROWTH CONTROL.....	5K04 CA00095-05
IRVINE		
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717		
BENNETT, ALBERT F.....	PHYSIOLOGICAL BASIS OF METABOLISM AND ACTIVITY.....	5K04 AM00351-02
BLANKS, ROBERT H.....	EYE MOVEMENT—PHYSIOLOGICAL/ANATOMICAL ORGANIZATION.....	1K04 EY00160-01
CUNNINGHAM, DENNIS D.....	INITIATION OF FIBROBLAST DIVISION BY GLUCOCORTICOIDS.....	5K04 CA00171-04
GUTMAN, GEORGE A.....	SEROLOGICAL AND STRUCTURAL STUDIES ON RAT KAPPA CHAINS.....	5K04 AI00286-02
HALL, JAMES E.....	MOLECULAR MECHANISMS OF EXCITABILITY.....	1K04 HL00579-01
HAMKALO, BARBARA A.....	ULTRASTRUCTURAL ASPECTS OF GENE REGULATION.....	5K04 GM00233-04
LONGMUIR, KENNETH J.....	PULMONARY MEDICINE.....	5K08 HL00456-02
LYNCH, GARY S.....	AXONAL GROWTH AND BRAIN PLASTICITY.....	5K04 NS00043-05
MANNING, JERRY E.....	ORGANIZATION OF MRNA CODING SEQUENCES IN DROSOPHILA.....	1K04 CA00522-01A1
STANBRIDGE, ERIC J.....	GENETIC ANALYSIS OF HUMAN MALIGNANCY.....	5K04 CA00271-02
WATSON, JAMES D.....	MECHANISM REGULATING INDUCTION OF ANTIBODY SYNTHESIS.....	5K04 AI00182-04
WHITE, STEPHEN H.....	MODEL STUDIES OF MYELIN STABILITY.....	5K04 NS00146-04
LA JOLLA		
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037		
KIDOKORO, YOSHIAKI.....	MUSCLE DIFFERENTIATION AND SYNAPSE FORMATION IN VITRO.....	5K04 NS00102-05
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037		
CHISARI, FRANCIS V.....	IMMUNOBIOLOGY AND PATHOGENESIS OF HEPATITIS B.....	5K04 AI00174-04
CURD, JOHN G.....	ACTIVATION OF TERMINAL COMPLEMENT COMPONENTS IN DISEASE.....	1K08 AM00543-01
EDWARDS, DAVID L.....	REGULATION OF MITOCHONDRIAL MEMBRANE ASSEMBLY.....	5K04 GM00413-05
GINSBERG, MARK H.....	MEDIATOR CELL ACTIVATION BY IMMUNE COMPLEXES AND LPS.....	5K08 AM00393-03
GRIFFIN, JOHN H.....	BIOCHEMISTRY AND REGULATION OF HUMAN FACTOR XII.....	5K04 HL00192-04
HOCH, SALLIE O.....	MOLECULAR INTERACTIONS IN DIFFERENTIATION.....	5K04 CA00004-05
MORGAN, WILLIAM T.....	MECHANISMS OF SERUM PROTEIN FUNCTIONS.....	5K04 AM00110-05
MORRISON, DAVID C.....	BIOCHEMICAL PARAMETERS OF LPS-MEDIATED DIC AND SHOCK.....	5K04 AI00081-05

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1979—Continued

Awardee	Project title	Grant number
CALIFORNIA—Continued		
PAINTER, RICHARD G.....	THE ROLE OF MECHANOCHEMICAL PROTEINS IN SECRETION	5K04 AM00437-02
PELLEGRINO, MICHELE A.....	URINE AS SOURCE OF HUMAN HISTOCOMPATIBILITY ANTIGENS	5K04 CA00246-02
THEOFILOPOULOS, ARGYRIOS N.....	CIRCULATING IMMUNE COMPLEXES—CANCER/IMMUNOLOGIC DIS.....	5K04 CA00303-03
WELSH, RAYMOND M, JR.....	MAINTENANCE OF CHRONIC VIRUS DISEASE.....	5K04 AI00253-02
WHITELEY, JOHN M.....	THE BIOCHEMISTRY OF PTERIDINE AND FOLATE COENZYMES.....	5K04 CA00106-05
ZINKERNAGEL, ROLF M.....	FUNCT. AND IMMUNOBIOCHEM. STUDIES OF VIRUS-IMMUNE T CELL.....	5K04 AI00248-03
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093		
ALHADEFF, JACK A.....	HUMAN LIVER SIALYLTRANSFERASES AND ALPHA-L-FUCOSIDASE.....	5K04 AM00257-02
BAUGH, ROBERT F.....	BIOCHEMICAL CHARACTERIZATION OF HEMOPHILIA.....	5K04 HL00271-03
BONE, HENRY G, III.....	SKELETAL AND CALCIUM DISEASES: HORMONAL ABNORMALITIES.....	5K08 AM00383-02
DILLMANN, WOLFGANG H.....	CARDIAC EFFECTS OF THYROID HORMONES & PROTEIN SYNTHESIS.....	7K04 HL00583-04
HARGENS, ALAN R.....	EFFECTS OF TOURNIQUET ISCHEMIA ON SKELETAL MUSCLE.....	1K04 AM00602-01
HIGGINS, CHARLES B.....	EFFECTS OF CONTRAST MEDIA & HEART FAILURE ON CHEMOREFLEX.....	5K04 HL00201-04
HILL, ESTHER P.....	KINETICS OF CO ₂ AND CO EXCHANGE.....	1K04 HL00418-01A1
KAGNOFF, MARTIN F.....	INDUCTION OF INTESTINAL ANTIGEN-SENSITIVE CELLS.....	5K04 AM00021-05
KYTE, JACK E.....	MOLECULAR STRUCTURE OF THE OUABAIN SENSITIVE ATPASE.....	5K04 HL00206-04
LEIBOWITZ, JULIAN L.....	PERSISTENCE AND GENETICS OF A NEUROTROPIC MHV.....	1K07 NS00418-01
MILLER, ARNOLD L.....	I-CELL DISEASE AND MENTAL RETARDATION.....	5K04 NS00050-05
NESBITT, MURIEL N.....	CELLULAR MAPPING OF BEHAVIOR TRAITS IN MICE.....	5K04 GM00138-05
NINNEMANN, JOHN L.....	IMMUNE RESPONSE DURING THERMAL INJURY.....	5K04 GM00264-04
OKAMURA, MELVIN Y.....	ELECTRON TRANSPORT IN BACTERIAL MEMBRANES.....	5K04 GM00106-05
ROSENFELD, MICHAEL G.....	MECHANISM OF HORMONAL AND CAMP REGULATORY ACTION.....	5K04 AM00078-05
RYAN, ALLEN F.....	AUDITORY DEVELOPMENT—NORMAL & ABNORMAL ENVIRONMENTS.....	5K04 NS00176-02
SAIER, MILTON H, JR.....	REGULATION OF MEMBRANE FUNCTION IN C-6 RAT GLIOMA CELLS.....	5K04 CA00138-05
WAGNER, PETER D.....	VENTILATION AND BLOOD FLOW IN CARDIOPULMONARY DISEASE.....	5K04 HL00111-05
WOO, SAVIO L.....	BIOMECHANICS OF NORMAL & REPAIRED LIGAMENTS AND TENDONS.....	5K04 AM00304-03
LOMA LINDA		
LOMA LINDA UNIVERSITY ZIP CODE 92354		
KISSINGER, DAVID G.....	DIET AND ETIOLOGY OF BREAST CANCER.....	5K04 HD00188-02
QUILLIGAN, JAMES J, JR.....	VIRUSES, VACCINATION AND ANTIVIRAL IMMUNITY.....	5K06 AI20517-17
LOS ANGELES		
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LOS ANGELES ZIP CODE 90032		
BROWN, COSTELLO L.....	NEGATIVE IONIZATION OF BIOORGANIC MOLECULES.....	5K04 GM00131-05
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048		
NEUFELD, NAOMI D.....	EFFECTS OF INSULIN ON FETAL LUNG CHO METABOLISM.....	7K08 AM00758-02
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027		
ETTENDER, ROBERT B.....	IMMUNOLOGIC EFFECT OF TRANSFUSION ON RENAL TRANSPLANTS.....	1K08 AM00597-01
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024		
BARNARD, R JAMES.....	EFFECT OF ACUTE AND CHRONIC EXERCISE ON THE HEART.....	5K04 HL00052-05
CLARK, WILLIAM R.....	MECHANISMS OF GENERATION OF CYTOTOXIC EFFECTOR T CELLS.....	5K04 AI00009-05
CRANDALL, EDWARD D.....	GAS EXCHANGE AND PH: INTERACTIONS AND IMPORTANCE.....	7K04 HL00668-05
FARBER, DEBORA A.....	CYCIC NUCLEOTIDES IN CONE METABOLISM AND DISEASE.....	1K04 EY00144-01
FINE, LEON G.....	FUNCTIONAL PROFILE OF THE ISOLATED UREMIC NEPHRON.....	5K04 AM00585-03
FOGELMAN, ALAN M.....	CHOLESTEROL METABOLISM AND ATHEROSCLEROSIS.....	5K04 HL00426-02
GONG, HENRY, JR.....	PULMONARY MEDICINE.....	5K07 HL00340-03
HEIDNER, ELIZABETH G.....	X-RAY & EM STUDIES—RNA-POLYMERASE & GLYCOGEN SYNTHESIS.....	5K04 GM00085-04
HOLLISTER, DAVID W.....	BIOCHEMICAL STUDIES OF THE CHONDRODYSSTROPHIES.....	5K04 AM00293-03
HORWITZ, JOSEPH.....	HUMAN LENS, BIOCHEMICAL AND BIOPHYSICAL PROPERTIES.....	5K04 EY00058-03
IRIE, REIKO F.....	HUMORAL IMMUNE RESPONSES TO HUMAN CANCER.....	1K04 CA00543-01
JENKINS, HERMAN A.....	OPTOKINETIC AND VESTIBULAR INTERACTIONS.....	5K07 NS00294-03
KANE, ROBERT L.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00045-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
CALIFORNIA—Continued		
KLEIN, ALAN H	DEVELOPMENT AND CONTROL OF NEONATAL THERMOGENESIS	1K04 HD00293-01
LANGE, KENNETH L	GENETIC EPIDEMIOLOGY & HUMAN POPULATION BIOLOGY	1K04 HD00307-01
LETINSKY, MICHAEL S	STRUCTURE AND FUNCTION OF DEVELOPING SYNAPSES	5K04 NS00282-03
MEAD, JAMES F	METABOLISM OF BRAIN FATTY ACIDS	5K06 GM19177-17
MEYERS, ROBERTA L	IMMUNOLOGY AND IMMUNOPATHOLOGY OF CORNEAL DISEASE	5K04 EY00014-05
MUSTAFA, MOHAMMAD G	PULMONARY OXIDANT INJURY AND METABOLIC ADAPTATION	5K04 HL00301-04
NUWAYHID, BAHJI S	NEUROHUMORAL CONTROL OF THE CIRCULATION	5K04 HD00253-02
PARDRIDGE, WILLIAM M	MUSCLE AMINO ACID METABOLISM AND HEPATIC GLUCONEOGENESIS	5K08 AM00409-02
PESKOFF, ARTHUR	MATH DESCRIPTION OF ELECTRICAL PROPERTIES OF CELLS	5K04 GM00222-04
RIVIERE, GEORGE R	TOOTH TRANSPLANTATION GENETICS AND IMMUNOLOGY	5K04 DE00044-03
SAXON, ANDREW	REGULATION OF THE IMMUNE SYSTEM IN HUMANS	1K07 AI00326-01
SEEGER, ROBERT C	IMMUNE RESPONSE OF CHILDREN TO NEUROBLASTOMA	5K04 CA00069-05
STRELIOFF, DAVID	NEURAL EXCITATION IN THE COCHLEA	5K04 NS00255-03
WISNIESKI, BERNADINE J	PHYSICAL STRUCTURE OF ANIMAL CELL MEMBRANES	5K04 GM00228-04
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007		
APPLEMAN, M MICHAEL	CYCLOC NUCLEOTIDES AS MEDIATORS OF PHYSIOLOGICAL CONTROL	5K04 AM70518-05
BAU, ROBERT	THE MOLECULAR BASIS OF ANTITUMOR PLATINUM DRUG ACTIVITY	5K04 CA00015-05
RUDE, ROBERT K	MINERAL METABOLISM IN MAGNESIUM DEFICIENCY	1K08 AM00371-01
SOBIN, SIDNEY S	STUDIES OF THE MICROCIRCULATION	5K06 HL07064-19
WALSH, DAVID A	AGE-RELATED DIFFERENCES IN HUMAN COGNITION	5K04 AG00017-02
PASADENA		
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125		
ALLMAN, JOHN M	FUNCTIONAL ORGANIZATION OF VISUAL CORTEX	5K04 NS00178-04
CAMPBELL, JUDITH L	ENZYMATIC MECHANISMS OF DNA REPLICATION	1K04 CA00544-01
LESTER, HENRY A	NICOTINIC SYNAPSES	5K04 NS00272-03
RIVERSIDE		
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521		
HAMMOCK, BRUCE D	DEVELOPMENT OF ENVIRONMENTALLY SAFE INSECTICIDES	1K04 ES00046-01
HENRY, HELEN L	KIDNEY CELL CULTURE: REGULATION OF CALCIUM METABOLISM	5K04 AM00412-02
LUBEN, RICHARD A	NORMAL AND PATHOLOGIC INFLUENCES ON BONE METABOLISM	5K04 DE00057-02
OLSEN, RICHARD W	BIOCHEMISTRY OF NEUROTRANSMITTER RECEPTOR MECHANISMS	5K04 NS00224-03
QUINTON, PAUL M	PHYSIOLOGY OF ISOLATED SWEAT GLANDS: CYSTIC FIBROSIS	5K04 AM00708-03
TALBOT, PRUDENCE	MECHANISMS OF OVULATION AND FERTILIZATION	1K04 HD00279-01
SAN FRANCISCO		
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN FRANCISCO STATE UNIVERSITY ZIP CODE 94132		
WALKER, FRANCES A	HEME & HEMOPROTEIN MODELS—SPECTRA & REDOX STUDIES	5K04 GM00227-04
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143		
BASBAUM, ALLAN I	ANATOMICAL SUBSTRATES OF PAIN CONTROL MECHANISMS	5K04 NS00364-02
BISSELL, DWIGHT M, JR	REGULATION OF HEPATIC HEMOPROTEIN METABOLISM	5K04 GM00149-05
BOUSHEY, HOMER A, JR	PULMONARY MEDICINE	5K07 HL00130-05
CALARCO, PATRICIA G	CELL SURFACE ANTIGENS IN EARLY MOUSE DEVELOPMENT	1K04 HD00244-01
CHAPLIN, EDWARD R, JR	INTRAVENTRICULAR HEMORRHAGE IN PRETERM INFANTS	5K07 NS00283-02
CHAR, DEVRON H	UVEITIS AND EYE TUMORS: IMMUNODIAGNOSIS AND MONITORING	5K04 EY00117-02
COFFINO, PHILIP	GENETIC ANALYSIS OF C-AMP ACTION IN LYMPHOMA CELLS	5K04 GM00308-03
COOKE, ROGER	CONTRACTION IN SKELETAL AND CARDIAC MUSCLE	5K04 AM00479-02
DALLMAN, MARY F	BRAIN-PITUITARY-ADRENAL INTERRELATIONSHIPS	5K04 AM00072-05
FEINGOLD, KENNETH R	SERCA-DIABETES MELLITUS—CARDIOVASCULAR	1K01 AM00633-01
GARDNER, DAVID G	REGULATION OF EXPRESSION OF THE GROWTH HORMONE GENE	1K08 AM00671-01
GLANTZ, STANTON A	EXTERNAL CONSTRAINTS EFFECTS ON LEFT VENTRICLE MECHANICS	5K04 HL00345-03
GOLDYNE, MARC E	INVESTIGATION OF PROSTAGLANDINS IN MACROPHAGES	1K08 AM00576-01
JAMES, THOMAS L	NMR STUDIES OF BIOMOLECULAR INTERACTIONS AND DYNAMICS	1K04 AM00291-01A1

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1979—Continued

Awardee	Project title	Grant number
CALIFORNIA—Continued		
KENYON, GEORGE L.....	PROBING THE ACTIVE SITE OF CREATINE KINASE.....	5K04 AM00014-05
KIRSCHNER, MARC W.....	MECHANISM OF MICROTUBULAR ASSEMBLY AND MITOSIS.....	5K04 GM00475-05
KORENBROT, JUAN I.....	RHODOPSIN AND TRANSDUCTION IN ROD PHOTORECEPTORS.....	5K04 EY00050-02
KUN, ERNEST.....	BIOCHEMICAL REGULATORY MECHANISMS.....	4K06 GM04615-16
KUNTZ, IRWIN D, JR.....	MACROMOLECULAR STRUCTURE AND HYDRATION.....	5K04 GM00042-05
LIPTON, MARTIN J.....	CARDIAC RECONSTRUCTION USING COMPUTERIZED TOMOGRAPHY.....	5K04 HL00360-03
MARTON, LAURENCE J.....	DIAGNOSIS AND EVALUATION OF BRAIN TUMOR CHEMOTHERAPY.....	5K04 CA00112-05
METZGER, WILLIAM C, JR.....	RBC METABOLISM IN SICKLEMLIA AND OTHER CHILDHOOD ANEMIAS.....	5K04 HL00086-05
MILLER, WALTER L.....	ISOLATION OF THE GENE FOR HUMAN GROWTH HORMONE.....	5K08 AM00422-02
NICHOLS, BARBARA A.....	THE DEFENSE OF THE LUNG BY ALVEOLAR MACROPHAGES.....	5K04 AI00294-02
NICOLL, ROGER A.....	BARBITURATES: ACUTE AND CHRONIC SYNAPTIC EFFECTS.....	5K04 NS00287-03
OPPENHEIMER, NORMAN J.....	STRUCTURE/FUNCTION RELATIONSHIPS OF PYRIDINE COENZYMES.....	1K04 CA00587-01
OSTWALD, THOMAS J.....	ION TRANSPORT AND NA-K ATPASE OF PIGMENT EPITHELIUM.....	5K07 EY00131-02
PAWSON, IVAN G.....	BIOCULTURAL RISKS IN LONGEVITY: SAMOANS IN CALIFORNIA.....	1K04 AG00022-01
PERMAN, JAY A.....	CARBOHYDRATE ABSORPTION IN NEONATES—BREATH ANALYSIS.....	1K04 HD00297-01
PITTS, LAWRENCE H.....	TRAUMATIC CEREBRAL EDEMA.....	1K07 NS00436-01
RAPOPORT, BASIL.....	THYROID STIMULATORS IN HEALTH AND DISEASE.....	5K04 AM00500-02
REID, IAN A.....	SYMPATHETIC REGULATION OF RENIN SECRETION.....	5K04 HL00104-05
ROBERTS, JAMES M.....	HORMONAL MODULATION OF ADRENORECEPTORS AND RESPONSE.....	1K04 HD00267-01
ROSEN, STEVEN D.....	BIOCHEMISTRY OF CELL ADHESION.....	5K04 GM00322-03
SANTI, DANIEL V.....	STUDIES OF TMP SYNTHETASE & THE GLUCOCORTICOID RECEPTOR.....	5K04 CA00123-05
SCHARSCHMIDT, BRUCE F.....	MECHANISM OF BILE FORMATION AND ORGANIC ANION EXCRETION.....	5K04 AM00323-03
SCHINDLER, ROBERT A.....	PROJECTION ORGANIZATION TO/FROM SUPERIOR OLIVARY COMPLEX.....	5K07 NS00175-04
SEVERINGHAUS, JOHN W.....	RESPIRATORY CHEMORECEPTOR SENSITIVITY CONTROL MECHANISMS.....	5K06 HL19412-17
SIMON, ROGER P.....	THE CENTRAL NERVOUS SYSTEM AND PULMONARY EDEMA.....	1K07 NS00437-01
TYBERG, JOHN V.....	AN ANALYSIS OF ISCHEMIC DYSFUNCTION.....	5K04 HL00016-05
WARA, DIANE W.....	EFFECTS OF THYMIC HORMONE (THYMOSIN) IN MAN.....	5K04 HD00170-02
WARNOCK, DAVID G.....	NA/ION REABSORPTION/H/ION SECRETION RENAL MECHANISMS.....	1K04 AM00668-01
WEINKAM, ROBERT J.....	CHEMICAL IONIZATION MASS SPECTROMETRY—BIOMEDICAL.....	5K04 GM00007-05
WIKMAN-COFFELT, JOAN.....	CONTRACTILE PROTEINS IN ISCHEMIA.....	5K04 HL00466-C3
WILLIAMS, MARY C.....	LUNG SURFACTANT: SYNTHESIS, SECRETION, AND STRUCTURE.....	5K04 HL00221-04
WINOGRAD, CAROL H.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00083-01
YAMAMOTO, KEITH R.....	MECHANISM OF GENE REGULATION BY STEROID RECEPTOR PROTEIN.....	5K04 CA00347-03
UNIVERSITY OF THE PACIFIC ZIP CODE 94115		
HIGHSMITH, STEFAN.....	SEGMENTAL MOTION OF CA20/MG20-ATPASE IN SR VESICLES.....	1K04 AM00509-01A1
SANTA BARBARA		
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA ZIP CODE 93106		
PURICH, DANIEL L.....	ENZYME REGULATION BY COVALENT MODIFICATION.....	3K04 GM00250-02S1
PURICH, DANIEL L.....	ENZYME REGULATION BY COVALENT MODIFICATION.....	5K04 GM00250-03
SAMUEL, CHARLES E.....	MECHANISM OF INTERFERON ACTION.....	1K04 AI00340-01
SANTA CRUZ		
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064		
MC MURRY, JOHN E.....	TOTAL SYNTHESIS OF CARDIAC AGLYCONES.....	5K04 CA00163-04
STANFORD		
STANFORD UNIVERSITY ZIP CODE 94305		
BLASCHKE, TERENCE F.....	KINETICS OF DRUG-DISEASE AND DRUG-DRUG INTERACTIONS.....	5K04 GM00407-02
CHOW, KAO L.....	NEUROBIOLOGY OF LEARNING AND VISION.....	5K06 NS18512-18
COOPER, ALLEN D.....	REGULATION OF HEPATIC CHOLESTEROL SYNTHESIS.....	3K04 AM00503-01S1
COOPER, ALLEN D.....	REGULATION OF HEPATIC CHOLESTEROL SYNTHESIS.....	5K04 AM00503-02
FRIEDBERG, ERROL C.....	DNA REPAIR MECHANISMS AND DNA-PROTEIN INTERACTION.....	5K04 CA71005-05
GLADER, BERTIL E.....	PATHOPHYSIOLOGY OF HEMOLYSIS: ROLE OF RBC DEHYDRATION.....	5K04 AM00435-04
HELLER, H CRAIG.....	CENTRAL NERVOUS SYSTEM REGULATION OF BODY TEMPERATURE.....	5K04 NS00041-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
CALIFORNIA—Continued		
HSUEH, WILLA A.....	BIG RENIN: PHYSIOLOGIC AND BIOCHEMICAL PROPERTIES.....	1K08 AM00533-01
HUESTIS, WRAY H.....	NEUROTRANSMITTER RECEPTORS IN HUMAN ERYTHROCYTES.....	5K04 HL00258-03
MERRELL, RONALD C.....	CELL SURFACE BIOCHEMISTRY.....	1K04 AM00748-01
PERKINS, DAVID D.....	GENETICS OF NEUROSPORA.....	4K06 GM04899-16
SHORTLIFFE, EDWARD H.....	SYMBOLIC COMPUTATION METHODS FOR CLINICAL REASONING.....	1K04 LM00048-01
SIMONI, ROBERT D.....	STRUCTURE-FUNCTION RELATIONSHIPS IN MEMBRANES.....	5K04 GM00225-04
THEODORE, JAMES.....	PULMONARY MEDICINE.....	5K07 HL00129-05
TORRANCE		
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER		ZIP CODE 90509
JOBE, ALAN H.....	LUNG PHOSPHOLIPID METABOLISM DURING DEVELOPMENT.....	5K04 HD00252-02
ROTTER, JEROME I.....	GENETICS OF PEPTIC ULCER DISEASE.....	1K08 AM00523-01
COLORADO		
BOULDER		
UNIVERSITY OF COLORADO—UNIVERSITY OF COLORADO AT BOULDER		ZIP CODE 80309
CARLSON, LAWRENCE E.....	MULTI-MODE CONTROL OF UPPER-LIMB PROSTHESES.....	5K04 AM00166-04
CARUTHERS, MARVIN H.....	BIOCHEMICAL AND BIOLOGICAL STUDIES OF DNA CONTROL REGION.....	5K04 GM00076-05
GOLD, LAWRENCE M.....	GENE EXPRESSION: BIOCHEMISTRY/GENETICS OF TWO CISTRONS.....	5K04 AM00103-05
HALLICK, RICHARD B.....	GENE EXPRESSION IN ORGANELLES DURING CELL DEVELOPMENT.....	5K04 GM00372-03
DENVER		
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER		ZIP CODE 80206
CHILLER, JACQUES M.....	CELLULAR BASIS OF IMMUNOREGULATORY MECHANISMS.....	5K04 AI00133-04
PACE, NORMAN R.....	SYNTHESIS AND REGULATION OF RIBOSOMAL RNA.....	5K04 GM00189-04
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO MEDICAL CENTER		ZIP CODE 80262
ANDERSON, ROBERT J.....	WATER METABOLISM IN HEART FAILURE AND EDEMATOUS STATES.....	5K04 HL00316-03
ARMSTRONG, DONALD.....	PEROXIDASE DEFICIENCY, AND PEROXIDE REGULATING ENZYMES.....	1K04 EY00130-01
FINK, LOUIS M.....	TRANSFORMATION OF CELLS BY CHEMICAL CARCINOGENS.....	5K04 CA00050-05
GAENSBAUER, THEODORE J.....	REGULATION OF AFFECT EXPRESSION IN INFANCY.....	5K04 HD00214-03
LEVINE, JOEL S.....	THE CELLULAR BIOLOGY OF G. I. HORMONE SECRETION.....	5K08 AM00484-02
MOORHEAD, JOHN W.....	INTERACTION OF T-CELLS IN IMMUNITY AND TOLERANCE.....	5K04 AI00125-04
MURPHY, ROBERT C.....	APPLICATION OF MASS SPECTROMETRY TO BIOMEDICAL RESEARCH.....	5K04 HD00128-04
NEVILLE, MARGARET C.....	ROLE OF INTRACELLULAR COMPARTMENTS IN NUTRIENT TRANSPORT.....	5K04 AM00038-05
NORRIS, DAVID A.....	CYTODESTRUCTIVE MECHANISMS IN CUTANEOUS DISEASE.....	5K08 AM00510-02
PATTERSON, DAVID.....	GENETIC BIOCHEMICAL REGULATION IN MAMMALIAN CELLS.....	5K04 AM00044-05
ROPER, STEPHEN D.....	SPROUTING OF SYNAPTIC TERMINALS.....	5K04 NS00257-02
SIMON, FRANCIS R.....	SURFACE MEMBRANE REGULATION OF BILE ACID TRANSPORT.....	5K04 AM00347-03
WENGER, DAVID A.....	BETA-GALACTOSIDASE DEFICIENCY NEURODEGENERATIVE DISEASE.....	5K04 NS00108-04
ZWILLICH, CLIFFORD W.....	VENTILATORY CONTROL AND RESPIRATORY FAILURE.....	5K04 HL00225-04
CONNECTICUT		
FARMINGTON		
UNIVERSITY OF CONNECTICUT HEALTH CENTER		ZIP CODE 06032
CATALANOTTO, FRANK A.....	SENSORY PHYSIOLOGY IN HEALTH & DISEASE.....	5K04 DE00012-05
HOCK, JANET M.....	MICROCIRCULATORY FUNCTION IN EARLY GINGIVAL INFLAMMATION.....	5K04 DE00035-04
KOLAKOWSKI, DONALD L.....	GENETICS OF THE HUMAN DENTITION IN SEVERAL POPULATIONS.....	5K04 DE00015-05
PAPPANO, ACHILLES J.....	PHARMACOLOGY OF DEVELOPING CARDIAC TISSUES.....	5K04 HL00027-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
CONNECTICUT—Continued		
SHERLINE, PETER.....	MICROTUBULES AND THE MECHANISM OF INSULIN SECRETION.....	1K04 AM00456-01A1
YOSHIDA, TAKESHI.....	LYMPHOKINE MEDIATORS OF CELLULAR IMMUNITY IN VIVO.....	5K04 AI00082-05
MIDDLETOWN		
WESLEYAN UNIVERSITY ZIP CODE 06457		
ALLEWELL, NORMA M.....	THERMODYNAMICS OF MEMBRANE-LIGAND INTERACTIONS.....	5K04 AM00283-03
LYNCH, CAROL B.....	GENETIC ANALYSIS OF BEHAVIORAL THERMOREGULATION.....	5K04 ES00042-02
PRATT, REX F.....	BETA-LACTAMASES AND BACTERIAL PENICILLIN RESISTANCE.....	1K04 AI00331-01
WOLFE, JASON S.....	THE DIVISION/DIFFERENTIATION DECISION—FOCUS ON G1.....	5K04 GM00140-05
NEW HAVEN		
YALE UNIVERSITY ZIP CODE 06520		
BLITZER, BENNETT L.....	MECHANISMS OF BILE FORMATION.....	1K08 AM00661-01
CANELLAKIS, EVANGELO S.....	BIOCHEMICAL CONTROL MECHANISMS.....	4K06 GM03070-16
COHEN, STEVEN R.....	BIOLOGIC EFFECTS OF ENVIRONMENTAL FACTORS ON THE SKIN.....	5K08 AM00511-02
COLE, PATRICIA E.....	BIOPHYSICAL STUDIES OF GENE EXPRESSION.....	5K04 GM00471-04
DE LORENZO, ROBERT J.....	PROTEIN PHOSPHORYLATION, ANTICONVULSANTS, & EPILEPSY.....	5K04 NS00245-03
GERLT, JOHN A.....	THE INTERACTIONS OF CYCLIC NUCLEOTIDES WITH ENZYMES.....	5K04 CA00499-02
GORELICK, FRED S.....	OPIATES & OPIOID PEPTIDES & PANCREATIC EXOCRINE FUNCTION.....	1K08 AM00659-01
GROSZMANN, ROBERTO J.....	MEDICAL TREATMENT OF PORTAL HYPERTENSION.....	1K04 AM00670-01
HOFFMAN, RONALD.....	REGULATION OF HUMAN ERYTHROPOIESIS AT THE CELLULAR LEVEL.....	1K04 AM00638-01
HOWARD-FLANDERS, PAUL.....	MECHANISMS FOR THE PERSERVATION OF THE GENOME.....	5K06 AM09397-17
JAFFE, CONRADE C.....	ALTERED IMAGE DISPLAY IN DIAGNOSTIC RADIOLOGY.....	1K04 CA00567-01
MANUELIDIS, LAURA M.....	BIOCHEMISTRY/ULTRASTRUCTURE: CNS TUMORS, DEVELOPING CELL.....	5K04 NS00101-05
MILLER, DENIS J.....	NATURE OF IMMUNE MECHANISMS IN PATHOGENESIS OF HEPATITIS.....	5K08 AM00488-02
MILSTONE, LEONARD M.....	DIFFERENTIATION OF EPIDERMIS: ROLE OF KERATINOSOMES.....	5K08 AM00389-03
OGDEN, JOHN A.....	ANALYSIS OF POST-NATAL SKELETAL DEVELOPMENT.....	5K04 AM00300-02
PANJABI, MANOHAR M.....	MEASUREMENT OF HUMAN SPINE MOTION SEGMENT BEHAVIOR.....	5K04 AM00299-02
PAPERMASTER, DAVID S.....	MEMBRANE BIOSYNTHESIS IN RETINA.....	5K04 EY00017-05
PILLSBURY, HAROLD R, III.....	HYPERTENSION & HYPERLIPOPROTEINEMIA EFFECTS ON COCHLEA.....	1K07 NS00441-01
POWLEY, TERRY L.....	HYPOTHALAMIC CONTROL OF BODY WEIGHT AND FEEDING.....	5K04 AM00363-03
SEYFRIED, THOMAS N.....	DEVELOPMENTAL GENETICS OF BRAIN GLYCOLIPIDS.....	1K04 NS00459-01
SHERWIN, ROBERT S.....	INSULIN, GLUCAGON, SOMATOSTATIN AND BODY FUEL METABOLISM.....	5K04 AM00334-03
SOMAN, VIJAY R.....	GLUCAGON AND INSULIN RECEPTORS IN GLUCOSE HOMEOSTASIS.....	5K08 AM00356-03
TAMBORLANE, WILLIAM V, JR.....	EFFECTS OF HGH & OPEN-LOOP INSULIN DELIVERY IN DIABETES.....	1K08 AM00621-01
VARGA, JANOS M.....	SPECIFICITY AND EXPRESSION OF CELL SURFACE RECEPTORS.....	5K04 AI00154-04
WADE, JAMES B.....	PHYSIOLOGY OF EPITHELIA AND MEMBRANE STRUCTURE.....	5K04 AM00217-04
STORRS		
UNIVERSITY OF CONNECTICUT ZIP CODE 06268		
BALL, LAURENCE A.....	THE CONTROL OF VIRAL GENE EXPRESSION.....	5K04 AI00273-02
GOULD, STEVEN J.....	BIOORGANIC STUDY WITH STABLE AND RADIOACTIVE ISOTOPES.....	1K04 CA00627-01
ROTH, JAY S.....	NUCLEASES AND DNA METABOLISM STUDIES.....	5K06 CA18379-18
ZEAMAN, DAVID.....	RETARDATE DISCRIMINATION LEARNING AND ATTENTION.....	5K06 HD20325-17
DELAWARE		
NEWARK		
UNIVERSITY OF DELAWARE ZIP CODE 19711		
WAGNER, ROGER C.....	MICROPINOCTIC TRANSPORT IN CAPILLARY ENDOTHELIUM.....	5K04 HL00270-03
WHITE, HAROLD B, III.....	GLYCEROL 3-P DEHYDROGENASE AND EGG YOLK AVIDIN.....	5K04 AM00152-03

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
DIST OF COL		
WASHINGTON		
AMERICAN NATIONAL RED CROSS ZIP CODE 20006		
INGHAM, KENNETH C	PRECIPITATION OF PROTEINS WITH POLYETHYLENE GLYCOL	5K04 HL00325-03
GEORGETOWN UNIVERSITY ZIP CODE 20057		
BEAUCHAMP, TOM L	SPECIAL SCIENTIFIC PROJECT: INFORMED CONSENT	1K10 LM00032-01
POPPER, ARTHUR N	PHYSIOLOGICAL DETERMINATIONS OF INNER EAR FUNCTION	5K04 NS00312-02
FLORIDA		
CORAL GABLES		
UNIVERSITY OF MIAMI ZIP CODE 33124		
CORBETT, MICHAEL D	FORMATION AND FATE OF HYDROXAMATES IN THE ENVIRONMENT	5K04 ES00038-02
GAINESVILLE		
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611		
BIRDELL, DALE C	PATHOGENICITY OF BACTERIAL TEICHOIC ACIDS	5K04 DE00030-04
DUCKWORTH, DONNA H	BACTERIOPHAGE AND CELL SURFACE PHENOMENON	5K04 AI00054-04
DUNN, BEN M	CONTROL OF PEPsin BY ACTIVATION PEPTIDE ANALOGS	5K04 AM00303-03
GARNICA, ADOLFO D	PRENATAL TREATMENT OF MENKES KINKY HAIR SYNDROME	1K04 NS00409-01
HARTY, RICHARD F	GASTROINTESTINAL PEPTIDE HORMONE SYNTHESIS AND SECRETION	5K08 AM00298-03
HOWARD, RICHARD J	VIRUS-IMMUNE INTERACTION IN MICE AND TRANSPLANT PATIENTS	7K04 AI00394-04
KARLAN, MARC S	PHYSIOLOGY & PATHOPHYSIOLOGY OF HEARING	5K07 NS00281-03
MISBIN, ROBERT I	SERCA-DIABETES MELLITUS: CARDIOVASCULAR	5K01 AM00561-02
ROSS, WARREN E	STUDIES IN DNA DAMAGE AND REPAIR BY ANTITUMOR AGENTS	1K04 CA00527-01
WYNNE, JAMES W	PULMONARY MEDICINE	5K07 HL00122-04
MIAMI		
UNIVERSITY OF MIAMI ZIP CODE 33101		
BRADY, AL H	STRUCTURE OF ENZYME COMPLEXES IN NEOPLASMS	5K04 CA00100-05
BREW, KEITH	CHEMICAL STUDIES OF ENZYMES AND PROTEINS	5K04 GM00147-05
DOWNEY, KATHLEEN M	RNA-DEPENDENT RNA POLYMERASE OF ERYTHROID CELLS	5K04 HL00031-05
HINKLEY, ROBERT E, JR	VOLATILE ANESTHETICS ON NERVE CELL STRUCTURE & FUNCTION	5K04 GM00454-04
LA MANNA, JOSEPH C	BRAIN WORK: MECHANISMS OF METABOLIC CONTROL	1K04 NS00399-01
PENNEYS, NEAL S	INHIBITOR(S) OF PROSTAGLANDIN BIOSYNTHESIS OF SKIN	5K04 AM00203-04
RABINOVITCH, ALEXANDER	FUNCTIONS OF PANCREATIC ISLET CELLS CULTURED IN VITRO	5K04 AM00552-02
SCOTT, WALTER A	SV40 TRANSFORMED ENDOCRINE CELLS/SV40 CHROMATIN	5K04 AM00549-02
THET, LYN A	PULMONARY MEDICINE	5K07 HL00374-03
TALLAHASSEE		
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306		
BERKLEY, KAREN J	NEUROANATOMY OF SOMATIC PATHWAYS AFFERENT TO THALAMUS	5K04 NS00118-05
FREEMAN, MARC E	HYPOTHALAMIC CONTROL OF PITUITARY FUNCTION	5K04 HD00231-02
MARZLUFF, WILLIAM F, JR	SPECIFIC GENE EXPRESSION IN ANIMAL CELLS IN VITRO	5K04 CA00178-04
RILL, RANDOLPH L	THE STRUCTURE OF CHROMATIN AND MODEL NUCLEOPROTEINS	5K04 GM00087-05
VERO BEACH		
FLORIDA DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES—FLORIDA MEDICAL ENTOMOLOGY LABORATORY ZIP CODE 32960		
BOROVSKY, DOV	VITELLOGENIN SYNTHESIS IN BITING DIPTERA	5K04 AI00263-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
GEORGIA		
ATHENS		
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602		
KUSHNER, SIDNEY R.....	BIOCHEMISTRY OF GENETIC RECOMBINATION AND DNA REPAIR.....	5K04 GM00048-05
PROENZA, LUIS M.....	ELECTROPHYSIOLOGY OF RETINAL CELLS IN VISION.....	3K04 EY00042-02S1
VAPNEK, DANIEL.....	MOLECULAR STUDIES OF R-PLASMIDS IN E. COLI.....	5K04 GM00090-05
ATLANTA		
ATLANTA UNIVERSITY ZIP CODE 30314		
LUMB, JUDITH R.....	A THEORETICAL AND BIOCHEMICAL STUDY OF LEUKEMIA.....	5K04 CA00067-05
EMORY UNIVERSITY ZIP CODE 30322		
BESHARSE, JOSEPH C.....	THE VISUAL CELL-PIGMENT CELL COMPLEX AND OUTER SEGMENT.....	1K04 EY00169-01
HARTZELL, H. CRISS, JR.....	ACETYLCHOLINE RECEPTORS IN FROG CARDIAC MUSCLE.....	5K04 HL00435-02
HONIG, ERIC G.....	PULMONARY MEDICINE.....	5K08 HL00314-03
MUSEY, VICTORIA C.....	ENDOCRINE EVENTS AT TIME OF FIRST PREGNANCY.....	1K08 AM00654-01
NOE, BRYAN D.....	ROLE OF PROGLUCAGON IN GLUCAGON BIOSYNTHESIS.....	5K04 AM00142-03
WHITE, JOHN F.....	MECHANISMS OF INTESTINAL C1 ABSORPTION AND SECRETION.....	5K04 AM00367-02
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY ZIP CODE 30332		
WARTELL, ROGER M.....	INTERACTION OF RNA POLYMERASE WITH DNA SITES.....	1K04 AI00332-01
YU, NAI-TENG.....	NEW METHODS FOR BIOMEDICAL RESEARCH.....	5K04 EY00073-04
AUGUSTA		
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901		
OKABE, TORU.....	DIFFUSION IN AMALGAM-AMALGAMATION ON AG-SN (TX) ALLOYS.....	5K04 DE00039-04
STRONG, WILLIAM B.....	PREVENTIVE CARDIOLOGY ACADEMIC AWARD.....	1K07 HL00621-01
HAWAII		
HONOLULU		
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822		
FURUIKE, ALVIN N.....	PULMONARY MEDICINE.....	5K08 HL00451-02
HALLENBORG, CARL P.....	PULMONARY MEDICINE.....	5K08 HL00312-04
MORISHIGE, WALTER K.....	HORMONAL REGULATION OF LUNG FUNCTION.....	5K04 HL00216-04
SMITH, RICHARD M.....	PULMONARY MEDICINE.....	5K08 HL00303-03
IDAHO		
MOSCOW		
UNIVERSITY OF IDAHO ZIP CODE 83843		
WILLET, JAMES D.....	HORMONES & HORMONAL SYSTEMS IN NEMATODES.....	5K04 AG00011-05
ILLINOIS		
CHICAGO		
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616		
STACHURA, MAXIMILLIAN E.....	SYNTHESIS STORAGE AND RELEASE OF PITUITARY GH AND PRL.....	5K04 AM00288-03

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
ILLINOIS—Continued		
NORTHWESTERN UNIVERSITY ZIP CODE 60611		
CHILDS, GWEN V.....	THE MULTIPOTENTIAL GONADOTROPE.....	1K04 HD00306-01
FELDMAN, JACK L.....	NEURAL BASIS OF RESPIRATORY RHYTHM.....	1K04 HL00554-01
HUNZICKER-DUNN, MARY E.....	GONADOTROPHIN ACTION IN FOLLICLES AND CORPORA LUTEA.....	1K04 HD00292-01
LIPTON, HOWARD L.....	THEILER'S VIRUS-INDUCED DEMYELINATION.....	5K04 AI00228-03
LIU, KIANG J.....	STATISTICAL METHODOLOGY & CARDIOVASCULAR EPIDEMIOLOGY.....	1K04 HL00577-01
PONZIO, NICHOLAS M.....	LYMPHOCYTE RESPONSES TO SYNGENEIC ANTIGENS.....	1K04 CA00612-01
RUBIN, DAVID B.....	PULMONARY MEDICINE.....	5K08 HL00310-03
TEN EICK, ROBERT E.....	ELECTROPHYSIOLOGICAL BASIS OF HUMAN DYSRHYTHMIAS.....	5K04 HL00033-05
YEH, JAY Z.....	MOLECULAR MECHANISM OF LOCAL ANESTHETIC ACTION.....	5K04 GM00442-02
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER ZIP CODE 60612		
GOETZ, CHRISTOPHER G.....	NEUROPHARMACOLOGY OF CHOREA.....	1K07 NS00347-01A1
LINT, THOMAS F.....	CONTROL OF COMPLEMENT-MEDIATED TUMOR CELL CYTOLYSIS.....	1K04 CA00558-01
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612		
ANDRIACCHI, THOMAS P.....	BIOMECHANICAL STUDY OF TOTAL KNEE REPLACEMENT.....	5K04 AM00493-02
GOTTLIEB, GERALD L.....	EXPERIMENTAL INVESTIGATION OF HUMAN MOTOR MECHANISMS.....	5K04 NS00196-04
SCHAUF, CHARLES L.....	KINETIC STUDIES OF MYXICOLA AXONS/DRUGS FOR M.S. THERAPY.....	5K04 NS00004-05
UNIVERSITY OF CHICAGO ZIP CODE 60637		
AGARWAL, KAN L.....	NUCLEIC ACID-PROTEIN INTERACTIONS.....	5K04 GM00224-04
ARNSDORF, MORTON F.....	ELECTROPHARMACOLOGY OF ANTIARRHYTHMIC DRUGS.....	5K04 HL00196-04
DAWSON, GLYN.....	METABOLISM OF GLYCOLIPIDS AND GLYCOPROTEINS.....	5K04 NS00029-05
FRIED, JOSEF.....	STEROIDS, PROSTAGLANDINS AND CARCINOGENIC HYDROCARBONS.....	4K06 AM21846-16
GEPPERT, EUGENE F.....	PULMONARY MEDICINE.....	5K08 HL00252-04
GROBSTEIN, PAUL.....	DEVELOPMENT OF CONNECTIVITY IN ANURAN VISUAL SYSTEMS.....	5K04 EY00057-03
GUNN, ROBERT B.....	MOLECULAR MECHANISMS OF ION TRANSPORT IN HUMAN RBC.....	5K04 HL00208-04
HUNTER, ROBERT L.....	IMMUNOPATHOLOGY OF HUMAN AND ANIMAL CANCER.....	5K04 CA00032-05
JOSEPHS, ROBERT.....	MOLECULAR STRUCTURE OF SICKLE CELL FIBERS.....	5K04 HL00434-02
LOKEN, MICHAEL R.....	LYMPHOCYTE DIFFERENTIATION AND IMMUNITY.....	1K04 AI00348-01
QUINTANS, JOSE.....	IDIOTYPES, LYMPHOCYTES AND MACROPHAGES.....	5K04 AI00268-02
RECKARD, CRAIG R.....	EFFECTS OF PANCREATIC ISLET TRANSPLANTATION IN RATS.....	5K08 AM00401-03
ROTHMAN-DENES, LUCIA B.....	NOVEL TRANSCRIBING ACTIVITIES IN N4-INFECTED E. COLI.....	5K04 AI00078-05
SCHERBERG, NEAL H.....	VARIATIONS IN MESSENGER RNA IN ENDOCRINE TISSUES.....	5K04 AM00179-03
SCHREIBER, HANS.....	PATHOBIOLOGY OF MULTIPLE MYELOMA.....	5K04 CA00432-02
SCHWARTZ, NANCY B.....	REGULATION OF PROTEOGLYCAN SYNTHESIS AND FUNCTION.....	1K04 AM00603-01
SPARGO, BENJAMIN H.....	ULTRASTRUCTURAL RENAL CHANGES—CLINICAL/EXPERIMENTAL.....	4K06 HL04418-16
SPEAR, PATRICIA G.....	MEMBRANE PROTEINS SPECIFIED BY HERPES VIRUSES.....	5K04 CA00035-05
TAGER, HOWARD S.....	BIOSYNTHESIS AND SECRETION OF PEPTIDE HORMONES.....	5K04 AM00145-04
TRIMBLE, JOHN L.....	NONLINEAR ANALYSIS OF THE HUMAN VER.....	5K07 EY00079-03
WILSON, HUGH R.....	SIGNIFICANCE OF SPATIAL INHOMOGENEITY AND HYSTERESIS.....	5K04 EY00062-02
UNIVERSITY OF ILLINOIS AT CHICAGO CIRCLE ZIP CODE 60680		
OSCAL, LAWRENCE B.....	EXERCISE AND LIPID METABOLISM.....	5K04 AM00216-04
SCHULTZ, ALBERT B.....	BIOCHEMICAL STUDIES OF IDIOPATHIC SCOLIOSIS.....	5K04 AM00029-05
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612		
CHRISTOFFEL, TOM H.....	HEALTH AND THE LAW.....	1K10 LM00027-01
FRIEDENSON, BERNARD A.....	IGG ANTIBODIES WITH THE SAME HEAVY OR LIGHT CHAIN.....	5K04 AI00147-04
HORWITZ, DAVID L.....	RESIDUAL BETA CELL FUNCTION IN DIABETES MELLITUS.....	5K04 AM00721-04
DE KALB		
NORTHERN ILLINOIS UNIVERSITY ZIP CODE 60115		
BLAKE, ROBERT R.....	SPATIAL VISION IN NORMAL AND VISUALLY DEPRIVED ANIMALS.....	5K04 EY00106-02
ERMAN, JAMES E.....	ELECTRON TRANSFER AND HEME PROTEIN REACTIVITY.....	5K04 GM00249-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
ILLINOIS—Continued		
EVANSTON		
NORTHWESTERN UNIVERSITY ZIP CODE 60201		
LEWIS, JACK L.....	MECHANICAL PROPERTIES OF BONE AND IMPLANT DESIGN.....	5K04 AM00081-05
LORAND, LASZLO.....	BLOOD, MUSCLE AND PROSTATE CHEMISTRY.....	5K06 HL03512-17
TUREK, FRED W.....	PHOTOPERIODIC REGULATION OF REPRODUCTION IN MAMMALS.....	5K04 HD00249-02
WIGHTMAN, FREDERIC L.....	PITCH PERCEPTION.....	5K07 NS11072-05
MAYWOOD		
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153		
STODOLSKY, MARVIN.....	BACTERIAL GENE ACQUISITION BY PROPHAGE P1.....	5K04 GM00113-05
URBANA		
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801		
BROWN, ANN L.....	MEMORY FOR STORIES IN CHILDREN.....	5K04 HD00111-04
EBREY, THOMAS G.....	MECHANISM OF VISUAL EXCITATION.....	5K04 EY00025-05
GENNIS, ROBERT B.....	LIPID-REQUIRING MEMBRANE ENZYMES.....	5K04 HL00040-05
GLASER, MICHAEL.....	ROLE OF PHOSPHOLIPIDS IN MEMBRANES AND CELL GROWTH.....	5K04 GM00193-04
KONISKY, JORDAN.....	MECHANISM OF ACTION OF I-COLICINS ON ESCHERICHIA COLI.....	5K04 AI00049-05
OLDFIELD, ERIC.....	NMR AND NEUTRON STUDY OF MEMBRANES AND CELL SURFACES.....	1K04 CA00595-01
ORDAL, GEORGE W.....	CHEMOTAXIS AND PHOTOTAXIS IN BACTERIA.....	5K04 GM00160-04
SHAPIRO, DAVID J.....	REGULATION OF DEVELOPMENT AND CHOLESTEROL SYNTHESIS.....	5K04 HL00482-02
SHERWOOD, ORRIN D.....	RELAXIN: STRUCTURAL AND PHYSIOLOGICAL STUDIES.....	5K04 HD00019-04
WEBER, MICHAEL J.....	EARLY CELL-SURFACE CHANGES IN VIRAL ONCOGENESIS.....	5K04 CA00092-05
INDIANA		
BLOOMINGTON		
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401		
ASLIN, RICHARD N.....	EFFECTS OF EXPERIENCE ON INFANT PERCEPTUAL DEVELOPMENT.....	1K04 HD00309-01
BLUMENTHAL, THOMAS.....	QBETA REPLICASE & PROTEIN SYNTHESIS ELONGATION FACTORS.....	5K04 GM00016-05
ELIZONDO, REYNALDO S.....	THERMOREGULATION IN THE RHESUS MONKEY.....	5K04 AM00061-05
JASKUNAS, S RICHARD.....	REGULATION OF RIBOSOME BIOSYNTHESIS.....	5K04 GM00401-02
MAHLER, HENRY R.....	RESPIRATORY ENZYMES—STRUCTURE, FUNCTION, BIOSYNTHESIS.....	5K06 GM05060-18
RAFF, RUDOLF A.....	REGULATION OF PROTEIN SYNTHESIS IN EARLY DEVELOPMENT.....	5K04 HD00047-05
WIGHTMAN, R MARK.....	ELECTROCHEMICAL DETECTION OF NEUROTRANSMITTER RELEASE.....	1K04 NS00356-01
INDIANAPOLIS		
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202		
BEN-JONATHAN, NIRA.....	HORMONAL FUNCTIONS OF CATECHOLAMINES.....	5K04 NS00219-02
BENSON, MERRILL D.....	IMMUNOBIOLOGY OF THE SERUM FACTOR OF SECONDARY AMYLOID.....	5K04 AM00352-02
KARN, ROBERT C.....	AMYLASE LOCI: BIOCHEMICAL AND GENETIC DIFFERENTIATION.....	5K04 AM00284-03
RHOADES, RODNEY A.....	SUBSTRATE METABOLISM AND LUNG FUNCTION.....	5K04 HL00317-04
NOTRE DAME		
UNIVERSITY OF NOTRE DAME ZIP CODE 46556		
NOWAK, THOMAS.....	INFORMATION TRANSFER—ENZYME ACTIVATION AND REGULATION.....	1K04 AM00486-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
INDIANA—Continued		
WEST LAFAYETTE		
PURDUE UNIVERSITY	ZIP CODE 47907	
BRENCHLEY, JEAN E.....	ROLE OF T-RNA IN REGULATING ENZYME SYNTHESIS.....	5K04 GM00449-04
CRANE, FREDERICK L.....	ORGANIZATION AND FUNCTION OF SUBCELLULAR PARTICLES.....	5K06 GM21839-16
DIXON, JACK E.....	THYROTROPIN RELEASING HORMONE BIOSYNTHESIS; DEGRADATION.....	5K04 AM00218-04
FETH, LAWRENCE L.....	AUDITORY SPECTRAL RESOLUTION.....	5K04 NS00267-02
HARTL, DANIEL L.....	EVOLUTION OF NEW GENES, DYNAMICS OF GENE SUBSTITUTION.....	5K04 GM00023-05
MARKLEY, JOHN L.....	THE USE OF NMR TO SOLVE PROBLEMS IN PROTEIN CHEMISTRY.....	5K04 HL00061-05
PINTO, LAWRENCE H.....	PHOTORECEPTOR SIGNAL GENERATION.....	5K04 EY00009-05
WEITH, H LEE.....	SEQUENCE ANALYSIS OF TUMOR VIRUS RNA.....	5K04 CA00447-02

IOWA

IOWA CITY

UNIVERSITY OF IOWA	ZIP CODE 52242	
ARNONE, ARTHUR.....	X-RAY STUDIES OF HEMOGLOBIN AND REGULATORY ENZYMES.....	5K04 AM00099-05
AUTOR, ANNE P.....	MECHANISM OF OXYGEN & FREE RADICAL TOXICITY.....	5K04 HD00068-05
BARON, JEFFREY.....	MECHANISMS AND CONTROL OF MAMMALIAN STEROIDOGENESIS.....	5K04 AM00091-05
BURNS, CHARLES P.....	LEUKEMIC LEUKOCYTES; LIPIDS AND MEMBRANE STRUCTURE.....	5K04 CA00324-02
DENBURG, JEFFREY L.....	FORMATION OF SPECIFIC SYNAPTIC CONNECTIONS.....	1K04 NS00422-01
ERENBERG, ALLEN P.....	THYROID HORMONES AND THE FETAL AND NEONATAL LUNG.....	5K04 HD00155-03
HALMI, NICHOLAS S.....	INVESTIGATION OF THE THYROID AND PITUITARY.....	5K06 AM13576-18
HERMSMEYER, R KENT.....	MEMBRANE ELECTRICAL PROPERTIES OF VASCULAR MUSCLE.....	5K04 HL00073-05
MARCUS, MELVIN L.....	MYOCARDIAL PERFUSION AND CARDIAC HYPERTROPHY.....	5K04 HL00328-03
NEWLON, CAROL S.....	YEAST DNA REPLICATION.....	5K04 GM00265-04
ONOFRIO, JOHN M.....	PULMONARY MEDICINE.....	5K08 HL00453-02
OWEN, WHYTE G.....	BIOCHEMISTRY OF ANTIHEMOPHILIC FACTOR & HEPARIN COFACTOR.....	5K04 HL00348-03
ROBILLARD, JEAN E.....	MATURATION OF THE RENAL FUNCTION DURING FETAL LIFE.....	5K04 HD00254-02
SCHULZE, KONRAD S.....	ESOPHAGEAL AND GASTROINTESTINAL MOTILITY CHANGES.....	1K08 AM00519-01
STOLTZFUS, CONRAD M.....	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNA.....	7K04 CA00659-04
STRAUSS, RONALD G.....	NEUTROPHIL FUNCTIONS IN THE NEONATE.....	5K04 HD00255-02
THAMES, MARC D.....	CARDIAC RECEPTORS WITH VAGAL C-FIBER AFFERENTS.....	5K04 HL00402-02
WEISMANN, DOUGLAS N.....	HYPOXEMIA AND NEONATAL KIDNEY FUNCTION.....	1K08 AM00656-01
WELSH, MICHAEL J.....	PULMONARY MEDICINE.....	3K08 HL00362-02S1
WELSH, MICHAEL J.....	PULMONARY MEDICINE.....	5K08 HL00362-03

KANSAS

KANSAS CITY

UNIVERSITY OF KANSAS	ZIP CODE 66103	
BELMONT, JOHN M.....	CHILDREN'S INFORMATION-PROCESSING STRATEGY DECISIONS.....	5K04 HD00026-05
LIU, CHIEN.....	PATHOGENETIC STUDY & DIAGNOSIS OF INFECTIOUS DISEASES.....	5K06 AI01826-17
MINER, PHILIP B, JR.....	GLUCOCORTICOID EFFECTS ON THE LIVER SURFACE MEMBRANE.....	5K08 AM00487-02
PARK, CHAN H.....	CELL-CULTURE STUDIES OF HUMAN LEUKEMIA AND CANCERS.....	1K04 CA00534-01
PAZDERNIK, THOMAS L.....	PHARMACOLOGICAL MANIPULATION OF HEMO/IMMUNOPOIESIS.....	5K04 CA00006-05
ROWE, VERNON D.....	PINEAL EFFECTS ON NEURONAL DEVELOPMENT.....	1K07 NS00439-01

LAWRENCE

UNIVERSITY OF KANSAS	ZIP CODE 66045	
BELL, WILLIAM J.....	BEHAVIORAL MECHANISMS IN CHEMO-ORIENTATION.....	5K04 NS00190-04
CRAWFORD, MICHAEL H.....	DENTITION GENETIC ANALYSES OF ESKIMOS AND MEXICANS.....	5K04 DE00028-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
KANSAS—Continued		
HOUSTON, L LUGENE.....	PROTEIN INTERACTIONS.....	5K04 CA00114-05
MANHATTAN		
KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE ZIP CODE 66506		
REECK, GERALD R.....	NONHISTONE CHROMATIN PROTEINS FROM HEPATOMA CELLS.....	5K04 CA00425-02
ROCHE, THOMAS E.....	ENZ. CONVERSION AND RELATED MITOCHONDRIAL TRANSITIONS.....	5K04 AM00460-02
RODKEY, I. SCOTT.....	AUTOREGULATION OF IMMUNE PROCESSES.....	5K04 AI00217-03
ROUFA, DONALD J.....	GENETICS OF DNA REPLICATION IN ANIMAL CELLS.....	5K04 GM00245-04
KENTUCKY		
LEXINGTON		
UNIVERSITY OF KENTUCKY ZIP CODE 40506		
COLEMAN, MARY S.....	TERMINAL TRANSFERASE IN MAMMALIAN HEMOPOIETIC TISSUE.....	5K04 CA00494-02
RAWLS, JOHN M, JR.....	GENETIC ANALYSIS OF PYRIMIDINE BIOSYNTHESIS.....	1K04 AM00676-01
LOUISVILLE		
UNIVERSITY OF LOUISVILLE ZIP CODE 40208		
WESTPHAL, ULRICH F.....	STEROID-PROTEIN INTERACTIONS.....	5K06 GM14138-18
LOUISIANA		
COVINGTON		
TULANE UNIVERSITY ZIP CODE 70433		
SU-CHEN, LI C.....	BIOCHEMICAL STUDIES ON SPHINGOLIPIDOSES.....	5K04 AM00016-05
NEW ORLEANS		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70119		
RAWLS, HENRY R.....	ANTICARIES THERAPIES—POLYMER & PHYSICAL CHEMISTRY.....	5K04 DE00050-03
REEVES, RICHARD E.....	THE NUTRITION & METABOLISM OF ANAEROBIC ORGANISMS.....	5K06 GM14023-16
ZIMMERMAN, THOMAS J.....	TREATMENT OF GLAUCOMA.....	1K04 EY00115-01
TULANE UNIVERSITY ZIP CODE 70118		
IGNARRO, LOUIS J.....	BIOREGULATION OF LYSOSOMAL ENZYME SECRETION.....	5K04 AM00076-05
KLAWITTER, JEROME J.....	DESIGN CRITERIA FOR DENTAL IMPLANTS.....	5K04 DE00041-03
MALEK, EMILE A.....	EPIDEMIOLOGY AND CONTROL OF SCHISTOSOMIASIS.....	5K06 AI18424-17
TOU, JEN-SIE H.....	PHOSPHOLIPID METABOLISM BY LEUKEMIC LEUKOCYTES.....	5K04 CA00013-05
WEINSTEIN, ALLAN M.....	IMPLANT PERFORMANCE EVALUATION AND ATTACHMENT TO BONE.....	5K04 AM00222-04
SHREVEPORT		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT SHREVEPORT ZIP CODE 71101		
SAHA, SUBRATA.....	EVALUATION AND MODELING OF MECHANICAL PROPERTIES OF BONE.....	5K04 AM00756-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
MAINE		
PORTLAND		
MAINE MEDICAL CENTER ZIP CODE 04102		
NELSON, CLIFFORD V.....	ACCURATE MEASUREMENTS OF HEART DIPOLE MOMENT.....	5K06 HL01932-18
MARYLAND		
BALTIMORE		
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218		
BATSHAW, MARK L.....	GENETICS AND METABOLISM OF UREA CYCLE ENZYMOPATHIES.....	5K07 NS00342-02
BAYLIN, STEPHEN B.....	BIOGENIC AMINES AND HORMONE RELEASE IN ENDOCRINE TUMORS.....	5K04 CA00027-05
BENBOW, ROBERT M.....	CONTROL OF DNA REPLICATION IN XENOPUS LAEVIS EMBRYOS.....	5K04 GM00366-03
BROOKS, BENJAMIN R.....	PATHOGENESIS OF NEUROTROPIC RETROVIRUS INFECTIONS.....	1K07 NS00385-01
CHILDS, BARTON.....	HUMAN GENETICS.....	5K06 HD01104-18
COLVIN, MICHAEL O.....	PHARMACOLOGY OF CYCLOPHOSPHAMIDE AND NITROSOURES.....	5K04 CA00103-05
COMSTOCK, GEORGE W.....	FOLLOW-UP STUDIES OF CARDIORESPIRATORY DISEASE.....	4K06 HL21670-16
CUTILLETIA, ANTHONY F.....	TRANSCRIPTIONAL REGULATION OF MYOCARDIAL HYPERTROPHY.....	5K04 HL00521-02
FLAHERTY, JOHN T.....	PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	5K04 HL00019-05
GAFFNEY, BETTY J.....	PHYSICAL PROPERTIES OF MEMBRANE PROTEINS.....	5K04 CA00168-04
GILLESPIE, ELIZABETH.....	ROLE OF MICROTUBULES IN ALLERGY.....	5K04 AI00043-05
GORDIS, LEON.....	MONOGRAPH: EPIDEMIOLOGY OF CANCER IN CHILDREN.....	1K10 LM00030-01
GRIFFIN, JOHN W.....	PATHOGENESIS OF MOTOR NEURON AND AXONAL DEGENERATIONS.....	1K04 NS00450-01
JAKAB, GEORGE J.....	BRONCHOPULMONARY RESISTANCE TO BACTERIAL INFECTIONS.....	5K04 HL00415-03
KRISTT, DONALD A.....	BIRTH DEFECTS OF THE CEREBRAL CORTEX.....	5K07 NS00279-03
LATTMAN, EATON E.....	X-RAY DIFFRACTION STUDIES OF SV-40 AND POLYOMAVIRUS.....	5K04 AI00271-04
LEIGH, RICHARD J.....	NEURAL REPAIR IN THE AGING BRAIN.....	1K08 AG00061-01
LEVIN, LESLIE S.....	LINKAGE AND HERITABLE DISORDERS OF CONNECTIVE TISSUE.....	5K04 DE00021-04
LILIENTELD, ABRAHAM M.....	RESEARCH IN PUBLIC HEALTH ASPECTS OF CHRONIC DISEASES.....	5K06 GM13901-18
LIN, SHIN.....	SUGAR TRANSPORT AND CELL MOVEMENT IN MAMMALIAN CELLS.....	5K04 GM00241-04
LIU, SAMMY H.....	IMMUNOLOGY OF UVEITIS.....	1K07 EY00155-01
MENKES, HAROLD A.....	PULMONARY INTERDEPENDENCE.....	5K04 HL00058-05
MIGEON, CLAUDE J.....	RELATION OF HORMONES TO GROWTH AND DEVELOPMENT.....	4K06 AM21855-16
MITZNER, WAYNE A.....	PULMONARY INTERSTITIAL PRESSURES AND EDEMA FORMATION.....	5K04 HL00347-02
MURPHY, PATRICK A.....	CHEMISTRY AND PHYSIOLOGY OF LEUCOCYTE PYROGEN.....	5K04 AI00089-05
PESTRONK, ALAN.....	TROPHIC CONTROL OF NERVE SPROUTING AND ACH RECEPTORS.....	5K07 NS00310-02
PHILLIPS, JOHN A, III.....	REGULATION OF GLOBIN GENE EXPRESSION.....	5K08 AM00423-02
PLAUT, MARSHALL.....	CELL-MEDIATED IMMUNITY: MODULATION BY HISTAMINE.....	5K04 AI00231-03
PROVOST, THOMAS T.....	IMMUNOLOGICAL BASIS OF CUTANEOUS LUPUS ERYTHEMATOSUS.....	1K04 AM00524-01
ROTH, STEPHEN A.....	MORPHOGENESIS IN EMBRYONIC AND MALIGNANT SYSTEMS.....	5K04 HD00148-04
SHOUKAS, ARTIN A.....	SYSTEMIC CIRCULATION: CAPACITY AND RESISTIVE PROPERTY.....	5K04 HL00219-04
SPIVAK, JERRY L.....	PURIFICATION OF ERYTHROPOIETIN.....	1K04 HL00480-01
SUN, TUNG-TIEN.....	STUDIES OF CORNEAL EPITHELIAL DIFFERENTIATION.....	5K04 EY00125-02
TSAN, MIN-FU.....	STUDY OF NEUTROPHIL METABOLISM AND FUNCTION.....	5K04 AI00194-03
WOLINSKY, JERRY S.....	PATHOGENESIS OF VIRAL DISORDERS OF THE CNS.....	1K04 NS00443-01
YOUNG, ERIC D.....	COCHLEAR NERVE & NUCLEI AND INFERIOR COLLICULUS STUDY.....	1K04 NS00381-01
ZEE, DAVID S.....	MECHANISMS OF HUMAN VESTIBULAR AND OCULOMOTOR DISORDERS.....	5K07 NS11071-05
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201		
KOSKI, CAROL L.....	GLYCOPROTEINS AND NEUROMUSCULAR INTERACTIONS.....	5K07 NS00172-04
PADMANABHAN, RADHAKRISHNAN.....	DNA SEQUENCE ANALYSIS ON HUMAN ADENOVIRUS GENOMES.....	5K04 CA00235-05
REGGIA, JAMES A.....	ARTIFICIAL INTELLIGENCE SYSTEM IN STROKE DIAGNOSIS.....	5K07 NS00348-02
CATONSVILLE		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS ZIP CODE 21228		
LOVETT, PAUL S.....	CONSTRUCTION OF PLASMIDS FOR BACILLUS SUBTILIS.....	5K04 AI00119-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
MARYLAND—Continued		
COLLEGE PARK		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742		
PENNER, MERRILYNN J.....	TEMPORAL ANALYSIS OF AUDITORY STIMULI.....	5K04 NS00241-03
VIJAY, INDER K.....	BIOSYNTHESIS OF MAMMARY GLYCOPROTEINS.....	5K04 AM00452-02
MASSACHUSETTS		
AMHERST		
UNIVERSITY OF MASSACHUSETTS AT AMHERST ZIP CODE 01002		
LEVIN, BRUCE R.....	SELECTION IN BACTERIA AND THEIR VIRUSES AND PLASMIDS.....	5K04 GM00112-05
WADE, GEORGE N.....	HORMONES, BRAIN FUNCTION AND BEHAVIOR.....	5K04 NS00090-05
ZIMMERMANN, ROBERT A.....	STRUCTURE OF PROTEIN BINDING SITES IN RIBOSOMAL RNA.....	5K04 GM00129-05
BOSTON		
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115		
MITCH, WILLIAM E.....	PROTEIN NUTRITION IN EXPERIMENTAL UREMIA.....	1K04 AM00750-01
MOORE, THOMAS J.....	SODIUM BALANCE & HORMONAL & VASCULAR RESPONSES TO A II.....	1K08 AM00594-01
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120		
GLASS, DAVID N.....	RHEUMATIC DISEASE, COMPLEMENT AND CHROMOSOME SIX.....	5K08 AM00449-02
LIPSON, STEPHEN J.....	INVESTIGATIONS IN INTERVERTEBRAL DISC DISEASE.....	5K08 AM00411-02
WINTROUB, BRUCE U.....	NEUTRAL PEPTIDE AND BULLOUS PEMPFIGOID.....	5K08 AM00430-02
BETH ISRAEL HOSPITAL ZIP CODE 02215		
BLUME, HOWARD W.....	NEURAL PEPTIDE RELEASE, TRANSPORT AND ACTION IN CNS.....	1K07 NS00461-01
DICHTER, MARC A.....	CNS CELL CULTURE PHYSIOLOGY & MECHANISMS OF EPILEPSY.....	5K04 NS00130-05
GLASS, JONATHAN.....	IRON METABOLISM IN ERYTHROID PRECURSOR CELLS.....	5K04 AM00513-02
HAYES, WILSON C.....	MATERIAL AND STRUCTURAL PROPERTIES OF THE KNEE.....	7K04 AM00749-02
STEER, MICHAEL L.....	REGULATION OF ADENYLATE CYCLASE AND CELL FUNCTION.....	5K04 NS00160-04
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114		
LU, RENNE C.....	STRUCTURE-FUNCTION RELATIONS IN MYOSINS.....	5K04 AM00485-02
BOSTON UNIVERSITY ZIP CODE 02215		
APSTEIN, CARL S.....	PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	5K04 HL00425-02
BERMAN, MARLENE O.....	NORMAL AND PATHOLOGICAL HUMAN BRAIN FUNCTION.....	5K04 NS00161-04
BRECHER, PETER I.....	ANGIOTENSIN ACTION ON TARGET TISSUES.....	5K04 HL00050-05
CHIDECKEL, ELLIOTT W.....	FUEL AND AMINO ACID METABOLISM IN PRIMATE BRAIN.....	5K08 AM00620-03
CLARK, ROBERT A.....	ANTITUMOR ACTIVITY OF PHAGOCYTIC CELLS.....	5K04 CA00441-04
COUSER, WILLIAM G.....	IMMUNOLOGIC MECHANISMS OF GLOMERULAR INJURY.....	5K04 AM00102-05
DIAMOND, RICHARD D.....	CELLULAR IMMUNITY IN OPPORTUNISTIC MYCOSES.....	5K04 AI00325-05
FELDMAN, MARTIN L.....	NEURONAL AGING IN THE AUDITORY AND VISUAL SYSTEMS.....	5K04 AG00016-03
GAENSLER, EDWARD A.....	APPLIED PULMONARY PHYSIOLOGY.....	4K06 HL01173-16
GOLDSTEIN, RONALD H.....	CONNECTIVE TISSUE RESPONSES OF THE AGING HAMSTER LUNG.....	1K08 AG00038-01
GOODMAN, MICHAEL N.....	METABOLIC ADAPTATION TO STARVATION: AN ANIMAL MODEL.....	1K04 AM00652-01
LANGE, YVONNE.....	CHOLESTEROL IN ERYTHROCYTE MEMBRANES.....	5K04 HL00481-02
MAKE, BARRY J.....	PULMONARY MEDICINE.....	5K07 HL00246-04
MONETTE, FRANCIS C.....	REGULATION OF STEM CELL PROLIFERATION/DIFFERENTIATION.....	5K04 AM00200-03
OPPENHEIM, FRANK G.....	CHEMISTRY OF SALIVARY PROTEINS.....	5K04 DE00004-05
STEEL, R KNIGHT.....	GERIATRIC MEDICINE.....	1K07 AG00060-01
SULLIVAN, ALBERT L.....	CHARACTERIZATION OF MEMBRANE TRANSFERRIN RECEPTOR SITES.....	5K04 AM00054-05
TOSELLI, PAUL A.....	STUDIES OF MUSCLE Z-DISCS.....	5K04 HL00243-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1979—Continued

Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
CENTER FOR BLOOD RESEARCH	ZIP CODE 02115	
REMOLD-O'DONNELL, EILEEN.....	SURFACE PROTEINS OF ACTIVATED MACROPHAGES.....	1K04 CA00620-01
CHILDREN'S HOSPITAL MEDICAL CENTER	ZIP CODE 02115	
ABELSON, HERBERT T.....	REGULATION OF RNA METABOLISM IN MAMMALIAN CELLS.....	5K04 CA00075-05
COHEN, HARVEY J.....	OXIDATIVE METABOLISM IN PHAGOCYTTIC CELLS.....	5K04 AI00311-02
EDELSON, PAUL J.....	MECHANISMS OF MACROPHAGE ANTITUMOR ACTIVATION.....	5K04 CA00464-02
ELLISON, ROBERT C.....	PRIMARY PREVENTION OF HYPERTENSION AND ATHEROSCLEROSIS.....	5K04 HL00265-03
FOX, THOMAS O.....	STEROID RECEPTOR MECHANISMS IN DEVELOPING MOUSE BRAIN.....	5K04 HD00221-03
FULTON, ANNE B.....	SIGNAL PROCESSING IN NORMAL AND ABNORMAL RETINA.....	5K07 EY00107-02
KATZ, AUBREY J.....	IMMUNOLOGIC BASIS OF INTESTINAL DISEASE IN CHILDHOOD.....	5K08 AM00234-02
LATT, SAMUEL A.....	HUMAN CHROMOSOME STRUCTURE AND REPLICATION.....	5K04 GM00122-05
ORKIN, STUART H.....	MOLECULAR ANALYSIS OF NORMAL AND THALASSEMIC DNA.....	1K04 HL00553-01
SELKOE, DENNIS J.....	NEURONAL PROTEINS IN HUMAN DEMENTIA.....	5K07 NS00289-02
SMITH, HOWARD G.....	IMMUNOLOGY AND TREATMENT OF RESPIRATORY PAPILLOMATOSIS.....	1K07 NS00405-01
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION	ZIP CODE 02114	
ADOLPH, ALAN R.....	SYNAPTIC TRANSMITTERS IN VERTEBRATE RETINA.....	5K07 EY00053-03
CHAKRABARTI, BIRESWAR.....	THE STRUCTURE AND INTERACTION OF VITREOUS COMPONENTS.....	5K04 EY00070-03
ELIASON, JOSEPH A.....	ISOLATION OF CORNEAL EPITHELIAL ANGIOGENIC FACTORS.....	1K07 EY00154-01
GIPSON, ILENE K.....	CELL MOTILITY AND ADHESION DURING CORNEAL WOUND HEALING.....	7K04 EY00192-01
KENYON, KENNETH R.....	PATHOLOGICAL STUDIES OF OCULAR SURFACE DISORDERS.....	1K07 EY00156-01
NEUFELD, ARTHUR H.....	REGULATION OF AQUEOUS HUMOR DYNAMICS.....	5K04 EY00114-04
FORSYTH DENTAL CENTER	ZIP CODE 02115	
EBERSOLE, JEFFREY L.....	RELATIONSHIP OF SECRETORY IMMUNITY TO DENTAL CARIES.....	1K04 DE00075-01
SKOBE, ZIEDONIS.....	ULTRASTRUCTURE OF AMELOGENESIS & ODONTOPATHIC BACTERIA.....	5K04 DE00018-04
SMITH, DANIEL J.....	EFFECTS OF IMMUNIZATION ON EXPERIMENTAL DENTAL CARIES.....	5K04 DE00024-04
HARVARD UNIVERSITY	ZIP CODE 02115	
ALEXANDER, R WAYNE.....	VASCULAR SMOOTH MUSCLE: RECEPTORS AND PROSTAGLANDINS.....	5K04 HL00332-03
BEEUWKES, REINIER, III.....	RENAL MECHANISMS OF SALT AND WATER BALANCE.....	5K04 AM00224-04
BING, OSCAR H.....	COMPUTER FEEDBACK STUDY OF CARDIAC MUSCLE MECHANICS.....	5K04 HL00072-05
BLUMBERG, PETER M.....	MECHANISM OF ACTION OF PHORBOL DIESTERS IN VITRO.....	1K04 CA00547-01
BROWN, EDWARD M.....	REGULATION OF NORMAL AND ABNORMAL PARATHYROID TISSUE.....	1K04 AM00062-01
CAREY, MARTIN C.....	ALIMENTARY TRACT LIPIDS IN HEALTH AND DISEASE.....	5K04 AM00195-04
CHERNIN, ELI.....	STUDY OF PATHOGENS BY IN VITRO AND RELATED METHODS.....	4K06 AI02455-16
CHURCHILL, WINTHROP H, JR.....	THE ROLE OF MACROPHAGES & BASOPHILS IN TUMOR IMMUNITY.....	5K04 CA00116-05
CHYLACK, LEO T, JR.....	LENS METABOLISM AND CATARACT FORMATION.....	5K04 EY00034-05
COHEN, JONATHAN B.....	MECHANISM OF CHOLINERGIC POSTSYNAPTIC RESPONSE.....	5K04 NS00155-04
CRUMPACKER, CLYDE S, II.....	HERPES VIRUS NUCLEIC ACIDS IN HUMAN TUMORS.....	5K04 CA00139-05
DORF, MARTIN E.....	COMPLEMENTATION STUDIES ON H-LINKED IR GENES.....	5K04 AI00152-04
DRAGER, URSULA C.....	DEVELOPMENTAL ABNORMALITIES IN MOUSE VISUAL SYSTEM.....	5K07 EY00067-03
DRAZEN, JEFFREY M.....	INTERACTION OF BRONCHOCONSTRICTORS AND THE AIRWAYS.....	1K04 HL00549-01
EVANS, CARLA A.....	EXPERIMENTAL FACIAL GROWTH.....	5K04 DE00051-03
FALCHUK, Z MYRON.....	GASTROINTESTINAL IMMUNOLOGY AND FUNCTION.....	5K04 AM00210-04
FEARON, DOUGLAS T.....	ALTERNATIVE COMPLEMENT PATHWAY.....	5K04 AI00245-03
FRANK, ERIC.....	DEVELOPMENT OF IA SYNAPSES IN THE SPINAL CORD.....	5K07 NS00212-03
FRIEDMAN, PAUL A.....	PLACENTAL TRANSPORT OF VITAMIN B12.....	5K04 HD00023-05
GOLDSTEIN, RICHARD N.....	MORPHOGENESIS AND GENE CONTROL OF SATELLITE PHAGE P4.....	5K04 AI00084-05
GOODENOUGH, DANIEL A.....	STRUCTURE & FUNCTION OF LIVER & HEART GAP JUNCTIONS.....	5K04 GM00231-04
GRIFFISS, JOHN M.....	ROLE OF SERUM IGA IN SUSCEPTIBILITY TO BACTERIAL DISEASE.....	1K04 AI00328-01
HAMMER, ROBERT A.....	PLASMA NEUROTENSIN-RELEASE FROM INTESTINAL EPITHELIUM.....	1K08 AM00532-01
HANDIN, ROBERT I.....	ROLE OF PLATELET PROTEINS IN DEVELOPMENT OF THROMBOSIS.....	5K04 HL00236-02
HAUSCHKA, PETER V.....	CONTROL OF CALCIUM BINDING BY PROTEIN CARBOXYLATION.....	5K04 DE00049-04
HENNEKENS, CHARLES H.....	RISK FACTORS FOR CORONARY HEART DISEASE.....	5K04 HL00286-03
HESSL, SAMUEL J.....	PERCEPTUAL AND COGNITIVE STUDIES IN RADIOLOGY.....	5K04 HL00474-02
JAEGER, RUDOLPH J.....	PULMONARY TOXICITY OF INHALED PYROLYSIS PRODUCTS.....	3K04 ES00027-01A1S1
JAEGER, RUDOLPH J.....	PULMONARY TOXICITY OF INHALED PYROLYSIS PRODUCTS.....	5K04 ES00027-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
KASPER, DENNIS L.....	IMMUNOCHEMISTRY OF BACTERIAL ANTIGENS.....	5K04 AI00126-04
KUSHMERICK, MARTIN J.....	MUSCLE ENERGY METABOLISM.....	5K04 AM00178-04
LAMONT, JOHN T.....	STRUCTURE AND FUNCTION OF COLONIC GLYCOPROTEINS.....	1K04 AM00459-01
LE VAY, SIMON.....	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM.....	5K04 EY00090-03
MARTZ, ERIC.....	T LYMPHOCYTE DIFFERENTIATION AND EFFECTOR FUNCTION.....	5K04 AI00233-03
MC FADDEN, EDWARD R, JR.....	PATHOPHYSIOLOGY OF EXERCISE-INDUCED ASTHMA.....	5K04 HL00013-05
MC NEIL, BARBARA J.....	MEASURES OF EFFICACY IN RADIOLOGY AND NUCLEAR MEDICINE.....	5K04 GM00194-04
MOORE-EDE, MARTIN C.....	ORGANIZATION OF CIRCADIAN TIMING SYSTEM.....	5K04 NS00247-03
MOSKOWITZ, MICHAEL A.....	NEUROTRANSMITTERS AND CEREBRAL BLOOD VESSELS.....	5K07 NS11081-05
MURPHY, JOHN R.....	VIRULENCE FACTORS OF CORYNEBACTERIUM DIPHTHERIAE.....	5K04 AI00146-04
MURPHY, RICHARD A.....	A NEW NERVE GROWTH FACTOR: ISOLATION AND FUNCTION.....	5K04 NS00311-02
NEUTRA, MARIAN R.....	MUCUS SECRETION IN CYSTIC FIBROSIS & NORMAL INTESTINE.....	5K04 AM00407-02
PARKER, JOHN A.....	RADIONUCLIDE STUDIES OF REGIONAL MYOCARDIAL FUNCTION.....	5K04 HL00465-02
RANDO, ROBERT R.....	SUBSTRATE INDUCED IRREVERSIBLE INHIBITION OF ENZYMES.....	5K04 GM00014-05
RENNKE, HELMUT G.....	GLOMERULAR AND VASCULAR PERMEABILITY TO MACROMOLECULES.....	1K04 HL00646-01
ROBERTS, BRYAN E.....	GENOME ORGANIZATION OF VIRAL DNAS.....	1K04 CA00606-01
ROWE, JOHN W.....	GERIATRIC MEDICINE.....	1K07 AG00056-01
SAKAMOTO, SEIZABURO.....	COLLAGENASE IN THE DEGRADATION OF BONE COLLAGEN.....	5K04 DE00048-03
SCHMIDT, SUSAN Y.....	BIOCHEMICAL STUDIES OF RETINAL DEGENERATIONS.....	1K04 EY00148-01
SCHNITMAN, PAUL A.....	RADIOISOTOPE SCAN OF BONE AROUND DENTAL IMPLANTS.....	5K04 DE00006-05
SHAW, JAMES H.....	BIOCHEMISTRY OF ORAL TISSUES, SECRETIONS AND DISEASES.....	4K06 DE22634-16
STROM, TERRY B.....	REGULATION OF THE CELLULAR EVENTS IN TRANSPLANT IMMUNITY.....	5K04 AI00155-04
THENEN, SHIRLEY W.....	EXPERIMENTAL OBESITY—GENETIC AND ACQUIRED.....	5K04 AM00106-05
VEATCH, WILLIAM R.....	MEMBRANE CHANNEL STRUCTURE: SPECTROSCOPIC APPROACHES.....	5K04 AI00320-02
WEINER, HOWARD L.....	IMMUNOLOGY OF MEASLES VIRUS.....	5K07 NS00237-03
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114		
NADOL, JOSEPH B, JR.....	STUDY OF SENSORINEURAL HEARING LOSS.....	5K07 NS00174-04
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114		
AUSIELLO, DENNIS A.....	PROTEIN PHOSPHORYLATION AND HORMONE ACTION.....	5K04 AM00342-03
BEITINS, INESE Z.....	GONADOTROPIN HETEROGENEITY.....	5K04 HD00132-04
CROWLEY, WILLIAM F, JR.....	THERAPEUTIC USE OF LRF AND ITS LONG-ACTING ANALOGUE.....	1K08 AM00573-01
GOITEIN, MICHAEL.....	DOSE AND TUMOR LOCALIZATION PROTONS THERAPY.....	5K04 CA00251-04
KAPLAN, JOAN C.....	INDUCTION OF SV40 VIRUS FROM TRANSFORMED MAMMALIAN CELLS.....	5K04 CA00198-04
LINSENMAYER, THOMAS F.....	BIOSYNTHESIS AND ROLE OF MATRIX IN DEVELOPMENT.....	5K04 AM00031-05
MASLAND, RICHARD H.....	NEUROTRANSMISSION IN MAMMALIAN RETINA.....	5K04 EY00072-03
MILLER, KEITH W.....	MOLECULAR PHARMACOLOGY OF GENERAL ANESTHETIC ACTION.....	5K04 GM00199-04
SEGRE, GINO V.....	PHYSIOLOGY AND METABOLISM OF PARATHYROID HORMONE.....	5K04 AM00070-03
WALKER, W ALLAN.....	ANTIBODY CONTROL OF ANTIGEN UPTAKE IN SMALL INTESTINE.....	5K04 AM00025-05
WOLFE, ROBERT R.....	METABOLIC EFFECTS OF BURN INJURY AND SEPSIS.....	5K04 GM00455-02
NEW ENGLAND DEACONESS HOSPITAL ZIP CODE 02215		
KNOX, W EUGENE.....	CONTROL OF ENZYME CONCENTRATIONS IN ANIMAL CELLS.....	5K06 AM02018-17
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111		
DONOWITZ, MARK.....	ABSORPTION AND SECRETION IN DIARRHEAL DISEASES.....	1K04 AM00588-01
DWYER, JOHANNA T.....	NEW DIETARY TREATMENTS IN DIABETES.....	5K04 AM00272-03
FURIE, BARBARA C.....	METAL-DEPENDENT COMPLEX FORMATION IN BLOOD COAGULATION.....	5K04 HL00235-04
PAUKER, STEPHEN G.....	CLINICAL DECISION MAKING.....	5K04 GM00349-03
PINCUS, STEPHANIE H.....	THE BIOLOGY OF EOSINOPHILS.....	1K08 AM00538-01
NORTHEASTERN UNIVERSITY ZIP CODE 02115		
STRAUSS, PHYLLIS R.....	THYMIDINE TRANSPORT IN NORMAL AND LEUKEMIC LYMPHOCYTES.....	5K04 CA00460-02
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115		
LAGAKOS, STEPHEN W.....	STATISTICAL PROBLEMS IN CANCER RESEARCH.....	5K04 CA00505-02
TUFTS UNIVERSITY ZIP CODE 02111		
KEUSCH, GERALD T.....	SHIGELLOSIS: EXOTOXIN, PATHOGENESIS AND TOXOID VACCINE.....	7K04 AI00364-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
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MASSACHUSETTS—Continued		
KING, JOAN C.....	LH-RH LOCALIZATION AND DYNAMICS.....	1K04 HD00352-01
CAMBRIDGE		
HARVARD UNIVERSITY ZIP CODE 02138		
ELGIN, SARAH C.....	CHROMOSOMAL PROTEINS AND GENE EXPRESSION IN DROSOPHILA.....	5K04 GM00234-04
GELBART, WILLIAM M.....	GENE REGULATION AND ORGANIZATION IN DROSOPHILA.....	1K04 CA00588-01
KESSIN, RICHARD H.....	CONTROL OF AGGREGATION IN D. DISCOIDEUM.....	5K04 HD00220-03
SATO, VICKI L.....	IMMUNOBIOLOGY OF EARLY LYMPHOCYTE DEVELOPMENT.....	1K04 CA00512-01
TAYLOR, D LANSING.....	MUSCLE CONTRACTION AND CYTOPLASMIC STREAMING.....	5K04 AM00292-03
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139		
HYNES, RICHARD O.....	CELL SURFACE PROTEINS AND CELLULAR BEHAVIOR.....	5K04 CA00382-02
PETSKO, GREGORY A.....	X-RAY CRYOENZYMOLGY.....	3K04 GM00478-01S1
PETSKO, GREGORY A.....	X-RAY CRYOENZYMOLGY.....	5K04 GM00478-02
SAKITT, BARBARA.....	PHYSICAL AND NEURAL BASIS OF SENSATION AND PERCEPTION.....	7K04 EY00194-05
WEISS, THOMAS F.....	MECHANICAL TO NEURAL TRANSDUCTION IN THE COCHLEA.....	5K04 NS00113-05
CHESTNUT HILL		
BOSTON COLLEGE ZIP CODE 02167		
KELLY, T ROSS.....	SYNTHESIS OF THE ANTITUMOR AGENT HARRINGTONINE.....	5K04 CA00040-05
SHREWSBURY		
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY ZIP CODE 01545		
CHANG, MIN C.....	FERTILIZABILITY OF MAMMALIAN EGGS.....	4K06 HD18334-18
WALTHAM		
BRANDEIS UNIVERSITY ZIP CODE 02154		
HALL, JEFFREY C.....	DEVELOPMENT AND BEHAVIOR OF NEUROLOGICAL MUTANTS.....	5K04 GM00297-03
HONG, JEN-SHANG.....	BIOCHEMISTRY AND GENETICS OF MEMBRANE FUNCTIONS.....	5K04 GM00092-05
HUDSON, ROBERT B.....	AGING AND HEALTH POLICY: CRITICAL POLICY LINKAGES.....	5K04 AG00005-03
MILLER, CHRISTOPHER.....	IONOPHORES OF THE SARCOPLASMIC RETICULUM MEMBRANE.....	5K04 AM00354-02
PRESS, JOAN L.....	IMMUNOGENETIC ANALYSIS OF B CELL DIFFERENTIATION.....	5K04 AI00266-02
ROSBASH, MICHAEL M.....	MACROMOLECULES IN OOGENESIS AND DEVELOPMENT.....	5K04 HD00134-04
VAN VUNAKIS, HELEN.....	STRUCTURE & ACTIVITY OF BIOLOGICALLY IMPORTANT MOLECULES.....	5K06 AI02372-17
WENSINK, PIETER C.....	SEQUENCE ARRANGEMENT IN EUKARYOTIC DNA AND CHROMOSOMES.....	5K04 GM00212-04
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154		
JUNGALWALA, FIROZE B.....	EXPERIMENTAL NEUROTUMORS AND MYELIN METABOLISM.....	5K04 CA00144-05
LANDIS, DENNIS M.....	MEMBRANE STRUCTURE DURING SYNAPTOGENESIS.....	5K07 NS00353-02
WORCESTER		
CLARK UNIVERSITY ZIP CODE 01610		
HAREVEN, TAMARA K.....	AGING AND THE LIFE COURSE: COHORT CHANGE.....	1K04 AG00026-01
ELM PARK CENTER FOR EARLY CHILDHOOD EDUCATION ZIP CODE 01602		
KANE, DOROTHY N.....	ENVIRONMENTAL HAZARDS OF SMALL CHILDREN.....	1K10 LM00038-01
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER ZIP CODE 01605		
FAY, FREDRIC S.....	GENERATION AND REGULATION OF FORCE IN SMOOTH MUSCLE.....	5K04 HL00048-05
HICKLER, ROGER B.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00057-01
KANE, EILEEN S.....	CENTRAL AUDITORY SYSTEM CONNECTIONS IN MAMMALS.....	5K04 NS00290-05
MILLER, THOMAS B, JR.....	DIABETES AND REG. OF GLYCOGEN METAB. IN LIVER AND HEART.....	5K04 AM00375-02
SINGER, ROBERT H.....	MRNA CONTROL IN DIFFERENTIATING MUSCLE CELLS.....	5K04 NS00288-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
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Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
SMITH, M SUSAN.....	CONTROL OF GONADOTROPIN SECRETION DURING LACTATION.....	1K04 HD00264-01
ZIVIN, JUSTIN A.....	BIOCHEMICAL CORRELATES OF CNS INFARCTION.....	1K07 NS00456-01
MICHIGAN		
ANN ARBOR		
UNIVERSITY OF MICHIGAN	ZIP CODE 48109	
BECKER, MARSHALL H.....	ENHANCING COMPLIANCE WITH MEDICAL RECOMMENDATIONS.....	5K04 HD00237-05
CLEWELL, DON B.....	STRUCTURE, MAINTENANCE, AND EXPRESSION OF PLASMID DNA.....	5K04 AI00061-05
ERNST, STEPHEN A.....	CYTOCHEMICAL LOCALIZATION OF TRANSPORT ATPASE.....	5K04 GM00473-05
MISTRETTA, CHARLOTTE M.....	TASTE RECEPTORS IN ORAL FACIAL DEVELOPMENT.....	5K04 DE00066-02
MITCHELL, BEVERLY S.....	REGULATION OF ADENOSINE DEAMINASE ACTIVITY.....	5K08 AM00442-02
OLSON, GARY M.....	INFANT MEMORY PROCESSES.....	5K04 HD00169-03
RICHARDS, JOANNE S.....	HORMONE ACTION IN OVARIAN CELL DIFFERENTIATION.....	5K04 HD00174-02
YOUNG, ANNE B.....	SPINAL CORD NEUROTRANSMITTERS IN SPASTICITY.....	1K07 NS00420-01
DETROIT		
WAYNE STATE UNIVERSITY	ZIP CODE 48202	
BENJAMINS, JOYCE A.....	ASSEMBLY OF MYELIN AND OTHER NEURAL MEMBRANES.....	5K04 NS00220-03
BOECKMAN, ROBERT K, JR.....	SYNTHESIS OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS.....	5K04 CA00273-04
ENJETI, SURESH.....	PULMONARY MEDICINE.....	5K08 HL00306-03
KAPLAN, JOSEPH.....	TUMOR IMMUNOLOGY OF CHILDHOOD LEUKEMIA AND LYMPHOMA.....	5K04 CA00188-04
LEWIS, BENJAMIN M.....	PHYSIOL & PATHOL REACTIONS OF PULMONARY CAPILLARY BED.....	5K06 HL02182-17
VIEF, GISELA L.....	CONTEXTUAL APPROACH TO ADULT COGNITIVE DEVELOPMENT.....	5K04 AG00018-02
EAST LANSING		
MICHIGAN STATE UNIVERSITY	ZIP CODE 48823	
HONICKY, RICHARD E.....	INTEGRATED DEVELOPMENTAL PULMONARY CURRICULUM.....	1K07 HL00526-01
ROMSOS, DALE R.....	METABOLIC EFFECTS OF DIET AND MEAL PATTERN.....	5K04 AM00112-05
SPARROW, ALBERT W.....	PREVENTIVE CARDIOLOGY ACADEMIC AWARD.....	1K07 HL00613-01
WEAVER, LYNNE C.....	REFLEX CONTROL OF RENAL CIRCULATION AND FUNCTION.....	1K04 HL00501-01
ROCHESTER		
OAKLAND UNIVERSITY	ZIP CODE 48063	
ROY, ARUN K.....	REGULATION OF ALPHA2U GLOBULIN IN THE RAT.....	5K04 AM00141-04
MINNESOTA		
MINNEAPOLIS		
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL	ZIP CODE 55455	
ACKERMAN, SAMUEL K.....	EFFECTOR FUNCTION OF MONONUCLEAR PHAGOCYTES IN RA.....	1K08 AM00642-01
ANDERSON, JOHN H.....	CENTRAL MECHANISMS OF VESTIBULAR REFLEX FUNCTIONS.....	1K04 NS00395-01
AZAR, SILVIA H.....	GENETIC PREHYPERTENSION, NA/ION, PRENATAL BP MATURATION.....	5K04 HL00431-02
BACHE, ROBERT J.....	THE RESPONSE OF THE CORONARY VASCULATURE TO ISCHEMIA.....	5K04 HL00367-04
BIRNBAUM, GARY.....	MULTIPLE SCLEROSIS.....	7K04 NS00412-04
CRADDOCK, PHILIP R.....	GRANULOCYTES, COMPLEMENT, AND VASCULAR ENDOTHELIUM.....	5K04 HL00479-02
EATON, JOHN W.....	MECHANISMS OF ERYTHROCYTE DESTRUCTION.....	5K04 AM00403-02
FRIEND, PETER S.....	INJURY TO GLOMERULAR FILTER: IMMUNOGENETIC DETERMINANTS.....	5K08 AM00445-02
GILLUM, RICHARD F.....	SODIUM INTAKE AND HYPERTENSION.....	5K04 HL00329-03
HALBERG, FRANZ.....	TEMPORAL PARAMETERS OF PHYSIOL FUNCTIONS IN HLTH/DISEASE.....	5K06 GM13981-18

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Awardee	Project title	Grant number
MINNESOTA—Continued		
HOWARD, RICHARD J.....	VIRUS-IMMUNE INTERACTION IN MICE & TRANSPLANT PATIENTS.....	5K04 AI00167-04
IRVINE, PATRICK W.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00078-01
JACOBS, DAVID R, JR.....	EPIDEMIOLOGY AND PREVENTION OF CARDIOVASCULAR DISEASE.....	5K04 HL00287-03
MUNCK, ECKARD.....	PROPERTIES OF NITROGENASE SYSTEMS/HEMES.....	5K04 GM00057-06
NELSON, DAVID A.....	AUDITORY ANALYSIS AND SENSORINEURAL HEARING LOSS.....	1K04 NS00449-01
NELSON, ROBERT D.....	HUMAN MONOCYTE FUNCTION IN CANCER AND INFECTION.....	5K04 AI00212-02
O'DEA, ROBERT F, JR.....	BIOCHEMICAL REGULATION OF RENAL B-ADRENERGIC FUNCTION.....	1K04 HL00565-01
ROBINSON, HARRY J, JR.....	PATHOGENESIS OF DEGENERATIVE HIP AND KNEE DISEASE.....	5K08 AM00466-02
SCHENKMAN, JON I.....	SMOOTH MUSCLE PROTEINS IN DIABETIC VASCULAR DISEASE.....	5K04 AM00126-05
SCHWARTZ, SAMUEL.....	BIOLOGICAL AND BIOCHEMICAL EFFECTS OF PORPHYRINS.....	5K06 GM14086-17
SUTHERLAND, DAVID E.....	ISOLATION AND TRANSPLANTATION OF PANCREATIC ISLETS.....	5K04 AM00161-05
ROCHESTER		
MAYO FOUNDATION ZIP CODE 55901		
BRIMIJOIN, WILLIAM S.....	AXONAL TRANSPORT IN ADRENERGIC NERVES.....	5K04 NS00119-05
DEWALD, GORDON W.....	MALIGNANT PLEURAL EFFUSIONS DIAG. BY CHROMOSOME ANALYSIS.....	5K04 CA00440-02
FATHMAN, C GARRISON.....	CHARACTERIZATION OF HYBRID HISTOCOMPATIBILITY ANTIGENS.....	1K04 AI00333-01
GREENLEAF, JAMES F.....	3-D DISTRIBUTION OF BLOOD FLOW USING RECONSTRUCTION.....	5K04 HL00060-05
MALAGELADA, JUAN R.....	HUMAN GASTRIC RESPONSES TO MEALS AND THEIR REGULATION.....	5K04 AM00330-02
MC KEAN, DAVID J.....	PRIMARY STRUCTURE OF MHC I-REGION GENE PRODUCTS.....	1K04 CA00586-01
RIZZA, ROBERT A.....	REGULATION OF GLUCOSE HOMEOSTASIS IN MAN.....	1K08 AM00648-01
VELOSA, JORGE A.....	ROLE OF HISTAMINE AND CAMP MODULATED LYSOSOMAL ENZYME.....	1K08 AM00662-01
YUNGINGER, JOHN W.....	ISOLATION AND CHARACTERIZATION OF MOLD ALLERGENS.....	5K07 AI00107-05
MISSISSIPPI		
JACKSON		
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER ZIP CODE 39216		
HALL, JOHN E.....	HORMONAL CONTROL OF RENAL FUNCTION.....	1K04 HL00502-01
HUTCHINSON, RICHARD G.....	PREVENTIVE CARDIOLOGY ACADEMIC AWARD.....	1K07 HL00641-01
YOUNG, DAVID B.....	CONTROL, CARDIOVASCULAR AND RENAL EFFECTS OF POTASSIUM.....	5K04 HL00373-03
MISSOURI		
COLUMBIA		
UNIVERSITY OF MISSOURI-COLUMBIA ZIP CODE 65201		
FREEMAN, RONALD H.....	EXPERIMENTAL TWO-KIDNEY RENOVASCULAR HYPERTENSION.....	5K04 HL00257-03
GERHARDT, H CARL.....	ACOUSTIC PATTERN RECOGNITION.....	5K04 NS00217-03
MULLEN, HELEN B.....	CELLULAR MECHANISMS REGULATING ANTIBODY PRODUCTION.....	1K04 AI00322-01
PINGLETON, SUSAN K.....	PULMONARY MEDICINE.....	1K07 HL00519-01
SAINT LOUIS		
JEWISH HOSPITAL OF ST. LOUIS ZIP CODE 63110		
BIRGE, STANLEY J.....	MECHANISMS OF CALCIUM TRANSPORT.....	5K04 AM00109-05
KAPP-PIERCE, JUDITH A.....	CONTROL OF IMMUNE RESPONSES BY IR AND IG GENES.....	1K04 AI00361-01
THOMAS, DAVID W.....	T LYMPHOCYTE AND MACROPHAGE INTERACTIONS.....	1K04 AI00352-01
ST. LOUIS UNIVERSITY ZIP CODE 63103		
BARISAS, B GEORGE.....	LATERAL DYNAMICS OF MEMBRANES COMPONENTS.....	5K04 AI00291-02
GREEN, MAURICE.....	BIOCHEMISTRY OF VIRAL REPLICATION.....	5K06 AI04739-18
MARRS, BARRY L.....	MEMBRANE DEVELOPMENT: A BIOCHEMICAL GENETICS APPROACH.....	5K04 GM00098-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
MISSOURI—Continued		
MOORE, TERRY L.....	HIDDEN 19S IGM RHEUMATOID FACTOR IN JUVENILE ARTHRITIS.....	1K08 AM00364-01A1
SECKER-WALKER, ROGER H.....	PULMONARY MEDICINE.....	5K07 HL00251-04
WASHINGTON UNIVERSITY ZIP CODE 63130		
BAUER, EUGENE A.....	CONTROL OF COLLAGENASE BIOSYNTHESIS IN CELL CULTURE.....	5K04 AM00077-05
BOIME, IRVING.....	BIOSYNTHESIS OF PROTEIN HORMONES.....	5K04 AM00174-03
CARROLL, JAMES E.....	PROVOCATIVE TESTING IN NEUROMUSCULAR DISEASES.....	1K07 NS00386-01
COLE, BARBARA R.....	HISTOCHEMICAL ANALYSIS OF RENAL AMINO ACID TRANSPORT.....	1K08 AM00669-01
CULLEN, SUSAN E.....	STRUCTURAL & SEROLOGICAL STUDIES OF IA & H-2 ANTIGENS.....	5K04 CA00348-03
DODSON, WILLIAM E.....	METABOLISM OF ANTICONVULSANTS.....	5K07 NS11074-05
GOTTLIEB, DAVID I.....	MOLECULAR BASIS OF MEMBRANE RECOGNITION.....	5K04 NS00185-04
HILLMAN, RICHARD E.....	MEMBRANE TRANSPORT OF AMINO ACIDS.....	5K04 AM00080-05
KIM, DUCK O.....	INNER EAR AND COCHLEAR NUCLEUS MECHANISMS.....	5K04 NS00162-04
KRUPIN, THEODORE.....	CENTRAL NERVOUS SYSTEM INFLUENCE ON OCULAR DYNAMICS.....	5K04 EY00082-03
MC KEEL, DANIEL W, JR.....	HORMONE SECRETION BY NORMAL AND NEOPLASTIC HYPOPHYSIS.....	5K04 AM00184-04
NAKEFF, ALEXANDER N.....	MEGAKARYOCYTE PROLIFERATION AND ITS CONTROL.....	5K04 HL00440-02
PALMBERG, PAUL F.....	GLAUCOMA AND GLUCOCORTICOIDS.....	1K04 EY00162-01
PERMUTT, MARSHALL A.....	STUDIES OF INSULIN BIOSYNTHESIS.....	5K04 AM00333-03
POLAKOSKI, KENNETH L.....	INHIBITION PROACROSIN-ACROSIN IN MAMMALIAN SPERM.....	1K04 HD00296-01
ROOS, ALBERT.....	PULMONARY BLOOD FLOW & TRANSMEMBRANE IONIC FLUX.....	5K06 HL19608-17
SCHARP, DAVID W.....	ISLET TRANSPLANTATION IN DIABETES MELLITUS.....	5K04 AM00318-03
SULLIVAN, TIMOTHY J.....	BIOCHEMISTRY OF MAST CELL SECRETION.....	5K07 AI00190-04
TROTTER, JOHN L.....	ISOLATION AND IMMUNOLOGY OF MYELIN PROTEINS.....	5K07 NS00221-02
UITTO, JOUNI J.....	BIOSYNTHESIS OF COLLAGEN BY HUMAN SKIN FIBROBLASTS.....	5K04 AM00455-02
WEDNER, H JAMES.....	CYCLIC NUCLEOTIDES AND LYMPHOCYTE ACTIVATION.....	5K04 AI00041-05
WILLARD, MARK B.....	AXONALLY TRANSPORTED PROTEINS IN THE VISUAL SYSTEM.....	5K04 NS00170-04
ZAHALAK, GEORGE I.....	THE DYNAMICS OF HUMAN SKELETAL MUSCLE IN-VIVO.....	1K04 AM00541-01
MONTANA		
BOZEMAN		
MONTANA UNIVERSITY SYSTEM—MONTANA STATE UNIVERSITY ZIP CODE 59715		
HAMILTON, MARTIN A.....	STATISTICAL METHODS IN TOXICOLOGY & EPIDEMIOLOGY.....	1K04 ES00063-01
NEBRASKA		
LINCOLN		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN ZIP CODE 68508		
NICKERSON, KENNETH W.....	MICROBIAL BIOCHEMISTRY AND FUNGAL POLYAMINES.....	1K04 AI00327-01
SCHUSTER, SHELDON M.....	ASPARAGINE BIOSYNTHESIS IN NORMAL AND TUMOR CELLS.....	1K04 CA00628-01
OMAHA		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105		
CLARK, EDWARD B.....	ROLE OF BLOOD FLOW IN AORTIC ARCH DEVELOPMENT.....	1K04 HD00314-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NEVADA		
RENO		
UNIVERSITY OF NEVADA SYSTEM—UNIVERSITY OF NEVADA RENO ZIP CODE 89507		
APICELLA, MICHAEL A.....	NEISSERIAL CELL WALL ANTIGENS.....	7K04 AI00365-05
NEW HAMPSHIRE		
HANOVER		
DARTMOUTH COLLEGE ZIP CODE 03755		
CULP, WILLIAM J.....	SODIUM CHANNEL COMPONENTS OF EXCITABLE MEMBRANES.....	5K04 NS00058-04
DAUBENSPECK, JOHN A.....	DYNAMICS OF BREATHING PATTERN RESPONSES TO LOADING.....	5K04 HL00280-03
HASSELBACHER, PETER.....	EFFECT OF PROTEIN-CRYSTAL INTERACTIONS IN ARTHRITIS.....	5K08 AM00587-03
NATTIE, EUGENE E.....	BRAIN METABOLISM/ACID-BASE BALANCE/RESPIRATION CONTROL.....	5K04 HL00364-03
NORTH, WILLIAM G.....	NORMAL AND ECTOPIC PRODUCTION OF ADH AND OXYTOCIN.....	1K04 CA00552-01
ST JOHN, WALTER M.....	BRAINSTEM INTEGRATION OF CHEMORECEPTOR ACTIVITY.....	5K04 HL00346-03
NEW JERSEY		
NEWARK		
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103		
LASSER, NORMAN L.....	PREVENTIVE CARDIOLOGY.....	1K07 HL00610-01
REICHMAN, LEE B.....	PULMONARY MEDICINE.....	5K07 HL00124-05
NEW BRUNSWICK		
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903		
NIEDERMAN, ROBERT A.....	MOLECULAR ASPECTS OF MEMBRANE DEVELOPMENT.....	5K04 GM00093-05
OLSON, WILMA K.....	NUCLEIC ACID CONFORMATION AND PROPERTIES.....	5K04 GM00155-04
PIECZENIK, GEORGE.....	GENOTYPIC SELECTION: SYNTAX AND STRUCTURE.....	5K04 GM00281-03
VALENTINE, JOAN S.....	THE CHEMISTRY AND BIOCHEMISTRY OF SUPEROXIDE ANION.....	5K04 AM00194-04
PISCATAWAY		
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL ZIP CODE 08854		
DOYLE, BARBARA B.....	X-RAY DIFFRACTION OF CONNECTIVE TISSUE.....	5K04 AM00168-04
RILEY, DAVID J.....	PULMONARY MEDICINE.....	1K07 HL00443-01A1
PRINCETON		
PRINCETON UNIVERSITY ZIP CODE 08540		
WORCEL, ABRAHAM.....	STRUCTURE OF PROKARYOTIC AND EUKARYOTIC CHROMOSOMES.....	5K04 GM00101-05
NEW MEXICO		
ALBUQUERQUE		
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131		
GOLDBERG, ELLEN H.....	IMMUNOBIOLOGY OF THE H-Y (MALE) ANTIGENIC SYSTEM.....	1K04 AI00353-01
SCHADE, DAVID S.....	COUNTER REGULATORY HORMONES IN DIABETIC KETOACIDOSIS.....	5K04 AM00260-03
WATERMAN, ROBERT E.....	NORMAL AND CLEFT PALATE DEVELOPMENT IN MAMMALS.....	5K04 DE00013-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NEW YORK		
ALBANY		
STATE UNIVERSITY OF NEW YORK AT ALBANY ZIP CODE 12222		
SCHOLES, CHARLES P.....	PROBING HEME AND HEMOPROTEINS BY ENDOR.....	5K04 AM00274-03
STRATTON, HOWARD H.....	MARKOV CHAIN PROBABILISTIC FUNCTIONS—CLINICAL MODELING.....	5K04 GM00082-05
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208		
GOLDFARB, ROY D.....	GENESIS OF SHOCK BY PANCREATIC PEPTIDES.....	1K04 HL00497-01
MALIK, ASRAR B.....	PULMONARY VASCULAR ADJUSTMENTS IN CIRCULATORY COLLAPSE.....	5K04 HL00363-03
BUFFALO		
NEW YORK STATE DEPARTMENT OF HEALTH—ROSSELL PARK MEMORIAL INSTITUTE ZIP CODE 14263		
GUTAI, MARY W.....	THE SV40 REPLICATION ORIGIN, AND RECOMBINATION WITH HOST.....	5K04 CA00449-02
HUI, SEK W.....	ELECTRON DIFFRACTION OF CANCER CELL MEMBRANES.....	5K04 CA00084-05
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260		
ALTSCHULER, MARTIN D.....	DIVERGING-BEAM 3-D IMAGE RECONSTRUCTION.....	5K04 GM00381-03
CALKINS, EVAN.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00080-01
FOURTNER, CHARLES R.....	NEURAL CONTROL OF RHYTHMIC BEHAVIOR PATTERNS.....	5K04 NS00141-04
REED, MICHAEL J.....	ROLE OF CELL-MEDIATED IMMUNITY IN PERIODONTAL DISEASE.....	5K04 DE70859-05
SALTZMAN, ALAN R.....	PULMONARY MEDICINE.....	5K07 HL00342-03
COLD SPRING HARBOR		
COLD SPRING HARBOR LABORATORY ZIP CODE 11724		
BUKHARI, AHMAD I.....	THE LIFE CYCLE OF MUTATOR PHAGE MU.....	5K04 GM00127-05
ITHACA		
CORNELL UNIVERSITY ZIP CODE 14850		
CORRADINO, ROBERT A.....	ORGAN CULTURED DUODENUM: CA ABSORPTIVE MECHANISM, ETC.....	5K04 AM00115-05
CYPESS, RAYMOND H.....	PARASITIC DISEASES AS A MODEL FOR IMMUNE RESPONSES.....	5K04 AI00301-03
HAUSFATER, GLENN.....	LONGITUDINAL STUDIES OF PRIMATE SOCIOBIOLOGY.....	5K04 HD00261-03
HOY, RONALD R.....	GENETIC & DEVELOPMENTAL ANALYSES OF NERVOUS SYSTEMS.....	5K04 NS00309-02
MOFFAT, JOHN K.....	CALCIUM TRANSPORT AND BINDING.....	5K04 AM00322-02
ROBERTS, JEFFREY W.....	GENE CONTROL IN INFECTION & LYSOGENY BY PHAGE LAMBDA.....	5K04 GM00185-04
NEW YORK		
AMERICAN HEALTH FOUNDATION ZIP CODE 10017		
HECHT, STEPHEN S.....	ISOLATION AND CHEMISTRY OF ENVIRONMENTAL CARCINOGENS.....	5K04 CA00124-05
CITY UNIVERSITY OF NEW YORK—COLLEGE OF STATEN ISLAND ST. GEORGE CAMPUS ZIP CODE 10301		
NAIDER, FRED R.....	PEPTIDE TRANSPORT IN MICROORGANISMS AND MAMMALIAN CELLS.....	5K04 GM00025-05
CITY UNIVERSITY OF NEW YORK—HUNTER COLLEGE ZIP CODE 10021		
CHAPPELL, RICHARD L.....	STUDY OF NEURAL INTERACTIONS OF THE RETINA.....	5K04 EY00040-04
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029		
ALTER, BLANCHE P.....	HEMOGLOBIN REGULATION/DIFFERENTIATION DURING DEVELOPMENT.....	7K04 HL00684-05
BARKER, LOUIS A.....	REGULATION OF ACH SYNTHESIS IN THE CNS.....	5K04 NS00274-02
BENDER, ADAM N.....	LOCALIZATION OF NICOTINIC ACETYLCHOLINE RECEPTOR.....	5K07 NS00207-03
DESINICK, ROBERT J.....	THERAPY OF METABOLIC DISEASES.....	5K04 AM00451-05
GERBER, MICHAEL A.....	ANTIGENIC STRUCTURE AND MORPHOLOGY OF HB AG.....	5K04 AI00035-05
KIRCHBERGER, MADELEINE A.....	REGULATION OF CARDIAC SR CA20-PUMP BY PROTEIN KINASE.....	5K04 HL00053-05
KRULWICH, TERRY A.....	TRANSPORT IN MEMBRANE VESICLES AND RELATED METABOLISM.....	5K04 GM00020-05
LORIMER, WILLIAM V.....	METHODOLOGICAL APPROACHES TO STUDY OF TOXIC AGENTS.....	5K04 ES00035-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NEW YORK—Continued		
MASUR, SANDRA K.....	EXOCYTOSIS AND ENDOCYTOSIS INDUCED BY VASOPRESSIN.....	1K04 AM00547-01
MC EVOY, ROBERT C.....	DEVELOPMENTAL INTERACTION/GEF SYSTEM/IN VIVO/IN VITRO.....	1K04 HD00285-01
MINDEL, JOEL S.....	OCULAR CHOLINERGIC SYSTEMS.....	5K04 EY70959-05
RAFAN, THEODORE.....	CENTRAL MECHANISMS FOR SUPPRESSION OF NYSTAGMUS.....	1K07 EY00157-01
RAYFIELD, ELLIOT J.....	CARBOHYDRATE METABOLISM-INFECTION INTERRELATIONSHIPS.....	5K04 AM00089-05
RITCH, ROBERT H.....	(NA/IONS & K/IONS)-ATPASE IN AQUEOUS HUMOR DYNAMICS.....	5K07 EY00133-02
SMITH-WRIGHT, MOYRA.....	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN CELL HYBRIDS.....	5K04 AI00249-03
COLUMBIA UNIVERSITY ZIP CODE 10027		
AMBRON, RICHARD T.....	PROCESSING OF MEMBRANE GLYCOPROTEIN IN SINGLE NEURONS.....	1K04 NS00350-01
BENESCH, REINHOLD.....	RELATION BETWEEN STRUCTURE & FUNCTION IN PROTEINS.....	5K06 HL01137-18
BILEZIKIAN, JOHN P.....	THE BETA ADRENERGIC CATECHOLAMINE RECEPTOR.....	5K04 HL00383-03
BLITZER, ANDREW.....	LARYNGEAL CONNECTIVE TISSUE RESPONSE TO CANCER.....	1K07 NS00392-01
BRASITUS, THOMAS A.....	PATHOPHYSIOLOGY OF INTESTINAL MICROVILLUS MEMBRANES.....	5K08 AM00386-02
BRAUN, NORMA M.....	PULMONARY MEDICINE.....	5K07 HL00371-03
EGGERS, ARNOLD E.....	CHEMICAL ENHANCEMENT OF TUMOR IMMUNOGENICITY.....	1K07 NS00419-01
FENOGILIO, JOHN J, JR.....	GENESIS OF ARRHYTHMIAS FOLLOWING MYOCARDIAL INFARCTION.....	5K04 HL00185-03
FISCHBARG, JORGE.....	WATER & ELECTROLYTE TRANSPORT BY CORNEAL ENDOTHELIUM.....	5K04 EY00006-05
GUNTAKA, RAMAREDDY V.....	SYNTHESIS, INTEGRATION AND EXPRESSION OF ASV GENOME.....	1K04 CA00540-01
HARVEY, REJANE M.....	CONTROL OF PULMONARY CIRCULATION.....	5K06 HL16603-17
HENDERSON, ANN S.....	HUMAN GENE SITE LOCALIZATION USING HYBRIDIZATION IN SITU.....	5K04 GM00017-05
HOCHBERG, RICHARD B.....	MECHANISMS IN STEROID HORMONE BIOSYNTHESIS.....	5K04 CA00174-04
ISHII, DOUGLAS N.....	NGF AND DIFFERENTIATION OF NEURONAL TUMOR II.....	5K04 NS00375-02
KHANNA, SHYAM M.....	PERIPHERAL AUDITORY FUNCTION.....	5K04 NS00292-03
KILCOYNE, MARGARET M.....	ADOLESCENT HYPERTENSION-NATURAL HISTORY AND DYNAMICS.....	5K04 HL00183-04
KOOPMANS, HENRY S.....	THE REGULATION OF FOOD INTAKE AND BODY FAT.....	5K04 AM00198-04
LIM, JONG J.....	ENDOTHELIAL CELL ADHESION AND DIELECTRIC PROPERTIES.....	5K07 EY00105-02
LO GERFO, PAUL.....	IMMUNOLOGICAL APPROACHES TO THE DIAGNOSIS OF CANCER.....	5K04 CA00192-04
ROSSO, PEDRO P.....	MATERNAL MALNUTRITION AND TRANSFER OF NUTRIENTS.....	5K04 HD00116-05
SILVERSTEIN, SAUL J.....	REGULATION OF VIRAL GENES IN TRANSFORMED CELLS.....	5K04 CA00491-02
THOMPSON, ELIZABETH B.....	MORPHOLOGY OF IDENTIFIED SYNAPSES.....	5K04 NS00122-05
TONNDORF, JUERGEN.....	PHYSIOLOGY OF THE EAR.....	4K06 NS21691-16
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021		
ATLAS, STEVEN A.....	IDENTIFICATION OF RENIN PRECURSORS IN HUMAN SUBJECTS.....	1K04 HL00570-01
COOPER, ARTHUR.....	AMMONIA METABOLISM IN LIVER DISEASE.....	5K04 NS00343-02
GARDNER, DANIEL.....	SYNAPTIC ORGANIZATION OF IDENTIFIED NEURAL NETWORKS.....	5K04 NS00003-05
HAMILL, ROBERT W.....	DEVELOPMENTAL NEUROLOGY: BIRTH DEFECTS.....	1K07 NS00383-01
IMPERATO-MC GINLEY, J.....	ABNORMALITIES OF SEXUAL DIFFERENTIATION IN MAN.....	1K08 AM00615-01
JAFFE, ERIC A.....	BIOLOGY OF ENDOTHELIAL CELLS.....	5K04 HL00237-04
KESSLER, JOHN A.....	TRANS-SYNAPTIC REGULATION OF NEURONAL FUNCTION.....	5K07 NS00351-02
PETERSON, RALPH E.....	METABOLISM AND REGULATION OF ADRENOCORTICAL SECRETIONS.....	5K06 AM14241-18
PULSINELLI, WILLIAM A.....	BARBITURATE PROTECTION AGAINST CEREBRAL ISCHEMIA.....	1K07 NS00406-01
RABELLINO, ENRIQUE M.....	MEMBRANE MARKER ANALYSIS OF LEUKOCYTE DIFFERENTIATION.....	1K04 CA00518-01
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021		
BOSKEY, ADELE L.....	MECHANISM OF TOOTH & BONE MINERALIZATION.....	5K04 DE00002-05
GIBOFISKY, ALLAN.....	B-CELL ALLOANTIGENS IN THE RHEUMATIC DISEASES.....	1K08 AM00673-01
LANE, JOSEPH M.....	MOLECULAR BIOLOGY OF FRACTURE HEALING.....	5K04 AM00295-03
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021		
PASTERNAK, GAVRIEL W.....	BIOCHEMICAL CHARACTERIZATION OF THE OPIATE RECEPTOR.....	1K07 NS00415-01
ROTTENBERG, DAVID A.....	INVESTIGATION OF CSF DYNAMICS IN MAN.....	5K07 NS00286-03
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467		
BURNS-BELLHORN, MARGARET S.....	ION LOCALIZATION IN EYE PHYSIOLOGY: NEW TECHNIQUES.....	5K04 EY00104-02
COHEN, MICHAEL V.....	EFFECT OF EXERCISE ON CORONARY COLLATERAL FUNCTION.....	5K04 HL00281-03
NEW YORK BLOOD CENTER ZIP CODE 10021		
STEVENS, CLADD E.....	POST-TRANSFUSION HEPATITIS IN CHILDREN.....	5K04 HL00261-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1979—Continued

Awardee	Project title	Grant number
NEW YORK—Continued		
NEW YORK UNIVERSITY ZIP CODE 10003		
BERNHEIMER, ALAN W.	STAPHYLOCOCCAL AND STREPTOCOCCAL PROTEINS.....	5K06 A114198-18
BONDI, ARDITH Y.	ELECTROPHYSIOLOGY OF OCULOMOTOR MUSCLES.....	1K07 EY00165-01
FINLAY, THOMAS H.	STRUCTURE-FUNCTION STUDIES OF AHF, VWF AND AT III.....	5K04 HL00277-03
GARDNER, ESTHER P.	NEURAL MECHANISMS OF CUTANEOUS SPATIAL INTEGRATION.....	5K04 NS00142-04
GERSHENGORN, MARVIN C.	REGULATION OF TSH SYNTHESIS AND SECRETION.....	1K04 AM00566-01
GUNNISON, ALBERT F.	MAMMALIAN TOXICOLOGY OF SO ₂ AND SULFITE SALTS.....	5K04 ES00005-05
HOFFSTEIN, SYLVIA T.	LYSOSOMAL ENZYME RELEASE AND TISSUE INJURY.....	5K04 HL00356-03
JAEGER, RUDOLPH J.	PULMONARY TOXICITY OF INHALED PYROLYSIS PRODUCTS.....	7K04 ES00081-03
KREIBICH, GERT	ORGANIZATION AND BIOSYNTHESIS OF ER MEMBRANE PROTEINS.....	5K04 GM00232-04
MAAS, WERNER K.	ENZYME REPRESSION, PLASMIDS GENETICS, E COLI ENTEROTOXIN.....	4K06 GM15129-16
MEISS, HARRIET K.	ISOLATION AND ANALYSIS OF TS DNA MUTANTS OF BHK CELLS.....	5K04 CA00020-05
PEREZ, HECTOR D.	HOST DEFENSES IN SYSTEMIC LUPUS ERYTHEMATOSUS.....	5K08 AM00463-02
SCHAEFFER, HELENE E.	TRANSCORNEAL PILOCARPINE FLUX ENHANCEMENT VIA LIPOSOMES.....	5K07 EY00138-02
TSAI, JIR-SHONG	EFFECT OF THYROID HORMONE ON CULTURED CARDIAC CELLS.....	5K04 HL00178-05
POLYTECHNIC INSTITUTE OF NEW YORK ZIP CODE 11201		
TOONEY, NANCY M.	FIBRINOGEN: STRUCTURE AND MOLECULAR INTERACTIONS.....	5K04 HL00062-05
ROCKEFELLER UNIVERSITY ZIP CODE 10021		
ANDERSON, KARL E.	NUTRITION AND DRUG METABOLISM IN MAN.....	5K04 GM00330-03
BROWNLEE, MICHAEL A.	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00589-02
CHUA, NAM-HAI	STRUCTURE AND BIOGENESIS OF THYLAKOID MEMBRANE.....	5K04 GM00223-04
FISCHETTI, VINCENT A.	PROPERTIES OF STREPTOCOCCAL M PROTEIN.....	5K04 AI00265-03
GILULA, NORTON B.	CELL MEMBRANE INTERACTIONS AND CELL COMMUNICATION.....	5K04 HL00110-05
JONES, ROBERT L.	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00590-02
KAPLAN, EHUD	EFFECT OF CORTICAL FEEDBACK ON THE LGN.....	5K07 EY00108-02
LIZARDI, PAUL M.	BIOGENESIS OF SILK FIBROIN MESSENGER RNA.....	5K04 GM00316-03
PETERSON, BARRY W.	PROPERTIES OF PREMOTOR NEURONS IN GAZE CONTROL SYSTEM.....	5K04 EY00100-02
SHAPLEY, ROBERT M.	SPATIAL INTERACTIONS IN VISUAL NEURONS.....	5K04 EY00087-03
VALINSKY, JAY E.	APPLICATION OF FLUORESCENT PROBES TO CANCER DIAGNOSIS.....	1K04 CA00633-01
WANG, LU-HAI	SARCOMAGENICITY & LEUKEMOGENICITY OF RNA TUMOR VIRUS.....	1K04 CA00574-01
WINCHESTER, ROBERT J.	HUMAN B LYMPHOCYTE ALLOANTIGENS AND SURFACE MARKERS.....	5K04 AI00216-03
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021		
ARTZT, KAREN	TERATOCARCINOMA AND EMBRYONAL TUMORS: SURFACE ANTIGENS.....	5K04 CA00276-04
KINCADE, PAUL W.	DEVELOPMENT OF B-CELL FUNCTIONAL HETEROGENEITY.....	5K04 AI00265-02
KOURIDES, IONE A.	BIOSYNTHESIS AND REGULATION OF GLYCOPROTEIN HORMONES.....	1K04 AM00679-01
MODAK, MUKUND J.	MOLECULAR EFFECTORS OF ENZYMATIC DNA SYNTHESIS.....	1K04 CA00545-01
SCHEID, MARGRIT P.	IMMUNOGENETICS OF LYMPHOCYTES IN HEALTH AND DISEASE.....	5K04 AI00270-02
SHEN, FUNG-WIN	THE IMMUNOGENETICS OF LYMPHOCYTE POPULATIONS.....	1K04 AI00329-01
STEWART, WILLIAM E. II.	CHARACTERIZATIONS OF INTERFERONS AND THEIR ACTIONS.....	5K04 AI00219-03
WACHTEL, STEPHEN S.	SEROLOGY OF HY & SK ANTIGENS.....	5K04 HD00171-03
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203		
BIANCO, CELSO	TUMOR RECOGNITION BY NORMAL AND ACTIVATED MACROPHAGES.....	5K04 CA00463-03
FEINMAN, RICHARD D.	HEPARIN AND PLASMA COAGULATION INHIBITORS.....	5K04 HL00406-02
YESHIVA UNIVERSITY ZIP CODE 10033		
BREWER, CURTIS F.	NMR STUDIES OF HAPTEN-ANTIBODY INTERACTIONS.....	5K04 CA00184-05
CHOWDHURY, JAYANTA R.	BILIRUBIN METABOLISM AND EXCRETION.....	1K08 AM00569-01
FEIN, FREDERICK S.	MYOCARDIAL FUNCTION IN EXPERIMENTAL DIABETES MELLITUS.....	5K01 AM00593-02
FEIN, JACK M.	OXIDATIVE METABOLISM IN CEREBRAL ISCHEMIA.....	5K04 NS00198-04
FROSOLONO, MICHAEL F.	BIOCHEMISTRY OF PULMONARY SURFACTANT SYSTEM.....	5K04 HL00105-05
GASKIN, FELICIA A.	NEUROTUBULE, NEUROFILAMENT, & TWISTED TUBULE ASSEMBLY.....	3K04 AG00002-04S1
GASKIN, FELICIA A.	NEUROTUBULE, NEUROFILAMENT, & TWISTED TUBULE ASSEMBLY.....	5K04 AG00002-05
HENRY, SUSAN A.	GENETICS AND DEVELOPMENT OF YEAST MEMBRANE MUTANTS.....	5K04 GM00024-05
HIGHSTEIN, STEPHEN M.	OCULOMOTOR SYNAPTIC LINKAGE CNS SYNAPTIC TRANSMISSION.....	5K04 EY00003-05
KEISER, HAROLD D.	IMMUNOCHEMISTRY OF CARTILAGE PROTEOGLYCAN.....	5K04 AM00024-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NEW YORK—Continued		
LEVENSON, STANLEY M.....	PROBLEMS OF SURGICAL METABOLISM.....	5K06 GM14208-18
MILLER, AARON E.....	EA ENCEPHALOMYELITIS-IMMUNOREGULATION/VIRAL INTERACTION.....	1K07 NS00421-01
NOVIKOFF, ALEX B.....	BIOCHEMICAL CYTOLOGY OF NORMAL AND MALIGNANT CELLS.....	5K06 CA14923-18
ROBINSON, THOMAS F.....	STRUCTURE-FUNCTION OF LINKS AMONG HEART MUSCLE CELLS.....	1K04 HL00568-01
RUBIN, CHARLES S.....	CYCIC AMP AND PROTEIN KINASES IN CELL REGULATION.....	5K04 AM00190-04
RUBIN, MERYL S.....	REGULATION OF MEMBRANE PERMEABILITY: MOLECULAR BASIS.....	5K04 AM00010-05
SHAFRITZ, DAVID A.....	PROTEIN SYNTHESIS IN NORMAL AND REGENERATING LIVER.....	5K04 AM00027-05
WITTENBERG, JONATHAN B.....	OXYGEN METABOLISM.....	4K06 HL00733-16
YEN, SHU-HUI C.....	THE AGING BRAIN: IMMUNOHISTOLOGY AND BIOCHEMISTRY.....	1K04 AG00028-01
POUGHKEEPSIE		
VASSAR COLLEGE ZIP CODE 12601		
GREENWOOD, MARY R.....	NUTRITION AND DEVELOPMENT OF ADIPOSE TISSUE.....	5K04 HD00283-02
ROCHESTER		
UNIVERSITY OF ROCHESTER ZIP CODE 14627		
AMATRUDA, JOHN M.....	INSULIN ACTION IN LIVER TISSUE AND ADIPOSE TISSUE.....	5K04 AM00366-02
ANDERSON, CLARK L.....	FC RECEPTOR STRUCTURE AND FUNCTION.....	1K04 AI00363-01
BEGENISICH, TED B.....	ION MOVEMENTS AND DRUG INTERACTIONS IN GIANT AXONS.....	5K04 NS00322-02
BOSMANN, H BRUCE.....	GERIATRIC MEDICINE ACADEMIC AWARD.....	1K07 AG00048-01
BRAND, JOHN S.....	SEPARATION & CHARACTERIZATION OF ISOLATED BONE CELLS.....	5K04 AM00101-05
CONNETT, RICHARD J.....	CONTROL OF ENERGY TURNOVER IN SKELETAL MUSCLE.....	5K04 AM00155-04
DRlica, KARL A.....	GYRASE ROLE IN E. COLI CHROMOSOME STRUCTURE/FUNCTION.....	1K04 CA00562-01
EMERSON, ROBERT C.....	IMAGE MOVEMENT: NEURAL PROCESSING MECHANISMS.....	5K04 EY00081-03
FORBES, GILBERT B.....	CHEMICAL STUDIES IN GROWTH AND DEVELOPMENT.....	5K06 HD18454-18
GOROVSKY, MARTIN A.....	ORGANIZATION AND FUNCTION OF THE EUKARYOTIC GENOME.....	5K04 GM00238-04
HINKLE, DAVID C.....	ENZYMATIC MECHANISM OF DNA REPLICATION.....	5K04 GM00221-04
HOFFMAN, GLORIA E.....	IMMUNOCYTOCHEMISTRY OF LHRH AND OTHER NEUROPEPTIDES.....	5K04 NS00321-02
JOSEPH, SHIRLEY A.....	DEVELOPMENT OF BRAIN-PITUITARY HORMONE SYSTEMS.....	1K04 HD00230-01
KASS, ROBERT S.....	TRANSIENT CURRENTS INDUCED BY DIGITALIS IN THE HEART.....	1K04 HL00556-01
KIRKPATRICK, FRANCIS H, JR.....	RED CELL DEFORMABILITY: ROLE OF SPECTRIN AND ACTIN.....	5K04 HL00146-05
KRUGH, THOMAS R.....	PHYSICOCHEMICAL STUDIES OF INTERCALATION DRUGS.....	5K04 CA00257-04
PRAKASH, LOUISE.....	REPAIR OF DAMAGED DNA AND MUTAGENESIS IN YEAST.....	5K04 GM00004-05
SCHNEIDER, MARTIN F.....	CALCIUM CONCENTRATION CHANGES IN MUSCLE FIBERS.....	5K04 NS00078-05
SEGEL, GEORGE B.....	PHYSIOLOGY AND CELL DIVISION IN NORMAL & LEUKEMIC CELLS.....	5K04 CA00019-05
SHOULSON, IRA.....	HUNTINGTON'S DISEASE: CLINICAL/NEUROCHEMICAL STUDIES.....	1K07 NS00397-01
SHRAGER, PETER G.....	BIOCHEMICAL PROBES OF EXCITABLE MEMBRANES.....	5K04 NS00133-03
SLADEK, CELIA D.....	MECHANISMS CONTROLLING VASOPRESSIN SECRETION.....	5K04 NS00259-03
TANG, LORETTA K.....	REGULATION OF PITUITARY FUNCTION.....	1K04 HD00288-01
THOMPSON, DEAN A.....	SERCA-DIABETES MELLITUS AND CARDIOVASCULAR.....	5K01 AM00564-02
WAAG, ROBERT C.....	COMPUTER-BASED CARDIAC ULTRASOUND IMAGING.....	5K04 HL00067-05
WILHELM, JAMES M.....	STUDIES OF VIRUS REPLICATION AND TRANSFORMATION.....	5K04 CA00061-05
SARANAK LAKE		
TRUDEAU INSTITUTE ZIP CODE 12983		
CARTER, PHILIP B.....	HOST RESPONSE TO INTESTINAL FLORA.....	5K04 AM00073-05
STONY BROOK		
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794		
COHEN, IRA S.....	CARDIAC ELECTROPHYSIOLOGY EFFECTS OF IONS AND DRUGS.....	5K04 HL00395-02
DALTON, LARRY R.....	NEW INSTRUMENTAL TECHNIQUES FOR BIOMEDICAL RESEARCH.....	5K04 GM00374-04
FRIEDMAN, RICHARD.....	BEHAVIORAL AND CARDIOVASCULAR RESPONSE TO STRESS.....	1K04 HL00552-01
HUREWITZ, ADAM.....	PULMONARY MEDICINE.....	5K07 HL00439-02
JESTY, JOLYON.....	CONTROL MECHANISMS IN COAGULATION.....	5K04 HL00477-02
OWEN, WILLIAM G.....	SIGNAL TRANSFER BETWEEN RETINAL CELLS.....	5K04 EY00113-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NEW YORK—Continued		
SHERMAN, S MURRAY.....	MAMMALIAN VISUAL DEVELOPMENT AND AMBLYOPIA.....	7K04 EY00182-05
SILVERBERG, SIDONIE A.....	KINETICS OF PROTHROMBIN ACTIVATION.....	1K04 HL00478-01
SIMON, SANFORD R.....	CONFORMATION STUDIES OF MODIFIED HEMOGLOBINS.....	3K04 HL00088-04S1
SIMON, SANFORD R.....	CONFORMATION STUDIES OF MODIFIED HEMOGLOBINS.....	5K04 HL00088-05
SMALDONE, GERALD C.....	PULMONARY MEDICINE.....	3K08 HL00461-01S1
SMALDONE, GERALD C.....	PULMONARY MEDICINE.....	5K08 HL00461-02
SYRACUSE		
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210		
COULSON, RICHARD.....	CYCLIC NUCLEOTIDES AND KIDNEY METABOLISM AND FUNCTION.....	5K04 AM00326-02
HAMERNIK, ROGER P.....	NOISE EXPOSURE-AUDIOMETRIC & ULTRASTRUCTURAL CORRELATES.....	3K04 ES00011-02S1
HAMERNIK, ROGER P.....	NOISE EXPOSURE-AUDIOMETRIC & ULTRASTRUCTURAL CORRELATES.....	5K04 ES00011-03
RAY, TUSHAR K.....	MEMBRANE BIOLOGY AND CELLULAR PHYSIOLOGY.....	5K04 AM00623-03
UPTON		
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY ZIP CODE 11973		
SUTHERLAND, BETSY M.....	PHOTOREACTIVATING ENZYMES.....	5K04 CA00466-05
SUTHERLAND, JOHN C.....	PHYSICAL STUDIES OF THE PHOTOREACTIVATING ENZYME.....	5K04 CA00465-03
VALHALLA		
NEW YORK MEDICAL COLLEGE ZIP CODE 10595		
SHARMA, SANSAR C.....	THE FORMATION OF VISUAL NEURONAL CONNECTIONS.....	5K04 EY00101-02
NORTH CAROLINA		
CHAPEL HILL		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514		
BASEMAN, JOEL B.....	METABOLISM OF TREPONEMES: PATHOGENESIS OF RESP DISEASE.....	5K04 AI00178-04
BRIGGAMAN, ROBERT A.....	EPIDERMAL-DERMAL JUNCTION AND BULLOUS DISEASES.....	5K04 AM00119-05
BUTLER, THOMAS C.....	STUDIES OF DRUG METABOLISM AND OF INTRACELLULAR PH.....	5K06 GM19429-17
CARDENAS, JANET M.....	PYRUVATE AND PROTEIN KINASES IN METABOLIC REGULATION.....	5K04 AM00529-03
COFFEY, JAMES C, JR.....	ACTION OF ANDROGEN ON SUBMAXILLARY GLAND FUNCTION.....	5K04 DE00014-05
COOPER, HERBERT A.....	HEMOPHILIA AND VON WILLEBRAND'S DISEASE.....	5K04 HL00081-05
DONOHUE, JAMES F.....	PULMONARY MEDICINE.....	5K07 HL00449-02
DREYER, DUANE A.....	ANATOMOPHYSIOLOGICAL BASES OF OROFACIAL SENSATION.....	5K04 DE00011-05
EDGELL, MARSHALL H.....	EUKARYOTIC GENE ORGANIZATION.....	5K04 GM00126-05
HUANG, ENG-SHANG.....	THE BIOLOGY AND GENETICS OF HUMAN CYTOMEGALOVIRUS.....	5K04 AI00229-02
KAER, ENID R.....	NEURAL AND VENTILATORY RESPONSES TO MECHANICAL LOADS.....	5K04 HL00218-04
KAUFMAN, DAVID G.....	CHEMICAL CARCINOGENESIS AND CELL PROLIFERATION.....	5K04 CA00431-02
KUPPER, LAWRENCE L.....	STATISTICAL MODELS FOR ENVIRONMENTAL HEALTH DATA.....	5K04 ES00003-05
KUSY, ROBERT P.....	NOVEL USES OF MATERIALS FOR HEALTH RESEARCH.....	5K04 DE00052-03
MANN, JOHN D.....	METABOLIC ENCEPHALOPATHY BRAIN BARRIER SYSTEMS—UREMIA.....	5K07 NS00244-04
MORGAN, DORIS A.....	IN VITRO DIFFERENTIATION OF INTESTINAL CELLS.....	1K07 ES00067-01
PIMMEL, RUSSELL L.....	ANALYSIS OF RESPIRATORY MECHANICS AND SOUNDS.....	5K04 HL00207-04
RUSSELL, STEPHEN W.....	CAUSES OF SPONTANEOUS TUMOR REGRESSION.....	5K04 CA00497-04
SOBSEY, MARK D.....	ENTERIC VIRUS CONTAMINATION OF WATER AND SHELLFISH.....	5K04 ES00026-03
SWIFT, MICHAEL R.....	HUMAN CANCER GENETICS.....	5K10 LM00016-02
VAN WYK, JUDSON J.....	ENDOCRINOLOGIC AND METABOLIC PROBLEMS IN CHILDREN.....	5K06 AM14115-18
DURHAM		
DUKE UNIVERSITY ZIP CODE 27706		
AMOS, D BERNARD.....	FUNDAMENTALS OF THE MECHANISMS OF HOMOGRAFT IMMUNITY.....	5K06 AI18399-18

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
NORTH CAROLINA—Continued		
ANDERSON, PAGE A.....	DEVELOPING MYOCARDIUM: BIOPHYSICAL ASPECTS.....	1K04 HL00500-01
CARTMILL, MATTHEW.....	COMPARATIVE ANATOMY OF ANTERIOR CAROTID ARTERY.....	5K04 HD00083-05
CORLESS, JOSEPH M.....	X-RAY, EM AND FREEZE-FRACTURE STUDIES ON DISK MEMBRANES.....	5K04 EY00016-04
DENNIS, VINCENT W.....	RENAL HANDLING OF INORGANIC PHOSPHATE.....	5K04 AM00384-02
DREZNER, MARC K.....	PATHOGENESIS OF VITAMIN D REFRACTORY OSTEOMALACIAS.....	1K04 AM00643-01
EVANS, EVAN A.....	MATERIAL BEHAVIOR AND VIABILITY OF PLASMA MEMBRANES.....	5K04 HL00063-05
GERMAN, VICTOR F.....	PATHOGENESIS OF ACUTE AND CHRONIC CHEMICAL PNEUMONITIS.....	5K08 HL00309-03
GOLDSMITH, LOWELL A.....	STRUCTURAL PROTEINS IN GENETIC DEFECTS OF EPIDERMIS.....	5K04 AM00008-05
HACKEL, DONALD B.....	PATHOLOGIC, PHYSIOLOGIC, AND METABOLIC HEART STUDIES.....	5K06 HL14188-18
HANDWERGER, STUART.....	THE CHEMISTRY AND PHYSIOLOGY OF PLACENTAL LACTOGEN.....	5K04 HD00065-05
HERSHFIELD, MICHAEL S.....	A LYMPHOBLAST MODEL FOR DISEASE OF PURINE METABOLISM.....	5K04 AM00434-02
HEYMAN, ALBERT.....	CIRCULATORY CHANGES IN CEREBROVASCULAR DISEASE.....	5K06 NS16677-17
HYLANDER, WILLIAM L.....	BIOMECHANICS OF THE PRIMATE CRANIOFACIAL REGION.....	5K04 DE00027-04
IDEKER, RAYMOND E.....	COMPUTERIZED STUDY OF ARRHYTHMIAS DUE TO ISCHEMIA.....	1K04 HL00546-01
KIMM, SUE Y.....	PREVENTIVE CARDIOLOGY.....	1K07 HL00633-01
KOREN, HILLEL S.....	HUMAN NK: EFFECTORS & SPECIFICITY IN OVARIAN CANCER.....	1K04 CA00581-01
LEE, KERRY L.....	DATA ANALYSIS OF CARDIOVASCULAR INFORMATION SYSTEMS.....	1K04 LM00042-01
LEIGHT, GEORGE S, JR.....	SURGICAL TRANSPLANTATION OF PARATHYROID GLANDS.....	1K04 AM00655-01
MC CLAY, DAVID R, JR.....	EMBRYONIC CELLULAR RECOGNITION.....	5K04 HD00259-02
MODRICH, PAUL L.....	MOLECULAR BASIS OF ECORI DNA RESTRICTION MODIFICATION.....	3K04 CA00495-01S1
MODRICH, PAUL L.....	MOLECULAR BASIS OF ECORI DNA RESTRICTION MODIFICATION.....	5K04 CA00495-02
NADLER, J VICTOR.....	PLASTICITY OF TRANSMITTER OF BIOCHEMISTRY IN CNS.....	1K04 NS00447-01
PORTER, NED A.....	LIPID OXIDATION IN PG SYNTHESIS AND MEMBRANE DAMAGE.....	5K04 HL00324-03
RICHARDSON, DAVID C.....	X-RAY CRYSTALLOGRAPHY OF SUPEROXIDE DISMUTASES.....	5K04 GM00041-05
SCHMIDT-NIELSEN, KNUD.....	COMP. PHYSIOLOGY OF HEAT, WATER METABOLISM, & EXCRETION.....	4K06 GM21522-16
SCOTT, DAVID W.....	MANIPULATION OF THE IMMUNE RESPONSE AND TOLERANCE.....	5K04 AI00093-05
STRAUSS, HAROLD C.....	CHARACTERIZATION OF CARDIAC PACEMAKER ACTIVITY.....	5K04 HL00268-03
TANFORD, CHARLES.....	THE STRUCTURE OF PROTEINS.....	5K06 GM14222-18
RALEIGH		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH	ZIP CODE 27607	
UNDERWOOD, HERBERT A, JR.....	CIRCADIAN RHYTHMS, THERMOREGULATION AND PHOTOPERIODISM.....	1K04 HD00276-01
WINSTON-SALEM		
WAKE FOREST UNIVERSITY	ZIP CODE 27109	
SMITH, PETER B.....	BIOCHEMICAL DEVELOPMENT OF SARCOLEMMA MEMBRANES.....	5K07 NS00330-02
TURNER, JAMES E.....	NERVE GROWTH FACTOR: ROLE IN CNS REGENERATION.....	5K04 NS00338-02
NORTH DAKOTA		
GRAND FORKS		
UNIVERSITY OF NORTH DAKOTA	ZIP CODE 58201	
GREENE, JERRY G.....	NORTH DAKOTA PULMONARY CURRICULUM AND PROGRAM.....	1K07 HL00534-01
OHIO		
CINCINNATI		
CHILDREN'S HOSPITAL MEDICAL CENTER	ZIP CODE 45229	
SPEHLING, MARK A.....	ENDOCRINE REGULATION OF CARBOHYDRATE METABOLISM.....	5K04 HD00278-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
OHIO—Continued		
UNIVERSITY OF CINCINNATI ZIP CODE 45221		
ARMENTROUT, RICHARD W	SELECTIVE REPLICATION OF PARVOVIRUS IN TUMOR CELLS.....	5K04 CA00134-05
ASHRAF, MUHAMMAD.....	ISCHEMIC HEART ULTRASTRUCTURE: MODIFICATION BY THERAPY.....	5K04 HL00540-04
BLUMENTHAL, KENNETH M.....	STRUCTURE AND FUNCTION OF POLYPEPTIDE NEUROTOXINS.....	5K04 NS00304-02
BROWN, RONALD D.....	GENERATION OF ANTIBODY DIVERSITY DURING DEVELOPMENT.....	1K04 AI00321-01
COLLINS, JOHN H.....	STRUCTURE & FUNCTION OF NA/IONS, K/IONS -ATPASE.....	5K04 HL00555-02
JOHNSON, CARL L.....	HISTAMINE AND CARDIAC ADENYL CYCLASE.....	5K04 HL00414-02
KNOWLES, HARVEY C, JR.....	CARBOHYDRATES & MINERAL METABOLISM GENERAL STUDIES.....	5K06 AM02364-18
MARTIN, ANNE F.....	PROTEIN METABOLISM CONTROL IN HYPERTROPHIED HEART MUSCLE.....	5K04 HL00487-02
REDDY, K NAGENDRA.....	MECHANISM OF ACTIVATION OF PLASMINOGEN BY SK.....	5K04 HL00420-02
SOLARO, R JOHN.....	CONTROL OF MYOFIBRILS IN NORMAL AND O2 DEPRIVED HEARTS.....	5K04 HL00464-02
CLEVELAND		
CASE WESTERN RESERVE UNIVERSITY ZIP CODE 44106		
ALLEY, KEITH E.....	ONTOGENESIS OF BRAIN STEM VISUO-MOTOR SYSTEMS.....	5K04 NS00147-04
CHISOLM, GUY M, III.....	MACROMOLECULAR TRANSPORT IN ARTERIAL TISSUE.....	5K04 HL00359-03
DOUGLAS, JANICE G.....	ANGIOTENSIN: METABOLISM, RECEPTOR CONTROL AND FUNCTION.....	5K04 HL00399-02
GOLDTHWAIT, DAVID A.....	NUCLEIC ACIDS STUDIES.....	4K06 GM21444-16
HARRIS, JOHN W.....	A STUDY OF NUTRITIONAL AND HEMOLYTIC ANEMIAS.....	5K06 AM14370-18
HOPFER, ULRICH.....	INTESTINAL TRANSPORTS OF NUTRIENTS AND ELECTROLYTES.....	5K04 AM00199-04
KELSEN, STEVEN G.....	PULMONARY MEDICINE.....	5K07 HL00450-02
PECKHAM, PAUL H.....	ELECTRICAL ACTIVATION OF PARALYZED SKELETAL MUSCLE.....	5K04 NS00363-02
SPECK, WILLIAM T.....	CARCINOGENIC POTENTIAL OF PHOTOTHERAPY.....	5K04 CA00443-02
COLUMBUS		
OHIO STATE UNIVERSITY ZIP CODE 43210		
ALTMAN, MICHAEL.....	PULMONARY MEDICINE.....	5K07 HL00539-05
FLORANCE, CHERI L.....	EXPERIM MANIPULATION CLINICAL INTERVENTION VARIABLES.....	1K07 NS00359-01
GAGINELA, TIMOTHY S.....	INTESTINAL SECRETION: RECEPTOR MECHANISMS.....	5K04 AM00471-02
MARZLUF, GEORGE A.....	GENE EXPRESSION & ENZYME SYNTHESIS IN NEUROSPORA.....	5K04 GM00431-05
RALL, JACK A.....	ENERGETICS OF CA2 PLUS CYCLING DURING MUSCLE CONTRACTION.....	5K04 NS00324-02
ROYER, GARFIELD P.....	ENZYME IMMOBILIZATION FOR CONFORMATION CHANGE DETECTION.....	5K04 GM00430-05
SCHULLER, DAVID E.....	SURVIVAL (NODES, HISTOLOGY), E-B VIRUS-NASOPHARYNGEAL CA.....	1K07 NS00417-01
KENT		
KENT STATE UNIVERSITY ZIP CODE 44242		
ROE, BRUCE A.....	THE ROLE OF MODIFIED NUCLEOTIDES IN HUMAN TRNA.....	5K04 GM00178-04
TOLEDO		
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43614		
HORTON, FRANK O, III.....	PULMONARY MEDICINE.....	5K08 HL00244-04
REIMANN, ERWIN M.....	PHYSIOLOGICAL ROLE OF PROTEIN KINASES.....	5K04 AM00446-02
SCHLENDER, KEITH K.....	REGULATION OF THE GLYCOGEN SYNTHASE SYSTEM.....	5K04 AM00337-02
OKLAHOMA		
NORMAN		
UNIVERSITY OF OKLAHOMA ZIP CODE 73069		
FUNG, BING-MAN.....	THE STATE OF WATER IN BIOLOGICAL SYSTEMS.....	5K04 AM00058-05

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1979—Continued

Awardee	Project title	Grant number
OKLAHOMA—Continued		
OKLAHOMA CITY		
OKLAHOMA MEDICAL RESEARCH FOUNDATION ZIP CODE 73104		
SCHMIDT, PAUL G	NMR OF ACID PROTEASES AND NUCLEIC ACIDS	1K04 AM00525-01
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190		
FOREMAN, ROBERT D	CARDIAC AFFERENT INPUTS TO CENTRAL ASCENDING PATHWAYS	1K04 HL00557-01
REDDY, YERRAHODDI S	ROLE OF PHOSPHORYLATION IN MYOCARDIAL CONTRACTION	7K04 HL00652-03
TULSA		
ORAL ROBERTS UNIVERSITY ZIP CODE 74102		
PETERSON, DONALD F	BEAT-TO-BEAT REGULATION OF THE CIRCULATION	5K04 HL00542-04
OREGON		
BEAVERTON		
OREGON GRADUATE CENTER FOR STUDY AND RESEARCH ZIP CODE 97005		
HAUSER, FRANK M	SYNTHESES OF SELECTED ANTICANCER ANTIBIOTICS	5K04 CA00486-02
CORVALLIS		
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY ZIP CODE 97331		
ADOLPH, J FERRO	REGULATION OF CELL GROWTH BY 5-METHYLTHIOADENOSINE	1K04 CA00617-01
SCHAUP, HENRY W	MACROMOLECULAR INTERACTIONS WITHIN THE RIBOSOME	5K04 GM00073-05
WHITE, JAMES D	SYNTHESIS OF MACROLIDE ANTIBIOTICS	5K04 AI00180-04
EUGENE		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON ZIP CODE 97403		
HERSKOWITZ, IRA	GENE REGULATORY MECHANISMS IN YEAST AND PHAGE LAMBDA	5K04 AI00163-04
HUDSON, BRUCE S	MEMBRANES: NEW TECHNIQUES	5K04 GM00476-03
POSTLETHWAIT, JOHN H	GENETIC/HORMONE CONTROL OF OOGENESIS & MORPHOGENESIS	5K04 GM00119-05
PORTLAND		
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER ZIP CODE 97210		
NASHNER, LEWIS M	STUDIES OF CONTROL OF HUMAN POSTURE	5K04 NS00148-04
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201		
BISSONNETTE, JOHN M	MECHANISMS OF PLACENTAL TRANSFER	5K04 HD00139-04
BUIST, A SONIA	SMOKING AND CHRONIC AIRWAYS OBSTRUCTION	5K04 HL00115-05
BUXMAN, MELODIE M	EPIDERMAL TRANSGLUTAMINASE—ROLE IN KERATINIZATION	5K08 AM00391-03
FAUST, CHARLES H, JR	GENE EXPRESSION IN NORMAL AND MALIGNANT ANIMAL CELLS	5K04 CA00117-05
GREER, MONTE A	NEUROENDOCRINOLOGY & THYROID PHYSIOLOGY	5K06 AM02122-18
HOLDEN, WILLIAM E	PULMONARY MEDICINE	5K08 HL00304-04
KABAT, DAVID	CONTROL OF GENE EXPRESSION IN DIFFERENTIATING CELLS	5K04 CA00264-04
MORSE, STEPHEN A	PHYSIOLOGY OF NEISSERIA GONORRHOEA	5K04 AI00140-04
U'REN, RICHARD C	GERIATRIC MEDICINE	1K07 AG00058-01
VAN BUSKIRK, E MICHAEL	THE VERTEBRATE EYE: STUDIES IN AQUEOUS OUTFLOW	7K04 EY00183-04
WEITLAUF, HARRY M	METABOLIC CHANGES IN THE PREIMPLANTATION EMBRYO	5K04 HD00020-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
PENNSYLVANIA		
HERSHEY		
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER ZIP CODE 17033		
BULLOCK, LESLIE P.....	ANIMAL MODELS OF GENETIC REPRODUCTIVE ABNORMALITIES.....	5K04 HD00137-04
LADDA, ROGER L.....	GROWTH FACTORS: CONTROL OF ANIMAL CELL PROLIFERATION.....	5K04 AG00006-03
PAGE, ROBERT B.....	VASCULAR/VENTRICULAR RELATIONS OF THE MEDIAN EMINENCE.....	5K07 NS00179-04
RANNELS, D EUGENE, JR.....	REGULATION OF PROTEIN TURNOVER IN LUNG TISSUE.....	5K04 HL00294-03
TAYLOR, JOHN M.....	CONTROL OF ALBUMIN SYNTHESIS IN LIVER AND HEPATOMAS.....	5K04 CA00393-02
TENSER, RICHARD B.....	LATENT VIRUS INFECTIONS OF THE TRIGEMINAL GANGLION.....	5K07 NS00248-03
PHILADELPHIA		
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104		
PARKS, JOHN S.....	HORMONAL INTERACTIONS WITH CULTURED HUMAN LYMPHOCYTES.....	5K04 AM00005-05
ROTH, KARL S.....	BIOCHEMICAL BASIS FOR EXPTL. FANCONI SYNDROME.....	5K04 HD00257-02
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102		
KALIA, MADHU.....	CENTRAL MECHANISMS IN PULMONARY REFLEXES.....	5K04 HL00103-05
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111		
GUPTA, RAJ K.....	SPECTRAL STUDIES OF HEME- AND METAL PROTEINS.....	5K04 AM00231-04
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129		
CULPEPPER, ROBERT L.....	MEDICAL SCHOOL PULMONARY ACADEMIC AWARD.....	5K08 HL00349-03
GREENSPON, LEE W.....	PULMONARY MEDICINE.....	3K08 HL00535-01S1
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE ZIP CODE 19104		
JOSHI, HEYNER S.....	ANTIGEN EXPRESSION ON EARLY MOUSE EMBRYOS.....	5K04 HD00223-02
TEMPLE UNIVERSITY ZIP CODE 19122		
FIEL, STANLEY B.....	PULMONARY MEDICINE.....	5K07 HL00446-02
KIRBY, EDWARD P.....	STRUCTURE AND FUNCTION OF FACTORS VIII AND XII.....	5K04 HL00275-03
ORDAHL, CHARLES P.....	TRANSCRIPTION OF MUSCLE-SPECIFIC GENES IN MYOGENESIS.....	1K04 HD00290-01
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107		
FRASCA, PETER.....	ULTRASTRUCTURE OF NORMAL AND DISEASED BONE.....	1K04 AM00504-01
LUBLIN, FRED D.....	STUDY OF THE CELLULAR IMMUNE RESPONSE WITHIN THE CNS.....	5K07 NS00271-02
OWEN, CHARLES S.....	BIOPHYSICAL PROBES OF IMMUNE RESPONSE AND HEMEPROTEINS.....	7K04 GM00484-03
ROVETTO, MICHAEL J.....	MYOCARDIAL ENERGY AND ADENINE NUCLEOTIDE METABOLISM.....	5K04 HL00289-03
SCHULMAN, EDWARD S.....	PULMONARY MEDICINE.....	3K08 HL00462-01S1
SCHULMAN, EDWARD S.....	PULMONARY MEDICINE.....	5K08 HL00462-02
WESSON, LAURENCE G.....	RENAL RESEARCH.....	5K06 HL15447-18
UNIVERSITY CITY SCIENCE CENTER ZIP CODE 19104		
CLARK, CHARLES C.....	STRUCTURE AND BIOSYNTHESIS OF CONNECTIVE TISSUE.....	5K04 AM00360-03
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19174		
AGUS, ZALMAN S.....	REGULATION OF RENAL CALCIUM AND PHOSPHATE TRANSPORT.....	5K04 AM00258-03
BARCHI, ROBERT L.....	STRUCTURE AND FUNCTION OF MUSCLE MEMBRANE ION CHANNELS.....	5K04 NS00112-03
DANIELE, RONALD P.....	STRUCTURE AND FUNCTION OF THE LUNG'S IMMUNE SYSTEM.....	5K04 HL00210-04
EPSTEIN, PAUL E.....	PULMONARY MEDICINE.....	5K07 HL00354-03
GIL, JOAN.....	PINOCTYOTIC VESICLES AND PULMONARY EDEMA.....	5K04 HL00436-03
GOLDFARB, STANLEY.....	REGULATION OF RENAL PHOSPHATE AND CALCIUM EXCRETION.....	5K08 AM00414-02
HAYES, WILSON C.....	MATERIAL AND STRUCTURAL PROPERTIES OF THE KNEE.....	5K04 AM00368-02
HENLE, WERNER.....	ANTIGENIC STRUCTURE HOST-VIRUS INTERACTIONS.....	4K06 AI22683-16
HOGUE-ANGELETTI, RUTH A.....	STUDY PROTEINS OF THE CATECHOLAMINE STORAGE VESICLES.....	5K04 NS00201-03
JANICKI, JOSEPH S.....	WALL DYNAMICS & SHAPE ANALYSIS OF ABNORMAL HEARTS.....	5K04 HL00411-02
JOSEPHSON, MARK E.....	ELECTROPHYSIOLOGY OF ARRHYTHMIAS AND THEIR TREATMENT.....	5K04 HL00361-02
KARUSH, FRED.....	IMMUNOLOGY AND IMMUNOCHEMISTRY.....	5K06 AI14012-18

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
PENNSYLVANIA—Continued		
KIM, SEUNG U.....	EXPERIMENTAL NEUROPATHOLOGY IN TISSUE CULTURE.....	5K04 NS00151-04
LEIGH, JOHN S, JR.....	KINETICS AND STRUCTURE IN BIOLOGICAL MEMBRANES.....	5K04 GM00142-05
LU, PONZY.....	MECHANISM OF GENE REGULATION.....	5K04 GM00354-03
MC ARTHUR, WILLIAM P.....	CELLULAR INTERACTIONS IN PERIODONTAL DISEASE.....	5K04 DE00070-02
MILLER, MICHAEL F.....	ORAL DISEASE LONGITUDINAL STUDY/RECURRENT APHTHOUS ULCER.....	5K04 DE00025-04
PALMER, LARRY A.....	FUNCTIONAL CONNECTIVITY IN VISUAL CORTEX.....	5K04 EY00060-03
PUGH, EDWARD N, JR.....	MECHANISMS OF VISUAL ADAPTATION.....	5K04 EY00102-02
RIVA, CHARLES E.....	BLOOD FLOW AND TRANSCAPILLARY EXCHANGE IN EYE FUNDUS.....	7K04 EY00184-02
SCHERER, PETER W.....	FLOW OF AEROSOLS, MUCUS AND HEAT IN BRONCHIAL TREE.....	5K04 HL00424-02
SELZER, MICHAEL E.....	SYNAPTIC TRANSMISSION IN THE CENTRAL NERVOUS SYSTEM.....	5K07 NS11083-05
SHAPIRO, BERNARD H.....	PERINATAL IMPRINTING OF BRAIN AND SEXUAL FUNCTION.....	5K04 HD00260-04
STERLING, PETER.....	MICROCIRCUITRY OF THE VISUAL SYSTEM.....	5K04 EY00080-03
VANDERKOOI, JANE M.....	LATERAL DIFFUSION IN MEMBRANES.....	5K04 GM00053-05
WEBER, KARL T.....	MECHANICS OF RIGHT AND LEFT VENTRICULAR CONTRACTION.....	5K04 HL00187-04
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104		
ADEN, DAVID P.....	TUMORIGENICITY AND ANTIGENS OF HUMAN CELLS.....	1K04 CA00510-01
CROCE, CARLO M.....	GENETICS OF CELL TRANSFORMATION.....	5K04 CA00143-05
KNOWLES, BARBARA B.....	IMMUNOMANIPULATION OF SOMATIC CELL HYBRIDS.....	5K04 AI00053-05
KRITCHEVSKY, DAVID.....	CHOLESTEROL METABOLISM.....	5K06 HL00734-18
PITTSBURGH		
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213		
CHURCH, ROBERT L.....	BIOLOGY AND GENETICS OF PROCOLLAGEN.....	5K04 EY00071-03
MONTEFIORE HOSPITAL ZIP CODE 15213		
FROMM, HANS.....	BILE ACID METABOLISM IN GALLSTONE DISEASE.....	5K04 AM00290-03
UNIVERSITY OF PITTSBURGH ZIP CODE 15260		
BYRNE, JOHN H.....	ANALYSIS OF THE NEURAL CONTROL OF BEHAVIOR.....	5K04 NS00200-02
COOPER, TERRANCE G.....	SYNTHESIS AND ASSEMBLY OF ENZYMES IN EUKARYOTES.....	5K04 GM00091-05
CRAMER, DONALD V.....	MAJOR HISTOCOMPATIBILITY COMPLEX OF THE RAT.....	5K04 AI00314-02
CURTHOYS, NORMAN P.....	GLUTAMINASE ISOENZYMES AND RAT RENAL AMMONIAGENESIS.....	5K04 AM00068-04
GLEW, ROBERT H.....	METABOLISM OF MAMMALIAN GLYCOPROTEINS AND GLYCOLIPIDS.....	5K04 AM00036-05
HENDRIX, ROGER W.....	ASSEMBLY AND STRUCTURE OF BACTERIOPHAGE LAMBDA HEADS.....	5K04 AI00023-05
KOZAK, MARILYN S.....	ANALYSIS OF TRANSLATION INITIATION USING REOVIRUS RNA.....	1K04 AI00380-01
MC KELVY, JEFFREY F.....	CONTROL OF HYPOTHALAMIC RELEASING FACTOR METABOLISM.....	7K04 AM00751-03
MERLIE, JOHN P.....	THE MOLECULAR AND CELLULAR BIOLOGY OF ACH-RECEPTOR.....	1K04 NS00394-01
ROBINSON, ALAN G.....	PHYSIOLOGY OF NEUROPHYSIN SECRETION.....	5K04 AM00093-05
TROY, WILLIAM C.....	MATHEMATICAL MODELLING OF EXCITABLE SYSTEMS.....	5K04 NS00306-02
UNIVERSITY PARK		
PENNSYLVANIA STATE UNIVERSITY ZIP CODE 16802		
GAY, CAROL V.....	BONE STUDIES RELEVANT TO ORAL BIOLOGY.....	1K04 AM00617-01
PHILLIPS, WINFRED M.....	RHEOLOGY OF BIOLOGICAL FLUIDS, BLOOD FLOW.....	5K04 HL00085-05
RHEUBEN, MARY B.....	SYNAPSE FUNCTION DURING GROWTH AND DEGENERATION.....	5K04 NS00301-02
WEINREB, STEVEN M.....	TOTAL SYNTHESIS OF THE CYTOCHALASINS.....	5K04 HL00541-05
RHODE ISLAND		
PROVIDENCE		
BROWN UNIVERSITY ZIP CODE 02912		
CANE, DAVID E.....	BIOSYNTHESIS OF NATURAL PRODUCTS.....	5K04 AI00318-02
CZECH, MICHAEL P.....	INSULIN ACTION ON FAT CELL METABOLISM.....	5K04 AM00249-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
RHODE ISLAND—Continued		
DAHLBERG, ALBERT E.....	RIBOSOME STRUCTURE AND FUNCTION.....	5K04 GM00044-05
GERBI, SUSAN A.....	FINE STRUCTURE OF RRNA.....	5K04 GM00036-05
LUSK, JOAN E.....	MEMBRANE PERMEABILITY AND TRANSPORT.....	5K04 GM00257-04
PERELSON, ALAN S.....	THEORETICAL IMMUNOLOGY.....	1K04 AI00357-01
SOUTH CAROLINA		
CHARLESTON		
MEDICAL UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29401		
CHAO, JULIE.....	BIOCHEMISTRY AND CELL BIOLOGY OF RENAL KALLIKREIN.....	1K04 HL00547-01
LOPES-VIRELLA, MARIA F.....	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00591-02
ONDO, JEROME G.....	AMINO ACID NEUROTRANSMITTERS AND REPRODUCTION.....	5K04 HD00248-02
SPECTOR, MYRON.....	DENTAL IMPLANTS WITH POROUS ROOTS AND CALCIFICATION.....	5K04 DE00067-02
COLUMBIA		
UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29208		
MIRKES, PHILIP E.....	ROLE OF RNA SPECIES IN MECHANISMS OF TERATOGENESIS.....	1K07 ES00059-01
SOUTH DAKOTA		
VERMILLION		
UNIVERSITY OF SOUTH DAKOTA ZIP CODE 57069		
BRADY, FRANK O.....	METALLOENZYMES: IN VIVO REGULATION IN RAT ORGANS.....	5K04 ES00022-04
PARRY, RODNEY R.....	PULMONARY MEDICINE.....	5K07 HL00454-02
WINDER, WILLIAM W.....	EFFECT OF EXERCISE/AND AGING ON ENDOCRINE FUNCTION.....	7K04 AM00757-02
TENNESSEE		
KNOXVILLE		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE ZIP CODE 37916		
BECKER, JEFFREY M.....	PEPTIDE TRANSPORT IN YEAST AND TISSUE CULTURE.....	5K04 GM00094-05
FUHR, JOSEPH E.....	CONTROL OF PROTEIN BIOSYNTHESIS.....	5K04 AM00085-04
MACCABE, JEFFREY A.....	THE EARLY MORPHOGENESIS OF THE VERTEBRATE LIMB.....	5K04 HD00228-02
MILLER, ROBERT V.....	EXTRACHROMOSOMAL DNA ESTABLISHMENT IN P. AERUGINOSA.....	5K04 AI00298-02
MEMPHIS		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163		
DISMUKE, STEWART E.....	PREVENTIVE CARDIOLOGY.....	1K07 HL00600-01
DUCKWORTH, WILLIAM C.....	MECHANISMS OF INSULIN AND GLUCAGON DEGRADATION.....	5K04 AM00187-04
MALIK, KAFAT U.....	ANGIOTENSIN-PROSTAGLANDINS-ADRENERGIC INTERACTIONS.....	5K04 HL00142-05
MIRVIS, DAVID M.....	ELECTROPHYSIOLOGIC EFFECTS OF MYOCARDIAL ISCHEMIA.....	1K04 HL00560-01
NASILETTI, ALBERTO.....	VASOACTIVE HORMONES AND BLOOD PRESSURE REGULATION.....	5K04 HL00163-05
REEVES, ROBERT H.....	THE BIOLOGICAL SIGNIFICANCE OF tRNA MODIFICATIONS.....	5K04 GM00420-05
STUART, JOHN M.....	IMMUNE REACTION INVOLVED IN COLLAGEN INDUCED ARTHRITIS.....	1K08 AM00650-01
VAN MIDDLESWORTH, LESTER V.....	IODINE METABOLISM AND THE BASIC CAUSE OF GOITER.....	5K06 AM00040-18

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee		Project title	Grant number
TENNESSEE—Continued			
NASHVILLE			
MEHARRY MEDICAL COLLEGE		ZIP CODE 37208	
ARINZE, IFEANYI J.	DEVELOPMENT & CONTROL OF HEPATIC & RENAL GLUCONEOGENESIS	5K04	HD00226-02
JACKSON, JULIUS H.	CONTROL OF RELATED DISPERSED GENES AND GENE PRODUCTS	1K04	CA00533-01
RUSSELL, JAMES D.	KELOIDS: AN IN VITRO MODEL OF TUMOR GROWTH REGULATION	5K04	CA00122-05
STINSON, JOSEPH M.	PULMONARY MEDICINE	5K07	HL00341-03
VANDERBILT UNIVERSITY		ZIP CODE 37240	
CASAGRANDE, VIVIAN A.	EFFECTS OF VISUAL DEPRIVATION IN PRIMATES	5K07	EY00061-03
CHERRINGTON, ALAN D.	GLUCONEOGENESIS AND GLYCOGENOLYSIS: ROLE AND REGULATION	5K04	AM00480-02
FRANCIS, SHARRON H.	HORMONAL REGULATION OF HEPATIC PHOSPHODIESTERASE	5K04	AM00205-04
GUENGERICH, F. PETER	ENZYMIC ACTIVATION OF ENVIRONMENTAL TOXINS	5K04	ES00041-02
KIRSHNER, HOWARD S.	MODALITY ANALYSIS OF APHASIC DEFICITS AFTER STROKE	1K07	NS00429-01
MANN, GEORGE V.	MECHANISM OF ATHEROGENESIS	5K06	HL08288-18
PUETT, J. DAVID	GONADOTROPINS: STRUCTURE, METABOLISM, AND MECHANISMS	5K04	AM00055-05
STOLTZFUS, CONRAD M.	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNA	5K04	CA00205-04
TEXAS			
AUSTIN			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN		ZIP CODE 78712	
MYERS, JACK E.	PHYSIOLOGY AND BIOCHEMISTRY OF ALGAE	5K06	GM18373-18
PEREZ-POLO, JOSE R.	NEURAL DIFFERENTIATION: NERVE GROWTH FACTOR PROTEIN	5K04	NS00213-03
POLLAK, GEORGE D.	NEUROPHYSIOLOGICAL BASIS OF ECHOLOCATION	5K04	NS00367-02
COLLEGE STATION			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS AGRICULTURAL AND MECHANICAL UNIV		ZIP CODE 77843	
GRANGER, HARRIS J.	TRANSCAPILLARY FLUID BALANCE AND EDEMA	5K04	HL00409-02
MATIS, JAMES H.	STOCH COMP ANAL: MODELLING, ESTIMATION, APPLICATION	5K04	GM00033-05
DALLAS			
BISHOP COLLEGE		ZIP CODE 75241	
FOWLKS, EDISON R.	STRUCTURE-FUNCTION OF MULTIPLE COMPONENT VIRAL RNA	5K04	AI00175-04
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS		ZIP CODE 75235	
ANDERSEN, JOHN M.	REGULATION OF CHOLESTEROL SYNTHESIS IN THE GI TRACT	5K08	AM00475-02
GILLIAM, JAMES N.	IMMUNOLOGIC INVESTIGATION OF SLE SKIN DISEASE	5K04	AM00278-03
GOMEZ-SANCHEZ, CELSO E.	NEW MINERALOCORTICOIDS IN LOW RENIN HYPERTENSION	5K04	HL00429-02
JACOBSON, HARRY R.	TRANSPORT HETEROGENEITY IN MAMMALIAN PROXIMAL TUBULES	1K04	AM00537-01
KAPLAN, NORMAN M.	PREVENTIVE CARDIOLOGY ACADEMIC AWARD	1K07	HL00596-01
LIPSKY, PETER E.	HUMORAL IMMUNITY IN SLE & ACTION OF GOLD & PENICILLAMINE	1K04	AM00599-01
MOSS, ROBERT L.	NEURAL CONTROL OF HORMONE RELEASE AND SEX BEHAVIOR	5K04	HD00146-04
PROUGH, RUSSELL A.	METABOLISM OF FOREIGN COMPOUNDS IN LIVER AND LUNG	5K04	HL00255-04
SHAY, JERRY W.	ANALYSIS OF HEART CELL CONTRACTION	5K04	HL00422-02
TAUROG, ALVIN M.	BIOSYNTHESIS AND MECHANISM OF ACTION OF THYROXINE	5K06	AM15276-17
WRIGHT, WOODRING E.	CONTROL OF GENE EXPRESSION IN HETEROKARYONS	1K04	AG00030-01
ZIFF, MORRIS	CLINICAL AND BASIC IMMUNOLOGY	5K06	AM14155-18
DENTON			
NORTH TEXAS STATE UNIVERSITY		ZIP CODE 76203	
HARRIS, BEN G.	PROTEIN STRUCTURE AND FUNCTION IN PARASITIC HELMINTHS	5K04	AI00057-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
TEXAS—Continued		
FORT WORTH		
TEXAS CHRISTIAN UNIVERSITY ZIP CODE 76129		
BABITCH, JOSEPH A.....	MECHANISM OF SYNAPTIC NEUROTRANSMITTER RELEASE.....	5K04 NS00233-02
GALVESTON		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON ZIP CODE 77550		
CHAN, LEE-NIEN L.....	STUDIES ON CHICK ERYTHROID CELL DIFFERENTIATION.....	5K04 AM00625-03
EATON, DOUGLAS C.....	MAMMALIAN URINARY BLADDER NA/ION TRANSPORT MECHANISMS.....	5K04 AM00432-02
FULLER, GERALD M.....	REGULATION OF FIBRINOGEN BIOSYNTHESIS.....	5K04 HL00162-05
GRANT, J ANDREW.....	COMPLEMENT-INDUCED RELEASE OF INFLAMMATORY MEDIATORS.....	5K07 AI00110-05
REMMERS, JOHN E.....	PULMONARY MEDICINE.....	5K07 HL00131-05
HOUSTON		
BAYLOR COLLEGE OF MEDICINE ZIP CODE 77025		
AUNE, KIRK C.....	INTERPRETATIONS OF MACROMOLECULAR INTERACTIONS.....	5K04 GM00071-05
BAKER, CAROL J.....	PATHOGENESIS/PREVENTION OF GROUP B STREPTOCOCCAL DISEASE.....	1K04 AI00323-01
BARNES, EUGENE M, JR.....	MECHANISMS OF TRANSPORT IN MEMBRANE VESICLES.....	5K04 AM00052-05
BASINGER, SCOTT F.....	PHOTORECEPTOR-PIGMENT EPITHELIUM INTERACTION.....	5K04 EY00119-02
DEDMAN, JOHN R.....	BIOLOGICAL ROLE OF INTRACELLULAR CA20 BINDING PROTEINS.....	1K04 AM00609-01
EPSTEIN, HENRY F.....	GENETIC AND MOLECULAR BASIS OF MUSCLE DEVELOPMENT.....	5K04 HD00277-04
GILLETTE, PAUL C.....	DEVELOPMENTAL CARDIAC ELECTROPHYSIOLOGY AND PHARMACOLOGY.....	1K04 HL00571-01
GOLDSTEIN, MARGARET A.....	Z BANDS, MICROTUBULES AND RELATED HEART STRUCTURES.....	5K04 HL00321-03
HANSEN, THOMAS N.....	PULMONARY MEDICINE.....	5K08 HL00460-02
HARTLEY, CRAIG J.....	CARDIOVASCULAR APPLICATIONS—PULSED DOPPLER TECHNIQUES.....	5K04 HL00181-04
HOLLYFIELD, JOE G.....	DEVELOPMENT OF RETINA AND PIGMENT EPITHELIUM.....	5K04 EY00112-05
JOSHI, VASUDEV C.....	ROLE OF INSULIN IN REGULATION OF FATTY ACID SYNTHESIS.....	5K04 AM00397-02
KIT, SAUL.....	BIOCHEMICAL ASPECTS OF VIROLOGY.....	5K06 AI02352-17
LAM, DOMINIC M.....	SYNAPTIC CHEMISTRY IN THE VISUAL SYSTEM.....	5K04 EY00123-03
PECK, ERNEST J, JR.....	NEUROENDOCRINE CONTROL OF REPRODUCTION.....	5K04 HD00022-04
PERAINO, ROBERT A.....	PHOSPHATE TRANSPORT BY THE RABBIT NEPHRON.....	1K08 AM00424-01A1
ROSEN, JEFFREY M.....	HORMONAL REGULATION OF BREAST CANCER.....	5K04 CA00154-04
SCHWARTZ, ROBERT J.....	DIFFERENTIATION OF ACTIN AND TROPOMYOSIN IN MYOGENESIS.....	1K04 AM00637-01
TERMAN, DAVID S.....	EXTRACORPOREAL IMMUNOADSORBENTS FOR SPEC IMMUNOTHERAPY.....	5K04 AI00302-02
TRENTIN, JOHN J.....	TISSUE TRANSPLANTATION, RADIOBIOLOGY, AND CANCER BIOLOGY.....	5K06 CA14219-18
WILSON, JOHN H.....	ONCOGENIC MECHANISMS: SV40 AND HOST GENETIC ANALYSIS.....	5K04 CA00058-05
WRAY, GRANVILLE W.....	METAPHASE CHROMOSOME BIOCHEMISTRY.....	1K04 CA00532-01
RICE UNIVERSITY ZIP CODE 77001		
MARSH, MARY E.....	STRUCTURAL AND CHEMICAL STUDY OF TISSUE CALCIFICATION.....	1K04 DE00078-01
PARRY, RONALD J.....	BIOSYNTHESIS OF CEPHALOTAXUS AND SECURINEGA ALAKOIDS.....	5K04 GM00472-05
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025		
BOYAN-SALYERS, BARBARA D.....	PROTEOLIPID AND CALCIFICATION OF BONES AND TEETH.....	5K04 DE00056-02
CASTRO, GILBERT A.....	IMMUNOLOGY & PATHOPHYSIOLOGY OF INTESTINAL PARASITISM.....	5K04 AI00087-05
COPE, LOUISE A.....	VITRECTOMY: EFFECTS ON RETINAL FUNCTION AND STRUCTURE.....	1K07 EY00140-01
ENNA, SALVATORE J.....	NEUROBIOLOGY AND PHARMACOLOGY OF GABA.....	5K04 NS00335-02
FRIZZELL, RAYMOND A.....	ION TRANSPORT BY MAMMALIAN COLON, IN VITRO.....	7K04 AM00724-04
LEE, CHING Y.....	GONADOTROPIN RECEPTORS IN OVARIES AND GRANULOSA CELLS.....	5K04 HD00332-03
MILLER, WARREN C.....	PULMONARY MEDICINE.....	5K07 HL00245-04
REDBURN, DIANNA A.....	CHARACTERIZATION OF NEUROTRANSMITTERS IN RETINA.....	5K04 EY00088-03
ROSENFELD, GARY C.....	FUNCTION AND HUMORAL CONTROL OF PARIETAL CELLS.....	5K04 AM00457-02
SANBORN, BARBARA M.....	MOLECULAR ACTIONS OF STEROID AND POLYPEPTIDE HORMONES.....	5K04 HD00126-04
STANCEL, GEORGE M.....	ESTROGEN CONTROL OF UTERUS AND PITUITARY FUNCTION.....	5K04 HD00099-04
STROBEL, HENRY W.....	DRUG CARCINOGEN METABOLISM IN HEPATOMAS.....	5K04 CA00311-02
TOM, BALDWIN H.....	DISSECTION OF IMMUNE RESPONSIVENESS—HUMAN COLON CANCER.....	1K04 CA00579-01
WEISS, KENNETH M.....	EVOLUTIONARY MODELS OF HUMAN HEALTH PATTERNS.....	3K04 GM00230-03S1

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
TEXAS—Continued		
WEISS, KENNETH M.....	EVOLUTIONARY MODELS OF HUMAN HEALTH PATTERNS	5K04 GM00230-04
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025		
ANDERSON, JAMES H.....	NEW AND IMPROVED TECHNIQUES OF INTERVENTION RADIOLOGY.....	5K04 CA00083-05
MAYLIGIT, GIORA M.....	IMMUNOLOGICAL APPROACHES TO CANCER THERAPY	5K04 CA00130-05
MURGOLA, EMANUEL J.....	MISSENSE SUPPRESSION AND MUTATIONALLY ALTERED TRNAS.....	5K04 GM00047-05
LUBBOCK		
TEXAS TECH UNIVERSITY ZIP CODE 79409		
MARKWALD, ROGER R.....	MATRICAL MACROMOLECULAR EFFECTS ON CARDIOGENESIS.....	5K04 HL00228-04
RICHARDSON		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT DALLAS ZIP CODE 75080		
MARSH, ROBERT C.....	ORIGINS OF DNA REPLICATION: STRUCTURE AND FUNCTION.....	5K04 CA00498-02
SAN ANTONIO		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284		
NATHAN, MARC A.....	A MODEL OF SUSTAINED ARTERIAL HYPERTENSION.....	5K04 HL00558-05
SHERIDAN, PETER J.....	ANDROGEN RECEPTORS IN THE BRAIN.....	5K04 NS00164-04
SMITH, JAN D.....	PULMONARY MEDICINE.....	5K07 HL00384-03
UTAH		
SALT LAKE CITY		
INTERMOUNTAIN HEALTH CARE—LDS HOSPITAL ZIP CODE 84143		
CLAYTON, PAUL D.....	MEDICAL DECISION-MAKING WITH COMPUTER ASSISTANCE.....	1K04 LM00044-01
WARNER, HOMER R.....	MATHEMATICAL ANALYSIS OF THE CIRCULATION.....	5K06 HL00575-18
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112		
CASJENS, SHERWOOD R.....	BACTERIOPHAGE P22 ASSEMBLY AND ITS GENETIC CONTROL.....	5K04 GM00237-04
GALANT, STANLEY P.....	PMN BETA-2 ADRENERGIC RECEPTOR IN ASTHMA.....	5K07 AI00304-02
HUANG, WAI M.....	STUDIES OF T4 DNA REPLICATION.....	5K04 GM00148-05
JOHANSON, CONRAD E.....	ONTOGENY OF HOMEOSTATIC SYSTEMS IN CHOROID PLEXUS.....	5K04 NS00302-03
JOHNSON, STEVEN A.....	X-RAY AND ULTRASOUND MEDICAL 3-D IMAGE FORMATION.....	7K04 HL00687-05
KIM, SUNG-WAN.....	PLATELET INTERACTIONS/INTERFACE INDUCED THROMBOSIS.....	5K04 HL00272-03
MARCUS, STANLEY.....	RESISTANCE TO INFECTIOUS AND NEOPLASTIC DISEASE.....	5K06 AI14924-18
NELSON, JAMES A.....	FACTORS INFLUENCING HEPATIC CONTRAST MEDIA KINETICS.....	5K04 GM00164-04
NICHOLS, WILLIAM K.....	INSULIN AND IMMUNE RESPONSES.....	5K04 AM00528-02
NIELSON, DENNIS W.....	PULMONARY MEDICINE.....	3K08 HL00452-01S1
NIELSON, DENNIS W.....	PULMONARY MEDICINE.....	5K08 HL00452-02
PARMA, DAVID H.....	GENETICS OF CHROMOSOMAL ABERRATIONS IN PHAGE T4D.....	5K04 AI00024-05
POULTER, C DALE.....	SUBSTRATE ANALOGS FOR TERPENE CONDENSATION REACTIONS.....	5K04 HL00084-05
ROTI ROTI, JOSEPH L.....	MITOTIC DELAY MECHANISMS AND CELL KINETICS MODELS.....	5K04 CA00234-04
SEAY, ALAN R.....	IMMUNE RESPONSE IN VIRUS-INDUCED MYOSITIS.....	1K07 NS00458-01
SORENSEN, ANN W.....	HEXOSAMINIDASE LEVELS AND DIET.....	1K04 CA00629-01
TYLER, FRANK H.....	MUSCLE, STEROID, AND CARBOHYDRATE METABOLISM.....	5K06 AM14913-18
WILLIAMS, ROGER R.....	GENETICS AND EPIDEMIOLOGY OF CORONARY ARTERY DISEASES.....	5K04 HL00379-03
WOODBURY, DIXON M.....	PHARMACOLOGY AND CELLULAR BIOCHEMISTRY OF THE CNS.....	5K06 NS13838-18

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
VERMONT		
BURLINGTON		
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05401		
CLAPP, JAMES F, III	PHYSIOLOGY OF MATERNAL-FETAL INTERACTION	5K04 HD00213-02
CUTRONO, KENNETH R.	ANTI-INFLAMMATORY STEROIDS AND COLLAGEN SYNTHESIS	5K04 AM00120-06
LEPESCHKIN, EUGENE	BASIC STUDIES IN CARDIAC ELECTROPHYSIOLOGY	5K06 HL00440-18
TISDALE, WILLIAM A	GERIATRIC MEDICINE	1K07 AG00036-01
VIRGINIA		
CHARLOTTESVILLE		
UNIVERSITY OF VIRGINIA ZIP CODE 22903		
BENJAMIN, DAVID C	CELLULAR AND STRUCTURAL BASIS OF IMMUNOLOGIC TOLERANCE	5K04 AI00029-05
BROOKER, GARY	METABOLIC AND HORMONAL CONTROL OF CARDIAC CONTRACTION	5K04 HL00098-05
CURNOW, RANDALL T.	PROTEIN PHOSPHATASE IN NORMAL AND DIABETIC LIVER	5K04 AM00477-02
DAMMANN, JOHN F.	CARDIOPULMONARY PHYSIOLOGY IN CRITICALLY ILL PATIENTS	5K06 HL14213-18
EMERSON, CHARLES P, JR.	PROTEINS SYNTHESIS IN DEVELOPING AND DYSTROPHIC MUSCLE	3K04 HD00177-02S1
EMERSON, CHARLES P, JR.	PROTEINS SYNTHESIS IN DEVELOPING AND DYSTROPHIC MUSCLE	5K04 HD00177-03
EMERSON, SUZANNE U	FUNCTIONS AND BIOCHEMISTRY OF RHADDOVIRUS PROTEINS	5K04 AI00013-05
FAGER, ROGER S	CONE CELL METABOLISM, VISUAL TRANSDUCTION	1K04 EY00142-01
FORBES, MICHAEL S	DEVELOPMENTAL CYTOLOGY OF MYOCARDIAL MEMBRANE SYSTEMS	1K04 HL00550-01
GARRISON, JAMES C, II.	HORMONAL CONTROL OF GLUCONEOGENIC ENZYMES	5K04 AM00491-02
GILMAN, ALFRED G	REGULATION OF CYCLIC AMP IN CULTURED CELLS	5K04 NS00026-05
GOLDBERG, STEVEN K	PULMONARY MEDICINE	5K07 HL00339-02
GRAINGER, ROBERT M	ROLE OF OOCYTE PROTEINS AND RNAS IN DEVELOPMENT	1K04 HD00289-01
GREENLEE, JOHN E	PATHOGENESIS OF PAPAPOVIRUS INFECTIONS	5K07 NS00317-02
GRISHAM, CHARLES M	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS	1K04 AM00613-01
HECHT, SIDNEY M	THE TOTAL SYNTHESIS OF BLEOMYCIN	7K04 CA00636-05
HOWARDS, STUART S	MICROPUNCTURE STUDIES OF TESTIS AND EPIDIDYMIS	5K04 HD00108-04
HUANG, LAURA C	STRUCTURE & REGULATION OF PROTEIN KINASES	5K04 AM00212-03
KADNER, ROBERT J	GENETIC CONTROL OF MEMBRANE TRANSPORT IN E. COLI	5K04 GM00019-05
KEEFER, DONALD A	MORPHOLOGY AND CONNECTIVITY OF SEX-HORMONE NEURONS	3K04 HD00243-01S1
KUEHL, W MICHAEL	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN MYELOMA CELLS	5K04 AI0293-02
KUTCHAI, HOWARD C	RED CELL O2 TRANSPORT AND TRANSPORT SYSTEMS IN HEART	5K04 HL00014-05
LEE, JEN-SHIH	ENGINEERING STUDY OF PULMONARY MECHANICS AND EDEMA	5K04 HL00004-05
LINDSAY, RICHARD W	GERIATRIC MEDICINE	1K07 AG00039-01
LOGIN, IVAN S	A STUDY OF HYPERTHALAMIC PITUITARY RELATIONSHIPS	1K07 NS00454-01
LONGNECKER, DAVID E	ANESTHETICS AND MICROVASCULAR RESPONSE TO HEMORRHAGE	5K04 HL00037-05
MILLER, EDWARD D, JR	ANESTHETICS INTERACTION WITH RENIN/SYMPATHETIC NERV. SYS	5K04 GM00457-02
POHL, STEPHEN L	MECHANISMS OF POLYPEPTIDE HORMONE ACTION	5K04 AM00183-06
ROGOL, ALAN D	HETEROGENEITY OF PLASMA HORMONES	5K04 AM00153-04
RUBEL, EDWIN W	ACOUSTIC EXPERIENCE AND BRAIN DEVELOPMENT	5K04 NS00305-02
STEWART, OSWALD	POST-LESION PLASTICITY OF NEURONAL CIRCUITRY	5K04 NS00325-02
TAYLOR, RONALD P	QUANTITATIVE STUDIES OF BIOLOGICAL RECOGNITION	5K04 AI00062-05
WILEY, LYNN M	MORPHOGENESIS IN EARLY MAMMALIAN EMBRYOS	1K04 HD00284-01
WINN, H RICHARD	ROLE OF ADENOSINE IN CEREBRAL BLOOD FLOW AND METABOLISM	1K07 NS00404-01
GREAT FALLS		
INDIVIDUAL AWARD—DOWLING, HARRY F. ZIP CODE 22066		
DOWLING, HARRY F	SPECIAL SCIENTIFIC PROJECT: U S MUNICIPAL HOSPITALS	5K10 LM00008-02
NORFOLK		
EASTERN VIRGINIA MEDICAL AUTHORITY—EASTERN VIRGINIA MEDICAL SCHOOL ZIP CODE 23507		
WRIGHT, GEORGE L, JR	ISOLATION OF TUMOR ANTIGENS	5K04 CA00012-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
VIRGINIA—Continued		
RICHMOND		
VIRGINIA COMMONWEALTH UNIVERSITY	ZIP CODE 23284	
ARCHER, GORDON L.....	ENDOCARDITIS ON PROSTHETIC CARDIAC VALVES.....	5K04 HL00285-03
BOND, JUDITH S.....	HORMONAL CONTROL OF PROTEIN TURNOVER.....	5K04 AM00427-02
CARCHMAN, RICHARD A.....	A MULTICOMPONENT ANALYSIS OF STEROID RELEASE.....	1K04 AM00565-01
GREENBERG, RICHARD P.....	TRAUMA—BRAIN DYSFUNCTION LOCALIZATION/EVOKED POTENTIALS.....	5K07 NS00346-02
GUZELIAN, PHILIP S, JR.....	REGULATION OF DRUG METABOLISM IN THE LIVER.....	1K04 AM00570-01
LIBERTI, JOSEPH P.....	BIOCHEMISTRY OF SOMATOMEDIN.....	5K04 AM00125-05
LITTMAN, BRUCE H.....	REGULATION OF CELLULAR COOPERATION BY SOLUBLE FACTORS.....	5K04 AM00336-03
MACRINA, FRANCIS L.....	PLASMIDS OF ORAL BACTERIA—BIOMEDICAL IMPLICATIONS.....	1K04 DE00081-01
MAY, JAMES M.....	THE ROLE OF HYDROGEN PEROXIDE IN INSULIN ACTION.....	1K08 AM00651-01
MURRAY, BYRON K.....	BIOLOGY OF ORAL HERPES SIMPLEX VIRUS INFECTIONS.....	1K04 DE00079-01
PANG, DAVID C.....	EXCITATION-CONTRACTION COUPLING IN CARDIAC FAILURE.....	5K04 HL00488-02
PATTERSON, JOHN L, JR.....	NORMAL & PATHOPHYSIOLOGY OF CIRCULATION & RESPIRATION.....	5K06 HL18678-18
TEW, JOHN G.....	REGULATION OF THE IMMUNE RESPONSE BY PERSISTING ANTIGEN.....	5K04 AI00008-05
WEIR, GORDON C.....	STUDIES OF GLUCAGON AND SOMATOSTATIN SECRETION.....	5K04 AM00255-03
WOLF, BARRY.....	DISORDERS OF PROPIONATE AND BIOTIN METABOLISM.....	1K04 AM00677-01
WASHINGTON		
PULLMAN		
WASHINGTON STATE UNIVERSITY	ZIP CODE 99163	
GRISWOLD, MICHAEL D.....	SERTOLI CELLS—SECRETORY PROTEINS AND CELL LINES.....	1K04 HD00263-01
PRIEUR, DAVID J.....	CHARACTERIZATION OF NEW GENETIC ANIMAL DISEASE MODELS.....	5K04 RR00003-04
SANDER, CHRISTIAN.....	TOXICODYNAMICS OF CYANIDE AND ALKYLPHOSPHATE ANTAGONISTS.....	1K07 ES00055-01
SEATTLE		
UNIVERSITY OF WASHINGTON	ZIP CODE 98195	
AFROMOWITZ, MARTIN A.....	IMPLANTABLE SOLID-STATE HYBRID ION-SENSITIVE DEVICE.....	5K04 GM00323-03
ALVARES, OLAV F.....	NUTRITION AND THE ORAL MUCOUS MEMBRANES.....	5K04 DE00037-04
ANDERSEN, NIELS H.....	THE MOLECULAR BASIS OF PROSTAGLANDIN BIOCHEMISTRY.....	5K04 GM00134-05
BERGER, ALBERT J.....	NEURAL REGULATION OF RESPIRATION.....	5K04 NS00378-03
BINDER, MARC D.....	SEGMENTAL CONTROL OF INTACT AND RE-INNERVATED MUSCLES.....	1K07 NS00345-01
CHAFF, ALAN.....	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00592-02
CULVER, BRUCE H.....	PULMONARY MEDICINE.....	5K07 HL00248-04
FURLONG, CLEMENT E.....	BACTERIAL AND HUMAN MEMBRANE TRANSPORT SYSTEMS.....	5K04 GM00452-05
GARTLER, STANLEY M.....	STUDIES IN MAMMALIAN SOMATIC CELL GENETICS.....	4K06 GM03874-16
HLASTALA, MICHAEL P.....	TOTAL BODY GAS EXCHANGE.....	5K04 HL00182-04
HOHL, THOMAS H.....	SURGICAL EFFECTS ON GROWTH OF CRANIOFACIAL COMPLEX.....	5K04 DE00040-04
HUNTSMAN, LEE L.....	MECHANICAL PROPERTIES OF ISOLATED MYOCARDIUM.....	5K04 HL00344-03
JOHNSON, DALE E.....	MYOCARDIAL CATIONS—ELECTRON ENERGY LOSS MICROANALYSIS.....	5K04 HL00472-02
KANEKO, CHRIS R.....	PREMOTONEURONAL CONTROL OF FAST EYE MOVEMENTS.....	5K07 EY00096-02
KURACHI, KOTOKU.....	STRUCTURE AND FUNCTION OF BLOOD COAGULATION FACTORS.....	5K04 HL00404-02
LARSON, CHARLES R.....	NEURAL CONTROL OF JAW FORCE: IMPLICATIONS FOR SPEECH.....	1K07 NS00382-01
MC CLEAN, MICHAEL D.....	AFFERENT FUNCTION IN LIP MOTOR CONTROL FOR SPEECH.....	5K04 NS00291-02
MINSHAW, BARBARA H.....	GENETICS OF ESCHERICHIA COLI VIRULENCE FACTORS.....	5K04 AI00290-02
PFEIFER, MICHAEL A.....	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	1K01 AM00738-01
PROTELL, ROBERT L.....	THERMAL COAGULATION OF GASTRIC ARTERIES.....	1K08 AM00406-01
RUBIN, CYRUS E.....	HUMAN MUCOSAL STRUCTURE AND FUNCTION.....	5K06 CA03449-18
SCHWARTZKROIN, PHILIP A.....	HIPPOCAMPAL DEVELOPMENT AND EPILEPTOGENESIS.....	1K04 NS00413-01
SLATKIN, MONTGOMERY W.....	SPATIAL AND TEMPORAL PATTERNS IN NATURAL POPULATIONS.....	5K04 GM00396-05
STORM, DANIEL R.....	FUNCTIONAL ASPECTS OF BACTERIAL AND MAMMALIAN MEMBRANES.....	5K04 AI00310-03
THOMAS, E DONNALL.....	TRANSPLANTATION OF MARROW AND MARROW METABOLISM.....	4K06 AI02425-16
TRAGER, WILLIAM F.....	ASPECTS OF THE METABOLISM OF ORAL ANTICOAGULANTS.....	5K04 GM00211-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
WASHINGTON—Continued		
TRUMAN, JAMES W.....	HORMONE ACTION ON THE CENTRAL NERVOUS SYSTEM.....	5K04 NS00193-04
WEISS, NOEL S.....	MENOPAUSAL ESTROGENS AND THE EPIDEMIOLOGY OF CANCER.....	5K04 CA00048-05
WHITELEY, HELEN R.....	METABOLISM OF ANAEROBIC MICROCOCCI.....	5K06 GM00442-17
WILLSON, RICHARD A.....	ACUTE LIVER INJURY AND FAILURE.....	5K04 AM00151-04
WYLER, ALLEN R.....	SINGLE NEURON NEUROPHYSIOLOGY IN CHRONIC EPILEPTIC FOCI.....	5K07 NS00195-02
VIRGINIA MASON RESEARCH CENTER	ZIP CODE 98101	
HILDEBRANDT, JUDITH R.....	CONTROL OF LUNG FUNCTION AND RESPIRATION IN EXERCISE.....	5K04 HL00047-05
WEST VIRGINIA		
MORGANTOWN		
WEST VIRGINIA UNIVERSITY	ZIP CODE 26506	
ALBRINK, MARGARET J.....	SERUM TRIGLYCERIDES AND VASCULAR DISEASE.....	5K06 HL00486-17
BLAIR, JAMES B.....	HORMONAL REGULATION OF GLUCONEOGENESIS.....	5K04 GM00150-05
BUTCHER, FRED R.....	CYCLIC NUCLEOTIDES IN PAROTID GLAND METABOLISM.....	5K04 AM00586-05
COLASANTI, BRENDA K.....	ADRENERGIC AND CHOLINERGIC INTERACTIONS IN THE EYE.....	5K07 EY00075-03
WISCONSIN		
MADISON		
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON	ZIP CODE 53706	
BALL, LAURENCE A.....	THE CONTROL OF VIRAL GENE EXPRESSION.....	7K04 AI00378-02
BEINERT, HANS H.....	BASIC MECHANISMS IN BIOLOGICAL OXIDATIONS.....	5K06 GM18442-18
BLATTNER, FREDERICK R.....	REGULATORY SITES IN PRO- AND EUKARYOTIC GENOMES.....	5K04 GM00150-05
BORISY, GARY G.....	MICROTUBULE ASSEMBLY AND FUNCTION.....	5K04 GM00066-05
BUSSE, WILLIAM W.....	MECHANISM OF VIRUS INDUCED ASTHMA.....	1K07 AI00343-01
CHESNEY, RUSSELL W.....	DEVELOPMENT OF RENAL AMINO ACID TRANSPORT MECHANISMS.....	1K04 AM00421-01
DEMPSEY, JEROME A.....	PULMONARY ADAPTATION TO CHRONIC HYPOXIA.....	5K04 HL00149-05
HOWE, MARTHA M.....	INTEGRATION, REGULATION, AND GROWTH OF PHAGE MU.....	5K04 AI00274-02
HUTCHINSON, C RICHARD.....	METABOLISM OF NATURALLY OCCURRING ANTITUMOR COMPOUNDS.....	5K04 CA00253-04
JACOB, CLYDE T, JR.....	NEUROSENSORY MECHANISMS OF SPEECH MOTOR CONTROL.....	5K07 NS00355-02
JEFCOATE, COLIN R.....	CYTOCHROME P450 CARCINOGENESIS AND STEROID SYNTHESIS.....	5K04 CA00250-04
KAESBERG, PAUL J.....	STRUCTURE AND SYNTHESIS OF VIRUSES.....	4K06 AI21942-16
KAUFMAN, PAUL L.....	ANTERIOR OCULAR SEGMENT PHYSIOLOGY AND PHARMACOLOGY.....	1K04 EY00137-01
KLEIN, RONALD.....	BLOOD-OCULAR BARRIERS UNDER STRESS—EXPERI. DIABETES.....	1K07 EY00136-01
MC CLAIN, WILLIAM H.....	BIOSYNTHESIS & FUNCTION OF MOLECULAR GENETICS OF T-RNA.....	5K04 AI00020-05
MUELLER, GERALD C.....	STUDIES ON GROWTH REGULATING MECHANISMS.....	5K06 CA00685-19
NELSON, DAVID L.....	SPATIAL DIFFERENTIATION PLUS ION CONDUCTANCE.....	5K04 NS00085-05
NICKLES, ROBERT J.....	RADIOTRACER DEVELOPMENT FOR CARDIOVASCULAR STUDIES.....	5K04 HL00217-04
NORTHROP, DEXTER B.....	MECHANISMS OF DEHYDROGENASES/ANTIBIOTIC INACTIVATION.....	5K04 GM00254-04
OLSON, EARL B, JR.....	METABOLISM IN PERFUSED FETAL & NEWBORN RABBIT LUNGS.....	5K04 HL00438-03
POLAND, ALAN P.....	TOXICITY OF 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN.....	5K04 ES00039-05
RAETZ, CHRISTIAN R.....	BIOGENESIS OF MEMBRANE PHOSPHOLIPIDS.....	5K04 AM00584-02
RHODE, WILLIAM S.....	MECHANICAL AND ELECTRICAL STUDIES OF THE INNER EAR.....	5K04 NS00107-05
RIS, HANS.....	STRUCTURE & MOLECULAR ORGANIZATION OF GENETIC SYSTEMS.....	5K06 GM21948-16
RUOHO, ARNOLD E.....	MOLECULAR CHARACTERIZATION OF ADRENERGIC RECEPTORS.....	5K04 NS00158-04
SMITH, DEAN O.....	MECHANISMS OF NERVE IMPULSE PROPAGATION FAILURES.....	1K04 NS00380-01
SPEAR, PETER D.....	VISUAL INTEGRATION IN THE BRAIN.....	5K04 EY00089-03
WALLOW, INGOLF H.....	BLOOD-RETINAL BARRIER IN DIABETIC RETINOPATHY.....	1K04 EY00135-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1979—Continued**

Awardee	Project title	Grant number
WISCONSIN—Continued		
MILWAUKEE		
MEDICAL COLLEGE OF WISCONSIN	ZIP CODE 53233	
GHAZARIAN, JACOB G.....	CONTROL OF ENZYMES IN THE VITAMIN D3 ENDOCRINE COMPLEX.....	5K04 AM00220-04
HOPWOOD, LARRY E.....	CELL KILLING AND MUTATION BY COMBINED HEAT AND X-RAYS.....	5K04 CA00283-03
KOZIN, FRANKLIN.....	MECHANISMS OF CRYSTAL-INDUCED INFLAMMATION.....	5K08 AM00483-02
LECH, JOHN J.....	METABOLISM AND DISPOSITION OF FOREIGN COMPOUNDS BY FISH.....	5K04 ES00002-05
MIZIORKO, HENRY M.....	HMG-COA CYCLE CONTROL IN NORMAL AND DIABETIC LIVER.....	1K04 AM00645-01
WYOMING		
LARAMIE		
UNIVERSITY OF WYOMING	ZIP CODE 82070	
BARDEN, ROLAND E.....	KINETICS AND AFFINITY LABELLING OF LIPID ENZYMES.....	5K04 GM00246-04
HALEY, BOYD E.....	SYNTHESIS/DEVELOPMENT OF NUCLEOTIDE PHOTOAFFINITY PROBES.....	1K04 CA00563-01
SMITH, DAVID V.....	ADAPTATION AND TASTE QUALITY CODING.....	5K04 NS00168-03
PUERTO RICO		
SAN JUAN		
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS	ZIP CODE 00936	
DEL CASTILLO, JOSE.....	PHYSIOLOGY AND PHARMACOLOGY OF EXCITATION.....	5K06 NS14938-18
UNIVERSITY OF PUERTO RICO RIO PIEDRAS CAMPUS	ZIP CODE 00931	
ADAM, WALDEMAR.....	SYNTHESIS OF ENDOPEROXIDE PRECURSORS TO PROSTAGLANDIN.....	5K04 GM00141-05

APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetical sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization. The tables in which the organizations may be found are shown in parentheses following their locations.

United States

- Affiliated Hospitals Center--Boston (3 units), Mass. (2,3)
American College of Radiology (formerly shown in Chevy Chase, Md.)--Philadelphia, Pa. (2)
American Dental Association--Chicago (2 units), Ill. (2)
American Health Foundation--New York, Valhalla, N.Y. (2,3)
American Institutes for Research--Palo Alto, Calif.; Washington, D.C. (2)
Battelle Memorial Institute--Columbus, Ohio; Richland, Seattle, Wash. (2)
Blood Center of Southeastern Wisconsin (formerly shown as Milwaukee Blood Center)--Milwaukee, Wisc. (2)
Boston Health and Hospitals Department (may include awards to Mallory Institute of Pathology Foundation)--Boston, Mass. (2)
California State Health and Welfare Agency--Berkeley, Sacramento, Calif. (2)
California State University and Colleges System--Arcata, Chico, Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, San Diego, San Francisco, San Jose, Calif. (2,3)
Chicago Health Department (may include awards to Chicago Health Research Foundation)--Chicago, Ill. (2)
City University of New York--New York (10 units), N.Y. (2,3)
Claremont University Center System--Claremont (2 units), Calif. (2)
College of Medicine and Dentistry of New Jersey--Newark, Piscataway (2 units), N.J. (2,3)
Cornell University--Ithaca, New York, N.Y. (2,3)
Denver Health and Hospitals Department (may include awards to Denver Health Research Foundation)--Denver, Colo. (2)
Harvard University--Boston, Cambridge, Mass. (2,3)
Indiana University--Bloomington, Indianapolis, Ind. (2,3)
Institute for Medical Research of Bennington (formerly shown as Putnam Memorial Hospital)--Bennington, Vt. (2)
Institute for Research in Social Behavior (formerly shown in Berkeley, Calif.)--Oakland, Calif. (2)
Intermountain Health Care (formerly known and shown as Latter-Day Saints Hospital System)--Salt Lake City (2 units), Utah (2,3)
Issaquah Health Research Institute (formerly known and shown as Issaquah Group for Health and Environmental Research)--Issaquah, Wash. (2)
Johns Hopkins University--Baltimore, Laurel, Md. The unit in Laurel was formerly shown in Silver Spring, Md. (2,3)

Long Island University--Greenvale, New York, N.Y. (2)
 Los Angeles County Health Services Department--Downey, Los Angeles
 Torrance, Calif. (2,3)
 Louisiana State University--Baton Rouge, New Orleans (2 units),
 Shreveport, La. (2,3)
 Loyola University of Chicago--Chicago, Maywood, Ill. (2,3)
 Massachusetts General Hospital--Belmont, Boston, Mass. (2,3)
 Massachusetts Office of Human Services (may include awards to
 Massachusetts Mental Health Research Corporation)--Boston, Mass. (2)
 Montana University System--Bozeman, Missoula, Mt. (2,3)
 National Jewish Hospital and Research Center (includes awards which
 were formerly made to and shown under the National Asthma Center)--
 Denver, Colo. (2,3)
 New York State Department of Health (may include awards to Health
 Research Inc.)--Albany, Buffalo, N.Y. (2,3)
 New York State Department of Mental Hygiene (may include awards to New
 York State Research Foundation for Mental Hygiene, Inc.)--Albany,
 New York (3 units), Orangeburg, N.Y. (2)
 North Carolina Department of Human Resources (may include awards to
 North Carolina Foundation for Mental Health Research, Inc.)--
 Morganton, Raleigh, N.C. (2)
 Northeastern Ohio Universities College of Medicine (formerly shown in
 Kent, Ohio)--Rootstown, Ohio (2)
 Northwestern University--Chicago, Evanston, Ill. (2,3)
 Oregon State Higher Education System--Corvallis, Eugene, Portland
 (2 units), Oreg. (2,3)
 Pennsylvania State University--Hershey, University Park, Pa. (2,3)
 Rush-Presbyterian-St. Luke's Medical Center--Chicago (2 units), Ill.
 (2,3)
 Rutgers The State University--Camden, New Brunswick, Newark, N.J. (2,3)
 Southern Illinois University System--Carbondale, Edwardsville, Spring-
 field, Ill. (2)
 Speech Communications Research Laboratory (formerly shown in Santa
 Barbara, Calif.)--Los Angeles, Calif. (2)
 State University and Community College System of Tennessee--Johnson
 City, Memphis, Nashville, Tenn. (2)
 State University of New York--Albany, Binghamton, Brockport, Buffalo,
 Cortland, New York (2 units), Plattsburgh, Purchase, Stony Brook,
 Syracuse (2 units), N.Y. (2,3)
 State University System of Florida--Gainesville, Orlando, Tallahassee
 (2 units), Tampa, Fla. (2,3)
 Texas Agricultural and Mechanical University System--College Station,
 Prairie View, Tex. (2,3)
 Texas Department of Mental Health and Mental Retardation (may include
 awards to Texas Foundation for Mental Health Research)--Houston,
 Tex. (2)
 Tissue Culture Association--Rockville, Md.; Lake Placid, N.Y. (2)
 Tufts University--Boston, Medford, Mass. (2,3)
 Tulane University--Covington, New Orleans, La. (2,3)
 U.S. Department of Health, Education, and Welfare--San Francisco, Calif.;
 New York, N.Y.; Seattle, Wash. (2)
 U.S. Department of the Army--Washington, D.C.; San Antonio, Tex. (2)
 U.S. Veterans Administration--Martinez, Palo Alto, Sepulveda, Calif.;
 Hines, North Chicago, Ill.; Lexington, Ky.; Shreveport, La.; Boston,
 Mass.; Durham, N.C.; Portland, Oreg.; Pittsburgh, Pa.; Columbia,
 S.C.; White River Junction, Vt.; Seattle, Wash.; Huntington, W. Va. (2)

Union College and University--Albany, Schenectady, N.Y. (2,3)
 University of Alabama System--Birmingham, University, Ala. (2,3)
 University of Arkansas--Fayetteville, Little Rock, Ark. (2,3)
 University of California--Berkeley, Davis, Irvine, La Jolla,
 Los Angeles, Riverside, San Francisco, Santa Barbara, Santa Cruz,
 Calif. The unit in La Jolla may include awards to Friends of
 Psychiatric Research of San Diego. (2,3)
 University of Colorado System--Boulder, Colorado Springs, Denver,
 Colo. (2,3)
 University of Connecticut--Farmington, Storrs, Conn. (2,3)
 University of Illinois--Chicago (2 units), Peoria, Urbana, Ill. (2,3)
 University of Kansas--Kansas City, Lawrence, Ks. (2,3)
 University of Maine--Orono, Portland, Me. (2)
 University of Maryland System--Baltimore, Catonsville, College Park
 (2 units), Princess Anne, Md. (2,3)
 University of Massachusetts--Amherst, Boston, Worcester, Mass. (2,3)
 University of Miami--Coral Gables, Miami, Fla. (2,3)
 University of Minnesota--Duluth, Minneapolis, Minn. (2,3)
 University of Mississippi--Jackson, University, Miss. (2,3)
 University of Missouri--Columbia, Kansas City, Normandy, Rolla, Mo.
 (2,3)
 University of Nebraska System--Lincoln, Omaha, Nebr. (2,3)
 University of Nevada System--Las Vegas, Reno, Nev. (2,3)
 University of North Carolina System--Chapel Hill, Cullowhee, Durham,
 Elizabeth City, Greensboro, Greenville, Raleigh, Winston-Salem,
 N.C. (2,3)
 University of Oklahoma--Norman, Oklahoma City, Okla. (2,3)
 University of Puerto Rico--Mayaguez, San Juan (2 units), P.R. (2,3)
 University of Tennessee System--Knoxville, Memphis, Tenn. (2,3)
 University of Texas System--Arlington, Austin, Dallas, El Paso,
 Galveston, Houston (2 units), Richardson, San Antonio (2 units),
 Tex. (2,3)
 University of Wisconsin System--Kenosha, Madison, Milwaukee, Wisc.
 (2,3)
 University System of Georgia--Albany, Athens, Atlanta (2 units),
 Augusta, Fort Valley, Savannah, Statesboro, Ga. (2,3)
 Utah State Higher Education System--Logan, Salt Lake City, Utah (2,3)

Other Countries

Agricultural Research Council--Cambridge, London, United Kingdom (2)

NIH Publication No. 80-1042

NATIONAL INSTITUTES OF HEALTH

Grants
for
Training
Construction
Cancer Control
Medical Libraries

Fiscal Year 1979 Funds



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service National Institutes of Health

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NATIONAL INSTITUTES OF HEALTH

Grants for Training Construction Cancer Control Medical Libraries

Fiscal Year 1979 Funds

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service National Institutes of Health

NIH Publication No. 80 - 1043

Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the contract mechanism is used under appropriate circumstances.

Listings of NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents the fellowships, training grants, cancer research facilities construction, cancer control, and medical library grants awarded by the National Institutes of Health from fiscal year 1979 funds. Awards for training and construction made by other constituent agencies of the Public Health Service are not included in this volume.

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TECHNICAL NOTE

Cancer Control Grants

The research demonstration and dissemination projects of the National Cancer Institute, formerly presented in the volume listing NIH Research Grants, are being shown in this volume effective with fiscal year 1978 funds. These grants, commonly referred to as cancer control grants, are shown separately from research grants in the budget, and their exclusion from the volume on research grants was for the purpose of conforming with their treatment in the budgetary process. To reflect their uniqueness, the cancer control grants are shown in a separate table in this volume.

Organization Identification

In the presentation of grants made from fiscal year 1979 funds, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the principal investigator lies. Study of the structure of grantee organizations in the United States (primarily universities and colleges, and State Departments of Mental Health or their equivalents) has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education is comprised of two or more campuses reporting directly to the central administration, each campus is listed separately.
2. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and the organization is listed as many times within a given city as there are components of the organization receiving grants.
3. If a foundation has been established for the purpose of receiving and administering funds for grants, the name and location of the organization having professional responsibility for the grant are shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
4. If an association receiving a grant has a fixed national headquarters, the grants are listed at the headquarters location. If however, the association does not have a fixed headquarters, the grants are listed in the city shown for this organization in either the Encyclopedia of Associations (1) or the Research Centers Directory (2).

These qualifications do not apply to foreign institutions or to some domestic organizations, because a systematic study of their organizational structure has not been made. Organizations which require a clarifying comment, or which appear in more than one geographical location are listed alphabetically in the Appendix.

Supplemental Awards

In this publication, supplemental awards are combined with the parent grant, or with other supplements, when both awards are made from the same fiscal year funds. Supplemental grants awarded in fiscal year 1979 to parent grants awarded in a previous fiscal year are shown separately; if two or more such supplements were made during fiscal year 1979, these supplements are combined.

-
- (1) Fiske, M. (Ed.): Encyclopedia of Associations. Gale Research Co., Detroit, Mich., 13 ed., Vol. 1, 1979.
 - (2) Palmer, A.M. (Ed.): Research Centers Directory. Gale Research Co., Detroit, Mich., 6 ed., 1979.

SUPPORTING COMPONENT	TOTAL TRAINING DOLLARS	TRAINING				FELLOWSHIPS AND NAT'L. RESEARCH SERVICE AWARDS*	CONSTRUCTION GRANTS		CANCER CONTROL GRANTS		MEDICAL LIBRARY GRANTS	
		RESEARCH TRAINING GRANTS		DOLLARS	NO.		DOLLARS	NO.	DOLLARS	NO.	DOLLARS	NO.
		NO.	DOLLARS									
TOTAL NATIONAL INSTITUTES OF HEALTH.....	149,309,958	1,265	117,472,078	2,208	31,837,880	10	12,452,268	97	19,299,496	79	2,007,894	
INSTITUTES AND RESEARCH DIVISIONS.....	147,957,805	1,256	116,119,925	2,208	31,837,880	10	12,452,268	97	19,299,496	..	.....
DIVISION OF RESEARCH RESOURCES..	515,000	8	498,400	1	16,600	..	.....	..	.....	..	.....
FOGARTY INTERNATIONAL CENTER....	4,383,011	...	.....	220	4,383,011	..	.....	..	.....	..	.....
NATIONAL CANCER INSTITUTE.....	20,031,554	162	17,106,338	216	2,925,216	10	12,452,268	97	19,299,496	..	.....
NATIONAL EYE INSTITUTE.....	4,590,201	49	3,226,098	99	1,364,103	..	.....	..	.....	..	.....
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE.....	21,235,618	233	18,816,530	168	2,419,038	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES.....	7,887,718	79	5,766,553	156	2,121,165	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES.....	14,891,425	193	11,315,780	255	3,575,645	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT..	9,798,859	89	7,875,016	140	1,923,843	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF DENTAL RESEARCH.....	3,289,793	27	2,651,234	51	638,559	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES.	4,543,000	36	4,088,250	32	454,750	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.....	46,855,428	301	40,182,533	475	6,672,895	..	.....	..	.....	..	.....
NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE.....	7,558,751	54	2,795,348	354	4,763,403	..	.....	..	.....	..	.....
NATIONAL INSTITUTE ON AGING.....	2,377,447	25	1,797,795	41	579,652	..	.....	..	.....	..	.....
NATIONAL LIBRARY OF MEDICINE.....	1,352,153	9	1,352,153	...	.....	..	.....	..	.....	79	2,007,894

*Supplemental and supply allowances for an award made in a previous year are not included in the count, although dollars are included. Thus, an organization receiving only a supply allowance will have an entry under dollars but no entry under number.

NOTE: For information as to how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see Appendix.

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
GRAND TOTAL.....	2,208	31,837,880	1,939	26,494,889	49	959,980	220	4,383,011
UNITED STATES*.....	2,135	30,801,528	1,867	25,485,844	49	959,980	219	4,355,704
OTHER COUNTRIES.....	73	1,036,352	72	1,009,045			1	27,307
UNITED STATES								
ALABAMA								
AUBURN								
AUBURN UNIVERSITY.....	4	59,195			4	59,195		
BIRMINGHAM								
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM.....	10	138,990	9	123,175			1	15,815
MOBILE								
UNIVERSITY OF SOUTH ALABAMA.....	3	41,700	3	41,700				
STATE TOTAL.....	17	239,885	12	164,875	4	59,195	1	15,815
ARIZONA								
PHOENIX								
U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE—NIAMDD EPIDEMIOLOGY AND FIELD STUDIES BRANCH.....	1	11,500	1	11,500				

TUCSON									
	UNIVERSITY OF ARIZONA	11	158,652	6	81,600				5
	STATE TOTAL	12	170,152	7	93,100				5
ARKANSAS									
FAYETTEVILLE									
	UNIVERSITY OF ARKANSAS	1	19,500			1	19,500		
LITTLE ROCK									
	UNIVERSITY OF ARKANSAS MEDICAL SCIENCES CAMPUS	1	15,200	1	15,200				
	STATE TOTAL	2	34,700	1	15,200	1	19,500		
CALIFORNIA									
BERKELEY									
	UNIVERSITY OF CALIFORNIA AT BERKELEY	42	587,087	37	499,865	1	27,070	4	60,152
CLAREMONT									
	CLAREMONT UNIVERSITY CENTER SYSTEM-PITZER COLLEGE	1	13,400	1	13,400				
DAVIS									
	UNIVERSITY OF CALIFORNIA AT DAVIS	15	216,221	14	185,116			1	31,105
DUARTE									
	CITY OF HOPE NATIONAL MEDICAL CENTER	2	21,065	1	13,800			1	7,265
IRVINE									
	UNIVERSITY OF CALIFORNIA AT IRVINE	16	217,281	14	186,950			2	30,331

*Includes Puerto Rico.

NOTE 1.—Supplemental and supply allowances for an award made in a previous year are not included in the count, although dollars are included. Thus, an organization receiving only a supply allowance will have an entry under dollars but no entry under number.

NOTE 2.—For information as to how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see Appendix.

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
CALIFORNIA—Continued								
LA JOLLA								
SALK INSTITUTE FOR BIOLOGICAL STUDIES.....	8	108,200	8	108,200				
SCRIPPS CLINIC AND RESEARCH FOUNDATION.....	21	314,484	17	231,950	1	25,700	3	56,834
UNIVERSITY OF CALIFORNIA AT SAN DIEGO.....	37	526,451	35	472,669			2	53,782
LOMA LINDA								
LOMA LINDA UNIVERSITY.....	1	15,800	1	15,800				
LOS ANGELES								
CEDARS-SINAI MEDICAL CENTER.....	1	13,800	1	13,800				
CHILDREN'S HOSPITAL OF LOS ANGELES.....	1	13,400	1	13,400				
ESTELLE DOHENY EYE FOUNDATION.....	1	16,200	1	16,200				
UNIVERSITY OF CALIFORNIA AT LOS ANGELES.....	48	698,463	43	602,425			5	96,038
UNIVERSITY OF SOUTHERN CALIFORNIA.....	11	180,912	8	117,800	1	27,682	2	35,430
NORTHBRIDGE								
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT NORTHBRIDGE.....	1	13,000	1	13,000				
OAKLAND								
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFORNIA.....	2	23,000	2	23,000				
PALO ALTO								
PALO ALTO MEDICAL RESEARCH FOUNDATION.....	2	35,450	1	16,600			1	18,850
PASADENA								
CALIFORNIA INSTITUTE OF TECHNOLOGY.....	32	403,219	30	380,577			2	22,642

RIVERSIDE

UNIVERSITY OF CALIFORNIA AT RIVERSIDE..... 2 40,791 1 13,000 1 27,791

SAN FRANCISCO

PACIFIC MEDICAL CENTER..... 1 13,800 1 13,800 8 170,829

UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO..... 70 1,049,859 62 879,030 1 17,200

UNIVERSITY OF THE PACIFIC..... 1 17,200 1 17,200

SANTA BARBARA

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA..... 8 103,166 8 103,166 2,771

SANTA CRUZ

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ..... 4 57,871 4 55,100 3 70,395

STANFORD

STANFORD UNIVERSITY..... 86 1,225,245 83 1,154,850 3 70,395

TORRANCE

LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT-LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER..... 2 31,500 2 28,000 3,500

STATE TOTAL..... 416 5,956,865 377 5,171,498 36 704,915

COLORADO**BOULDER**

UNIVERSITY OF COLORADO-UNIVERSITY OF COLORADO AT BOULDER..... 10 137,700 10 137,700 80,452

DENVER

ELEANOR ROOSEVELT INSTITUTE FOR CANCER RESEARCH..... 2 29,500 2 29,500 1 30,768

NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER..... 7 98,400 7 98,400 1 30,768

UNIVERSITY OF COLORADO SYSTEM-UNIVERSITY OF COLORADO MEDICAL CENTER..... 20 300,176 19 269,408 1 30,768

UNIVERSITY OF DENVER..... 1 13,800 1 13,800 1 30,768

FORT COLLINS

COLORADO STATE UNIVERSITY..... 8 106,657 7 86,067 1 20,590

STATE TOTAL..... 48 686,233 46 634,875 2 51,358

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
CONNECTICUT								
FARMINGTON								
UNIVERSITY OF CONNECTICUT HEALTH CENTER.....	14	209,193	13	178,992			1	30,201
NEW HAVEN								
HASKINS LABORATORIES.....	4	57,300	4	57,300				
JOHN B. PIERCE FOUNDATION OF CONNECTICUT.....	4	55,200	4	55,200				
YALE UNIVERSITY.....	75	1,047,660	69	943,547			6	104,113
STORRS								
UNIVERSITY OF CONNECTICUT.....	2	26,800	2	26,800				
STATE TOTAL.....	99	1,396,153	92	1,261,839			7	134,314
DELAWARE								
NEWARK								
UNIVERSITY OF DELAWARE.....	3	44,851	2	28,300	1	16,551		
STATE TOTAL.....	3	44,851	2	28,300	1	16,551		
DIST OF COL								
WASHINGTON								
GALLAUDET COLLEGE.....	1	16,200	1	16,200				
GEORGE WASHINGTON UNIVERSITY.....		2,750		2,750				
GEORGETOWN UNIVERSITY.....	5	65,707	5	58,267				7,440
HOWARD UNIVERSITY.....	2	39,144			2	39,144		

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
HAWAII								
HONOLULU								
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA.....	6	87,300	6	87,300				
STATE TOTAL.....	6	87,300	6	87,300				
IDAHO								
CALDWELL								
CALDWELL MEMORIAL HOSPITAL.....	1	15,600			1	15,600		
STATE TOTAL.....	1	15,600			1	15,600		
ILLINOIS								
CARBONDALE								
SOUTHERN ILLINOIS UNIVERSITY SYSTEM—SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE.....	1	27,454					1	27,454
CHICAGO								
NORTHWESTERN UNIVERSITY.....	6	71,968	5	57,283			1	14,685
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY.....	3	41,400	3	41,400				
UNIVERSITY OF CHICAGO.....	21	288,866	20	271,116			1	17,750
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER.....	3	64,043	2	33,700			1	30,343
EVANSTON								
NORTHWESTERN UNIVERSITY.....	12	172,287	11	141,200			1	31,087

URBANA

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

STATE TOTAL

11
57149,567
815,58510
51129,650
674,3491
619,917
141,236**INDIANA****BLOOMINGTON**

INDIANA UNIVERSITY AT BLOOMINGTON

2

33,289

1

13,000

20,289

INDIANAPOLIS

INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS

2

40,670

700

2

39,970

INDIANAPOLIS CENTER FOR ADVANCED RESEARCH

1

13,000

1

13,000

MUNCIE

BALL STATE UNIVERSITY

1

16,358

1

16,358

NOTRE DAME

UNIVERSITY OF NOTRE DAME

3

40,100

3

40,100

WEST LAFAYETTE

PURDUE UNIVERSITY

4

57,000

4

57,000

STATE TOTAL

13

200,417

9

123,800

20,289

3

56,328

IOWA**AMES**

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

2

33,810

1

13,800

1

20,010

IOWA CITY

UNIVERSITY OF IOWA

14

226,030

11

158,100

3

67,930

STATE TOTAL

16

259,840

12

171,900

4

87,940

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
KANSAS								
KANSAS CITY								
UNIVERSITY OF KANSAS.....	6	87,531	3	42,400			3	45,131
LAWRENCE								
UNIVERSITY OF KANSAS.....	1	13,800	1	13,800				
MANHATTAN								
KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE.....	1	14,500	1	14,500				
STATE TOTAL.....	8	115,831	5	70,700			3	45,131
KENTUCKY								
LEXINGTON								
UNIVERSITY OF KENTUCKY.....	3	56,806	2	26,400			1	30,406
LOUISVILLE								
UNIVERSITY OF LOUISVILLE.....	1	13,800	1	13,800				
STATE TOTAL.....	4	70,606	3	40,200			1	30,406
LOUISIANA								
BATON ROUGE								
LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE AT BATON ROUGE.....	2	39,888			1	18,954	1	20,934

NEW ORLEANS

LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS.....	4	61,381	2	30,000	.....	2	31,381
TULANE UNIVERSITY.....	5	89,065	3	40,600	1	1	20,465
STATE TOTAL.....	11	190,334	5	70,600	2	4	72,780

MAINE

BAR HARBOR

JACKSON LABORATORY.....	1	13,800	1	13,800
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SALSBUURY COVE

MOUNT DESERT ISLAND BIOLOGICAL LABORATORY.....	1	13,800	1	13,800
STATE TOTAL.....	2	27,600	2	27,600	.....	.....	.....

MARYLAND

BALTIMORE

BALTIMORE CITY HOSPITALS.....	1	12,200	1	12,200	.....	.....	.....
CARNEGIE INSTITUTION OF WASHINGTON, D. C.....	5	63,000	5	63,000	.....	.....	.....
JOHN F. KENNEDY INSTITUTE.....	1	13,800	1	13,800	.....	.....	.....
JOHNS HOPKINS UNIVERSITY.....	41	591,854	37	518,334	.....	4	73,520
U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE--GERONTOLOGY RESEARCH CENTER.....	1	11,500	1	11,500	.....	.....	.....
UNIVERSITY OF MARYLAND SYSTEM--UNIVERSITY OF MARYLAND AT BALTIMORE.....	5	78,196	4	54,400	1	.....	.....

BELTSVILLE

U.S. DEPARTMENT OF AGRICULTURE--AGRICULTURAL RESEARCH CENTER.....	1	17,030	1	17,030
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BETHESDA

U.S. DEPARTMENT OF DEFENSE--ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE.....	1	12,155	1	12,155
U.S. DEPARTMENT OF DEFENSE--UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES.....	1	13,200	1	13,200	.....	.....	.....
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE--NATIONAL INSTITUTES OF HEALTH.....	87	1,241,503	60	672,531	4	23	496,098

COLLEGE PARK

UNIVERSITY OF MARYLAND SYSTEM--UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS.....	1	13,000	1	13,000
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ROCKVILLE

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE--ALCOHOL, DRUG ABUSE, AND MENTAL HLTH ADMIN.....	7	96,157	3	35,938	4	60,219
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Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
MARYLAND—Continued								
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—FOOD AND DRUG ADMINISTRATION		500						500
STATE TOTAL	152	2,164,095	115	1,420,058	5	96,670	32	647,367
MASSACHUSETTS								
AMHERST								
UNIVERSITY OF MASSACHUSETTS AT AMHERST	3	53,624	2	26,400			1	27,224
BOSTON								
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL								
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL	19	294,475	17	257,500			2	36,975
BETH ISRAEL HOSPITAL	2	17,917	2	17,800				117
BOSTON BIOMEDICAL RESEARCH INSTITUTE		145						145
BOSTON UNIVERSITY	8	4,617	7	87,121	1	28,000		4,617
CHILDREN'S HOSPITAL MEDICAL CENTER	12	179,120	12	176,445				2,675
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION	2	29,600	2	29,600				
FORSYTH DENTAL CENTER	4	49,290	3	31,700			1	17,590
HARVARD UNIVERSITY	60	894,752	56	802,166			4	92,586
JOSLIN DIABETES FOUNDATION		3,000		3,000				
MASSACHUSETTS EYE AND EAR INFIRMARY	1	13,400	1	13,400				
MASSACHUSETTS GENERAL HOSPITAL	20	312,215	17	255,650			3	56,565
NEW ENGLAND MEDICAL CENTER HOSPITAL	7	107,000	7	107,000				
NORTHEASTERN UNIVERSITY	1	13,000	1	13,000				
SIDNEY FARRER CANCER INSTITUTE	11	135,550	10	119,000			1	16,550
ST. ELIZABETH'S HOSPITAL OF BOSTON	2	31,100	2	31,100				
TUFTS UNIVERSITY	3	46,792	3	46,792				
UNIVERSITY HOSPITAL	1	13,800	1	13,800				

CAMBRIDGE									
HARVARD UNIVERSITY.....	31	408,243	29	379,900				2	28,343
MASSACHUSETTS INSTITUTE OF TECHNOLOGY.....	51	723,949	48	674,350				3	49,599
SHREWSBURY									
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY.....	3	48,200	2	28,600				1	19,600
WALTHAM									
BRANDEIS UNIVERSITY.....	18	270,714	15	204,700				3	66,014
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION.....	1	13,800	1	13,800					
WOODS HOLE									
MARINE BIOLOGICAL LABORATORY.....	1	12,800	1	12,800					
SOCIETY OF GENERAL PHYSIOLOGISTS.....	1	15,804						1	15,804
WORCESTER									
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER.....	4	67,198	3	39,800				1	27,398
STATE TOTAL.....	266	3,875,226	242	3,385,424	1	28,000		23	461,802
MICHIGAN									
ANN ARBOR									
UNIVERSITY OF MICHIGAN.....	27	420,278	21	283,750	2	41,754		4	94,774
DETROIT									
MICHIGAN CANCER FOUNDATION.....	1	13,800	1	13,800					
WAYNE STATE UNIVERSITY.....	4	65,898	3	42,400				1	23,498
EAST LANSING									
MICHIGAN STATE UNIVERSITY.....	10	142,233	10	139,000					3,233
ROCHESTER									
OAKLAND UNIVERSITY.....	1	17,200	1	17,200					
STATE TOTAL.....	43	659,409	36	496,150	2	41,754		5	121,505

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
MINNESOTA								
MINNEAPOLIS								
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL.....	32	478,306	28	397,650			4	80,656
ROCHESTER								
MAYO FOUNDATION.....	8	135,770	5	75,100			3	60,670
STATE TOTAL.....	40	614,076	33	472,750			7	141,326
MISSISSIPPI								
HATTIESBURG								
UNIVERSITY OF SOUTHERN MISSISSIPPI.....	1	18,100			1	18,100		
JACKSON								
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER.....	1	13,400	1	13,400				
UNIVERSITY								
UNIVERSITY OF MISSISSIPPI.....	1	22,000			1	22,000		
STATE TOTAL.....	3	53,500	1	13,400	2	40,100		
MISSOURI								
COLUMBIA								
UNIVERSITY OF MISSOURI-COLUMBIA.....	10	126,879	10	126,879				

SAINT LOUIS

CENTRAL INSTITUTE FOR THE DEAF.....	1	10,500	1	10,500					
JEWISH HOSPITAL OF ST. LOUIS.....	1	4,966	1	4,966					
ST. LOUIS UNIVERSITY.....		135							135
WASHINGTON UNIVERSITY.....	37	528,188	34	461,084				3	67,104
STATE TOTAL.....	49	670,688	46	603,429				3	67,239

NEBRASKA

BOYS TOWN

FATHER FLANAGAN'S BOYS' HOME.....	2	26,800	2	26,800					
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LINCOLN

UNIVERSITY OF NEBRASKA SYSTEM-UNIVERSITY OF NEBRASKA AT LINCOLN.....	1	14,500	1	14,500					
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OMAHA

CREIGHTON UNIVERSITY.....		4,000							4,000
UNIVERSITY OF NEBRASKA SYSTEM-UNIVERSITY OF NEBRASKA MEDICAL CENTER.....	2	28,000	2	28,000					
STATE TOTAL.....	5	73,300	5	69,300					4,000

NEW HAMPSHIRE

DURHAM

UNIVERSITY SYSTEM OF NEW HAMPSHIRE-UNIVERSITY OF NEW HAMPSHIRE.....		6,000							6,000
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HANOVER

DARTMOUTH COLLEGE.....	4	65,282	3	42,500				1	22,782
STATE TOTAL.....	4	71,282	3	42,500				1	28,782

NEW JERSEY

NEWARK

COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY.....	2	27,600	2	27,600					
RUTGERS THE STATE UNIVERSITY NEWARK.....	2	27,200	2	27,200					

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
NEW JERSEY—Continued								
PISCATAWAY								
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL.....	4	54,800	4	54,800				
PRINCETON								
PRINCETON UNIVERSITY.....	14	201,060	12	162,800			2	38,260
STATE TOTAL.....	22	310,660	20	272,400			2	38,260
NEW MEXICO								
ALBUQUERQUE								
UNIVERSITY OF NEW MEXICO ALBUQUERQUE.....	6	86,402	5	68,900	1	17,502		
STATE TOTAL.....	6	86,402	5	68,900	1	17,502		
NEW YORK								
ALBANY								
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE.....	2	26,000	2	26,000				
BUFFALO								
MEDICAL FOUNDATION OF BUFFALO.....	1	13,400	1	13,400				
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE.....	6	94,115	5	76,650			1	17,465
STATE UNIVERSITY OF NEW YORK AT BUFFALO.....	6	92,000	6	86,500				5,500

COLD SPRING HARBOR

COLD SPRING HARBOR LABORATORY

ITHACA

CORNELL UNIVERSITY

NEW YORK

ANIMAL MEDICAL CENTER

CITY UNIVERSITY OF NEW YORK-GRADUATE SCHOOL AND UNIVERSITY CENTER

CITY UNIVERSITY OF NEW YORK-MOUNT SINAI SCHOOL OF MEDICINE

COLUMBIA UNIVERSITY

CORNELL UNIVERSITY MEDICAL CENTER

MONTEFIORE HOSPITAL AND MEDICAL CENTER

NEW YORK CITY HEALTH SERVICES ADMINISTRATION-PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N Y

NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE-INSTITUTE FOR BASIC RESEARCH IN MENTAL RETARDATION

NEW YORK UNIVERSITY

POPULATION COUNCIL

ROCKEFELLER UNIVERSITY

SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH

ST. LUKE'S INSTITUTE FOR HEALTH SCIENCES

STATE UNIVERSITY OF NEW YORK-DOWNSTATE MEDICAL CENTER

YESHIVA UNIVERSITY

POUGHKEEPSIE

VASSAR COLLEGE

ROCHESTER

EASTMAN DENTAL CENTER

UNIVERSITY OF ROCHESTER

STONY BROOK

STATE UNIVERSITY OF NEW YORK AT STONY BROOK

SYRACUSE

STATE UNIVERSITY OF NEW YORK-UPSTATE MEDICAL CENTER

SYRACUSE UNIVERSITY

UPTON

ASSOCIATED UNIVERSITIES-BROOKHAVEN NATIONAL LABORATORY

4	59,200	4	59,200				
19	253,970	16	190,784	1	20,888	2	42,198
1	15,200	1	15,200				
1	16,600	1	16,600				
10	159,950	7	101,900			3	58,050
30	423,434	30	405,501				17,933
23	336,700	23	334,700				2,000
1	13,800	1	13,800				
3	41,800	3	41,800				
2	33,050	1	13,800			1	19,250
19	255,979	19	255,569				410
2	37,705					2	37,705
48	668,668	45	600,533	1	28,000	2	40,135
6	86,763	4	57,800			2	28,963
1	20,508					1	20,508
2	25,286	1	13,800			1	11,486
16	229,335	15	209,200			1	20,135
1	13,000	1	13,000				
1	15,200	1	15,200				
22	300,198	19	250,465			3	49,733
5	61,388	4	54,700			1	6,688
2	27,200	2	27,200				
1	13,000	1	13,000				
1	14,600	1	14,600				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
NEW YORK—Continued								
	VALHALLA							
	5	75,100	5	75,100				
	241	3,423,049	219	2,996,002	2	48,888	20	378,159
	STATE TOTAL							
	NORTH CAROLINA							
	CHAPEL HILL							
	1	13,800	1	13,800				
	30	406,764	28	374,000			2	32,764
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL								
DURHAM								
32	488,444	27	375,600	2	56,000	3	56,844	
1	13,800	1	13,800					
WHITEHEAD MEDICAL RESEARCH INSTITUTE								
RALEIGH								
1	14,500	1	14,500					
2	27,200	2	27,200					
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH								
RESEARCH TRIANGLE PARK								
2	23,000	2	23,000					
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—NIEHS ENVIRONMENTAL HEALTH SCIENCES CENTER								
WINSTON-SALEM								
1	13,000	1	13,000					
70	1,000,508	63	854,900	2	56,000	5	89,608	
STATE TOTAL								

OHIO**CINCINNATI**

CHILDREN'S HOSPITAL MEDICAL CENTER.....
U.S. ENVIRONMENTAL PROTECTION AGENCY-NATIONAL ENVIRONMENTAL RESEARCH CENTER.....
UNIVERSITY OF CINCINNATI.....

2 28,700
2,905
128,900

2
9

28,700
128,900

2,905

CLEVELAND

CASE WESTERN RESERVE UNIVERSITY.....

6 87,533

5

75,400

12,133

COLUMBUS

OHIO STATE UNIVERSITY.....

4 57,200

4

57,200

ROOTSTOWN

NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE.....

1 13,000

1

13,000

TOLEDO

MEDICAL COLLEGE OF OHIO AT TOLEDO.....

1 15,200

1

15,200

STATE TOTAL.....

23 333,438

22

318,400

15,038

OKLAHOMA**OKLAHOMA CITY**

UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER.....

2 33,100

2

30,100

STILLWATER

OKLAHOMA STATE UNIVERSITY AT STILLWATER.....

1 15,600

1

15,600

STATE TOTAL.....

3 48,700

3

45,700

3,000

OREGON**CORVALLIS**

OREGON STATE HIGHER EDUCATION SYSTEM-OREGON STATE UNIVERSITY.....

3 43,000

3

43,000

EUGENE

OREGON STATE HIGHER EDUCATION SYSTEM-UNIVERSITY OF OREGON.....

13 177,000

13

177,000

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
OREGON—Continued								
PORTLAND								
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER.....	1	13,800	1	13,800				
MEDICAL RESEARCH FOUNDATION OF OREGON.....	1	13,800	1	13,800				
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER.....	3	43,000	3	43,000				
STATE TOTAL.....	21	290,600	21	290,600				
PENNSYLVANIA								
BETHLEHEM								
LEHIGH UNIVERSITY.....	1	16,700	1	14,200				2,500
HERSHEY								
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER.....	10	164,256	8	120,300			2	43,956
PHILADELPHIA								
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA.....		4,000						4,000
INSTITUTE FOR CANCER RESEARCH.....	7	108,785	5	68,900			2	39,885
LANKENAU HOSPITAL.....	1	15,200	1	15,200				
MEDICAL COLLEGE OF PENNSYLVANIA.....	6	97,500	5	73,500	1	20,000		4,000
MONELL CHEMICAL SENSES CENTER.....	5	61,300	5	61,300				
TEMPLE UNIVERSITY.....	5	65,300	5	65,300				
UNIVERSITY OF PENNSYLVANIA.....	42	619,959	35	480,075	1	23,010	6	116,874
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY.....	3	32,025	3	32,025				
PITTSBURGH								
EYE AND EAR HOSPITAL OF PITTSBURGH.....	1	5,833	1	5,833				

UNIVERSITY OF PITTSBURGH	11	140,538	11	138,805				1,733
UNIVERSITY PARK								
PENNSYLVANIA STATE UNIVERSITY	4	45,711	3	40,600			1	6,111
STATE TOTAL	96	1,378,107	83	1,116,038	2	43,010	11	219,059
RHODE ISLAND								
KINGSTON								
UNIVERSITY OF RHODE ISLAND	1	6,438			1	6,438		
PROVIDENCE								
BROWN UNIVERSITY	8	103,100	7	85,300			1	17,800
STATE TOTAL	9	109,538	7	85,300	1	6,438	1	17,800
SOUTH CAROLINA								
CHARLESTON								
MEDICAL UNIVERSITY OF SOUTH CAROLINA	2	40,331	1	13,000			1	27,331
U.S. VETERANS ADMINISTRATION MEDICAL CENTER	1	5,473			1	5,473		
CLEMSON								
CLEMSON UNIVERSITY	1	14,690					1	14,690
COLUMBIA								
UNIVERSITY OF SOUTH CAROLINA	3	52,255	2	27,500	1	24,755		
STATE TOTAL	7	112,749	3	40,500	2	30,228	2	42,021
TENNESSEE								
KNOXVILLE								
UNIVERSITY OF TENNESSEE SYSTEM-UNIVERSITY OF TENNESSEE AT KNOXVILLE	2	26,800	2	26,800				
MEMPHIS								
ST. JUDE CHILDREN'S RESEARCH HOSPITAL	1	17,683	1	14,600				3,083

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
TENNESSEE—Continued								
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES	4	67,980	2	29,600	1	19,500	1	18,880
NASHVILLE								
MEHARRY MEDICAL COLLEGE	1	17,928			1	17,928		
VANDERBILT UNIVERSITY	21	297,072	17	230,467			4	66,605
OAK RIDGE								
UNION CARBIDE CORPORATION—OAK RIDGE NATIONAL LABORATORY	1	11,355	1	11,355				
STATE TOTAL	30	438,818	23	312,822	2	37,428	5	88,568
TEXAS								
AUSTIN								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN	10	131,817	10	131,817				
COLLEGE STATION								
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS AGRICULTURAL AND MECHANICAL UNIV	2	26,000	2	26,000				
DALLAS								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS	21	290,838	20	277,167			1	13,671
GALVESTON								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON	11	140,116	10	120,156			1	19,960
HOUSTON								
BAYLOR COLLEGE OF MEDICINE	22	312,260	21	293,400			1	18,860
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON	3	36,964	2	26,800			1	10,164

UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON.....	9	162,963	6	81,200	1	25,962	2	55,801
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER.....	3	40,900	3	40,900				
LUBBOCK								
TEXAS TECH UNIVERSITY.....	2	29,400	2	29,400				
RICHARDSON								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT DALLAS.....	1	9,800					1	9,800
SAN ANTONIO								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO.....	6	84,700	6	84,700				
STATE TOTAL.....	90	1,265,758	82	1,111,540	1	25,962	7	128,256
UTAH								
SALT LAKE CITY								
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH.....	7	99,215	7	99,083				132
STATE TOTAL.....	7	99,215	7	99,083				132
VERMONT								
BURLINGTON								
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE.....	10	180,342	7	104,700			3	75,642
STATE TOTAL.....	10	180,342	7	104,700			3	75,642
VIRGINIA								
BLACKSBURG								
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY.....	1	13,000	1	13,000				
CHARLOTTESVILLE								
UNIVERSITY OF VIRGINIA.....	21	284,933	21	278,433				6,500

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
VIRGINIA—Continued								
RICHMOND								
VIRGINIA COMMONWEALTH UNIVERSITY.....	6	101,542	2	31,400	1	28,000	3	42,142
STATE TOTAL.....	28	399,475	24	322,833	1	28,000	3	48,642
WASHINGTON								
SEATTLE								
FRED HUTCHINSON CANCER RESEARCH CENTER.....	7	97,810	6	80,600			1	17,210
UNIVERSITY OF WASHINGTON.....	67	971,976	63	886,800	1	22,334	3	62,842
VIRGINIA WASON RESEARCH CENTER.....	2	29,000	2	29,000				
STATE TOTAL.....	76	1,098,786	71	996,400	1	22,334	4	80,052
WEST VIRGINIA								
MORGANTOWN								
WEST VIRGINIA UNIVERSITY.....	4	49,773	2	30,700			2	19,073
STATE TOTAL.....	4	49,773	2	30,700			2	19,073
WISCONSIN								
MADISON								
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON.....	53	732,766	50	662,651			3	70,115

MILWAUKEE

BLOOD CENTER OF SOUTHEASTERN WISCONSIN.....	1	19,600				1	19,600
MEDICAL COLLEGE OF WISCONSIN.....	2	29,600	2	29,600			
STATE TOTAL.....	56	781,966	52	692,251		4	89,715

PUERTO RICO**SAN JUAN**

UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS.....	4	62,810	1	16,200	3		46,610
UNIVERSITY OF PUERTO RICO RIO PIEDRAS CAMPUS.....	3	52,872			3		52,872
STATE TOTAL.....	7	115,682	1	16,200	6		99,482

OTHER COUNTRIES**AUSTRALIA****CANBERRA**

AUSTRALIAN NATIONAL UNIVERSITY.....	1	16,400	1	16,400			
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KENSINGTON

UNIVERSITY OF NEW SOUTH WALES.....	1	15,000	1	15,000			
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NEWCASTLE

UNIVERSITY OF NEWCASTLE.....	1	10,000	1	10,000			
COUNTRY TOTAL.....	3	41,400	3	41,400			

BELGIUM**BRUSSELS**

CATHOLIC UNIVERSITY OF LOUVAIN.....		3,000		3,000			
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Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
BELGIUM—Continued								
LIEGE								
UNIVERSITY OF LIEGE.....		3,000		3,000				
COUNTRY TOTAL.....		6,000		6,000				
CANADA								
CALGARY								
UNIVERSITY OF CALGARY.....	2	27,600	2	27,600				
HALIFAX								
DALHOUSIE UNIVERSITY.....	1	10,000	1	10,000				
KINGSTON								
QUEEN'S UNIVERSITY AT KINGSTON.....	1	14,200	1	14,200				
MONTREAL								
JEWISH GENERAL HOSPITAL.....	1	13,400	1	13,400				
MC GILL UNIVERSITY.....	1	16,400	1	16,400				
MONTREAL NEUROLOGICAL HOSPITAL.....		3,000		3,000				
TORONTO								
HOSPITAL FOR SICK CHILDREN.....	1	13,800	1	13,800				
UNIVERSITY OF TORONTO.....	2	40,300	2	40,300				

VANCOUVER					
UNIVERSITY OF BRITISH COLUMBIA.....	3	39,400	3	39,400	
COUNTRY TOTAL.....	12	178,100	12	178,100	
DENMARK					
AARHUS					
UNIVERSITY OF AARHUS.....	1	13,945	1	13,945	
COPENHAGEN					
UNIVERSITY OF COPENHAGEN.....	1	14,000	1	14,000	
COUNTRY TOTAL.....	2	27,945	2	27,945	
FRANCE					
GIF-SUR-YVETTE					
NATIONAL CENTER FOR SCIENTIFIC RESEARCH-GIF-SUR-YVETTE LABORATORIES.....		3,000		3,000	
NICE					
NATIONAL INSTITUTE OF HEALTH AND MEDICAL RESEARCH.....	1	10,000	1	10,000	
PARIS					
COLLEGE OF FRANCE.....		3,000		3,000	
LARIBOSIERE HOSPITAL.....	1	13,400	1	13,400	
NATIONAL INSTITUTE OF HEALTH AND MEDICAL RESEARCH.....	1	10,000	1	10,000	
COUNTRY TOTAL.....	3	39,400	3	39,400	
GERMANY FED R					
DUSSELDORF					
UNIVERSITY OF DUSSELDORF.....	1	13,880	1	13,880	
FRANKFURT					
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE-INSTITUTE FOR BRAIN RESEARCH, FRANKFURT.....	1	14,900	1	14,900	

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
GERMANY FED R—Continued								
GIESSEN								
JUSTUS LIEBIG UNIVERSITY OF GIESSEN	1	14,266	1	14,266				
GOTTINGEN								
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE—INSTITUTE FOR BIOPHYSICAL CHEMISTRY		657		657				
HEIDELBERG								
EUROPEAN MOLECULAR BIOLOGY ORGANIZATION		3,000		3,000				
RUPERT CHARLES UNIVERSITY OF HEIDELBERG	1	16,822	1	16,822				
MUNICH								
LUDWIG MAXIMILIAN UNIVERSITY OF MUNICH	1	13,000	1	13,000				
TUBINGEN								
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE—INSTITUTE FOR BIOLOGY	1	13,800	1	13,800				
COUNTRY TOTAL	6	90,325	6	90,325				
ISRAEL								
JERUSALEM								
HEBREW UNIVERSITY OF JERUSALEM		3,770		3,770				
TEL AVIV								
TEL AVIV UNIVERSITY		6,044		6,044				
COUNTRY TOTAL		9,814		9,814				

JAPAN**TOKYO**

UNIVERSITY OF TOKYO.....

COUNTRY TOTAL.....

1 10,000 1 10,000

1 10,000 1 10,000

NETHERLANDS**AMSTERDAM**

CENTRAL INSTITUTE FOR BRAIN RESEARCH.....

UNIVERSITY OF AMSTERDAM.....

1 13,200 1 13,200

1 10,000 1 10,000

GRONINGEN

STATE UNIVERSITY AT GRONINGEN.....

1 13,400 1 13,400

RIJSWIJK

NETHERLANDS CENTRAL ORGANIZATION TNO.....

COUNTRY TOTAL.....

1 14,400 1 14,400

4 51,000 4 51,000

NORWAY**OSLO**

UNIVERSITY OF OSLO.....

COUNTRY TOTAL.....

1 14,652 1 14,652

1 14,652 1 14,652

SWEDEN**LUND**

UNIVERSITY OF LUND.....

3 40,608 3 40,608

STOCKHOLM

CAROLINE INSTITUTE.....

COUNTRY TOTAL.....

5 55,911 5 55,911

8 96,519 8 96,519

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1979—Continued

Area and Organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
SWITZERLAND								
BASEL								
UNIVERSITY OF BASEL.....		3,552		3,552				
BERN								
UNIVERSITY OF BERN.....		424		424				
GENEVA								
UNIVERSITY OF GENEVA.....	1	11,474	1	11,474				
COUNTRY TOTAL.....	1	15,450	1	15,450				
UNITED KINGDOM								
BRIGHTON								
UNIVERSITY OF SUSSEX.....		3,181		3,181				
CAMBRIDGE								
MEDICAL RESEARCH COUNCIL.....	7	95,480	7	95,480				
UNIVERSITY OF CAMBRIDGE.....	5	72,412	5	72,412				
DUNDEE								
UNIVERSITY OF DUNDEE.....	1	10,500	1	10,500				
EDINBURGH								
UNIVERSITY OF EDINBURGH.....	1	13,750	1	13,750				
GLASGOW								
UNIVERSITY OF GLASGOW.....		3,000		3,000				

LONDON

IMPERIAL CANCER RESEARCH FUND.....	1	14,200	1	14,200				
MEDICAL RESEARCH COUNCIL.....	3	44,820	3	44,820				
ROYAL COLLEGE OF SURGEONS OF ENGLAND.....	1	16,599	1	16,599				
UNIVERSITY OF LONDON.....	5	74,525	4	47,218			1	27,307
NORWICH								
JOHN INNES INSTITUTE.....	1	13,993	1	13,993				
OXFORD								
UNIVERSITY OF OXFORD.....	6	83,287	6	83,287				
PLYMOUTH								
MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM.....	1	10,000	1	10,000				
COUNTRY TOTAL.....	32	455,747	31	428,440			1	27,307

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979

Program director		General area of training	Grant number	Dollars
TOTAL, 1,265 GRANTS				117,472,078
ALABAMA				
BIRMINGHAM				
MILES COLLEGE		ZIP CODE 35208		
COBB, BERNICE C	GENERAL MEDICINE AND BIOLOGICAL SCIENCES		1T32 GM07726-01	121,570
ORGANIZATION TOTAL	1	121,570		
UNIVERSITY OF ALABAMA SYSTEM--UNIVERSITY OF ALABAMA IN BIRMINGHAM		ZIP CODE 35294		
ACTON, RONALD T	TUMOR BIOLOGY--MULTIDISCIPLINARY		5T32 CA09128-03	198,965
ACTON, RONALD T	PATHOLOGY OF MEMBRANES AND ORGANELLES		5T32 GM07561-03	70,091
CHRISTENSEN, JERRY	VISUAL SCIENCES		5T32 EY07033-04	39,349
COMPANS, RICHARD W	BASIC MECHANISMS IN VIROLOGY		5T32 AI07150-02	65,241
COMPANS, RICHARD W	VIRAL ONCOLOGY		5T32 CA09202-02	55,928
CONRAD, MARCEL E	CLINICAL AND BASIC STUDIES OF ONCOLOGIC DISORDERS		5T32 CA09293-02	73,631
CURTISS, ROY, III	INFECTIOUS DISEASES		5T32 AI07041-04	105,806
CURTISS, ROY, III	MOLECULAR, CELLULAR AND MEDICAL GENETICS		5T32 GM07090-05	57,054
CURTISS, ROY, III	MOLECULAR CELL BIOLOGY		5T32 GM07164-05	91,122
HALSEY, JAMES H, JR	CEREBROVASCULAR DISEASE		5T32 NS07123-02	46,183
HIRAMOTO, RAYMOND N	MOLECULAR AND CELLULAR AGING		5T32 AG00042-03	63,215
HURST, DAVID C	COMPUTER APPLICATIONS FOR HEALTH PROFESSIONALS		5T15 LM07015-03	162,938
JAMES, THOMAS N	CARDIOLOGY		5T32 HL07327-02	127,945
LINDSEY, J RUSSELL	LABORATORY ANIMAL MEDICINE/COMPARATIVE PATHOLOGY		5T32 RR07003-03	58,631
NAVAR, LUIS G	MINORITY HYPERTENSION		5T32 HL07395-02	53,789
NAVIA, JUAN M	NUTRITION AND ORAL HEALTH		5T32 DE07020-05	93,422
RETIFF, HUGO	CARIES RESEARCH		5T32 DE07026-03	137,402
RODEN, LENNART	BIOCHEMISTRY AND IMMUNOLOGY OF JOINTS, BONE AND SKIN		5T32 AM07069-05	72,372
SCHAFER, JAMES A	PHYSIOLOGY AND PATHOLOGY OF TRANSPORT PROCESSES		5T32 GM07195-05	95,727
STROUD, ROBERT M	ALLERGIC AND IMMUNOLOGIC DISEASES AND BASIC IMMUNITY		5T32 AI07051-04	102,408
ORGANIZATION TOTAL	20	1,771,219		
TALLADEGA				
TALLADEGA COLLEGE		ZIP CODE 35160		
BACON, ARTHUR L	BIOMEDICAL SCIENCES		5T32 GM07660-03	81,771
ORGANIZATION TOTAL	1	81,771		
STATE TOTAL	22	1,974,560		

NOTE: Grants are listed according to the State or country and city of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollar
ARIZONA			
TUCSON			
UNIVERSITY OF ARIZONA	ZIP CODE 85721		
BERNSTEIN, HARRIS.....	MOLECULAR AND CELLULAR ASPECTS OF BIOLOGICAL FUNCTION.....	5T32 GM07239-05	38,641
BRESSLER, RUBIN.....	CLINICAL PHARMACOLOGY.....	5T32 GM07533-03	36,748
GERNER, EUGENE W.....	CANCER BIOLOGY.....	5T32 CA09213-02	30,125
JOHNSON, PAUL C.....	PHYSIOLOGY.....	5T32 HL07249-03	94,516
KNUDSON, RONALD J.....	RESPIRATORY DISEASES.....	5T32 HL07243-03	78,115
ORGANIZATION TOTAL	5 278,145		
STATE TOTAL	5 278,145		
CALIFORNIA			
BERKELEY			
UNIVERSITY OF CALIFORNIA AT BERKELEY	ZIP CODE 94720		
BUDINGER, THOMAS F.....	QUANTITATIVE CARDIOVASCULAR RESEARCH.....	5T32 HL07367-02	88,153
CARPENTER, KENNETH J.....	NUTRITIONAL SCIENCES.....	5T32 AM07291-02	87,556
EBBE, SHIRLEY N.....	HEMOPOIETIC CELLULAR PROLIFERATION AND ITS REGULATION.....	1T32 AM07349-01	56,357
ECHOLS, G HARRISON, JR.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07232-03	398,902
FOGEL, SEYMOUR.....	GENETICS.....	5T32 GM07127-05	109,896
FORTE, GERTRUDE M.....	LIPOPROTEIN METHODOLOGY, STRUCTURE AND FUNCTION.....	5T32 HL07279-03	52,574
LANGER, JONAS.....	DEVELOPMENTAL PSYCHOLOGY.....	1T32 HD07181-01	94,782
LINN, STUART M.....	STUDIES OF ENVIRONMENTAL MUTAGENS AND CARCINOGENS.....	5T32 ES07075-02	102,599
MARGEN, SHELDOIN.....	HUMAN NUTRITION.....	5T32 AM07155-03	37,667
MEL, HOWARD C.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07379-03	345,500
MENDELSON, MORTIMER L.....	CELL CYCLE ANALYSIS: NORMAL AND MALIGNANT CELLS.....	5T32 CA09133-04	11,502
MISHELL, ROBERT I.....	IMMUNOLOGY.....	5T32 CA09179-05	176,577
MORTIMER, ROBERT K.....	RADIATION BIOPHYSICS.....	5T32 CA09272-04	133,954
NANDI, SATYABRATA.....	EXPERIMENTAL BIOLOGY OF CANCER AND ALLIED AREAS.....	5T32 CA09041-05	149,238
STARK, LAWRENCE.....	PHYSIOLOGICAL OPTICS.....	5T32 EY07043-03	82,112
SYME, S LEONARD.....	BEHAVIORAL FACTORS IN CARDIOVASCULAR DISEASE ETIOLOGY.....	5T32 HL07365-02	88,535
WERBLIN, FRANK S.....	NEUROBIOLOGY.....	5T32 GM07048-05	38,718
WINKELSTEIN, WARREN, JR.....	CANCER EPIDEMIOLOGY.....	1T32 CA09348-01	55,125
ORGANIZATION TOTAL	18 2,109,747		
DAVIS			
UNIVERSITY OF CALIFORNIA AT DAVIS	ZIP CODE 95616		
CROSS, CARROLL E.....	PULMONARY DISEASES.....	5T32 HL07013-05	65,057
DUNGWORTH, DONALD L.....	ENVIRONMENTAL PATHOLOGY.....	5T32 ES07055-03	104,662
ENDERS, ALLEN C.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07131-02	30,410
HANSCH, PAUL.....	GENETICS.....	5T32 GM07467-03	140,985
HURLEY, LUCILLE S.....	NUTRITION IN RELATION TO PROBLEMS OF ORAL BIOLOGY.....	5T32 DE07001-05	56,843
PREISS, JACK.....	MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07377-03	178,330
RENKIN, EUGENE M.....	INTEGRATIVE FUNCTIONS OF HIGHER ORGANISMS.....	5T32 GM07416-03	97,283
SEIBER, JAMES N.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07059-02	110,161
STERN, JUDITH S.....	FOOD INTAKE CONTROL—FOCUS ON NUTRITION & BEHAVIOR.....	1T32 AM07355-01	95,769
WATT, KENNETH E.....	SYSTEMS BIOLOGY.....	3T01 ES00101-03S1	1,232
ORGANIZATION TOTAL	10 880,732		
DUARTE			
CITY OF HOPE NATIONAL MEDICAL CENTER	ZIP CODE 91010		
RAPPAPORT, HENRY.....	NEOPLASTIC HEMATOPATHOLOGY.....	5T32 CA09308-02	43,169
ORGANIZATION TOTAL	1 43,169		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717			
GRANGER, GALE A.....	CARCINOGENESIS.....	5T32 CA09054-05	81,228
SCHNEIDERMAN, HOWARD A.....	DEVELOPMENTAL MECHANISMS UNDERLYING CONGENITAL DEFECTS.....	2T32 HD07029-05	92,698
SYPHRD, PAUL S.....	REGULATION OF BIOLOGICAL PROCESSES.....	5T32 GM07134-05	104,512
SYPHRD, PAUL S.....	INFECTIOUS AGENTS AND DISEASE PROCESSES.....	5T32 GM07307-05	63,079
WARNER, ROBERT C.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07311-05	83,103
ORGANIZATION TOTAL	5 424,620		
LA JOLLA			
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
COHN, MELVIN.....	ONCOLOGY RESEARCH.....	5T32 CA09254-04	87,673
ORGANIZATION TOTAL	1 87,673		
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
CROSBY, WILLIAM H.....	INVESTIGATIVE HEMATOLOGY.....	1T32 AM07022-01A2	37,579
DIXON, FRANK J.....	IMMUNOPATHOLOGY.....	5T32 GM07437-03	161,820
FELDMAN, JOSEPH D.....	PATHOGENESIS AND IMMUNOLOGY OF DISEASE.....	5T32 AI07104-03	62,863
HUENNEKENS, FRANK M.....	BIOCHEMISTRY.....	5T32 AM07097-05	74,718
KATZ, DAVID H.....	CELLULAR AND CANCER IMMUNOLOGY.....	5T32 AI07065-03	105,821
MULLER-EBERHARD, HANS J.....	BLOOD SYSTEMS IN COAGULATION AND VESSEL DISEASE.....	5T32 HL07195-04	71,845
VAUGHAN, JOHN H.....	IMMUNOLOGY IN RHEUMATIC DISEASES.....	5T32 AM07144-05	57,155
ORGANIZATION TOTAL	7 571,801		
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
BERNSTEIN, EUGENE F.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07089-05	72,728
BLOOR, COLIN M.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	5T32 HL07104-05	62,010
BRAUDE, ABRAHAM I.....	RESEARCH IN INFECTIOUS DISEASES.....	5T32 AI07036-04	72,436
COVELL, JAMES W.....	CARDIOVASCULAR PHYSIOLOGY AND PHARMACOLOGY.....	1T32 HL07444-01	60,505
DEFTOS, LEONARD J.....	DISEASES OF BONE AND CALCIUM METABOLISM.....	5T32 AM07048-05	39,056
DUTTON, RICHARD W.....	REGULATORY MECHANISMS IN THE IMMUNE RESPONSE.....	5T32 CA09174-05	182,104
FANESTIL, DARRELL D.....	ACADEMIC NEPHROLOGY.....	5T32 AM07249-02	38,761
FANESTIL, DARRELL D.....	HYPERTENSION.....	5T32 HL07261-03	87,336
GEIDUSCHEK, E PETER.....	CELL AND MOLECULAR BIOLOGY.....	5T32 GM07313-05	279,801
GILL, GORDON N.....	EXPERIMENTAL ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07044-02	50,449
GOULIAN, MEHRAN.....	HEMATOLOGY.....	5T32 HL07107-05	45,244
HIGGINS, CHARLES B.....	CARDIOVASCULAR RADIOLOGY.....	1T32 HL07447-01	40,457
HOFMANN, ALAN F.....	GASTROENTEROLOGY.....	5T32 AM07202-04	42,148
HOUGIE, CECIL.....	HEMATOLOGY.....	5T32 HL07059-05	39,583
LAMPERT, PETER W.....	PATHOGENESIS OF VIRUS INDUCED BRAIN DISEASE.....	5T32 NS07078-03	38,418
LINDSLEY, DAN L, JR.....	GENETIC MECHANISMS AND REGULATION.....	5T32 GM07240-05	163,975
MASOUREDIS, SERAFEIM P.....	BLOOD BANKING SCIENCES AND RELATED PROGRAMS.....	5T32 HL07119-05	36,865
MAYER, STEVEN E.....	PHARMACOLOGY.....	1T32 GM07752-01	109,721
MENDELSON, JOHN.....	CANCER RESEARCH.....	5T32 CA09290-02	135,713
MOSER, KENNETH M.....	PULMONARY MEDICINE.....	5T32 HL07022-05	97,708
NESBITT, MURIEL N.....	BASIC AND MEDICAL GENETICS.....	5T32 GM07199-05	113,622
O'BRIEN, JOHN S.....	NEUROBIOLOGY.....	3T32 NS07086-03S1	18,633
SATO, GORDON H.....	BASIC BIOCHEMICAL AND BIOLOGICAL MECHANISMS IN CANCER.....	1T32 CA09345-01	133,776
SEEGMILLER, JARVIS E.....	GENETIC CONTROL OF HUMAN METABOLISM.....	5T32 AM07318-02	71,049
SELVERSTON, ALLEN I.....	NEUROBIOLOGY.....	5T32 GM07153-05	84,824
STEINBERG, DANIEL.....	LIPIDS, LIPOPROTEINS AND ATHEROSCLEROSIS.....	5T32 HL07276-03	94,371
TRAYLOR, TEDDY G.....	HEMOGLOBIN AND BLOOD PROTEIN CHEMISTRY.....	5T32 AM07233-04	115,532
WAHRENBRUCK, ERIC A.....	MEDICAL SCIENTIST.....	5T32 GM07198-05	178,800
WEST, JOHN B.....	PHYSIOLOGICAL BASIS OF PULMONARY DISEASE.....	5T32 HL07212-04	55,304
YEN, SAMUEL S.....	NEUROENDOCRINE CONTROL OF CNS-PITUITARY-GONAD SYSTEM.....	1T32 HD07203-01	38,465
YGUERABIDE, JUAN.....	MEMBRANE BIOLOGY IN RELATION TO DISEASE.....	5T32 GM07169-05	101,629
ZVAIFLER, NATHAN J.....	RHEUMATIC DISEASES.....	5T32 AM07062-05	57,491
ORGANIZATION TOTAL	32 2,758,514		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
LOMA LINDA			
LOMA LINDA UNIVERSITY ZIP CODE 92354			
KUZMA, JAN W.....	CANCER EPIDEMIOLOGY	5T32 CA09175-04	21,258
ORGANIZATION TOTAL	1 21,258		
LOS ANGELES			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LOS ANGELES ZIP CODE 90032			
GUTIERREZ, CARLOS G.....	BIOMEDICAL SCIENCES.....	5T32 GM07646-02	34,554
ORGANIZATION TOTAL	1 34,554		
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048			
SWAN, HAROLD J.....	FUNCTIONAL AND METABOLIC EFFECTS OF CARDIAC ISCHEMIA.....	5T32 HL07380-02	83,308
ORGANIZATION TOTAL	1 83,308		
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027			
HANSON, VIRGIL.....	PEDIATRIC RHEUMATOLOGY.....	5T32 AM07262-03	19,645
ORGANIZATION TOTAL	1 19,645		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
ALFIN-SLATER, ROSLYN B.....	EXPERIMENTAL AND CLINICAL NUTRITION.....	5T32 AM07154-02	43,064
AMSTUTZ, HARLAN C.....	BASIC AND CLINICAL RESEARCH IN JOINT REPLACEMENTS.....	5T32 AM07207-02	58,257
BROWN, JOSIAH.....	ENDOCRINOLOGY AND METABOLISM.....	2T32 AM07094-05	60,213
CLINE, MARTIN J.....	HEMATOLOGY.....	5T32 AM07285-02	74,860
CLINE, MARTIN J.....	ACADEMIC MEDICAL ONCOLOGY.....	1T32 CA09297-01A1	60,584
COBURN, JACK W.....	NEPHROLOGY.....	1T32 AM07270-01A1	41,169
DETELS, ROGER.....	CANCER EPIDEMIOLOGY.....	5T32 CA09142-05	54,439
DETELS, ROGER.....	ENVIRONMENTAL EPIDEMIOLOGY AND STATISTICS.....	5T32 ES07050-02	76,788
DETELS, ROGER.....	NEUROEPIDEMIOLOGY.....	1T32 NS07145-01	22,502
EISERLING, FREDERICK A.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07185-05	318,669
FAHEY, JOHN L.....	CLINICAL AND FUNDAMENTAL IMMUNOLOGY.....	5T32 AI07126-03	89,664
FAHEY, JOHN L.....	TUMOR IMMUNOLOGY.....	3T32 CA09120-03S1	13,939
FAHEY, JOHN L.....	TUMOR IMMUNOLOGY.....	5T32 CA09120-05	188,427
FOX, CHARLES F.....	TUMOR CELL SURFACES AND CHROMOSOMES.....	5T32 CA09056-05	179,795
FOX, CHARLES F.....	A WORKSHOP ON THE PATHOPHYSIOLOGY OF NEOPLASIA.....	1T14 CA09353-01	58,983
GORSKI, ROGER A.....	SYSTEMS AND INTEGRATIVE PHYSIOLOGY WITH COGNATE SCIENCES.....	5T32 GM07191-05	133,105
GREENFIELD, MOSES A.....	MEDICAL PHYSICS.....	5T32 CA09092-05	106,385
GRINNELL, ALAN D.....	CELLULAR NEUROBIOLOGY.....	5T32 NS07101-02	64,285
GROSSMAN, MORTON I.....	GASTROENTEROLOGY.....	5T32 AM07180-04	56,365
HONRUBIA, VICENTE.....	DEVELOPMENTAL NEUROLOGY.....	5T32 NS07059-04	46,580
JENDEN, DONALD J.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07304-05	41,931
MARTINEZ, RAFAEL J.....	BIOCHEMISTRY OF HOST-PARASITE INTERACTIONS.....	5T32 AI07116-02	72,960
MORTON, DONALD L.....	SURGICAL ONCOLOGY.....	5T32 CA09010-05	129,363
NIERLICH, DONALD P.....	GENETIC MECHANISMS.....	5T32 GM07104-05	137,915
SCHUMAKER, VERNE N.....	ATHEROSCLEROSIS RESEARCH.....	5T32 HL07386-02	184,969
SIMMONS, DANIEL H.....	RESPIRATORY DISEASE—BASIC AND CLINICAL RESEARCH.....	5T32 HL07014-04	82,717
SIMMONS, DANIEL H.....	PULMONARY DISEASES.....	5T17 HL07139-05	21,301
STIEHM, E RICHARD.....	PEDIATRIC ALLERGIC DISEASES.....	5T32 AI07008-05	38,017
STRAATSMA, BRADLEY R.....	VISION RESEARCH.....	5T32 EY07026-05	33,265
TARJAN, GEORGE.....	MENTAL RETARDATION.....	5T32 HD07032-03	149,076
VAN LANCKER, JULIEN L.....	MECHANISMS OF CARCINOGENESIS.....	5T32 CA09030-05	127,791
ORGANIZATION TOTAL	31 2,767,378		
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
BESSMAN, SAMUEL P.....	CARDIAC NUTRITION AND PHARMACOLOGY.....	5T32 HL07402-02	68,992
GORDON, IRVING.....	VIROLOGY AND IMMUNOLOGY: MECHANISMS BASIC TO DISEASE.....	5T32 AI07078-02	62,228
GRODINS, FRED S.....	SYSTEMS PHYSIOLOGY AND BIOMEDICAL ENGINEERING.....	5T32 GM07139-05	70,770
GRODINS, FRED S.....	CARDIOPULMONARY BIOMEDICAL ENGINEERING.....	5T32 HL07012-05	34,525
HEIDELBERGER, CHARLES D.....	VIRAL AND CHEMICAL CARCINOGENESIS.....	1T32 CA09320-01A1	58,266

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
HORTON, RICHARD	ENDOCRINE HYPERTENSION AND ENDOCRINOLOGY—METABOLISM	5T32 AM07119-05	39,857
PAUL, RICHARD H	MATERNAL-FETAL MEDICINE	5T32 HD07086-04	124,118
SCHAE, K WARNER	GERONTOLOGY	5T32 AG00037-03	90,660
SLAVKIN, HAROLD C	CRANIOFACIAL BIOLOGY	5T32 DE07006-05	140,092
VAN ARSDOL, MAURICE D, JR	THE DEMOGRAPHY OF AGING	1T32 AG00072-01	36,617
WEINER, LESLIE P	NEUROPATHOLOGY	1T32 NS07149-01	36,504
ORGANIZATION TOTAL	11 762,629		
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
BROKAW, CHARLES J	BIOLOGY AND CHEMISTRY	5T32 GM07616-02	486,177
FENDER, DEREK H	VISUAL SYSTEM	5T32 EY07011-05	39,117
HOROWITZ, NORMAN H	GENETICS	5T32 GM07401-03	123,032
KONISHI, MASAKAZU	BIOLOGY AND ENGINEERING	1T32 GM07737-01	181,349
ORGANIZATION TOTAL	4 829,675		
SAN FRANCISCO			
AMERICAN ACADEMY OF OPHTHALMOLOGY ZIP CODE 94120			
ZIMMERMAN, LORENZ E	OPHTHALMIC PATHOLOGY	5T32 EY07040-03	59,958
ORGANIZATION TOTAL	1 59,958		
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94120			
SCOTT, ALAN B	EYE MOVEMENT DISORDERS	5T32 EY07027-05	33,594
ORGANIZATION TOTAL	1 33,594		
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
BARINGER, J RICHARD	NEUROVIROLOGY	5T32 NS07073-04	33,348
BISHOP, J MICHAEL	THE MOLECULAR ANALYSIS OF TUMOR VIRUSES	5T32 CA09043-05	142,898
BLOIS, MARSDEN S, JR	MEDICAL INFORMATION SCIENCES	5T15 LM07000-05	186,381
BOURNE, HENRY R	CLINICAL PHARMACOLOGY—PHARMACOKINETICS	5T32 GM07546-03	159,757
BOYER, HERBERT W	GENETICS OF EUKARYOTIC AND PROCARYOTIC ORGANISMS	1T32 GM07810-01	31,605
BURKHALTER, ALAN	PHARMACOLOGY—TOXICOLOGY—PHARMACEUTICAL CHEMISTRY	5T32 GM07175-03	124,401
COLERIDGE, JOHN C	HEART AND VASCULAR DISEASES	5T32 HL07192-03	288,171
COMROE, JULIUS H, JR	PULMONARY DISEASES	5T17 HL07159-05	32,877
DIAMOND, IVAN F	MOLECULAR STUDIES OF AGING IN THE NERVOUS SYSTEM	5T32 AG00047-03	87,210
EPSTEIN, CHARLES J	MEDICAL GENETICS	5T32 GM07085-04	65,767
FISKE, MARJORIE E	HUMAN DEVELOPMENT AND AGING	5T32 AG00041-02	38,972
FUKUYAMA, KIMIE	DERMATOLOGY RESEARCH	5T32 AM07175-04	53,061
GANONG, WILLIAM F	NEURAL REGULATION OF ENDOCRINE FUNCTION	5T32 AM07265-03	27,712
GRUMBACH, MELVIN M	PEDIATRIC ENDOCRINOLOGY	5T32 AM07161-04	73,305
HALL, ZACH W	NEUROBIOLOGY	5T32 GM07449-03	35,290
HALL, ZACH W	NEUROSCIENCES	5T32 NS07067-03	55,778
MARTIN, DAVID W, JR	MEDICAL SCIENTIST	5T32 GM07618-02	104,829
MC CARTHY, BRIAN J	MOLECULAR BIOLOGY OF EUKARYOTIC CELLS AND VIRUSES	5T32 CA09270-04	165,208
NADEL, JAY A	LUNG DISEASES—MULTIDISCIPLINARY	5T32 HL07185-03	284,589
OCKNER, ROBERT K	DIGESTIVE DISEASES AND NUTRITION	5T32 AM07007-05	78,115
OSTLER, H BRUCE	OCULAR INFLAMMATORY DISEASE	1T32 EY07058-01	43,314
PHIBBS, RODERIC H	PERINATOLOGY	1T32 HD07162-01	75,784
PHILLIPS, THEODORE L	RADIATION ONCOLOGY	5T32 CA09215-02	53,026
RECTOR, FLOYD C, JR	ACADEMIC NEPHROLOGY AND ELECTROLYTE METABOLISM	5T32 AM07219-04	101,754
SHELDON, GEORGE F	TRAUMA CENTER	5T32 GM07032-05	22,886
SHOHET, STEPHEN B	BLOOD BANKING SCIENCES AND RELATED PROGRAMS	5T32 HL07100-05	78,404
SMUCKLER, EDWARD A	ENVIRONMENTAL PATHOLOGY	1T32 ES07099-01	26,256
THALER, M MICHAEL	PEDIATRIC GASTROENTEROLOGY	5T32 AM07179-03	40,445
TODD, HARRY F, JR	ANTHROPOLOGICAL GERONTOLOGY	5T32 AG00045-03	56,762
WILSON, CHARLES B	BRAIN TUMOR BIOLOGY AND THERAPY	5T32 CA09291-03	39,499
ORGANIZATION TOTAL	30 2,607,404		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
SANTA BARBARA			
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA		ZIP CODE 93106	
CARBON, JOHN A.....	CELLULAR AND MOLECULAR BIOLOGY.....	1T32 GM07621-01A1	20,669
HORVATH, STEVEN M.....	PHYSIOLOGY OF EXERCISE AND STRESS.....	1T32 AG00073-01	92,391
ORGANIZATION TOTAL	2 113,060		
STANFORD			
STANFORD UNIVERSITY		ZIP CODE 94305	
BERNFELD, MERTON R.....	MEMBRANE PATHOBIOLOGY.....	1T32 GM07781-01	150,675
BLASCHKE, TERRENCE F.....	CLINICAL PHARMACOLOGY.....	5T32 GM07065-05	36,206
CLAYTON, DAVID A.....	MEDICAL SCIENTIST.....	5T32 GM07365-04	525,832
COHEN, STANLEY N.....	GENETICS.....	1T32 GM07790-01	120,851
CUTLER, ROBERT W.....	DEVELOPMENTAL NEUROLOGY.....	5T32 NS07012-05	73,136
FARQUHAR, JOHN W.....	CARDIOVASCULAR DISEASE PREVENTION.....	5T32 HL07034-05	47,438
GRAY, GARY M.....	GASTROENTEROLOGY.....	5T32 AM07056-05	38,903
GRUMET, FRANK C.....	BLOOD BANKING AND TISSUE TYPING.....	5T32 HL07127-04	38,217
HANAWALT, PHILIP C.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07276-05	226,972
HARRISON, DONALD C.....	INVESTIGATIVE CARDIOLOGY.....	5T32 HL07265-02	127,500
HELLER, H CRAIG.....	INTEGRATIVE BIOLOGY.....	5T32 GM07181-05	124,245
KALLMAN, ROBERT F.....	CANCER ETIOLOGY, PREVENTION, DETECTION & DIAGNOSIS.....	5T32 CA09302-03	306,522
KORN, DAVID.....	TUMOR BIOLOGY.....	5T32 CA09151-05	84,053
LEHMAN, I ROBERT.....	BIOCHEMISTRY.....	5T32 GM07599-02	170,969
MANSOUR, TAG.....	PHARMACOLOGY.....	5T32 GM07149-05	113,774
MERIGAN, THOMAS C.....	INFECTIOUS DISEASES (MICROBES, DRUGS AND HOST).....	5T32 AI07089-03	39,301
NICHOLLS, JOHN G.....	DEVELOPMENTAL NEUROLOGY.....	1T32 NS07158-01	63,522
REAVEN, GERALD M.....	DIABETES, ENDOCRINOLOGY AND METABOLOGY.....	5T32 AM07217-04	77,800
ROBIN, EUGENE D.....	PULMONARY SCIENTIST.....	5T32 HL07316-02	115,185
ROSENBERG, SAUL A.....	INVESTIGATIVE ONCOLOGY.....	5T32 CA09287-02	61,536
ROSENTHAL, A RALPH.....	BASIC SCIENCES.....	5T32 EY07053-02	57,595
WEXLER, LEWIS.....	CARDIOVASCULAR RADIOLOGY.....	1T32 HL07425-01	42,011
ORGANIZATION TOTAL	22 2,642,243		
TORRANCE			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT--LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER		ZIP CODE 90509	
FISHER, DELBERT A.....	PERINATAL BIOLOGY.....	5T32 HD07013-03	82,426
IMAGAWA, DAVID T.....	PATHOGENESIS AND EPIDEMIOLOGY OF INFECTIOUS DISEASES.....	5T32 AI07014-04	60,012
ODELL, WILLIAM D.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07214-02	58,587
RIMOIN, DAVID L.....	MEDICAL GENETICS.....	5T32 GM07414-03	59,456
WASSERMAN, KARLMAN.....	BIOLOGICAL BASIS OF RESPIRATORY DISEASE.....	5T32 HL07388-02	76,888
ORGANIZATION TOTAL	5 337,369		
STATE TOTAL	185 17,188,331		
COLORADO			
BOULDER			
UNIVERSITY OF COLORADO--UNIVERSITY OF COLORADO AT BOULDER		ZIP CODE 80309	
MC CLEARN, GERALD E.....	BEHAVIORAL PHARMACOGENETICS.....	5T32 GM07305-05	31,959
PORTER, KEITH R.....	BIOMEDICAL SCIENCES (NORMAL AND ABNORMAL DEVELOPMENT).....	5T32 HD07077-03	33,668
PRESCOTT, DAVID M.....	MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07385-03	70,442
SUEOKA, NOBORU.....	MOLECULAR BIOLOGY.....	5T32 GM07135-05	66,793
ORGANIZATION TOTAL	4 202,862		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
COLORADO—Continued			
DENVER			
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER ZIP CODE 80206			
ALEXANDER, A. BARNEY	CONTROL OF AIRWAYS AND RESPIRATION IN LUNG DISEASE	5T32 HL07026-05	32,793
FARR, RICHARD S.	CLINICAL IMMUNOLOGY	5T32 AI00048-05	71,013
ORGANIZATION TOTAL	2 103,806		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO MEDICAL CENTER ZIP CODE 80262			
ALFREY, ALLEN C.	RENAL AND ELECTROLYTE DISEASE & HYPERTENSION	5T32 AM07135-06	37,579
BATTAGLIA, FREDERICK C.	PERINATAL MEDICINE	1T32 HD07186-01	113,868
CLAMAN, HENRY N.	ALLERGY AND IMMUNOLOGY	5T32 AI07166-02	85,096
CROWLE, ALFRED J.	CELLULAR IMMUNOLOGY	5T32 AI07035-04	93,848
CUMMINGS, DONALD J.	MOLECULAR AND CELLULAR PATHOBIOLOGY	5T32 GM07378-03	69,966
EICKHOFF, THEODORE C.	INFECTIOUS DISEASES	5T32 AI07029-04	86,384
GROVER, ROBERT F.	RESPIRATION AND CIRCULATION DURING HYPOXIA	5T32 HL07171-03	69,979
HENDEE, WILLIAM R.	MEDICAL PHYSICS	5T32 CA09073-05	33,008
KERN, FRED, JR.	GASTROINTESTINAL DISEASES	5T32 AM07038-05	40,569
MARTIN, A. ROBERT	NEUROPHYSIOLOGY	1T32 NS07083-01A2	44,871
NIES, ALAN	CLINICAL PHARMACOLOGY	5T32 GM07063-05	92,160
O'BRIEN, DONOUGH	MENTAL RETARDATION	5T32 HD07096-03	99,072
PATTERSON, DAVID	CELL BIOLOGY OF DEVELOPMENTAL ANOMALIES	1T32 HD07197-01	72,793
PETTIJOHN, DAVID E.	HUMAN GENETICS	5T32 GM07342-02	59,604
PETTY, THOMAS L.	MULTIDISCIPLINARY RESPIRATORY DISEASES	5T32 HL07085-05	130,948
PIERCE, G. BARRY	TUMOR BIOLOGY—DEVELOPMENT AND NEOPLASIA	5T32 CA09157-05	67,261
VERNAKAKIS, ANTONIA O.	DEVELOPMENTAL PHARMACOLOGY	5T32 HD07072-04	54,675
WEINER, NORMAN	PHARMACOLOGY	5T32 GM07635-02	84,963
ORGANIZATION TOTAL	18 1,336,644		
FORT COLLINS			
COLORADO STATE UNIVERSITY ZIP CODE 80523			
BEDFORD, JOEL S.	RADIATION BIOLOGY BASIC TO TUMOR THERAPY	5T32 CA09236-04	113,500
NISWENDER, GORDON D.	MAMMALIAN REPRODUCTIVE BIOLOGY	5T32 HD07031-03	59,708
PAUTLER, EUGENE L.	OPHTHALMOLOGY	1T32 EY07064-01	35,112
ORGANIZATION TOTAL	3 208,320		
STATE TOTAL	27 1,851,632		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
BECKER, ELMER L.	BASIC IMMUNOLOGY & IMMUNOLOGIC CELL INJURY	5T32 AI07080-03	61,911
COHEN, STANLEY	IMMUNOPATHOLOGY OF NEOPLASTIC DISEASES	5T32 CA09205-04	139,815
HOYER, LEON W.	HEMATOLOGY	5T32 HL07324-02	39,590
OSBORN, MARY J.	MOLECULAR BIOLOGY AND BIOCHEMISTRY	5T32 GM07407-02	37,676
RAISZ, LAWRENCE G.	ENDOCRINOLOGY AND METABOLISM	5T32 AM07290-02	58,351
TANZER, MARVIN L.	BIOLOGY AND CHEMISTRY OF CONNECTIVE TISSUES	1T32 AM07340-01	38,074
WARD, PETER A.	PATHOGENESIS OF INFLAMMATORY LUNG DISEASES	5T32 HL07202-04	154,121
WEINSTEIN, SAM.	BIENGINEERING AND ORTHODONTICS	5T32 DE07047-03	73,830
ORGANIZATION TOTAL	8 603,368		
NEW HAVEN			
YALE UNIVERSITY ZIP CODE 06520			
BERTINO, JOSEPH R.	MEDICAL ONCOLOGY, HEMATOLOGY, AND PHARMACOLOGY	5T32 CA09200-04	197,951
BINDER, HENRY J.	GASTROENTEROLOGY	5T32 AM07017-03	18,320

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
CONNECTICUT—Continued			
BLACK, FRANCIS L	CENTRAL NERVOUS SYSTEM—VIROLOGICAL INFECTIONS	5T32 NS07036-05	25,849
BOULPAEP, EMILE L	TRANSPORT PROCESSES IN BIOLOGICAL SYSTEMS	5T32 AM07259-03	35,241
BOYER, JAMES L	INVESTIGATIVE HEPATOLOGY	1T32 AM07356-01	55,319
CHANDLER, WILLIAM K	MEMBRANE BIOPHYSICS AND SENSORY MECHANISMS	5T32 NS07102-03	48,114
COHEN, LAWRENCE B	CELLULAR AND PHARMACOLOGICAL BASIS OF ORGAN FUNCTION	5T32 GM07527-03	129,288
COOPER, JACK R	GENERAL PHARMACOLOGY	5T32 GM07324-05	67,943
FELIG, PHILIP	METABOLIC DISEASES AND DIABETES	2T32 AM07058-05	79,265
FISCHER, JAMES J	RADIATION THERAPY, BIOLOGY, AND PHYSICS	5T32 CA09259-02	50,817
FORGET, BERNARD G	RED BLOOD CELL DISEASES, HEMOSTASIS AND BLOOD BANKING	5T32 HL07262-03	75,076
GALL, JOSEPH G	DEVELOPMENTAL BIOLOGY	1T32 HD07180-01	225,765
GERSHON, RICHARD K	INTERDISCIPLINARY IMMUNOLOGY	5T32 AI07019-04	137,641
GILLIS, CHARLES N	LUNG PHARMACOLOGY AND PATHOPHYSIOLOGY	1T32 HL07410-01	53,656
HAYSLETT, JOHN P	PATHOPHYSIOLOGY OF ACUTE AND CHRONIC RENAL DISEASE	5T32 AM07276-02	62,885
HSIUNG, GUEH-DJEN G	CLINICAL VIROLOGY	5T32 AI07018-04	68,712
HUTCHINSON, FRANKLIN	CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07223-05	681,240
JAMIESON, JAMES D	MEDICAL SCIENTIST	5T32 GM07205-05	360,953
KELSEY, JENNIFER L	EPIDEMIOLOGY OF BONE DISEASES	5T32 AM07250-03	24,913
LERNER, AARON B	DERMATOLOGY	5T32 AM07016-05	78,085
MALAWISTA, STEPHEN E	INVESTIGATIVE RHEUMATOLOGY	5T32 AM07107-04	35,020
MARCHESI, VINCENT T	EXPERIMENTAL AND HUMAN PATHOBIOLOGY	5T32 GM07562-03	106,483
OSTFELD, ADRIAN M	CARDIOVASCULAR DISEASE MEASUREMENT	1T32 HL07428-01	45,255
PATTON, CURTIS L	PARASITOLOGY (INTERDISCIPLINARY)	5T32 AI07136-03	50,731
PRUSOFF, WILLIAM H	BIOCHEMICAL ASPECTS OF CANCER CHEMOTHERAPY	5T32 CA09085-05	137,178
REID, TED W	VISUAL SCIENCES	5T32 EY07000-05	146,279
RITCHIE, J MURDOCH	NEUROPHARMACOLOGY	1T32 NS07136-01	49,132
ROOT, RICHARD K	INFECTIOUS DISEASES MICROBIAL AND IMMUNE MECHANISMS	5T32 AI07033-04	61,911
ROSENBERG, LEON E	GENETICS AND MEDICAL SCIENCES	5T32 GM07439-03	137,992
RUDDLE, FRANK H	GENETICS	5T32 GM07499-03	220,530
SCHULTZ, T PAUL	POPULATION AND LABOR	5T32 HD07146-02	89,670
SHOPE, ROBERT E	VIRAL DISEASE MECHANISMS, EPIDEMIOLOGY, AND CONTROL	5T32 AI07098-03	52,074
SLAYMAN, CAROLYN W	CONGENITAL DEFECTS: STRUCTURAL, METABOLIC, BEHAVIORAL	5T32 HD07149-02	121,801
TALNER, NORMAN S	POSTNATAL DEVELOPMENT OF CARDIOVASCULAR FUNCTION	5T32 HL07272-03	65,808
WARSHAW, JOSEPH B	RESEARCH IN PERINATAL MEDICINE	5T32 HD07094-03	75,482
WEISSMAN, SHERMAN M	MOLECULAR AND ONCOLOGIC VIROLOGY	5T32 CA09159-05	118,536
WHITE, COLIN	CANCER EPIDEMIOLOGY AND BIOSTATISTICS	5T32 CA09279-02	107,235
ORGANIZATION TOTAL	37	4,098,150	
STORRS			
UNIVERSITY OF CONNECTICUT ZIP CODE 06268			
GOETINCK, PAUL F	CONTROL MECHANISMS IN CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07219-03	44,555
SPEYER, JOSEPH F	GENETICS	5T32 GM07584-02	20,524
ORGANIZATION TOTAL	2	65,079	
STATE TOTAL	47	4,766,597	
DIST OF COL			
WASHINGTON			
GEORGE WASHINGTON UNIVERSITY ZIP CODE 20052			
MANDEL, H GEORGE	CANCER PHARMACOLOGY	5T32 CA09223-02	38,409
ORGANIZATION TOTAL	1	38,409	
GEORGETOWN UNIVERSITY ZIP CODE 20057			
BELLANTI, JOSEPH A	DEVELOPMENTAL IMMUNOLOGY	1T32 HD07185-01	73,381
LILIENFIELD, LAWRENCE S	VASCULAR CONTROL AND HYPERTENSION	5T32 HL07213-03	143,749
STANDAERT, FRANK G	NEUROPHARMACOLOGY	5T32 GM07443-03	63,994
ORGANIZATION TOTAL	3	281,124	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director		General area of training	Grant number	Dollars
DIST OF COL—Continued				
HOWARD UNIVERSITY		ZIP CODE 20059		
COLEMAN, BERNELL.....	PHYSIOLOGY.....	1T32 GM07800-01	97,863	
CURRY, CHARLES L.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T32 HL07302-03	27,094	
LEAK, LEE V.....	BIOLOGICAL SCIENCES—MULTIDISCIPLINARY.....	1T32 GM07803-01	69,296	
STORM, CARLYLE B.....	BIOCHEMISTRY AND BIOPHYSICAL CYTOLOGY.....	1T32 GM07799-01	105,929	
ORGANIZATION TOTAL	4	300,182		
STATE TOTAL	8	619,715		
FLORIDA				
CORAL GABLES				
UNIVERSITY OF MIAMI		ZIP CODE 33124		
SCHNEIDERMAN, NEIL.....	BEHAVIORAL MEDICINE RESEARCH IN CARDIOVASCULAR DISEASE.....	1T32 HL07426-01	64,221	
ORGANIZATION TOTAL	1	64,221		
GAINESVILLE				
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA		ZIP CODE 32611		
BERNS, KENNETH I.....	BASIC MICROBIOLOGY AND INFECTIOUS DISEASES.....	5T32 AI07110-02	81,403	
ENNEKING, WILLIAM F.....	INVESTIGATIVE MUSCULOSKELETAL PATHOLOGY.....	5T32 AM07141-05	34,844	
ENOCH, JAY M.....	VISUAL SCIENCES—CLINICAL.....	5T32 EY07046-03	45,387	
FREGLY, MELVIN J.....	GENETICS, ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07164-04	40,958	
FREGLY, MELVIN J.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T32 HL07298-03	15,787	
GELATT, KIRK N.....	COMPARATIVE OPHTHALMOLOGY AND VISUAL SCIENCE.....	1T32 EY07060-01	34,190	
HOLLIER, HARRY.....	COMMUNICATION SCIENCES.....	5T32 NS07107-02	37,875	
MC GUIGAN, JAMES E.....	GASTROENTEROLOGY.....	5T32 AM07209-03	37,186	
MOHAMMED, M HAMDI.....	RESTORATIVE BIOMATERIALS RESEARCH.....	5T32 DE07045-04	33,887	
MORELAND, ALVIN F.....	LABORATORY ANIMAL COMPARATIVE MEDICINE.....	5T32 RR07001-03	62,125	
POLACK, FRANK M.....	OPHTHALMOLOGY.....	5T32 EY07012-05	47,677	
SMITH, RICHARD T.....	CELL BIOLOGY AND IMMUNOBIOLOGY OF CANCER.....	5T32 CA09126-05	71,787	
ORGANIZATION TOTAL	12	543,106		
MIAMI				
UNIVERSITY OF MIAMI		ZIP CODE 33101		
ANDERSON, DOUGLAS R.....	OPHTHALMOLOGY.....	5T32 EY07021-05	56,715	
BASSETT, ARTHUR L.....	CARDIOVASCULAR PHARMACOLOGY.....	5T32 HL07188-04	131,358	
BLANK, HARVEY.....	DERMATOLOGY.....	5T32 AM07081-05	48,131	
BOURGOIGNIE, JACQUES J.....	NEPHROLOGY.....	5T32 AM07205-04	19,280	
GELBAND, HENRY.....	CARDIAC ELECTROPHYSIOLOGY.....	1T32 HL07436-01	42,317	
LOEWENSTEIN, WERNER R.....	DEVELOPMENTAL NEUROSCIENCES.....	5T32 NS07044-05	80,515	
MASSARO, DONALD J.....	LUNG BIOCHEMISTRY AND ANATOMY.....	5T32 HL07283-03	122,389	
MINTZ, DANIEL H.....	DIABETES METABOLISM AND ENDOCRINOLOGY.....	1T32 AM07346-01	39,535	
TEJADA, FRANCISCO.....	BASIC AND CLINICAL CANCER RESEARCH.....	5T32 CA09212-02	56,984	
WHELAN, WILLIAM J.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07332-02	69,970	
YUNIS, ADEL A.....	INTERNAL MEDICINE—HEMATOLOGY.....	5T32 AM07114-05	47,653	
ORGANIZATION TOTAL	11	714,847		
MIAMI BEACH				
MOUNT SINAI MEDICAL CENTER		ZIP CODE 33140		
SACKNER, MARVIN A.....	PULMONARY DISEASE.....	5T32 HL07358-02	78,115	
ORGANIZATION TOTAL	1	78,115		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
FLORIDA—Continued			
TALLAHASSEE			
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306			
BEIDLER, LLOYD M	SENSORY PHYSIOLOGY AND BIOPHYSICS	5T32 NS07010-05	53,413
LEYSIEFFER, FREDERICK W	ENVIRONMENTAL HEALTH MEASUREMENT AND STATISTICS	5T32 ES07011-05	200,617
NAM, CHARLES B	POPULATION (MULTIDISCIPLINARY)	5T32 HD07082-03	41,297
ORGANIZATION TOTAL	3 295,327		
STATE TOTAL	28 1,695,616		
GEORGIA			
ATHENS			
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602			
GILES, NORMAN H	GENETICS	5T32 GM07103-05	82,476
ORGANIZATION TOTAL	1 82,476		
ATLANTA			
ATLANTA UNIVERSITY ZIP CODE 30314			
HAMILTON, FRANKLIN D	BIOMEDICAL SCIENCES	1T32 GM07808-01	129,209
ORGANIZATION TOTAL	1 129,209		
ATLANTA UNIVERSITY CENTER ZIP CODE 30310			
FINKELSTEIN, ISABELLA N	BIOMEDICAL SCIENCES	5T32 GM07666-03	180,835
ORGANIZATION TOTAL	1 180,835		
EMORY UNIVERSITY ZIP CODE 30322			
DI GIROLAMO, MARIO	ENDOCRINOLOGY, METABOLISM AND DIABETES	5T32 AM07298-02	70,632
ELSAS, LOUIS	MEDICAL SCIENTIST	5T32 GM07415-03	71,512
MORAN, NEIL C	PHARMACOLOGICAL SCIENCES	5T32 GM07594-02	68,260
NAHMIAS, ANDRE J	BIOLOGY OF OROFACIAL HERPES SIMPLEX VIRUS INFECTION	5T32 DE07074-03	75,469
SHULMAN, NEIL B	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	5T32 HL07305-03	64,641
ORGANIZATION TOTAL	5 350,514		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY ZIP CODE 30332			
HOCHMAN, ROBERT F	DENTAL MATERIALS SCIENCE	5T32 DE07053-04	81,114
ORGANIZATION TOTAL	1 81,114		
AUGUSTA			
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901			
MAHESH, VIRENDRA B	ENDOCRINE AND POPULATION ASPECTS OF REPRODUCTIVE BIOLOGY	5T32 HD07110-02	27,597
ORGANIZATION TOTAL	1 27,597		
SAVANNAH			
UNIVERSITY SYSTEM OF GEORGIA—SAVANNAH STATE COLLEGE ZIP CODE 31404			
NAMBIAR, GOVINDAN K	BIOLOGICAL/PHYSICAL SCIENCES--MATH/PHYSICS	1T32 GM07645-01A1	105,330
ORGANIZATION TOTAL	1 105,330		
STATE TOTAL	11 957,075		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
HAWAII			
HONOLULU			
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
GREENWOOD, FREDERICK C.....	BIOMEDICAL SCIENCES.....	5T32 GM07684-02	72,557
ORGANIZATION TOTAL	1 72,557		
STATE TOTAL	1 72,557		
ILLINOIS			
CHICAGO			
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
FREINKEL, NORBERT.....	METABOLISM.....	5T32 AM07169-04	67,430
GREENER, EVAN H.....	DENTAL MATERIALS SCIENCE.....	5T32 DE07042-04	84,618
LAUTENSCHLAGER, EUGENE P.....	BIOMEDICAL MATERIALS.....	5T32 AM07228-03	13,218
NARAHASHI, TOSHIO.....	PHARMACOLOGY.....	5T32 GM07263-05	77,352
STAMLER, JEREMIAH.....	CARDIOVASCULAR EPIDEMIOLOGY, BIOSTATISTICS, NUTRITION.....	5T32 HL07113-05	48,667
ORGANIZATION TOTAL	5 291,285		
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
SCHAUF, CHARLES L.....	BIOPHYSICS AND CARDIOLOGY.....	5T32 HL07320-02	76,599
ORGANIZATION TOTAL	1 76,599		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
ANASON, BARRY G.....	IMMUNOLOGY OF NERVOUS SYSTEM DISEASES.....	5T32 NS07113-03	100,627
BUTLER, ROBERT A.....	PATHOLOGY OF AUDITORY AND VESTIBULAR SYSTEMS.....	5T32 NS07038-02	37,412
CEITHAML, JOSEPH.....	MEDICAL SCIENTIST.....	5T32 GM07281-05	584,065
DORFMAN, ALBERT.....	GROWTH AND DEVELOPMENT.....	5T32 HD07009-05	121,122
EPSTEIN, WOLFGANG.....	GENETICS AND REGULATION.....	5T32 GM07197-05	313,872
EPSTEIN, WOLFGANG.....	HUMAN AND BIOCHEMICAL GENETICS.....	5T32 GM07543-03	84,250
FITCH, FRANK W.....	IMMUNOLOGY—INTERDISCIPLINARY.....	1T32 AI07090-01A2	60,766
FOZZARD, HARRY A.....	MULTIDISCIPLINARY CARDIAC SCIENCES.....	5T32 HL07381-02	262,414
GETZ, GODFREY S.....	PATHOBIOLOGY.....	5T32 GM07190-05	120,274
GOLDBERG, LEON I.....	CLINICAL THERAPEUTICS.....	5T32 GM07019-05	77,228
GOLDWASSER, EUGENE.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07136-02	143,330
HELLER, ALFRED.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07151-05	188,496
JENSEN, ELWOOD V.....	EXPERIMENTAL ONCOLOGY.....	5T32 CA09183-05	127,483
KIEFF, ELLIOTT D.....	INFECTIOUS DISEASES.....	5T32 AI07099-03	114,032
KITAGAWA, EVELYN M.....	SOCIOLOGICAL CONSEQUENCES OF POPULATION.....	5T32 HD07153-02	68,776
KUCHNIR, FRANCA T.....	MEDICAL PHYSICS IN CANCER DIAGNOSIS AND THERAPY.....	1T32 CA09260-01A1	82,670
NEUGARTEN, BERNICE L.....	ADULT DEVELOPMENT AND AGING.....	5T32 AG00039-03	83,693
REFETOFF, SAMUEL.....	INTEGRATED CLINICAL AND BASIC ENDOCRINOLOGY.....	5T32 AM07011-05	90,175
ROIZMAN, BERNARD.....	VIROLOGY—INTERDEPARTMENTAL.....	1T32 AI07182-01	118,915
ROIZMAN, BERNARD.....	VIRAL ONCOLOGY.....	5T32 CA09241-02	118,435
ROSENBERG, IRWIN H.....	DIGESTIVE DISEASES.....	5T32 GM07074-05	57,131
STRAUSS, BERNARD S.....	ENVIRONMENTAL BIOLOGY.....	5T32 CA09273-02	59,227
SWIFT, HEWSON H.....	CANCER BIOLOGY.....	5T32 CA09267-02	58,943
TAYLOR, EDWIN W.....	MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07183-05	603,469
WISSLER, ROBERT W.....	CARDIOVASCULAR PATHOPHYSIOLOGY AND BIOCHEMISTRY.....	5T32 HL07237-04	155,688
YACHNIN, STANLEY.....	HEMATOLOGY/ONCOLOGY.....	5T32 AM07134-05	57,991
ORGANIZATION TOTAL	26 3,890,484		
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
AMSEL, JONATHAN.....	CANCER EPIDEMIOLOGY.....	5T32 ES07077-02	54,307
GOLDBERG, MORTON F.....	OPHTHALMOLOGY.....	5T32 EY07038-03	100,824
ROSEN, KENNETH M.....	CARDIOLOGY—ARRHYTHMIA.....	5T32 HL07387-02	40,471
SCHULMAN, MARTIN P.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07115-05	56,832
ORGANIZATION TOTAL	4 252,434		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
ILLINOIS—Continued			
EVANSTON			
NORTHWESTERN UNIVERSITY	ZIP CODE 60201		
JACOBS, JOHN E.....	BIOMEDICAL ENGINEERING.....	5T32 GM07350-03	64,875
SCHWARTZ, NEENA B.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07068-02	64,604
SHEMIN, DAVID.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07291-05	107,487
ORGANIZATION TOTAL	3 236,966		
URBANA			
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	ZIP CODE 61801		
DUCOFF, HOWARD S.....	RADIATION BIOPHYSICS & BIOENGINEERING IN ONCOLOGY.....	5T32 CA09067-05	124,661
DZIUK, PHILIP J.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07028-04	62,582
EBREY, THOMAS G.....	PHYSIOLOGY AND BIOCHEMISTRY OF VISION.....	5T32 EY07005-05	52,993
FRIEDMAN, STANLEY.....	COLLABORATIVE PROGRAMS IN PHARMACOLOGY AND TOXICOLOGY.....	5T32 GM07110-05	40,777
HAGER, LOWELL P.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07283-05	356,389
HEATH, JAMES E.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07143-05	64,107
LEVY, ALLAN H.....	COMPUTER SCIENCES (PHYSICIAN).....	5T15 LM07011-03	182,531
ORGANIZATION TOTAL	7 884,040		
STATE TOTAL	46 5,631,808		
INDIANA			
BLOOMINGTON			
INDIANA UNIVERSITY AT BLOOMINGTON	ZIP CODE 47401		
PISONI, DAVID B.....	SENSORY PHYSIOLOGY & BIOPHYSICS.....	1T32 NS07134-01A1	30,772
PUTNAM, FRANK W.....	MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07227-05	119,065
RHOADES, MARCUS M.....	GENETICS.....	1T32 GM07757-01	105,986
ORGANIZATION TOTAL	3 255,823		
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS	ZIP CODE 46202		
BAEHNER, ROBERT L.....	IMMUNOLOGIC AND MORPHOLOGIC STUDY OF PHAGOCYTES.....	5T32 AM07193-04	63,923
BESCH, HENRY R, JR.....	COMPREHENSIVE PHARMACOLOGY OF SPECIAL SYSTEMS.....	1T32 GM07756-01	40,725
BIXLER, DAVID.....	ORAL-FACIAL GENETICS.....	5T32 DE07043-03	76,043
FISCH, CHARLES.....	CARDIOVASCULAR MEDICINE.....	5T32 HL07182-04	72,927
FORNEY, ROBERT B.....	TOXICOLOGY.....	5T32 GM07097-05	30,594
JOHNSTON, CYRUS C, JR.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07293-02	49,181
PALMER, CATHERINE G.....	MEDICAL GENETICS.....	5T32 GM07468-02	94,221
WEINBERGER, MYRON H.....	HYPERTENSION.....	5T32 HL07181-03	60,361
ORGANIZATION TOTAL	8 487,975		
NOTRE DAME			
UNIVERSITY OF NOTRE DAME	ZIP CODE 46556		
BORKOWSKI, JOHN G.....	RESEARCH TRAINING IN MENTAL RETARDATION.....	1T32 HD07184-01	56,184
WEINSTEN, PAUL P.....	EXPERIMENTAL PARASITOLOGY AND VECTOR BIOLOGY.....	5T32 AI07030-04	114,342
ORGANIZATION TOTAL	2 170,526		
WEST LAFAYETTE			
PURDUE UNIVERSITY	ZIP CODE 47907		
CARLSON, DON M.....	BIOCHEMISTRY OF METABOLIC DISEASES.....	1T32 AM07342-01	37,499
GILHAM, PETER T.....	MOLECULAR MECHANISMS OF CELL FUNCTIONS.....	5T32 GM07211-05	153,201
PAK, WILLIAM L.....	VISUAL PHYSIOLOGY AND CHEMISTRY.....	5T32 EY07008-05	77,194

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
INDIANA—Continued			
UMBARGER, H EDWIN	REGULATION OF GENE EXPRESSION	5T32 GM07076-05	94,136
YIM, GEORGE K	PHARMACOLOGY AND TOXICOLOGY	5T32 GM07095-05	52,389
ORGANIZATION TOTAL	5 414,419		
STATE TOTAL	18 1,328,743		
IOWA			
IOWA CITY			
UNIVERSITY OF IOWA	ZIP CODE 52242		
ABBOUD, FRANCOIS M	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	5T32 HL07121-05	238,793
BRODY, MICHAEL J	MECHANISMS OF HYPERTENSION	5T32 HL07393-02	20,029
CHALKLEY, ROGER	MOLECULAR BIOLOGY OF TUMOR CELLS	5T32 CA09119-05	102,474
CHRISTENSEN, JAMES	GASTROENTEROLOGY	5T32 AM07072-05	69,592
CONWAY, THOMAS W	GENETICS	5T32 GM07091-05	68,592
FELLOWS, ROBERT E, JR	MEDICAL SCIENTIST	5T32 GM07337-03	83,729
GRANNER, DARYL K	DIABETES AND ENDOCRINOLOGY	3T32 AM07018-05S1	1,008
GRANNER, DARYL K	DIABETES AND ENDOCRINOLOGY	5T32 AM07018-06	118,012
GRIGSBY, WILLIAM R	BASIC RESEARCH IN PERIODONTOLOGY	5T32 DE07007-04	54,390
HOAK, JOHN C	HEMOSTASIS AND THROMBOSIS	5T32 HL07344-02	69,717
LAUER, RONALD M	PEDIATRIC CARDIOLOGY	5T32 HL07413-02	79,891
LONG, JOHN P	PHARMACOLOGICAL SCIENCES	5T32 GM07069-05	131,748
MENNINGER, JOHN R	CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07228-05	101,581
OSBORNE, JAMES W	BIOMEDICAL RADIOLOGY	5T32 CA09125-05	89,351
PONSETI, IGNACIO V	OSTEOARTHROPATHY	5T32 AM07075-05	44,564
ROBERTS, ROBERT J	CLINICAL PHARMACOLOGY AND TOXICOLOGY	5T32 GM07442-03	40,170
STEINMETZ, PHILIP R	EPITHELIAL TRANSPORT AND RENAL PATHOPHYSIOLOGY	5T32 AM07140-03	34,435
TIPTON, CHARLES M	PHYSICAL EDUCATION SCIENTISTS	5T32 GM07045-02	53,466
WALLACE, ROBERT B	CANCER EPIDEMIOLOGY	5T32 CA09027-05	23,149
ORGANIZATION TOTAL	19 1,424,691		
STATE TOTAL	19 1,424,691		
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS	ZIP CODE 66103		
GRANTHAM, JARED J	IN VITRO STUDIES OF ISOLATED KIDNEY TUBULE PHYSIOLOGY	5T32 AM07065-05	39,057
HUFFMAN, DAVID	CLINICAL PHARMACOLOGY	5T32 GM07041-03	11,171
WALASZEK, EDWARD J	PHARMACOLOGICAL SCIENCES	5T32 GM07044-05	58,119
ORGANIZATION TOTAL	3 108,347		
LAWRENCE			
UNIVERSITY OF KANSAS	ZIP CODE 66045		
BUTTERFIELD, EARL C	MENTAL RETARDATION AND OTHER DEVELOPMENTAL DISABILITIES	5T32 HD07066-04	133,180
HOROWITZ, FRANCES D	DEVELOPMENTAL AND CHILD PSYCHOLOGY	1T32 HD07173-01	155,899
MITSCHER, LESTER A	MEDICINAL CHEMISTRY AND PHARMACOLOGY	1T32 GM07775-01	98,745
STERNSON, LARRY A	CLINICAL DRUG ANALYSIS OF ANTICANCER AGENTS	2T32 CA09242-04	64,430
ORGANIZATION TOTAL	4 452,254		
STATE TOTAL	7 560,601		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
KENTUCKY			
LEXINGTON			
UNIVERSITY OF KENTUCKY	ZIP CODE 40506		
KOTCHEN, THEODORE A	MINORITY HYPERTENSION RESEARCH SUMMER PROGRAM	5T32 HL07390-02	23,272
MARUYAMA, YOSH	RADIATION ONCOLOGY	5T32 CA09040-04	41,183
ORGANIZATION TOTAL	2 64,455		
LOUISVILLE			
UNIVERSITY OF LOUISVILLE	ZIP CODE 40208		
POTTS, ALBERT M	BASIC SCIENCES	5T32 EY07049-03	72,890
ORGANIZATION TOTAL	1 72,890		
STATE TOTAL	3 137,345		
LOUISIANA			
COVINGTON			
TULANE UNIVERSITY	ZIP CODE 70433		
ROBERTS, JAMES A	UROLOGY	5T32 AM07212-04	7,560
ORGANIZATION TOTAL	1 7,560		
NEW ORLEANS			
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS	ZIP CODE 70112		
BERLIN, CHARLES I	AUDITORY PHYSIOLOGY AND ANATOMY	5T32 NS07058-03	54,790
SPITZER, JOHN J	METABOLIC AND MICROBIAL STUDIES IN TRAUMA AND BURNS	5T32 GM07029-05	57,123
SPITZER, JOHN J	CARDIOVASCULAR DYNAMICS AND METABOLISM	5T32 HL07098-05	106,536
ORGANIZATION TOTAL	3 218,449		
TULANE UNIVERSITY	ZIP CODE 70118		
EPPS, ANNA C	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	5T32 HL07299-03	38,132
FISHER, JAMES W	PHARMACOLOGICAL SCIENCES	5T32 GM07177-05	82,769
FRIEDMAN, LORRAINE	MYCOTIC DISEASES AND BASIC MECHANISMS	5T32 AI07152-02	47,930
SALVAGGIO, JOHN E	FIBROTIC AND IMMUNOLOGIC PULMONARY DISEASE	5T32 HL07376-02	123,057
ORGANIZATION TOTAL	4 291,888		
XAVIER UNIVERSITY OF LOUISIANA	ZIP CODE 70125		
MALMSTROM, SISTER MARY C	BIOMEDICAL SCIENCES	1T32 GM07716-01	59,043
ORGANIZATION TOTAL	1 59,043		
STATE TOTAL	9 576,940		
MAINE			
BAR HARBOR			
JACKSON LABORATORY	ZIP CODE 04609		
EICHER, EVA M	GENETICS	5T32 GM07386-02	52,065
KOZAK, LESLIE P	REPRODUCTIVE BIOLOGY	5T32 HD07065-02	51,698
PREHN, RICHMOND T	CANCER BIOLOGY	5T32 CA09217-02	47,284
ORGANIZATION TOTAL	3 151,047		
STATE TOTAL	3 151,047		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director		General area of training	Grant number	Dollars
MARYLAND				
BALTIMORE				
JOHNS HOPKINS UNIVERSITY		ZIP CODE 21218		
AUGUST, J THOMAS	PHARMACOLOGY	5T32 GM07626-02	90,817	
BANG, FREDERIK B	PARASITOLOGY AND MEDICAL ENTOMOLOGY	5T32 AI07168-02	93,399	
BEER, MICHAEL	CELLULAR AND MOLECULAR BIOPHYSICS	5T32 GM07231-05	371,477	
COLE, GERALD A	NEUROVIROLOGY	5T32 NS07077-04	20,785	
CONLEY, C LOCKARD	HEMATOLOGY	5T32 HL07143-05	60,907	
FREEDBERG, IRWIN M	DERMATOLOGY	1T32 AM07324-01	42,631	
GANN, DONALD S	HORMONAL AND CARDIOVASCULAR RESPONSE TO INJURY	5T32 GM07031-05	36,008	
GORDIS, LEON	CARDIOVASCULAR EPIDEMIOLOGY	5T32 HL07024-05	63,665	
GREEN, LAWRENCE W	BEHAVIORAL RESEARCH IN CARDIOVASCULAR RISK REDUCTION	5T32 HL07180-04	209,252	
GURTNER, GAIL H	PULMONARY MEDICINE	5T17 HL07137-05	53,680	
GURTNER, GAIL H	PULMONARY MEDICINE	5T32 HL07199-03	256,927	
HARRINGTON, WILLIAM F	MOLECULAR AND CELLULAR ASPECTS OF DEVELOPMENT	5T32 HD07103-03	81,489	
HENDRIX, THOMAS R	DIGESTIVE DISEASES	5T32 AM07192-04	34,655	
HUANG, RU-CHIH C	AGE-DEPENDENT NUCLEOCYTOPLASMIC INTERACTION	1T32 AG00069-01	72,493	
HUGHES, WALTER T	RESEARCH IN MICROBIAL DISEASES OF INFANTS AND CHILDREN	1T32 AI07195-01	64,800	
JOHNSON, RICHARD T	NEUROVIROLOGY	5T32 NS07000-05	60,645	
LENNARZ, WILLIAM J	BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07445-03	217,254	
LEVIN, JACK	PATHOPHYSIOLOGY OF HEMOSTASIS	1T32 HL07377-01	41,444	
LEVY, DAVID A	PARASITIC INFECTIONS (IMMUNOLOGY, BIOCHEMISTRY)	5T32 AI07057-02	46,312	
MARGOLIS, SIMEON	ENDOCRINOLOGY, DIABETES AND METABOLOGY	5T32 AM07109-05	76,099	
MAYER, MANFRED M	MOLECULAR AND CELLULAR MECHANISMS OF INFLAMMATION	5T32 AI07147-02	71,004	
MIGEON, CLAUDE J	PEDIATRIC ENDOCRINOLOGY AND METABOLISM	5T32 AM07116-05	47,835	
MONEY, JOHN	EPHEBOLOGY AND EPHEBIATRICS	5T32 HD07111-03	61,878	
MURPHY, EDMOND A	MEDICAL GENETICS	5T32 GM07471-03	121,477	
NATHANS, DANIEL	VIRAL CARCINOGENESIS	5T32 CA09139-05	86,240	
NORMAN, PHILIP S	BASIC AND CLINICAL IMMUNOLOGY	5T32 AI07056-04	95,672	
OWENS, ALBERT H, JR	ONCOLOGY—CHEMOTHERAPY, IMMUNOLOGY, BIOLOGY	1T32 CA09071-01A1	46,154	
ROBINSON, CECIL H	ANTICANCER DRUG DEVELOPMENT	5T32 CA09243-02	91,954	
ROBINSON, DAVID A	VISUAL SCIENCES—MULTIDISCIPLINARY	5T32 EY07047-03	95,891	
RUBIN, ROBERT J	ENVIRONMENTAL BIOLOGY AND TOXICOLOGY	5T32 ES07067-02	253,245	
SACHS, MURRAY B	AUDITORY PROCESSES	5T32 NS07049-04	2,172	
SCHRAMM, LAWRENCE P	BIOMEDICAL ENGINEERING	5T32 GM07057-05	100,393	
STRANDBERG, JOHN D	LABORATORY ANIMAL MEDICINE AND PATHOLOGY	5T32 RR07002-03	50,227	
TALALAY, PAUL	MEDICAL SCIENTIST	5T32 GM07309-05	394,591	
TALAMO, RICHARD C	PEDIATRIC ALLERGY AND IMMUNOLOGY	5T32 AI07007-05	36,096	
TS'O, PAUL O	MOLECULAR/CELLULAR STUDIES OF CHEMICAL CARCINOGENESIS	5T32 CA09110-05	112,641	
WAGNER, HENRY N, JR	ONCOLOGY—TRACER PRINCIPLES	5T32 CA09199-02	119,861	
WALKER, W GORDON	NUTRITIONAL AND METABOLIC ASPECTS OF RENAL DISEASE	5T32 AM07145-05	23,841	
WEISFELDT, MYRON L	PATHOPHYSIOLOGY OF MYOCARDIAL DISEASES	5T32 HL07227-04	67,596	
ORGANIZATION TOTAL	39	3,873,507		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE		ZIP CODE 21201		
BARRACLOUGH, CHARLES A	REPRODUCTIVE BIOLOGY	1T32 HD07170-01	60,983	
ORGANIZATION TOTAL	1	60,983		
ROCKVILLE				
TISSUE CULTURE ASSOCIATION		ZIP CODE 20852		
CHAPPLE, PAUL J	CELLULAR AGING: RELATION OF IN VITRO TO IN VIVO AGING	5T32 AG00043-02	44,854	
ORGANIZATION TOTAL	1	44,854		
STATE TOTAL	41	3,979,344		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS			
AMHERST			
UNIVERSITY OF MASSACHUSETTS AT AMHERST ZIP CODE 01002			
HONIGBERG, BRONISLAW M	EXPERIMENTAL PARASITOLOGY	ST32 AI07109-03	50,762
WESTHEAD, EDWARD W, JR.	PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY	ST32 GM07473-03	60,016
ORGANIZATION TOTAL	2 110,778		
BOSTON			
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115			
BRENNER, BARRY M	NEPHROLOGY	ST32 AM07241-03	39,122
COTRAN, RAMZI S	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	ST32 HL07066-05	51,224
INGRAM, ROLAND H, JR.	RESPIRATORY MEDICINE	ST32 HL07010-05	76,667
TRIER, JERRY S	ALIMENTOLOGY	ST32 AM07121-05	56,805
WILLIAMS, GORDON H	HYPERTENSION	ST32 HL07236-04	76,838
WILSON, RICHARD E	SURGICAL ONCOLOGY	ST32 CA09280-02	42,499
ORGANIZATION TOTAL	6 343,155		
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120			
AUSTEN, K FRANK	IMMUNOLOGIC BASIS OF RESISTANCE AND HYPERSENSITIVITY	ST32 AI07167-02	161,128
AUSTEN, K FRANK	MECHANISMS OF ARTHRITIC AND DERMATOLOGIC DISORDERS	ST32 AM07031-05	76,886
ORGANIZATION TOTAL	2 238,014		
BETH ISRAEL HOSPITAL ZIP CODE 02215			
BULL, DAVID M	GASTROENTEROLOGY	ST32 AM07183-04	52,614
EPSTEIN, FRANKLIN H	KIDNEY AND MEMBRANE TRANSPORT AND METABOLISM	ST32 AM07199-03	37,148
ROBINSON, STEPHEN H	HEMATOLOGY	ST32 AM07026-05	60,953
ORGANIZATION TOTAL	3 150,715		
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114			
GERGELY, JOHN	ENERGY METABOLISM OF CARDIAC AND SKELETAL MUSCLE	ST32 HL07266-03	53,740
ORGANIZATION TOTAL	1 53,740		
BOSTON UNIVERSITY ZIP CODE 02215			
BRECHER, PETER I	CARDIOVASCULAR BIOCHEMISTRY	1T32 HL07429-01	48,114
BRODY, JEROME S	PULMONARY BIOCHEMISTRY AND CELL BIOLOGY	ST32 HL07035-05	127,236
CHOBANIAN, ARAM V	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	ST32 HL07308-03	18,692
COHEN, ALAN S	RHEUMATOLOGY	ST32 AM07014-05	34,624
FRANZBLAU, CARL	MULTIDISCIPLINARY RESPIRATORY DISEASES	ST32 HL07052-05	50,671
HOOD, WILLIAM B, JR	BASIC SCIENCE CARDIOVASOLOGY	ST32 HL07224-04	119,179
LEIBOWITZ, HOWARD M	VISION RESEARCH—MULTIDISCIPLINARY	ST32 EY07054-02	129,478
LEVINSKY, NORMAN G	NEPHROLOGY	ST32 AM07053-05	80,844
MELBY, JAMES C	ENDOCRINE AND METABOLIC RESEARCH	ST32 AM07201-04	54,881
PETERS, ALAN	NEUROANATOMY	1T32 NS07152-01	15,164
SINEX, F MAROTT	RESEARCH ON AGING AND THE AGED	1T32 AG00059-01	102,992
SMALL, DONALD M	LIPOPROTEINS & ATHEROSCLEROTIC LESIONS PHYSICAL CHEM	ST32 HL07291-03	50,571
ORGANIZATION TOTAL	12 832,446		
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
FOX, THOMAS O	DEVELOPMENTAL NEUROLOGY	ST32 NS07017-04	33,874
GRAND, RICHARD J	PEDIATRIC GASTROENTEROLOGY	1T32 AM07333-01	48,936
NADAS, ALEXANDER S	CARDIOVASCULAR DISEASE—INFANCY, CHILDHOOD & ADOLESCENCE	ST32 HL07193-02	120,411
NATHAN, DAVID G	HEMATOLOGY	ST32 HL07146-05	97,257
ORGANIZATION TOTAL	4 300,478		
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION ZIP CODE 02114			
DOHLMAN, CLAES H	PHYSIOLOGY AND BIOCHEMISTRY OF CORNEAL DISEASE	ST32 EY07018-05	34,070
SCHEPENS, CHARLES L	VISUAL SCIENCES—INTERDISCIPLINARY	ST32 EY07028-03	70,419
ORGANIZATION TOTAL	2 104,489		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director		General area of training	Grant number	Dollars
MASSACHUSETTS—Continued				
HARVARD UNIVERSITY		ZIP CODE 02115		
ABELMANN, WALTER H.....	CARDIOVASCULAR RESEARCH.....	5T32 HL07374-02	150,855	
ABRAMS, HERBERT L.....	IMAGING METHODS FOR CANCER.....	1T32 CA09341-01	38,187	
ABRAMS, HERBERT L.....	CARDIOVASCULAR RADIOLOGY.....	5T32 HL07334-02	79,024	
BECKWITH, JONATHAN R.....	GENE EXPRESSION REGULATION IN PROKARYOTES & EUKARYOTES.....	5T32 GM07196-05	178,056	
BENACERRAF, BARUJ.....	IMMUNOLOGY.....	5T32 CA09130-05	155,917	
BJARNGARD, BENGT E.....	MEDICAL RADIOLOGICAL PHYSICS.....	5T32 CA09088-05	95,626	
BJARNGARD, BENGT E.....	PHYSICS OF RADIATION THERAPY.....	1T32 CA09234-01A1	36,114	
BUNN, H FRANKLIN.....	HEMATOLOGY.....	5T32 HL07142-05	62,399	
ERBE, RICHARD W.....	GENETICS.....	1T32 GM07748-01	91,343	
FISCHBACH, GERALD D.....	DEVELOPMENTAL NEUROBIOLOGY.....	5T32 NS07009-05	61,193	
FITZPATRICK, THOMAS B.....	DERMATOLOGY.....	5T32 AM07098-05	39,840	
GESCHWIND, NORMAN.....	SENSORY PHYSIOLOGY AND BIOPHYSICS.....	5T32 NS07011-04	17,429	
GEYER, ROBERT P.....	NUTRITION IN CARDIOVASCULAR DISEASES.....	5T32 HL07064-05	19,863	
GLIMCHER, MELVIN J.....	ACADEMIC ORTHOPEDICS.....	5T32 AM07112-03	46,080	
HELLMAN, SAMUEL.....	ACADEMIC RADIOTHERAPY.....	5T32 CA09221-02	41,091	
HORTON, JOHN E.....	PERIODONTIA.....	5T32 DE07010-05	128,332	
HUTCHISON, GEORGE B.....	CANCER EPIDEMIOLOGY.....	5T32 CA09001-05	96,173	
KARNOVSKY, MORRIS J.....	PATHOLOGY.....	5T01 GM01235-15	47,638	
KARNOVSKY, MORRIS J.....	CELLULAR AND DEVELOPMENTAL BIOLOGY.....	5T32 GM07226-05	198,134	
KING, NORVAL W, JR.....	VETERINARY AND COMPARATIVE PATHOLOGY.....	5T32 RR07000-05	68,637	
LITTLE, JOHN B.....	RADIATION BIOLOGY.....	5T32 CA09078-05	130,539	
MEAD, JERE.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	5T32 HL07118-05	101,374	
MONSON, RICHARD R.....	ENVIRONMENTAL EPIDEMIOLOGY.....	5T32 ES07069-03	276,383	
MOORREES, COENRAAD F.....	RESEARCH IN CRANIOFACIAL ANOMALIES.....	5T32 DE07008-04	143,221	
MOSTELLER, FREDERICK.....	BIOMETRY/EPIDEMIOLOGY—BIostatISTICS.....	1T32 CA09337-01	107,901	
O'CONNOR, NICHOLAS E.....	TRAUMA AND BURN RESEARCH.....	5T32 GM07560-03	38,374	
PERLMAN, ROBERT L.....	ENDOCRINOLOGY.....	5T32 AM07337-02	111,068	
POTTER, DAVID D.....	NEUROBIOLOGY.....	5T32 NS07112-03	114,492	
SMITH, THOMAS W.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07049-05	163,051	
SPEIZER, FRANK E.....	CLINICAL EPIDEMIOLOGY OF LUNG AND HEART DISEASE.....	1T32 HL07427-01	99,382	
SWARTZ, MORTON N.....	INFECTIOUS DISEASE AND BASIC MICROBIOLOGICAL MECHANISMS.....	5T32 AI07061-04	149,830	
UNANUE, EMIL R.....	IMMUNOLOGY.....	5T32 CA09141-05	153,347	
WIESEL, TORSTEN N.....	BASIC NEUROBIOLOGICAL SCIENCES.....	5T32 EY07042-03	127,427	
ORGANIZATION TOTAL	33	3,368,320		
JOSLIN DIABETES FOUNDATION		ZIP CODE 02215		
CAHILL, GEORGE F, JR.....	DIABETES AND METABOLISM.....	5T32 AM07260-03	55,568	
ORGANIZATION TOTAL	1	55,568		
MASSACHUSETTS EYE AND EAR INFIRMARY		ZIP CODE 02114		
CHYLACK, LEO T, JR.....	OPHTHALMOLOGY.....	1T32 EY07063-01	119,490	
ORGANIZATION TOTAL	1	119,490		
MASSACHUSETTS GENERAL HOSPITAL		ZIP CODE 02114		
ALPERT, NATHANIEL M.....	RADIOLOGICAL PHYSICS.....	5T32 CA09076-05	71,795	
BLOCH, KURT J.....	IMMUNOLOGY AND IMMUNOPATHOLOGY.....	5T32 AI07040-04	56,509	
BURKE, JOHN F.....	RESEARCH IN BURNS AND TRAUMA.....	5T32 GM07035-05	68,858	
DVORAK, HAROLD F.....	IMMUNOLOGY AND TUMORS.....	5T32 CA09216-02	43,230	
ERBE, RICHARD W.....	DEVELOPMENTAL MEDICINE.....	5T32 HD07092-04	122,517	
GREENBLATT, DAVID J.....	PHARMACOKINETICS IN THE ELDERLY.....	1T32 AG00077-01	16,972	
HABER, EDGAR.....	CARDIOLOGY—MULTIDISCIPLINARY.....	5T32 HL07208-04	76,203	
ISSELBACHER, KURT J.....	GASTROINTESTINAL DISEASE.....	5T32 AM07191-04	102,969	
KAZEIMI, HOMAYOUN.....	PULMONARY PATHOPHYSIOLOGY.....	5T32 HL07354-02	71,555	
KITZ, RICHARD J.....	BASIC SCIENCE RESEARCH—ANESTHESIOLOGY.....	5T32 GM07592-02	91,829	
KRANE, STEPHEN M.....	CONNECTIVE TISSUE STRUCTURE, FUNCTION AND DISEASE.....	5T32 AM07258-03	9,272	
POTTS, JOHN T, JR.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07028-05	120,640	
RUSSELL, PAUL S.....	IMMUNOGENETICS, TRANSPLANTATION, AND TUMOR IMMUNOLOGY.....	5T32 AI07027-04	12,298	
STOSSEL, THOMAS P.....	ONCOLOGY AND HEMATOLOGY.....	5T32 CA09321-02	64,815	
STRAUSS, HARRY W.....	CARDIOVASCULAR NUCLEAR MEDICINE.....	5T32 HL07416-02	87,255	
ORGANIZATION TOTAL	15	1,016,717		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS—Continued			
NEW ENGLAND MEDICAL CENTER HOSPITAL	ZIP CODE 02111		
COHEN, JORDAN J.....	RENAL AND ELECTROLYTE PHYSIOLOGY.....	5T32 AM07078-04	78,109
DESFORGES, JANE F.....	RESEARCH IN BLOOD COMPONENTS.....	5T32 HL07437-02	77,842
FANBURG, BARRY L.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	5T32 HL07053-05	38,840
KAPLAN, MARSHALL M.....	BIOCHEMISTRY AND IMMUNOLOGY OF DIGESTIVE DISEASES.....	5T32 AM07024-04	17,040
NECHELES, THOMAS F.....	CHEMOTHERAPY OF CHILDHOOD MALIGNANCIES.....	5T32 CA09077-05	46,125
REICHLIN, SEYMOUR.....	CLINICAL AND BASIC NEUROENDOCRINOLOGY.....	5T32 AM07039-05	50,570
SCHWARTZ, BERNARD.....	VISUAL SCIENCES.....	5T32 EY07045-03	58,398
ORGANIZATION TOTAL	7 366,924		
NORTHEASTERN UNIVERSITY	ZIP CODE 02115		
ARMINGTON, JOHN C.....	CORRELATIVE METHODS FOR STUDYING VISUAL FUNCTION.....	5T32 EY07036-04	37,834
ORGANIZATION TOTAL	1 37,834		
SIDNEY FARBER CANCER INSTITUTE	ZIP CODE 02115		
FREI, EMIL, III.....	CANCER TREATMENT AND RESTORATIVE CARE.....	5T32 CA09172-05	215,344
ORGANIZATION TOTAL	1 215,344		
TUFTS UNIVERSITY	ZIP CODE 02111		
PARK, JAMES T.....	MOLECULAR BIOLOGY OF BASIC CELL FUNCTIONS.....	5T32 GM07310-05	79,627
ORGANIZATION TOTAL	1 79,627		
TUFTS-NEW ENGLAND MEDICAL CENTER	ZIP CODE 02111		
PIRO, ANTHONY J.....	RADIATION ONCOLOGY.....	5T32 CA09045-05	89,007
ORGANIZATION TOTAL	1 89,007		
CAMBRIDGE			
HARVARD UNIVERSITY	ZIP CODE 02138		
ADELSTEIN, S JAMES.....	MEDICAL SCIENTIST.....	1T32 GM07753-01	467,814
BIGGERS, JOHN D.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07130-02	66,609
GOLDBERG, IRVING H.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07306-05	110,851
GUIDOTTI, GUIDO.....	BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07598-02	445,627
HUANG, ALICE S.....	VIRUS-HOST INTERACTIONS IN CANCER.....	5T32 CA09031-05	152,428
JENKINS, FARISH A, JR.....	BIOLOGY OF THE MUSCULOSKELETAL SYSTEM.....	5T32 GM07117-05	60,393
LEEMAN, SUSAN E.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07258-05	76,388
LOSICK, RICHARD M.....	GENETICS.....	5T32 GM07620-02	205,360
ORGANIZATION TOTAL	8 1,585,470		
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	ZIP CODE 02139		
BRAIDA, LOUIS D.....	AUDITORY PERCEPTION IN NORMAL AND IMPAIRED LISTENERS.....	5T32 NS07099-03	32,158
BROWN, GENE M.....	BIOLOGICAL SCIENCES.....	5T32 GM07287-05	703,990
BUCHI, GEORGE H.....	CARCINOGENESIS AND DRUG DEVELOPMENT.....	5T32 CA09112-05	254,503
EISEN, HERMAN N.....	IMMUNOLOGY.....	5T32 CA09255-02	68,964
HELD, RICHARD M.....	STUDIES OF INTEGRATIVE SYSTEMS.....	5T32 GM07484-03	115,952
MUNRO, HAMISH N.....	BASIC NUTRITION.....	5T32 AM07095-05	80,133
PEAKE, WILLIAM T.....	AUDITORY PHYSIOLOGY.....	5T32 NS07047-03	60,419
SCRIMSHAW, NEVIN S.....	CLINICAL NUTRITION FOR PHYSICIANS.....	5T32 AM07070-04	177,009
SIEBERT, WILLIAM M.....	SYSTEM AND INTEGRATIVE BIOLOGY.....	5T32 GM07301-05	206,264
SINSKEY, ANTHONY J.....	MICROBIOLOGY AND BIOTECHNOLOGY IN DRUG DEVELOPMENT.....	5T32 CA09258-02	32,396
STEVENS, KENNETH N.....	SPEECH SCIENCES.....	5T32 NS07040-05	52,479
WOGAN, GERALD N.....	ENVIRONMENTAL AND FOOD TOXICOLOGY.....	5T32 ES07029-05	155,835
ORGANIZATION TOTAL	12 1,940,102		
WALTHAM			
BRANDEIS UNIVERSITY	ZIP CODE 02154		
HALVORSON, HARLYN O.....	GENETIC AND BIOCHEMICAL MECHANISMS OF REGULATION.....	5T32 GM07122-05	85,822
JENCKS, WILLIAM P.....	BIOMEDICAL SCIENCES.....	5T32 AM07251-03	39,577
LOWENSTEIN, JOHN M.....	BIOLOGICAL STRUCTURE AND FUNCTION.....	5T32 GM07596-02	221,043

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS—Continued			
MACEACHRON, ANN E.....	MENTAL RETARDATION.....	1T32 HD07194-01	122,226
NISONOFF, ALFRED.....	INVESTIGATION OF MECHANISMS IN THE IMMUNE RESPONSE.....	5T32 AI07069-03	46,741
ORGANIZATION TOTAL	5 515,409		
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154			
MC CLUER, ROBERT H.....	MENTAL RETARDATION AND BIOLOGICAL RESEARCH.....	1T32 HD07164-01	37,460
ORGANIZATION TOTAL	1 37,460		
WOODS HOLE			
MARINE BIOLOGICAL LABORATORY ZIP CODE 02543			
GROSS, PAUL R.....	PHYSIOLOGY AND MOLECULAR BIOLOGY.....	1T32 GM07784-01	98,793
GROSS, PAUL R.....	EMBRYOLOGY.....	5T32 HD07098-03	46,654
KRAVITZ, EDWARD A.....	NEUROBIOLOGY.....	1T32 NS07165-01	65,792
ORGANIZATION TOTAL	3 211,239		
WORCESTER			
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER ZIP CODE 01605			
BRAVERMAN, LEWIS E.....	INTERDISCIPLINARY STUDIES OF HORMONE FUNCTION.....	5T32 AM07302-02	76,426
ORGANIZATION TOTAL	1 76,426		
STATE TOTAL	123 11,848,752		
MICHIGAN			
ANN ARBOR			
UNIVERSITY OF MICHIGAN ZIP CODE 48109			
ABBRECHT, PETER H.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07106-05	166,707
ALPERN, MATHEW.....	VISION RESEARCH.....	5T32 EY07022-05	117,752
BEIERWALTES, WILLIAM H.....	NUCLEAR MEDICINE.....	5T32 CA09015-05	120,374
BERNSTEIN, ISADORE A.....	ENVIRONMENTAL BIOLOGY: EPIDERMAL NEO- AND HYPERPLASIA.....	5T32 AM07236-04	33,189
BOLE, GILES G, JR.....	ARTHRITIS RESEARCH SCIENTISTS.....	5T32 AM07080-04	76,211
BREWER, GEORGE J.....	GENETICS.....	5T32 GM07544-02	274,369
COHEN, BENNETT J.....	LABORATORY ANIMAL SCIENCE AND MEDICINE.....	5T32 RR07008-03	72,258
CRAIG, ROBERT G.....	RESTORATIVE DENTAL MATERIALS.....	5T32 DE07057-04	96,988
FAJANS, STEFAN S.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07245-03	74,268
FOLK, WILLIAM R.....	BIOCHEMICAL GENETICS OF TUMOR VIRUS-CELL INTERACTIONS.....	1T32 CA09281-01A1	33,789
HAGEN, JOHN W.....	DEVELOPMENTAL PSYCHOLOGY.....	5T32 HD07109-03	147,819
HAWKINS, JOSEPH E, JR.....	AUDITORY AND VESTIBULAR MECHANISMS AND DISTURBANCES.....	5T32 NS07106-03	585
HERMALIN, ALBERT I.....	POPULATION AND HUMAN ECOLOGY.....	5T32 HD07064-02	122,499
HIGGINS, IAN T.....	RESPIRATORY DISEASES—EPIDEMIOLOGY.....	5T32 HL07337-02	91,270
LEE, RONALD D.....	ECONOMIC DEMOGRAPHY.....	5T32 HD07060-04	104,962
LEVINE, MYRON.....	MOLECULAR AND CELL BIOLOGY—HEALTH SCIENCES.....	5T32 GM07315-05	193,761
MIDGLEY, A REES, JR.....	REPRODUCTIVE ENDOCRINOLOGY.....	5T32 HD07048-05	74,329
NEEL, JAMES V.....	GENETICS.....	5T32 GM07123-05	65,702
SCHORK, MICHAEL A.....	HEART AND VASCULAR DISEASES—BIostatistical.....	5T32 HL07082-04	38,584
SUSSMAN, ALFRED S.....	MEDICINAL CHEMISTRY—INTERDEPARTMENTAL.....	5T32 GM07767-02	226,765
VOORHEES, JOHN J.....	CELL AND MOLECULAR DERMATOLOGY.....	5T32 AM07197-03	49,518
ORGANIZATION TOTAL	21 2,181,699		
DETROIT			
WAYNE STATE UNIVERSITY ZIP CODE 48202			
HARDING, CLIFFORD V.....	CELLULAR BASIS OF OCULAR DISORDERS.....	5T32 EY07034-03	36,357
LEON, MYRON A.....	CANCER IMMUNOLOGY AND VIROLOGY.....	5T32 CA09304-02	59,062
MARKS, BERNARD H.....	PHARMACOLOGY.....	5T32 GM07176-05	54,481

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MICHIGAN—Continued			
PARRISH, CHARLES J	SOCIAL POLICY AND AGING	5T32 AG00002-03	69,665
POLGAR, GEORGE	RESEARCH TECHNIQUES AND THEIR APPLICATION	5T32 HL07228-03	36,735
ROSE, NOEL R	AUTOIMMUNITY	1T32 AI07118-01A2	67,624
ORGANIZATION TOTAL	6 323,924		
EAST LANSING			
MICHIGAN STATE UNIVERSITY ZIP CODE 48823			
BRODY, THEODORE M	PHARMACOLOGY AND TOXICOLOGY	5T32 GM07392-03	79,703
MC CORMICK, J JUSTIN	ENVIRONMENTAL MUTAGENESIS-CARCINOGENESIS	5T32 ES07076-02	34,317
MICHELAKIS, ANDREW M	CLINICAL PHARMACOLOGY	5T32 GM07096-05	32,808
SCOTT, JERRY B	CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY	5T32 HL07404-02	100,849
TROSKO, JAMES E	CARCINOGENESIS	1T32 CA09284-01	31,956
WILLIAMS, JEFFREY F	EXPERIMENTAL PARASITOLOGY	1T32 AI07203-01	47,196
ORGANIZATION TOTAL	6 326,829		
ROCHESTER			
OAKLAND UNIVERSITY ZIP CODE 48063			
REDDY, VENKAT N	OPHTHALMIC PHYSIOLOGY AND BIOCHEMISTRY	5T32 EY07044-03	69,073
ORGANIZATION TOTAL	1 69,073		
STATE TOTAL	34 2,901,525		
MINNESOTA			
DULUTH			
UNIVERSITY OF MINNESOTA AT DULUTH ZIP CODE 55812			
POZOS, ROBERT S	INDIAN RESEARCH CAREERS—PHYSIOLOGY	5T32 GM07680-02	91,021
ORGANIZATION TOTAL	1 91,021		
MINNEAPOLIS			
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL ZIP CODE 55455			
ACKERMAN, EUGENE	HEALTH COMPUTER SCIENCES	2T15 LM00160-06	159,315
BLACKBURN, HENRY W	PREVENTION OF CARDIOVASCULAR DISEASES	5T32 HL07036-03	69,661
CARPENTER, ANNA M	DIABETES RESEARCH	2T32 AM07196-04	49,159
COHN, JAY N	MULTIDISCIPLINARY CARDIOVASCULAR RESEARCH	5T32 HL07184-04	131,057
GOLTZ, ROBERT W	ACADEMIC DERMATOLOGY	5T32 AM07165-04	38,226
HOLMAN, RALPH T	LIPID RESEARCH	5T32 HL07311-02	71,165
JACOB, HARRY S	HEMOGLOBIN AND CELL MEMBRANE RESEARCH	5T32 HL07062-03	82,550
KJELSBERG, MARCUS O	BIOMETRY OF CARDIOVASCULAR CLINICAL TRIALS	5T32 HL07023-05	23,841
KRIVIT, WILLIAM	HEMATOLOGY	5T32 HL07145-05	37,293
KRONENBERG, RICHARD S	MULTIDISCIPLINARY RESEARCH FELLOWSHIP AWARD	5T32 HL07009-04	39,031
LUCAS, RUSSELL V, JR	PEDIATRIC CARDIOLOGY	5T32 HL07359-02	63,456
LUEPKER, RUSSELL V	BEHAVIORAL ASPECTS OF CARDIOVASCULAR DISEASE	5T32 HL07328-02	102,236
MIRKIN, BERNARD L	DEVELOPMENTAL AND PEDIATRIC CLINICAL PHARMACOLOGY	5T32 GM07466-03	41,731
NAJARIAN, JOHN S	IMMUNOLOGY AND ITS RELATION TO SURGERY	5T32 CA09024-05	39,025
OPPENHEIMER, JACK H	DIABETES, ENDOCRINOLOGY, AND METABOLISM	5T32 AM07203-03	58,838
PAPARELLA, MICHAEL M	OTOLARYNGOLOGY	5T32 NS07084-03	35,893
PICK, HERBERT L, JR	CENTER FOR RESEARCH IN HUMAN LEARNING	5T32 HD07151-02	199,279
PLAGEMANN, PETER G	MICROBIOLOGY—CANCER	5T32 CA09138-05	123,565
PORTOGHESE, PHILIP S	MEDICINAL CHEMISTRY	5T32 GM07480-03	46,666
QUIE, PAUL G	INFECTIOUS DISEASES IN PEDIATRICS	5T32 AI07054-03	76,454
SAUERBIER, WALTER	GENETIC MECHANISMS AND REGULATION	5T32 GM07094-05	169,395
SCHACHTELE, CHARLES F	DENTISTRY	5T32 DE07014-05	68,892
SHIDEMAN, FREDERICK E	PHARMACOLOGY, TOXICOLOGY AND ALLIED SCIENCES	5T32 GM07397-03	178,549

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MINNESOTA—Continued			
VERNIER, ROBERT L.....	PEDIATRIC NEPHROLOGY.....	5T32 AM07087-05	97,260
WANNAMAKER, LEWIS W.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07116-05	92,156
WARNER, HUBER R.....	CHEMICAL BASES OF CELL AND MOLECULAR BIOLOGY.....	5T32 GM07323-05	136,929
WILSON, IVAN D.....	DIGESTIVE AND LIVER DISEASES.....	5T32 AM07177-04	48,532
ORGANIZATION TOTAL	27	2,281,154	
ROCHESTER			
MAYO FOUNDATION ZIP CODE 55901			
BROWN, RONALD D.....	HYPERTENSION (MULTIDISCIPLINARY).....	5T32 HL07269-03	115,443
FATHMAN, GARRY C.....	ARTHRITIS.....	5T32 AM07034-05	62,530
GERICH, JOHN E.....	DIABETES AND METABOLISM.....	1T32 AM07352-01	38,527
GLEICH, GERALD J.....	ALLERGIC DISEASES.....	5T32 AI07047-04	59,349
GO, VAY L.....	DIGESTIVE DISEASES—MULTIDISCIPLINARY.....	2T32 AM07198-04	77,053
GORMAN, COLUM A.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07147-04	95,945
HYATT, ROBERT E.....	LUNG DISEASES.....	5T32 HL07222-04	75,828
KNOX, FRANKLYN G.....	KIDNEY DISEASES.....	5T32 AM07013-05	77,831
KOTTKE, BRUCE A.....	ATHEROSCLEROSIS AND NUTRITION.....	5T32 HL07329-02	40,449
MANN, KENNETH G.....	BLOOD BANKING SCIENCES AND RELATING PROGRAMS.....	5T32 HL07069-05	50,810
RYAN, ROBERT J.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07108-03	47,653
TANCREDI, ROBERT G.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07111-05	106,606
TOMASI, THOMAS B, JR.....	TUMOR IMMUNOLOGY.....	5T32 CA09127-05	124,752
ORGANIZATION TOTAL	13	972,776	
STATE TOTAL	41	3,344,951	
MISSISSIPPI			
JACKSON			
JACKSON STATE UNIVERSITY ZIP CODE 39217			
SULLIVAN, RICHARD H.....	BIOMEDICAL SCIENCES.....	5T32 GM07672-03	75,244
ORGANIZATION TOTAL	1	75,244	
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER ZIP CODE 39216			
COLEMAN, THOMAS G.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07600-02	33,719
COLEMAN, THOMAS G.....	SYSTEMS ANALYSIS: THE CIRCULATION AND HYPERTENSION.....	5T32 HL07270-02	70,484
HAYES, A WALLACE.....	TOXICOLOGY.....	5T32 ES07045-03	70,460
KLEIN, RICHARD L.....	HYPERTENSION RESEARCH PROGRAM.....	5T32 HL07392-02	35,742
ORGANIZATION TOTAL	4	210,405	
TOUGALOO			
TOUGALOO COLLEGE ZIP CODE 39174			
MEHROTRA, BHARATI.....	BIOMEDICAL SCIENCES.....	5T32 GM07651-03	63,267
ORGANIZATION TOTAL	1	63,267	
UNIVERSITY			
UNIVERSITY OF MISSISSIPPI ZIP CODE 38677			
GILMORE, W FRANKLIN.....	PHARMACEUTICAL SCIENCES.....	5T32 GM07099-05	53,335
ORGANIZATION TOTAL	1	53,335	
STATE TOTAL	7	402,251	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
MISSOURI			
COLUMBIA			
UNIVERSITY OF MISSOURI-COLUMBIA ZIP CODE 65201			
DAVIS, JAMES O.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07094-05	77,450
EISENSTARK, ABRAHAM.....	GENETICS.....	5T32 GM07494-03	49,827
HARRIS, PATRICK H.....	CARDIOVASCULAR CONTROL IN ALTERED METABOLIC STATES.....	5T32 HL07187-04	32,707
JONES, ALLAN W.....	GENESIS AND MAINTENANCE OF EXPERIMENTAL HYPERTENSION.....	5T32 HL07394-02	9,248
LINDBERG, DONALD A.....	MEDICAL INFORMATION SCIENCE.....	5T15 LM07006-05	135,857
MIDDLETON, CHARLES C.....	LABORATORY ANIMAL MEDICINE.....	5T32 RR07004-03	56,883
SHARP, GORDON C.....	RHEUMATOLOGY.....	1T32 AM07242-01A1	19,473
ORGANIZATION TOTAL	7 381,445		
KANSAS CITY			
UNIVERSITY OF MISSOURI-KANSAS CITY ZIP CODE 64110			
PETERSON, WARREN A.....	ADULT DEVELOPMENT AND AGING—INTERUNIVERSITY.....	1T32 AG00074-01	130,042
ORGANIZATION TOTAL	1 130,042		
SAINT LOUIS			
ST. LOUIS UNIVERSITY ZIP CODE 63103			
GREEN, MAURICE.....	MOLECULAR AND TUMOR VIROLOGY.....	5T32 CA09222-03	28,718
OLSON, ROBERT E.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07050-05	171,923
ORGANIZATION TOTAL	2 200,641		
WASHINGTON UNIVERSITY ZIP CODE 63130			
ALPERS, DAVID H.....	CLINIC/LABORATORY—ACADEMIC GASTROENTEROLOGY.....	5T32 AM07130-05	36,817
ATKINSON, JOHN P.....	IMMUNOLOGY OF CONNECTIVE TISSUE DISEASES.....	5T32 AM07279-03	48
AVIOLI, LOUIS V.....	MINERAL AND SKELETAL METABOLISM.....	5T32 AM07033-05	71,273
BALLINGER, WALTER F, II.....	TRAUMA AND BURNS RESEARCH.....	5T32 GM07602-02	58,416
BANASZAK, LEONARD J.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07067-05	261,801
BAUER, WALTER C.....	TUMOR BIOLOGY—MULTIRESOURCE PROGRAM.....	5T32 CA09118-05	229,915
BOTWINICK, JACK.....	AGING AND DEVELOPMENT.....	5T32 AG00030-03	52,993
COWAN, W MAXWELL.....	VISUAL SCIENCES.....	1T32 EY07057-01	93,506
DAUGHADAY, WILLIAM H.....	DIABETES AND RELATED METABOLIC DISEASES.....	5T32 AM07120-05	109,916
DAVIE, JOSEPH M.....	IMMUNOLOGY AND MEMBRANES.....	5T32 GM07157-05	148,454
EISEN, ARTHUR Z.....	DERMATOLOGY.....	5T32 AM07284-02	36,856
GLASER, LUIS.....	MEDICAL SCIENTIST.....	5T32 GM07200-05	479,240
HUNT, CARLTON C.....	SENSORY PHYSIOLOGY AND BIOPHYSICS.....	5T32 NS07057-04	95,238
JARETT, LEONARD.....	CELL BIOLOGIC APPROACHES TO DIABETES RESEARCH.....	5T32 AM07296-02	98,321
KLAHR, SAULO.....	RENAL DISEASES.....	5T32 AM07126-05	94,171
KOBAYASHI, GEORGE S.....	FUNGAL DISEASES.....	5T32 AI07015-04	65,315
LIEBERMAN, MICHAEL W.....	MECHANISMS OF DISEASE IN ENVIRONMENTAL PATHOLOGY.....	5T32 ES07066-03	231,319
LOWRY, OLIVER H.....	NEUROPHARMACOLOGY RESEARCH.....	5T32 NS07129-02	88,492
MAJERUS, PHILIP W.....	HEMATOLOGY.....	5T32 HL07088-05	124,597
MOLNAR, CHARLES E.....	ANALYTICAL AND COMPUTATIONAL METHODS IN PHYSIOLOGY.....	5T32 GM07564-02	83,504
NEEDLEMAN, PHILIP.....	BLOOD VESSELS & HEART—FUNCTION REGULATION PHARMACOLOGY.....	5T32 HL07275-03	132,740
PARKER, CHARLES W.....	ALLERGY AND IMMUNOLOGY.....	5T32 AI00112-05	79,984
PIERCE, JOHN A.....	PULMONARY SCIENTIST.....	5T32 HL07317-02	94,975
PRENSKY, ARTHUR L.....	DEVELOPMENTAL NEUROLOGY.....	5T32 NS07027-04	58,187
RASKAS, HESCHEL J.....	MOLECULAR VIROLOGY.....	5T32 CA09129-05	100,393
SHANK, ROBERT E.....	NUTRITION.....	5T32 AM07226-03	37,093
SHERMAN, LAURENCE A.....	BLOOD BANKING.....	5T32 HL07038-05	73,268
SHREFFLER, DONALD C.....	IMMUNOLOGY AND IMMUNOGENETICS.....	5T32 AI07163-02	152,841
SOBEL, BURTON E.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07081-05	151,786
ORGANIZATION TOTAL	29 3,341,459		
STATE TOTAL	39 4,053,587		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEBRASKA			
OMAHA			
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105			
METCALF, WILLIAM K.....	DEVELOPMENTAL BASIS OF INFANT MORBIDITY AND MORTALITY.....	5T32 HD07097-03	32,515
ORGANIZATION TOTAL	1 32,515		
STATE TOTAL	1 32,515		
NEW HAMPSHIRE			
HANOVER			
DARTMOUTH COLLEGE ZIP CODE 03755			
SMITH, ROGER P.....	ENVIRONMENTAL TOXICOLOGY.....	1T32 ES07104-01	63,696
VALTIN, HEINZ.....	RENAL AND NEUROHYPOPHYSICAL FUNCTION AND DISEASE.....	5T32 AM07301-02	33,271
ORGANIZATION TOTAL	2 96,967		
STATE TOTAL	2 96,967		
NEW JERSEY			
NEW BRUNSWICK			
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903			
ABOU-SABE, MORAD A.....	GENETICS.....	5T32 GM07129-05	53,685
ORGANIZATION TOTAL	1 53,685		
PISCATAWAY			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL ZIP CODE 08854			
SCHLESINGER, R WALTER.....	VIRAL AND CELLULAR GENOME FUNCTIONS IN CANCER.....	5T32 CA09069-05	137,392
ORGANIZATION TOTAL	1 137,392		
PRINCETON			
PRINCETON UNIVERSITY ZIP CODE 08540			
COALE, ANSLEY J.....	DEMOGRAPHY.....	1T32 HD07163-01	72,048
COX, EDWARD C.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07312-05	201,171
LEVINE, ARNOLD J.....	CANCER.....	5T32 CA09167-05	362,576
NEWTON, AUSTIN.....	GENETICS.....	5T32 GM07388-03	149,564
WORCEL, ABRAHAM.....	GENETICS.....	3T32 GM07625-01S1	3,000
WORCEL, ABRAHAM.....	GENETICS.....	5T32 GM07625-02	101,236
ORGANIZATION TOTAL	6 889,595		
STATE TOTAL	8 1,080,672		
NEW MEXICO			
ALBUQUERQUE			
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131			
GRIEGO, RICHARD J.....	MATHEMATICAL MODELS AND CURRICULA IN BIOLOGY.....	5T32 GM07661-03	67,879
KELSEY, CHARLES A.....	BIOMEDICAL PHYSICS AND RADIOBIOLOGY.....	5T32 CA09278-02	43,485
SOLOMON, SIDNEY.....	HYPERTENSION RESEARCH.....	1T32 HL07435-01	20,574

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEW MEXICO—Continued			
WILLIAMS, RALPH C, JR.....	IMMUNE MECHANISMS IN THE CONNECTIVE TISSUE DISEASES.....	5T32 AM07173-04	72,863
ORGANIZATION TOTAL	4 204,801		
UNIVERSITY PARK			
NEW MEXICO STATE UNIVERSITY LAS CRUCES CAMPUS ZIP CODE 88001			
BERNSTEIN, MARVIN H.....	BIOMEDICAL SCIENCES.....	5T32 GM07667-03	72,590
ORGANIZATION TOTAL	1 72,590		
STATE TOTAL	5 277,391		
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH ZIP CODE 12237			
DODDS, W JEAN.....	COMPARATIVE HEMOSTASIS.....	5T32 HL07173-03	39,916
ORGANIZATION TOTAL	1 39,916		
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208			
ABRAHAM, RAJENDER.....	COMPARATIVE ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07058-02	106,832
LEE, KYU T.....	CARDIOVASCULAR DISEASE RESEARCH.....	5T32 HL07194-04	147,480
REINECKE, ROBERT D.....	ACADEMIC OPHTHALMOLOGY.....	5T32 EY07037-04	50,498
SABA, THOMAS M.....	TRAUMATOLOGY.....	5T32 GM07033-05	99,050
ORGANIZATION TOTAL	4 403,860		
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
BOX, HAROLD C.....	MOLECULAR BIOLOGY OF CATASTROPHIC PROCESSES.....	5T32 ES07057-02	61,279
GRAHAM, SAXON.....	MEDICAL SOCIOLOGY, EPIDEMIOLOGY AND CANCER CONTROL.....	5T32 CA09051-05	56,488
HIGBY, DONALD J.....	CANCER CHEMOTHERAPY.....	5T32 CA09108-05	97,855
MIHICH, ENRICO.....	DRUG DEVELOPMENT AND CANCER THERAPEUTICS.....	5T32 CA09072-05	103,655
PAIGEN, KENNETH.....	MAMMALIAN BIOCHEMICAL GENETICS.....	5T32 GM07093-05	71,379
ORGANIZATION TOTAL	5 390,656		
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
GENCO, ROBERT J.....	PERIODONTAL DISEASES.....	5T32 DE07034-05	271,595
MILGROM, FELIX.....	IMMUNOLOGY.....	5T32 AI07088-03	60,561
MURRAY, DANIEL H.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07145-05	117,936
NOELL, WERNER K.....	EYE PHYSIOLOGY AND BIOCHEMISTRY.....	5T32 EY07019-05	53,945
SOLO, ALAN J.....	DEVELOPMENT OF ANTICANCER DRUGS.....	3T32 CA09166-04S1	10,000
WEISER, MILTON M.....	GASTROINTESTINAL DISEASES.....	1T32 AM07336-01	37,837
ORGANIZATION TOTAL	6 551,874		
COLD SPRING HARBOR			
COLD SPRING HARBOR LABORATORY ZIP CODE 11724			
WATSON, JAMES D.....	NEUROBIOLOGY.....	1T32 NS07163-01	80,520
ZIPSER, DAVID.....	CANCER CELL BIOLOGY AND TUMOR VIROLOGY.....	5T32 CA09311-02	142,667
ORGANIZATION TOTAL	2 223,187		
ITHACA			
CORNELL UNIVERSITY ZIP CODE 14850			
EDELSTEIN, STUART J.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07273-05	363,824
FINK, GERALD R.....	GENETICS.....	1T32 GM07617-01A1	59,605
LEWIS, ROBERT M.....	PATHOBIOLOGY OF AGING.....	5T32 AG00062-02	81,994

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
NESHEIM, MALDEN C.....	NUTRITION.....	5T32 AM07158-04	74,184
SALPETER, MIRIAM M.....	CELLULAR AND MOLECULAR NEUROBIOLOGY.....	5T32 GM07469-03	28,989
WILKINSON, CHRISTOPHER F.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07052-03	169,810
ZILVERSMIT, DONALD B.....	NUTRITIONAL ASPECTS OF ARTERIOSCLEROSIS.....	5T32 HL07245-03	32,008
ORGANIZATION TOTAL	7 810,414		
NEW YORK			
CITY UNIVERSITY OF NEW YORK—CITY COLLEGE OF NEW YORK ZIP CODE 10031			
FISHMAN, MYER M.....	BIOMEDICAL SCIENCES.....	5T32 GM07639-02	73,445
ORGANIZATION TOTAL	1 73,445		
CITY UNIVERSITY OF NEW YORK—GRADUATE SCHOOL AND UNIVERSITY CENTER ZIP CODE 10036			
NELSON, KATHERINE.....	HUMAN DEVELOPMENT.....	1T32 HD07196-01	87,015
ORGANIZATION TOTAL	1 87,015		
CITY UNIVERSITY OF NEW YORK—MEDGAR EVERS COLLEGE ZIP CODE 11225			
PAUL, DENIS F.....	SCIENCE CAREER OPPORTUNITIES.....	5T32 GM07641-03	127,479
ORGANIZATION TOTAL	1 127,479		
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029			
BEATTIE, DIANA S.....	PATHOBIOLOGY OF MEMBRANES AND THEIR FUNCTIONS.....	5T32 GM07036-05	92,300
HERMAN, MICHAEL V.....	CARDIOVASCULOLOGY.....	5T32 HL07347-02	56,746
HIRSCHHORN, KURT.....	MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES.....	5T32 HD07105-03	104,450
HOLLAND, JAMES F.....	CHEMOTHERAPY AND CHEMOIMMUNOTHERAPY.....	5T32 CA09102-05	125,170
KILBURN, KAYE H.....	PATHOGENESIS OF ENVIRONMENTAL LUNG DISEASES.....	1T32 HL07356-01A1	39,057
KRIEGER, DOROTHY T.....	ENDOCRINOLOGY (INTERDISCIPLINARY).....	5T32 AM07027-03	72,326
KRULWICH, TERRY A.....	MEDICAL SCIENTIST.....	5T32 GM07280-03	102,250
MITTAG, THOMAS W.....	BIOMEDICAL SCIENCES—PHARMACOLOGY.....	5T32 GM07163-05	55,395
NICHOLSON, WILLIAM J.....	BIOLOGICAL EFFECTS OF ENVIRONMENTAL AGENTS.....	5T32 ES07010-02	68,942
SAFIR, ARAN.....	COMPUTERS AND MEDICINE.....	5T15 LM07008-05	229,754
SCOTT, WALTER N.....	MULTIDISCIPLINARY EYE DISEASES.....	5T32 EY07014-05	77,818
ORGANIZATION TOTAL	11 1,024,208		
COLUMBIA UNIVERSITY ZIP CODE 10027			
BALAZS, ENDRE A.....	OPHTHALMOLOGY.....	5T32 EY07002-05	91,737
BEYCHOK, SHERMAN.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07216-05	146,030
BRASEL, JO ANNE.....	GROWTH AND DEVELOPMENT.....	5T32 HD07000-05	87,348
BUTLER, VINCENT P, JR.....	IMMUNOLOGY.....	5T32 AI07132-03	47,947
CALDWELL, PETER R.....	MECHANISMS OF LUNG INJURY AND RESPIRATORY FAILURE.....	5T32 HL07018-05	59,030
CHIEN, SHU.....	RHEOLOGY IN CARDIOVASCULAR DISEASES.....	5T32 HL07114-05	115,518
EDELMAN, ISIDORE S.....	STEROID HORMONES; BIOCHEMISTRY AND MOLECULAR BIOLOGY.....	5T32 AM07328-02	107,739
FRANTZ, ANDREW G.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07271-03	60,805
GERSHON, MICHAEL D.....	NEUROBIOLOGY.....	2T32 NS07062-04	91,364
GINSBERG, HAROLD S.....	INFECTIOUS DISEASES—MICROBIOLOGY.....	5T32 AI07161-02	112,159
GLICKMAN, ROBERT M.....	GASTROENTEROLOGY.....	5T32 AM07330-02	118,496
GOODMAN, DE WITT S.....	ARTERIOSCLEROSIS RESEARCH.....	5T32 HL07343-02	157,194
HARBER, LEONARD C.....	PHOTOBIOLOGIC & ENVIRONMENTAL FACTORS IN SKIN DISEASE.....	5T32 AM07171-04	30,579
HOFFMAN, BRIAN F.....	CARDIAC ARRHYTHMIAS: MECHANISMS AND TREATMENT.....	5T32 HL07271-03	110,104
JAGIELLO, GEORGIANA M.....	GENETIC AND HORMONE CONTROL OF GAMETOGENESIS.....	5T32 HD07093-04	46,680
JAMES, L STANLEY.....	PERINATAL MEDICINE AND RESEARCH.....	5T32 HD07017-05	121,687
KING, DONALD W.....	PATHOBIOLOGY.....	5T32 GM07161-05	96,274
KINNEY, JOHN M.....	THE METABOLISM OF TRAUMA.....	1T32 GM07791-01	36,499
KROOTH, ROBERT S.....	GENETICS, DEVELOPMENT AND NUTRITION.....	5T32 GM07088-05	178,203
KROOTH, ROBERT S.....	GENETICS, DEVELOPMENT AND NUTRITION.....	5T32 GM07419-03	75,818
LIEBERMAN, SEYMOUR.....	BIOCHEMISTRY OF REPRODUCTIVE ENDOCRINOLOGY.....	5T32 HD07061-04	31,409
MELLINS, ROBERT B.....	PEDIATRIC PULMONARY RESEARCH.....	1T32 HL07421-01	118,060
RIFKIND, RICHARD A.....	HEMATOLOGY.....	5T32 HL07148-05	54,859
ROSSI, HARALD H.....	RADIATION BIOPHYSICS.....	5T32 CA09053-05	23,236
ROWLAND, LEWIS P.....	CLINICAL NEUROSCIENCES.....	1T32 NS07155-01	40,240

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
SCHACHTER, DAVID.....	MEDICAL SCIENTIST.....	5T32 GM07367-04	336,050
STEIN, ZENA A.....	EPIDEMIOLOGY OF MENTAL RETARDATION RESEARCH.....	5T32 HD07040-04	127,000
WANG, HSUEH-HWA.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07182-05	129,435
WINICK, MYRON.....	NUTRITION.....	5T32 AM07268-02	59,055
ORGANIZATION TOTAL	29 2,810,555		
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021			
BEARN, ALEXANDER G.....	BIOMEDICAL SCIENCES.....	1T32 GM07739-01	399,054
BRISCOE, WILLIAM A.....	PULMONARY DISEASES.....	5T32 HL07233-04	78,896
GRAFSTEIN, BERNICE.....	NEUROPATHOLOGY.....	1T32 NS07138-01	17,528
JAVITT, NORMAN B.....	GASTROENTEROLOGY.....	5T32 AM07142-05	45,643
LARAGH, JOHN H.....	PATHOGENESIS OF HYPERTENSION AND VASCULAR DISEASE.....	5T32 HL07379-02	171,936
MINICK, CHARLES R.....	ARTERIOSCLEROSIS AND MYOCARDIAL DISEASE.....	1T32 HL07423-01	34,323
NACHMAN, RALPH L.....	HEMATOLOGY.....	5T32 HL07029-05	65,076
PLUM, FRED.....	BRAIN METABOLISM & BLOOD FLOW IN EXPERIMENTAL STROKE.....	1T32 NS07141-01	54,648
REIDENBERG, MARCUS M.....	CLINICAL PHARMACOLOGY.....	5T32 GM07488-03	33,268
REIS, DONALD J.....	CENTRAL NEURAL CONTROL OF THE CIRCULATION.....	5T32 HL07378-02	66,312
RIKER, WALTER F, JR.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07547-03	61,712
SHIRES, GEORGE T.....	TRAUMA AND BURN RESEARCH.....	5T32 GM07381-03	35,504
WINDHAGER, ERICH E.....	RENAL FUNCTION IN HEALTH AND DISEASE.....	5T32 AM07152-04	68,393
ORGANIZATION TOTAL	13 1,132,293		
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021			
POSNER, AARON S.....	ORTHOPEDICS.....	5T32 AM07281-02	49,850
ORGANIZATION TOTAL	1 49,850		
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467			
SPAET, THEODORE H.....	HEMATOLOGY.....	5T32 HL07080-05	52,741
SURKS, MARTIN I.....	INVESTIGATIVE ENDOCRINOLOGY.....	5T32 AM07004-05	55,217
ORGANIZATION TOTAL	2 107,958		
NEW YORK BLOOD CENTER ZIP CODE 10021			
MAZUR, ABRAHAM.....	BLOOD BANKING SCIENCES.....	5T32 HL07331-02	80,334
ORGANIZATION TOTAL	1 80,334		
NEW YORK UNIVERSITY ZIP CODE 10003			
ALBERT, ROY E.....	ENVIRONMENTAL ONCOLOGY.....	5T32 ES07081-02	85,480
DEFENDI, VITTORIO.....	CANCER.....	5T32 CA09161-05	229,579
DEFENDI, VITTORIO.....	BASIC PATHOBIOLOGY.....	5T32 GM07552-03	73,012
FRANKLIN, EDWARD C.....	ARTHRITIS.....	5T32 AM07176-04	77,693
KAUFMAN, LLOYD.....	VISION RESEARCH.....	5T32 EY07003-05	50,887
KOPE, ALFRED W.....	IMMUNOLOGY, MICROBIOLOGY, DERMATOPATHOLOGY.....	5T32 AM07190-04	68,669
LIPPMANN, MORTON.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07065-02	130,863
LIPPMANN, MORTON.....	PHYSIOLOGY OF LUNG CLEARANCE.....	5T32 HL07263-03	41,269
SABATINI, DAVID D.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07238-05	131,260
SALTON, MILTON R.....	INFECTIOUS DISEASES AND BASIC MICROBIOLOGICAL MECHANISMS.....	1T32 AI07180-01	99,735
SHELANSKI, MICHAEL L.....	MEDICAL SCIENTIST.....	5T32 GM07308-05	483,958
SILBER, ROBERT.....	HEMATOLOGY.....	5T32 HL07151-05	112,682
ZADUNAISKY, JOSE A.....	PHYSIOLOGY AND BIOCHEMISTRY OF THE EYE.....	5T32 EY07009-05	42,680
ORGANIZATION TOTAL	13 1,627,767		
ROCKEFELLER UNIVERSITY ZIP CODE 10021			
CHOPPIN, PURNELL W.....	MECHANISMS IN VIRUS INFECTION AND TRANSFORMATION.....	5T32 CA09256-04	128,435
KILEJIAN, ARAXIE.....	EXPERIMENTAL PARASITOLOGY.....	1T32 AI07185-01	49,980
MC CARTY, MACLYN.....	BASIC PATHOBIOLOGY.....	5T32 GM07245-05	112,405
PFAFFMANN, CARL.....	BIOLOGICAL BASIS OF BEHAVIOR.....	5T32 GM07524-03	91,512
ORGANIZATION TOTAL	4 382,332		
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021			
BURCHENAL, JOSEPH H.....	CANCER CHEMOTHERAPY.....	5T32 CA09207-03	243,458
CHOI, YONG S.....	IMMUNOLOGY RESEARCH.....	5T32 CA09149-04	263,952

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
GOOD, ROBERT A	IMMUNOBIOLOGY OF AGING	5T32 AG00054-02	83,145
LAUGHLIN, JOHN S.	RADIATION ONCOLOGY	5T32 CA09022-02	59,821
MOORE, MALCOLM A.	HEMATOLOGY	5T32 AM07266-03	92,465
MOORE, MALCOLM A.	TUMOR BIOLOGY	5T32 CA09190-02	32,844
SANDERS, F. KINGSLEY	MOLECULAR BIOLOGY OF CELL REGULATION	5T32 CA09193-02	36,987
SONENBERG, MARTIN	ENDOCRINOLOGY	5T32 AM07313-02	73,732
ORGANIZATION TOTAL	8 886,404		
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
AMASSIAN, VAHE E.	NEUROPHYSIOLOGY	1T32 NS07117-01A1	40,613
FURCHGOTT, ROBERT F.	PHARMACOLOGICAL SCIENCES	5T32 GM07615-02	66,652
MORSE, STEPHEN I.	IMMUNOLOGY	5T32 AI07131-03	28,243
RIEDER, RONALD F.	RESEARCH OF BLOOD DISEASES	5T32 AM07289-02	57,422
ORGANIZATION TOTAL	4 192,930		
YESHIVA UNIVERSITY ZIP CODE 10033			
ARIAS, IRWIN M.	GASTROENTEROLOGY-HEPATOLOGY RESEARCH	5T32 AM07218-04	77,934
BARNETT, HENRY L.	HUMAN DEVELOPMENTAL BIOLOGY	5T32 HD07053-05	130,532
BAUM, STEPHEN G.	MEDICAL SCIENTIST	5T32 GM07288-05	621,369
EDER, HOWARD A.	PLASMA LIPOPROTEINS AND APOPROTEINS	5T32 HL07383-02	58,576
GOLDFISCHER, SIDNEY L.	PATHOBIOLOGY OF CONNECTIVE TISSUE	5T32 GM07168-05	59,966
HAYS, RICHARD M.	NEPHROLOGY—MULTIDISCIPLINARY	5T32 AM07089-05	100,407
HORWITZ, SUSAN B.	PHARMACOLOGICAL SCIENCES	5T32 GM07260-05	109,261
HURWITZ, JERARD	VIRAL ONCOLOGY & TUMOR BIOLOGY	5T32 CA09060-05	263,697
HURWITZ, JERARD	BIOMEDICAL SCIENCES	5T32 GM07491-03	166,048
JAFFE, ERNST R.	RESEARCH IN RED BLOOD CELL DISEASES	5T32 AM07294-02	38,699
KLINGER, HAROLD P.	MEDICAL GENETICS	5T32 GM07001-05	121,288
JILLY, FRANK	IMMUNOLOGY AND IMMUNOONCOLOGY	5T32 CA09173-05	262,987
MARCUS, DONALD M.	ARTHRITIS & BONE DISEASES	5T32 AM07273-03	40,189
MARMUR, JULIUS	GENETICS AND BIOCHEMISTRY OF CELLULAR REGULATION	5T32 GM07128-05	125,432
RAINE, CEDRIC S.	EXPERIMENTAL NEUROPATHOLOGY	5T32 NS07098-02	102,952
ROSEN, ORA M.	DIABETES MELLITUS AND METABOLIC DISEASES	5T32 AM07329-02	100,567
SCARPELLI, EMILE M.	MULTIDISCIPLINARY RESPIRATORY DISEASES	5T32 HL07060-05	89,105
SCHEUER, JAMES	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	5T32 HL07071-05	218,130
SEIFTER, SAM.	BIOCHEMISTRY OF CELLULAR AGING	5T32 AG00052-02	79,201
SHAPIRO, LUCILLE	DEVELOPMENTAL BIOLOGY OF HORMONAL RESPONSE SYSTEMS	1T32 HD07154-01	110,105
SPITZER, ADRIAN	DEVELOPMENTAL RENAL AND ELECTROLYTE PHYSIOLOGY	5T32 AM07110-04	58,405
STEIGBIGEL, NEAL H.	INFECTIOUS DISEASES—MICROBIOLOGY AND IMMUNOLOGY	1T32 AI07183-01	122,704
TERRY, ROBERT D.	SENILE DEMENTIA—BIOLOGICAL AND BEHAVIORAL	5T32 AG00004-05	85,871
ORGANIZATION TOTAL	23 3,143,425		
ROCHESTER			
EASTMAN DENTAL CENTER ZIP CODE 14620			
ZANDER, HELMUT A.	PERIODONTAL DISEASE	5T32 DE07061-03	70,995
ORGANIZATION TOTAL	1 70,995		
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
DI STEFANO, VICTOR	PHARMACOLOGICAL SCIENCES	5T32 GM07141-05	189,919
HOROWICZ, PAUL	SYSTEMS & INTEGRATIVE BIOLOGY	5T32 GM07136-05	175,730
HYDE, RICHARD W.	PULMONARY DISEASES—MULTIDISCIPLINARY	5T32 HL07216-04	106,490
LATIES, VICTOR G.	ENVIRONMENTAL TOXICOLOGY	5T32 ES07026-02	295,029
LEDDY, JOHN P.	IMMUNOLOGY AND INFECTIOUS DISEASES	1T32 AI07169-01	116,891
LICHTMAN, MARSHALL A.	HEMATOLOGY	5T32 HL07152-05	74,608
NEUMAN, WILLIAM F.	CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07230-05	212,526
ROWLEY, PETER T.	GENETICS	5T32 GM07098-03	63,287
YOUNG, DONALD A.	INVESTIGATIVE ENDOCRINOLOGY AND METABOLISM	5T32 AM07092-05	34,814
YOUNG, FRANK E.	MOLECULAR BASIS OF HOST PARASITE INTERACTION	5T32 AI07137-03	145,011
YOUNG, FRANK E.	GENETICS AND REGULATION	5T32 GM07102-05	222,820
YOUNG, FRANK E.	MEDICAL SCIENTIST	5T32 GM07356-04	352,678

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
YU, PAUL N.....	CARDIOLOGY	5T32 HL07220-03	60,361
ORGANIZATION TOTAL	13 2,050,164		
STONY BROOK			
STATE UNIVERSITY OF NEW YORK AT STONY BROOK		ZIP CODE 11794	
ARNHEIM, NORMAN	MOLECULAR BIOLOGY	5T32 GM07212-05	76,660
GROLLMAN, ARTHUR P.....	PHARMACOLOGICAL SCIENCES	5T32 GM07518-03	48,736
KATES, JOSEPH R.....	VIRAL ONCOLOGY.....	5T32 CA09176-05	227,437
WITKOVSKY, PAUL.....	SENSORY TRANSDUCTION AND NEURAL PROCESSING IN VISION.....	5T32 EY07039-04	64,074
ORGANIZATION TOTAL	4 416,907		
SYRACUSE			
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER		ZIP CODE 13210	
STREETEN, DAVID H.....	ENDOCRINOLOGY.....	5T32 AM07146-05	30,175
WEINER, IRWIN M.....	PHARMACOLOGICAL SCIENCES	5T32 GM07066-05	46,029
ORGANIZATION TOTAL	2 76,204		
TROY			
RENSSELAER POLYTECHNIC INSTITUTE		ZIP CODE 12181	
KATZ, J LAWRENCE	DENTAL MATERIALS.....	5T32 DE07054-04	55,420
ORGANIZATION TOTAL	1 55,420		
UPTON			
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY		ZIP CODE 11973	
SETLOW, RICHARD B.....	ENVIRONMENTAL AND GENETIC FACTORS IN NEOPLASIA	5T32 CA09121-05	151,441
ORGANIZATION TOTAL	1 151,441		
UTICA			
MASONIC FOUNDATION FOR MEDICAL RESEARCH AND HUMAN WELFARE		ZIP CODE 13501	
MOE, GORDON K.....	EXPERIMENTAL CARDIOLOGY	5T32 HL07254-03	16,130
ORGANIZATION TOTAL	1 16,130		
STATE TOTAL	160 16,983,163		
NORTH CAROLINA			
CHAPEL HILL			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL		ZIP CODE 27514	
BROMBERG, PHILIP A.....	RESPIRATORY DISEASES—MULTIDISCIPLINARY.....	5T32 HL07106-05	50,047
CLYDE, WALLACE A, JR.....	CHILDHOOD AND ADULT INFECTIOUS DISEASES.....	5T32 AI07151-02	80,097
DAVIS, CLARENCE E.....	CARDIOVASCULAR DISEASE—STATISTICS AND EPIDEMIOLOGY.....	5T32 HL07005-05	70,959
GOTTSCALK, CARL W.....	KIDNEY AND MEMBRANE PHYSIOLOGY AND DISEASE.....	5T32 AM07047-05	81,440
GRAHAM, JOHN B.....	GENETICS.....	5T32 GM07092-05	126,117
GRAHAM, JOHN B.....	GENETICS.....	5T32 GM07121-05	97,832
GRAHAM, JOHN B.....	EXPERIMENTAL HEMATOLOGY.....	5T32 HL07255-03	67,730
GREGG, JOHN M.....	MECHANISMS AND CONTROL OF CRANIOFACIAL PAIN.....	5T32 DE07018-04	83,921
KUPPER, LAWRENCE L.....	BIOSTATISTICAL RESEARCH—ENVIRONMENTAL HEALTH.....	5T32 ES07018-03	118,200
LIPTON, MORRIS A.....	MENTAL RETARDATION—INTERDISCIPLINARY.....	1T32 HD07201-01	47,565
MANIRE, G PHILIP.....	TUMOR BIOLOGY.....	5T32 CA09057-05	64,304
MC KINNEY, JAMES D.....	MENTAL RETARDATION.....	1T32 HD07178-01	93,266
MORELL, PIERRE.....	NEUROBIOLOGY.....	1T32 NS07166-01	54,523
PAGANO, JOSEPH S.....	BASIC MECHANISMS OF VIRAL AND CHEMICAL CARCINOGENESIS.....	5T32 CA09156-05	101,849

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
NORTH CAROLINA—Continued			
ROBERTS, HAROLD R	HEMATOLOGY	5T32 HL07149-05	42,433
SPARLING, PHILIP F	NORTH CAROLINA VENEREAL DISEASE PROGRAM	2T32 AI07001-04	55,701
STOVER, BETSY J	PHARMACOLOGICAL SCIENCES	5T32 GM07040-05	79,168
TYROLER, HERMAN A	ENVIRONMENTAL EPIDEMIOLOGY	5T32 ES07036-03	112,192
TYROLER, HERMAN A	CARDIOVASCULAR EPIDEMIOLOGY AND STATISTICS	5T32 HL07055-05	80,451
UDRY, J RICHARD	POPULATION STUDIES	1T32 HD07168-01	167,966
VAN WYK, JUDSON J	ENDOCRINOLOGY AND METABOLISM	5T32 AM07129-05	92,422
WELLS, H BRADLEY	POPULATION STATISTICS	5T32 HD07102-03	104,251
ORGANIZATION TOTAL	22 1,872,434		
CHARLOTTE			
JOHNSON C. SMITH UNIVERSITY ZIP CODE 28216			
CHOPRA, BALDEO K	MICROBIOLOGY, BIOCHEMISTRY & BIOPHYSICS	5T32 GM07652-03	98,932
ORGANIZATION TOTAL	1 98,932		
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
AMOS, D BERNARD	TUMOR IMMUNOLOGY AND IMMUNOGENETICS	5T32 CA09058-05	188,521
AMOS, D BERNARD	MEDICAL GENETICS	5T32 GM07003-04	63,135
BUCKLEY, REBECCA H	ALLERGY AND CLINICAL IMMUNOLOGY	5T32 AI07062-03	75,464
GILLHAM, NICOLAS W	GENETICS	1T32 GM07754-01A1	77,804
GOLDSMITH, LOWELL A	DERMATOLOGY	5T32 AM07093-05	58,529
HILL, ROBERT L	MEDICAL SCIENTIST	5T32 GM07171-05	538,295
HILL, ROBERT L	ORGANIZATION AND FUNCTIONS OF CELLULAR STRUCTURES	5T32 GM07184-05	337,052
JOKLIK, WOLFGANG K	BASIC MECHANISMS IN INFECTIOUS DISEASES	5T32 AI07148-02	82,077
JOKLIK, WOLFGANG K	VIRAL ONCOLOGY	5T32 CA09111-05	300,157
LASZLO, JOHN	CANCER CHEMOTHERAPY	5T32 CA09307-02	125,605
LEBOVITZ, HAROLD E	ENDOCRINOLOGY AND DIABETES	5T32 AM07012-05	32,573
LYNN, WILLIAM S	ENVIRONMENT AND THE LUNGS: TOXINS AND MEDIATORS	5T32 ES07031-02	116,049
MADDOX, GEORGE L	BEHAVIOR & PHYSIOLOGY IN AGING	2T32 AG00029-04	116,703
MENZEL, DANIEL B	TRANSFORMATION AND BIOLOGICAL EFFECTS OF TOXICANTS	5T32 ES07002-05	91,076
MOORE, JOHN W	BIOLOGICAL SYSTEMS	5T32 GM07046-05	143,201
OTTOLENGHI, ATHOS	PHARMACOLOGICAL SCIENCES	5T32 GM07105-05	128,546
PILKINGTON, THEO C	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	5T32 HL07063-04	118,624
ROBERTSON, J DAVID	BIOLOGICAL MEMBRANE STUDIES	5T32 GM07403-03	146,209
ROBINSON, ROSCOE R	KIDNEY STRUCTURE AND FUNCTION IN HEALTH AND DISEASE	5T32 AM07308-02	57,839
ROSATI, ROBERT A	BIOMEDICAL COMMUNICATIONS	5T15 LM07003-05	148,213
ROSSE, WENDELL F	BLOOD BANKING SCIENCES AND RELATED PROGRAMS	5T32 HL07057-05	78,647
TYOR, MALCOLM P	DIGESTIVE DISEASES	5T32 AM07166-04	58,587
VOGEL, F STEPHEN	BIOLOGICAL APPROACHES TO DEMENTIA	5T32 AG00007-05	53,689
WALLACE, ANDREW G	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	5T32 HL07101-05	232,201
WYNGAARDEN, JAMES B	METABOLIC AND RHEUMATIC DISEASES	5T32 AM07015-05	57,405
ORGANIZATION TOTAL	25 3,426,201		
GREENSBORO			
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY ZIP CODE 27411			
DE LAUDER, WILLIAM B	BIOMEDICAL SCIENCES	1T32 GM07649-01A1	109,252
ORGANIZATION TOTAL	1 109,252		
RALEIGH			
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH ZIP CODE 27607			
GUTHRIE, FRANK E	MOLECULAR AND ENVIRONMENTAL TOXICOLOGY	5T32 ES07046-03	75,285
ORGANIZATION TOTAL	1 75,285		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director		General area of training	Grant number	Dollars
NORTH CAROLINA—Continued				
WINSTON-SALEM				
WAKE FOREST UNIVERSITY		ZIP CODE 27109		
CLARKSON, THOMAS B.....	LABORATORY ANIMAL AND COMPARATIVE MEDICINE.....	5T32 RR07009-03	79,599	
HUTCHINS, PHILLIP M.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T32 HL07304-03	25,904	
MYRVIK, QUENTIN N.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	5T32 HL07117-05	57,446	
ST CLAIR, RICHARD W.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07115-05	113,048	
ORGANIZATION TOTAL	4 275,997			
STATE TOTAL	54 5,858,101			
OHIO				
CINCINNATI				
CHILDREN'S HOSPITAL MEDICAL CENTER		ZIP CODE 45229		
KAPLAN, SAMUEL.....	CARDIOVASCULAR DISEASE OF THE YOUNG.....	5T32 HL07417-02	39,649	
LAMPKIN, BEATRICE C.....	PEDIATRIC HEMATOLOGY-ONCOLOGY.....	1T32 CA09148-01A2	61,841	
WEST, CLARK D.....	PEDIATRIC NEPHROLOGY RESEARCH.....	5T32 AM07051-04	55,109	
ZIMMERMAN, ERNEST F.....	TERATOLOGY.....	5T32 ES07051-03	52,942	
ORGANIZATION TOTAL	4 209,541			
UNIVERSITY OF CINCINNATI		ZIP CODE 45221		
BUNCHER, CHARLES R.....	ENVIRONMENTAL EPIDEMIOLOGY AND BIOSTATISTICS.....	5T32 ES07053-02	78,972	
HAMMOND, PAUL B.....	TOXICOLOGY.....	5T32 ES07073-02	223,824	
KLEINMAN, LEONARD I.....	PERINATOLOGY.....	1T32 HD07200-01	40,016	
SCHWARTZ, ARNOLD.....	CARDIOVASCULAR BIOLOGY.....	5T32 HL07382-03	133,071	
ORGANIZATION TOTAL	4 475,883			
CLEVELAND				
CASE WESTERN RESERVE UNIVERSITY		ZIP CODE 44106		
BILLIAR, REINHART B.....	BIOLOGY OF HUMAN REPRODUCTION.....	5T32 HD07120-03	51,908	
CHERNIACK, NEIL S.....	RESPIRATORY DISEASES.....	5T32 HL07288-03	64,576	
DETERMAN, DOUGLAS K.....	MENTAL RETARDATION RESEARCH TRAINING IN PSYCHOLOGY.....	1T32 HD07176-01	51,662	
DOERSHUK, CARL F.....	PEDIATRIC PULMONARY DISEASE AND CYSTIC FIBROSIS.....	1T32 HL07415-01	81,405	
EVANS, HELEN H.....	ENVIRONMENTAL BIOLOGY.....	5T32 ES07080-02	55,151	
FANAROFF, AVROY A.....	NEONATAL RESPIRATORY RESEARCH.....	5T32 HD07132-02	34,456	
LAKE, ROBIN B.....	COMPUTER TECHNOLOGY IN HEALTH SCIENCES.....	5T15 LM07001-05	62,463	
LASEK, RAYMOND J.....	DEVELOPMENTAL NEUROLOGY.....	5T32 NS07118-02	59,155	
MAHMOUD, ADEL A.....	GEOGRAPHIC MEDICINE.....	5T32 AI07024-03	41,408	
MILLER, CHARLES G.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07225-05	340,182	
PLONSEY, ROBERT.....	BIOMEDICAL ENGINEERING/SYSTEMS & INTEGRATIVE BIOLOGY.....	5T32 GM07535-03	202,511	
RATNOFF, OSCAR D.....	HEMATOLOGY.....	5T32 HL07147-05	53,544	
SINGER, MARCUS.....	NORMAL AND ABNORMAL DEVELOPMENT.....	5T32 HD07104-03	202,861	
WEBSTER, LESLIE T, JR.....	MEDICAL SCIENTIST.....	5T32 GM07250-05	398,931	
WEBSTER, LESLIE T, JR.....	PHARMACOLOGY.....	5T32 GM07382-03	46,712	
ORGANIZATION TOTAL	15 1,746,925			
CLEVELAND CLINIC HOSPITAL		ZIP CODE 44106		
KHAIRALLAH, PHILIP A.....	CARDIOVASCULAR DISEASES.....	5T32 HL07242-02	102,659	
ORGANIZATION TOTAL	1 102,659			
COLUMBUS				
OHIO STATE UNIVERSITY		ZIP CODE 43210		
ALLEN, JAMES N.....	BIOCHEMICAL NEUROPATHOLOGY.....	5T32 NS07091-04	55,258	
BALCERZAK, STANLEY P.....	ONCOLOGY.....	5T32 CA09338-02	139,324	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
OHIO—Continued			
BALCERZAK, STANLEY P.....	HEMATOLOGY.....	5T32 HL07409-02	59,692
TRZEBIATOWSKI, GREGORY L.....	BIOMEDICAL COMPUTING AND INFORMATION PROCESSING.....	5T01 LM07023-02	84,701
WITIAK, DONALD T.....	MEDICINAL CHEMISTRY.....	5T32 GM07622-02	69,882
ORGANIZATION TOTAL	5 408,857		
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43614			
MULROW, PATRICK J.....	ENDOCRINOLOGY AND METABOLISY.....	5T32 AM07316-02	38,832
RAPP, JOHN P.....	HYPERTENSION.....	5T32 HL07357-02	61,403
ORGANIZATION TOTAL	2 100,235		
STATE TOTAL	31 3,044,100		
OKLAHOMA			
OKLAHOMA CITY			
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190			
ROGERS, ROBERT M.....	PULMONARY FACULTY TRAINING CENTER.....	5T17 HL07155-05	36,993
ROGERS, ROBERT M.....	PULMONARY DISEASES—MULTIDISCIPLINARY.....	5T32 HL07210-04	57,501
STONE, HUBERT L.....	CARDIOVASCULAR CONTROL AND HYPERTENSION.....	1T32 HL07430-01	130,365
TAYLOR, FLETCHER B, JR.....	HEMATOLOGY.....	5T32 HL07207-04	52,854
ORGANIZATION TOTAL	4 277,713		
TAHLEQUAH			
NORTHEASTERN OKLAHOMA STATE UNIVERSITY ZIP CODE 74464			
REED, LANNY J.....	PHYSICS & NATURAL SCIENCE.....	5T32 GM07694-03	44,237
ORGANIZATION TOTAL	1 44,237		
STATE TOTAL	5 321,950		
OREGON			
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY ZIP CODE 97331			
WEBER, LAVERN J.....	COMPARATIVE PHARMACOLOGY AND TOXICOLOGY.....	5T32 GM07148-05	23,057
ORGANIZATION TOTAL	1 23,057		
EUGENE			
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON ZIP CODE 97403			
FERNALD, RUSSELL D.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07257-05	87,018
POSTLETHWAIT, JOHN H.....	GENETICS.....	5T32 GM07413-03	125,601
VON HIPPEL, PETER H.....	REPRODUCTIVE BIOLOGY—MULTIDISCIPLINARY.....	1T32 GM07759-01	136,465
ORGANIZATION TOTAL	3 349,084		
PORTLAND			
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201			
BISSENETTE, JOHN M.....	PERINATAL BIOLOGY.....	5T32 HD07084-02	67,391
CONNOR, WILLIAM E.....	NUTRITION AND ATHEROSCLEROSIS.....	5T32 HL07295-03	62,549
CRITCHLOW, B VAUGHN.....	REPRODUCTIVE BIOLOGY—MULTIDISCIPLINARY.....	5T32 HD07133-02	49,895
HALLUM, JULES V.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07336-03	45,357

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
OREGON—Continued			
MATARAZZO, JOSEPH D.....	CARDIOVASCULAR FUNCTION—BEHAVIORAL.....	5T32 HL07332-02	65,096
WUEPPER, KIRK D.....	MULTIDISCIPLINARY DERMATOLOGY.....	5T32 AM07153-04	55,018
ORGANIZATION TOTAL	6 345,306		
STATE TOTAL	10 717,447		
PENNSYLVANIA			
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER ZIP CODE 17033			
LANG, C MAX.....	LABORATORY ANIMAL MEDICINE.....	5T32 RR07006-03	50,040
MORGAN, HOWARD E.....	CELLULAR BIOLOGY—HEART.....	5T32 HL07223-04	118,237
RAPP, FRED.....	VIRUSES AND CANCER.....	5T32 CA09124-02	52,603
ROHNER, THOMAS J, JR.....	UROLOGY.....	5T32 AM07287-02	18,418
ORGANIZATION TOTAL	4 239,298		
PHILADELPHIA			
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104			
SCHWARTZ, ELIAS.....	HEMATOLOGY.....	5T32 HL07150-05	39,729
SEGAL, STANTON.....	MENTAL RETARDATION.....	5T32 HD07107-03	130,751
ORGANIZATION TOTAL	2 170,480		
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111			
ANDERSON, THOMAS F.....	CANCER RESEARCH.....	5T32 CA09035-05	238,544
ORGANIZATION TOTAL	1 238,544		
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129			
ROSS, LEONARD L.....	NEUROBIOLOGY OF DEVELOPMENT AND REGENERATION.....	5T32 NS07061-02	60,264
ROTHBLAT, GEORGE H.....	PHYSIOLOGY AND BIOCHEMISTRY OF ARTERIOSCLEROSIS.....	1T32 HL07443-01	76,400
ORGANIZATION TOTAL	2 136,664		
MONELL CHEMICAL SENSES CENTER ZIP CODE 19104			
KARE, MORLEY R.....	CHEMICAL SENSES—INTERDISCIPLINARY.....	1T32 NS07176-01	71,605
ORGANIZATION TOTAL	1 71,605		
TEMPLE UNIVERSITY ZIP CODE 19122			
BUCKLEY, HELEN R.....	MEDICAL MYCOLOGY.....	1T32 AI07141-01A1	10,344
COHEN, ALLEN B.....	EXPERIMENTAL PULMONARY EMPHYSEMA.....	1T32 HL07414-01	39,693
COLMAN, ROBERT W.....	THROMBOSIS AND HEMOSTASIS.....	5T32 HL07248-03	63,573
MAGEE, PETER N.....	CANCER AND CANCER RELATED RESEARCH.....	5T32 CA09214-02	86,665
PLAUT, GERHARD W.....	BIOCHEMICAL ENDOCRINOLOGY RELATED TO DIABETES.....	5T32 AM07162-03	78,271
SHOCKMAN, GERALD D.....	MICROBIOLOGY AND IMMUNOLOGY.....	5T32 AI07101-02	33,867
SPANN, JAMES F, JR.....	CARDIOLOGY.....	5T32 HL07198-04	71,605
ORGANIZATION TOTAL	7 384,018		
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107			
BRENT, ROBERT L.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07075-04	70,208
ERSLEV, ALLAN J.....	HEMATOLOGY.....	5T32 AM07084-05	79,376
KRAMER, SIMON.....	RADIATION THERAPY.....	5T32 CA09137-05	80,946
LIBERTI, PAUL A.....	IMMUNOCHEMISTRY AND IMMUNOBIOLOGY.....	5T32 AI07043-04	33,832
SHAPIRO, SANDOR S.....	HEMOSTASIS AND THROMBOSIS.....	5T32 HL07371-02	56,220
ORGANIZATION TOTAL	5 320,582		
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19174			
AGUS, ZALMAN S.....	RENAL PATHOPHYSIOLOGY IN CARDIAC AND RENAL DISEASE.....	5T32 AM07006-05	118,713
BAHN, ANITA K.....	CANCER ETIOLOGY.....	5T32 ES07078-02	169,608
BRIGHTON, CARL T.....	BONE AND CARTILAGE RESEARCH.....	5T32 AM07132-04	82,932

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
PENNSYLVANIA—Continued			
BRINSTER, RALPH L.....	REPRODUCTIVE PHYSIOLOGY.....	1T32 HD07155-01	16,093
COHEN, SIDNEY.....	GASTROENTEROLOGY.....	5T32 AM07066-05	78,707
COOPER, RICHARD A.....	HEMATOLOGY CLINICAL RESEARCH.....	1T32 HL07439-01	114,583
FERGUSON, JAMES J, JR.....	MEDICAL SCIENTIST.....	5T32 GM07170-05	777,457
FISHMAN, ALFRED P.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	5T32 HL07000-05	32,790
FORSTER, ROBERT E.....	INTEGRATIVE AND THEORETICAL BIOLOGY.....	5T32 GM07517-02	191,489
FORSTER, ROBERT E.....	PULMONARY PHYSIOLOGY.....	5T32 HL07027-05	110,866
HOLTZER, HOWARD.....	PROGRAM IN CELL DIFFERENTIATION.....	5T32 HD07152-02	157,054
HURVICH, LEO M.....	PSYCHOPHYSICS AND PHYSIOLOGY OF VISION.....	5T32 EY07035-04	133,937
KALLENBACH, NEVILLE R.....	GENETICS.....	5T32 GM07071-05	140,645
KASTOR, JOHN A.....	CLINICAL AND EXPERIMENTAL CARDIAC ELECTROPHYSIOLOGY.....	5T32 HL07346-02	64,636
KEFALIDES, NICHOLAS A.....	THROMBOSIS.....	5T32 HL07177-02	54,835
KOELLE, GEORGE B.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07302-05	110,553
LASH, JAMES W.....	ANALYSIS OF DEVELOPMENT.....	5T32 HD07067-04	141,396
MELLMAN, WILLIAM J.....	HUMAN GENETICS.....	5T32 GM07511-03	69,989
NOORDERGRAAF, ABRAHAM.....	INTEGRATIVE BIOLOGY.....	1T32 GM07627-01A1	86,089
PEACHEY, LEE D.....	CELL AND MOLECULAR BIOLOGY.....	5T32 GM07229-05	259,611
SCHAD, GERHARD A.....	IMMUNOLOGY OF HOST PARASITE RELATIONSHIPS.....	5T32 AI07050-03	62,498
SHIP, IRWIN I.....	SOFT TISSUE DISEASES.....	5T32 DE07036-05	146,230
VAN DE WALLE, ETIENNE.....	DEMOGRAPHY.....	5T32 HD07113-03	46,442
WEISS, LEON P.....	EXPERIMENTAL HEMATOLOGY AND CELL BIOLOGY.....	5T32 AM07185-04	34,890
WILSON, DARCY B.....	THE IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES.....	5T32 CA09140-05	345,004
WOLLMAN, HARRY.....	DENTAL PAIN CONTROL.....	5T32 DE07009-04	100,488
WOLLMAN, HARRY.....	ANESTHESIOLOGY.....	5T32 GM07612-02	79,265
YAFFE, SUMNER J.....	PEDIATRIC CLINICAL PHARMACOLOGY AND ANESTHESIOLOGY.....	5T32 GM07514-03	76,583
YANOFF, MYRON.....	EXPERIMENTAL OPHTHALMIC PATHOLOGY.....	5T32 EY07041-03	42,513
ZWEIMAN, BURTON.....	ALLERGY AND IMMUNOLOGIC DISEASES.....	5T32 AI07031-04	30,022
ORGANIZATION TOTAL	30	3,875,918	
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104			
KOPROWSKI, HILARY.....	BASIC CANCER RESEARCH.....	5T32 CA09171-04	206,845
ORGANIZATION TOTAL	1	206,845	
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION--ALLEGHENY-SINGER RESEARCH CORPORATION ZIP CODE 15212			
CONCANNON, JOSEPH P.....	RADIATION ONCOLOGY.....	5T32 CA09231-02	44,266
LESHER, SAMUEL W.....	CANCER RESEARCH.....	5T32 CA09225-02	57,885
ORGANIZATION TOTAL	2	102,151	
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
CUSSLER, EDWARD L, JR.....	BIOTECHNOLOGY PROGRAM.....	5T32 GM07477-03	103,398
ORGANIZATION TOTAL	1	103,398	
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
BROWN, STUART I.....	OCULAR CONNECTIVE TISSUES.....	5T32 EY07032-04	35,211
ORGANIZATION TOTAL	1	35,211	
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
BOGGS, DANE R.....	HEMATOLOGY AND ONCOLOGY.....	5T32 AM07040-03	26,942
DE RUBERTIS, FREDERICK R.....	DIABETES AND ENDOCRINOLOGY.....	5T32 AM07052-05	51,671
GILL, THOMAS J, III.....	PATHOBIOLOGY.....	5T32 GM07349-03	86,921
KNOBIL, ERNST.....	PRIMATE REPRODUCTIVE PHYSIOLOGY.....	5T32 HD07116-03	36,205
KULLER, LEWIS H.....	CARDIOVASCULAR EPIDEMIOLOGY.....	5T32 HL07011-05	89,235
ORGANIZATION TOTAL	5	290,974	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
PENNSYLVANIA—Continued			
UNIVERSITY PARK			
PENNSYLVANIA STATE UNIVERSITY ZIP CODE 16802			
TAYLOR, CHARLES.....	GERONTOLOGY (INTERDISCIPLINARY)	5T32 AG00048-03	74,586
ORGANIZATION TOTAL	1 74,586		
STATE TOTAL	63 6,250,274		
RHODE ISLAND			
PROVIDENCE			
BROWN UNIVERSITY ZIP CODE 02912			
CHA, SUNGMAN	CANCER RESEARCH	1T32 CA09204-01	36,765
FAIN, JOHN N	DIABETES, ENDOCRINOLOGY, AND METABOLOGY	5T32 AM07187-04	58,287
GOLDSTEIN, SIDNEY	POPULATION CHANGE, DISTRIBUTION, AND MODERNIZATION	5T32 HD07069-04	101,582
RIGGS, LORRIN A	VISUAL PSYCHOPHYSIOLOGY	2T32 EY07029-04	33,191
ROTHMAN, FRANK G	MOLECULAR AND CELL BIOLOGY	1T32 GM07601-01A1	34,540
ORGANIZATION TOTAL	5 264,365		
STATE TOTAL	5 264,365		
SOUTH CAROLINA			
CHARLESTON			
MEDICAL UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29401			
BAGWELL, ERVINE E	PHARMACOLOGY	5T32 GM07404-03	67,348
FUDENBERG, H HUGH	BASIC IMMUNE MECHANISMS AND IMMUNOLOGIC DISEASES	5T32 AI07063-02	36,099
GAFFNEY, THOMAS E	CLINICAL PHARMACOLOGY	5T32 GM07534-03	62,266
LINDENMAYER, GEORGE E	IMPROVE CARDIOVASCULAR DRUG THERAPY	5T32 HL07260-03	105,584
MILLER, M CLINTON, III	CARDIOMETRICAL SCIENTIST	5T32 HL07384-02	31,041
ORGANIZATION TOTAL	5 302,338		
COLUMBIA			
BENEDICT COLLEGE ZIP CODE 29204			
FINLAY, MARY F	BIOLOGY AND CHEMISTRY	5T32 GM07643-03	42,714
ORGANIZATION TOTAL	1 42,714		
STATE TOTAL	6 345,052		
TENNESSEE			
KNOXVILLE			
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE ZIP CODE 37916			
BILLEN, DANIEL	CARCINOGENESIS	5T32 CA09104-05	60,779
BROWN, ARTHUR	MICROBIOLOGY RELATED TO INFECTIOUS DISEASES	5T32 AI07123-02	58,465
KENNEY, FRANCIS T	CARCINOGENESIS	1T32 CA09336-01	103,841
POPP, RAYMOND A	GENETICS	5T32 GM07438-03	95,196
STULBERG, MELVIN P	MOLECULAR CELLULAR AGING	5T32 AG00028-04	40,720
WALLACE, ROBIN A	MACROMOLECULES IN BIOLOGICAL REGULATORY MECHANISMS	5T32 GM07431-03	83,317
ORGANIZATION TOTAL	6 442,318		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director		General area of training	Grant number	Dollars
TENNESSEE—Continued				
MEMPHIS				
ST. JUDE CHILDREN'S RESEARCH HOSPITAL		ZIP CODE 38101		
PHILLIPS, DAVID R.....	CANCER BIOLOGY.....		1T32 CA09346-01	72,197
ORGANIZATION TOTAL	1	72,197		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES		ZIP CODE 38163		
KANG, ANDREW H.....	CONNECTIVE TISSUE DISEASES.....		5T32 AM07317-02	57,847
KAUKER, MICHAEL L.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....		5T32 HL07389-02	20,346
SABESIN, SEYMOUR M.....	LIVER DISEASES.....		5T32 AM07292-02	39,404
SHARE, LEONARD.....	HYPERTENSION.....		5T32 HL07339-02	64,800
ORGANIZATION TOTAL	4	182,397		
NASHVILLE				
FSK UNIVERSITY		ZIP CODE 37203		
MC KELVEY, MARY E.....	BIOMEDICAL SCIENCES.....		5T32 GM07675-02	82,380
ORGANIZATION TOTAL	1	82,380		
GEORGE PEABODY COLLEGE FOR TEACHERS		ZIP CODE 37203		
BROOKS, PENELOPE H.....	MENTAL RETARDATION—BEHAVIORAL.....		2T32 HD07045-05	124,235
ORGANIZATION TOTAL	1	124,235		
VANDERBILT UNIVERSITY		ZIP CODE 37240		
BRIGHAM, KENNETH L.....	RESPIRATORY DISEASES—MULTIDISCIPLINARY.....		5T32 HL07123-05	37,734
BROQUIST, HARRY P.....	NUTRITION AND GASTROENTEROLOGY.....		5T32 AM07083-05	80,717
CHAPMAN, JOHN E.....	MEDICAL SCIENTIST.....		5T32 GM07347-03	95,928
CROFFORD, OSCAR B.....	DIABETES AND ENDOCRINOLOGY.....		5T32 AM07061-05	77,888
ELLIOTT, JAMES H.....	VISUAL SCIENCES.....		5T32 EY07007-04	87,811
FRIESINGER, GOTTLIEB C.....	PHARMACOLOGY AND PHYSIOLOGY OF CARDIOVASCULAR DISEASES.....		5T32 HL07411-02	83,651
HARDMAN, JOEL G.....	PHARMACOLOGICAL SCIENCES.....		5T32 GM07628-02	161,158
HNILICA, LUBOMIR S.....	MOLECULAR MECHANISMS IN CANCER.....		1T32 CA09313-01	38,956
INAGAMI, TADASHI.....	HYPERTENSION.....		5T32 HL07323-02	108,345
KRANTZ, SANFORD B.....	HEMATOLOGY.....		5T32 AM07186-04	60,768
NEAL, ROBERT A.....	ENVIRONMENTAL TOXICOLOGY.....		5T32 ES07028-05	19,753
OATES, JOHN A.....	CLINICAL PHARMACOLOGY.....		5T32 GM07569-03	119,436
PUETT, J DAVID.....	REPRODUCTIVE BIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY.....		5T32 HD07043-05	79,832
STAHLMAN, MILDRED T.....	NEWBORN PULMONARY DEVELOPMENT FUNCTION AND DISEASE.....		5T32 HL07256-03	81,207
TOUSTER, OSCAR.....	CELLULAR—MOLECULAR BIOLOGY.....		5T32 GM07319-05	181,400
ORGANIZATION TOTAL	15	1,314,584		
STATE TOTAL	28	2,218,111		
TEXAS				
AUSTIN				
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN		ZIP CODE 78712		
FORREST, HUGH S.....	GENETIC MECHANISMS AND THE REGULATION OF GENE ACTIVITY.....		5T32 GM07126-05	129,798
HARDESTY, BOYD A.....	MEMBRANE CHANGES IN CARCINOGENESIS.....		5T32 CA09182-05	134,434
POSTON, DUDLEY L, JR.....	SOCIAL DEMOGRAPHY.....		5T32 HD07081-03	44,601
ORGANIZATION TOTAL	3	308,833		
DALLAS				
BISHOP COLLEGE		ZIP CODE 75241		
FALOONA, GERALD R.....	BIOMEDICAL RESEARCH.....		1T32 GM07734-01	89,512
ORGANIZATION TOTAL	1	89,512		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
TEXAS—Continued			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS		ZIP CODE 75235	
COMBES, BURTON	GASTROENTEROLOGY AND LIVER DISEASE	5T32 AM07100-05	78,993
FOSTER, DANIEL W.	ENDOCRINOLOGY AND METABOLISM	5T32 AM07307-02	109,459
GILLIAM, JAMES N.	IMMUNODERMATOLOGY	1T32 AM07341-01	39,353
JOHNSON, ROBERT L, JR.	PULMONARY PATHOPHYSIOLOGY	5T32 HL07362-02	86,400
KOKKO, JUHA P.	RENAL CONTROL OF BODY COMPOSITION AND BLOOD PRESSURE	5T32 AM07257-03	41,073
MACDONALD, PAUL C.	PHYSIOLOGY OF REPRODUCTION	1T32 HD07190-01	192,033
MC CANN, SAMUEL M.	NEUROENDOCRINOLOGY	5T32 HD07062-04	79,790
MITCHELL, JERE H.	CARDIOVASCULAR PATHOPHYSIOLOGY	5T32 HL07360-02	246,421
PETTINGER, WILLIAM A.	CLINICAL PHARMACOLOGY	5T32 GM07247-03	73,942
PIERCE, ALAN K.	PULMONARY MEDICINE	5T17 HL07128-05	48,480
STREILEIN, J WAYNE	CANCER IMMUNOLOGY	5T32 CA09082-05	150,387
WEISS, GEORGE B.	PHARMACOLOGY	5T32 GM07062-05	59,292
ZIFF, MORRIS	RHEUMATOLOGY	5T32 AM07055-05	58,538
ORGANIZATION TOTAL	13	1,264,161	
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON		ZIP CODE 77550	
BOWMAN, BARBARA H.	GENETICS—MECHANISMS AND REGULATION	5T32 GM07204-05	72,348
REMMERS, JOHN E.	RESPIRATORY DISEASES	5T32 HL07217-04	39,254
ORGANIZATION TOTAL	2	111,602	
HOUSTON			
BAYLOR COLLEGE OF MEDICINE		ZIP CODE 77025	
ALLEN, JULIUS C.	CARDIOVASCULAR SCIENCE	5T32 HL07282-02	48,813
ANDERSON, ROBERT E.	VISUAL SCIENCES	5T32 EY07001-05	83,484
APPEL, STANLEY H.	BIOLOGICAL APPROACHES TO DEMENTIA	5T32 AG00061-02	54,289
BUTEL, JANET S.	VIRAL ONCOLOGY	1T32 CA09197-01A1	34,081
CASKEY, CHARLES T.	MEDICAL GENETICS RESEARCH FELLOWSHIP PROGRAM	5T32 GM07526-02	68,164
CLAYTON, GEORGE W.	PEDIATRIC ENDOCRINOLOGY	5T32 HD07091-03	19,656
FIELD, JAMES B.	DIABETES AND ENDOCRINOLOGY	1T32 AM07348-01	57,181
MC NAMARA, DAN G.	DEVELOPMENTAL CARDIAC PHARMACOLOGY AND PHYSIOLOGY	5T32 HL07190-03	37,916
O'MALLEY, BERT W.	REPRODUCTIVE BIOLOGY: REGULATORY MECHANISMS	1T32 HD07165-01	96,608
WAKIL, SALIH J.	MEDICAL SCIENTIST	5T32 GM07330-03	53,255
WILLIAMS, ROBERT P.	MICROBIOLOGY OF INFECTIOUS DISEASES	5T32 AI07145-02	31,282
ORGANIZATION TOTAL	11	584,729	
TEXAS SOUTHERN UNIVERSITY		ZIP CODE 77004	
SESSION, JOHN J.	IMMUNOBIOLOGY, BIOCHEMISTRY & PSYCHOLOGY	5T32 GM07659-03	60,898
ORGANIZATION TOTAL	1	60,898	
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON		ZIP CODE 77004	
BUCKLEY, JOSEPH P.	MINORITY HYPERTENSION RESEARCH DEVELOPMENT PROGRAM	1T32 HL07434-01	18,585
EVANS, RICHARD I.	SOCIAL PSYCHOLOGY IN PREVENTING CARDIOVASCULAR DISEASE	5T32 HL07258-02	89,722
ORGANIZATION TOTAL	2	108,307	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON		ZIP CODE 77025	
DE MOSS, JOHN A.	MOLECULAR BASIS OF CELL FUNCTION	5T32 GM07542-03	48,502
DUPONT, HERBERT L.	ENTERIC INFECTION/ETIOLOGY, EPIDEMIOLOGY, IMMUNOLOGY	1T32 AI07128-01A1	36,504
LAVIS, VICTOR R.	DIABETES	5T32 AM07282-02	74,801
LEVY, BARNET M.	EXPERIMENTAL PERIODONTOLOGY/IMMUNOLOGY; BIOCHEMISTRY	5T32 DE07029-04	70,312
PRESLOCK, JAMES P.	HUMORAL REGULATION OF REPRODUCTIVE SYSTEMS	5T32 HD07119-03	32,459
ROBISON, GEORGE A.	HOUSTON PHARMACOLOGICAL CENTER	5T32 GM07405-03	86,957
SPEHLING, HARRY G.	SENSORY NEURAL SCIENCES	5T32 EY07024-05	53,709
ORGANIZATION TOTAL	7	403,244	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER		ZIP CODE 77025	
ANDERSON, DAVID E.	CANCER BIOLOGY	5T32 CA09299-02	49,468

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
TEXAS—Continued			
CONRAD, FRED G	CANCER CHEMOTHERAPY	5T32 CA09163-05	191,116
FREIREICH, EMIL J	CLINICAL PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS	5T32 CA09189-04	248,278
HUMPHREY, RONALD M	RADIATION ONCOLOGY	5T32 CA09191-02	69,405
VAN EYS, JAN	PEDIATRIC HEMATOLOGY-ONCOLOGY	5T32 CA09070-05	64,766
ORGANIZATION TOTAL	5	623,033	
LUBBOCK			
TEXAS TECH UNIVERSITY	ZIP CODE 79409		
BARNES, CHARLES D	FACTORS MODIFYING CARDIOVASCULAR ACTIVITY	5T32 HL07289-03	48,158
ORGANIZATION TOTAL	1	48,158	
PRAIRIE VIEW			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—PRAIRIE VIEW AGRI. AND MECH. UNIVERSITY	ZIP CODE 77445		
WASHINGTON, ARTHUR C	BIOMEDICAL SCIENCES	5T32 GM07695-03	49,326
ORGANIZATION TOTAL	1	49,326	
SAN ANTONIO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO	ZIP CODE 78284		
JOHANSON, WALDEMAR G, JR	LUNG DISEASES—MULTIDISCIPLINARY	5T32 HL07221-04	32,696
MC GUIRE, WILLIAM L	MECHANISMS OF BREAST CANCER GROWTH AND REGRESSION	5T32 CA09042-05	21,286
MC NAY, JOHN L, JR	CLINICAL PHARMACOLOGY	5T32 GM07014-05	42,099
O'ROURKE, ROBERT A	CARDIOVASOLOGY	5T32 HL07350-02	93,531
PAUERSTEIN, CARL J	REPRODUCTIVE BIOLOGY	5T32 HD07139-02	34,805
SCHWARTZ, COLIN J	PATHOBIOLOGY OF OCCLUSIVE VASCULAR DISEASE	1T32 HL07446-01	73,329
STEIN, JAY H	ACADEMIC NEPHROLOGY	5T32 AM07103-05	116,712
ORGANIZATION TOTAL	7	414,458	
STATE TOTAL	54	4,066,261	
UTAH			
SALT LAKE CITY			
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH	ZIP CODE 84112		
BROOM, ARTHUR D	CANCER CHEMOTHERAPY	5T32 CA09038-02	39,911
CARTWRIGHT, GEORGE E	HEMATOLOGY	5T32 AM07115-05	36,984
DETHLEFSEN, LYLE A	RADIATION BIOLOGY AND EXPERIMENTAL ONCOLOGY	5T32 CA09097-05	50,584
GLASGOW, LOWELL A	INFECTIOUS DISEASES	5T32 AI07011-04	94,739
REED, DONAL J	PHARMACOLOGICAL SCIENCES	5T32 GM07579-02	122,303
VELICK, SIDNEY F	CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07531-02	53,164
VICKERY, ROBERT K, JR	GENETICS	5T32 GM07464-03	65,957
ORGANIZATION TOTAL	7	463,642	
STATE TOTAL	7	463,642	
VERMONT			
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE	ZIP CODE 05401		
BRESNICK, EDWARD	CANCER BIOLOGY	5T32 CA09286-02	66,452
CRAIGHEAD, JOHN E	RESPIRATORY DISEASES	5T32 HL07206-04	90,491
KRAKOFF, IRWIN H	CANCER CHEMOTHERAPY	5T32 CA09324-02	30,845

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
VERMONT—Continued			
PARSONS, RODNEY L	CARDIOVASOLOGY—MULTIDISCIPLINARY	5T32 HL07073-05	66,876
ORGANIZATION TOTAL	4 254,664		
STATE TOTAL	4 254,664		
VIRGINIA			
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA ZIP CODE 22903			
ATTINGER, ERNST O	SYSTEMS PHYSIOLOGY	1T32 GM07593-01A1	37,715
AYERS, CARLOS R	HIGH BLOOD PRESSURE RESEARCH	5T32 HL07355-02	84,407
BERNE, ROBERT M	BASIC CARDIOVASCULAR RESEARCH	5T32 HL07284-03	123,174
DAVIS, JOHN S, IV	IMMUNOPATHOLOGY OF RHEUMATIC DISEASES	5T32 AM07156-04	49,659
EMERSON, CHARLES P, JR	EARLY DEVELOPMENT	1T32 HD07192-01	123,469
GILMAN, ALFRED G	MEDICAL SCIENTIST	5T32 GM07267-03	79,915
KADNER, ROBERT J	GENETIC CONTROL OF BIOLOGICAL REGULATORY SYSTEMS	5T32 GM07082-05	72,997
KOMP, DIANE M	PEDIATRIC ONCOLOGY	5T32 CA09147-04	60,559
LANGMAN, JAN	CRANIOFACIAL DEVELOPMENT	5T32 DE07037-05	115,398
LARNER, JOSEPH	PHARMACOLOGY	5T32 GM07055-05	79,240
LAWLESS, KENNETH R	CHEMICAL AND PHYSICAL PROPERTIES OF DENTAL MATERIALS	5T32 DE07046-04	45,392
MANDELL, GERALD L	INFECTIOUS DISEASES	5T32 AI07046-03	101,653
MURAD, FERID	DIABETES AND HORMONE ACTION	5T32 AM07320-02	118,684
THOMPSON, THOMAS E	MEMBRANE AND MACROMOLECULAR STRUCTURE	5T32 GM07294-05	52,144
WAGNER, ROBERT R	CANCER RESEARCH—MOLECULAR BIOLOGY	5T32 CA09109-04	194,350
ORGANIZATION TOTAL	15 1,338,756		
RICHMOND			
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
DEWEY, WILLIAM L	PHARMACOLOGY AND RELATED DISCIPLINES	5T32 GM07111-05	58,550
FALLON, HAROLD J	DIGESTIVE AND LIVER DISEASES	5T32 AM07150-04	58,671
GOLDMAN, I DAVID	MEMBRANE TRANSPORT OF ANTINEOPLASTIC AGENTS	1T32 CA09340-01	39,235
GOLDMAN, I DAVID	CARDIOVASOLOGY—MULTIDISCIPLINARY	5T32 HL07110-05	82,972
KAPLAN, ALAN M	CANCER ETIOLOGY AND TREATMENT	5T32 CA09210-02	41,833
MORAHAN, PAGE S	CANCER ETIOLOGY AND TREATMENT	5T32 CA09036-02	34,622
NANCE, WALTER E	HUMAN GENETICS	5T32 GM07492-03	45,814
PHIBBS, PAUL V, JR	INFECTIOUS DISEASES	5T32 AI07086-03	69,034
RICHARDSON, DAVID W	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	5T32 HL07309-03	12,783
RUDDY, SHAUN	PATHOGENESIS AND TREATMENT OF RHEUMATIC DISEASES	5T32 AM07079-03	34,767
WEGLICKI, WILLIAM B	MECHANISMS OF CARDIOVASCULAR INJURY	5T32 HL07244-03	97,499
ORGANIZATION TOTAL	11 575,780		
STATE TOTAL	26 1,914,536		
WASHINGTON			
PULLMAN			
WASHINGTON STATE UNIVERSITY ZIP CODE 99163			
MC GUIRE, TRAVIS C	IMMUNOLOGY	5T32 AI07025-03	61,823
ORGANIZATION TOTAL	1 61,823		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
WASHINGTON—Continued			
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
BERNSTEIN, IRWIN D.....	PEDIATRIC ONCOLOGY.....	1T32 CA09351-01	18,937
ORGANIZATION TOTAL	1 18,937		
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
ALEXANDER, E. RUSSELL.....	EPIDEMIOLOGY OF INFECTIOUS DISEASES.....	5T32 AI07125-03	60,130
BASSINGTHWAIGHTE, JAMES B.....	CARDIOVASCULAR BIOENGINEERING.....	5T32 HL07403-02	106,081
BENDITT, EARL P.....	EXPERIMENTAL PATHOLOGY OF CARDIOVASCULAR DISEASE.....	5T32 HL07312-02	146,368
BIERMAN, EDWIN L.....	DIABETES, METABOLISM, AND ENDOCRINOLOGY.....	5T32 AM07247-03	104,851
BIERMAN, EDWIN L.....	NUTRITION, LIPID METABOLISM, AND ARTERIOSCLEROSIS.....	5T32 HL07028-04	43,052
BUTLER, JOHN.....	RESPIRATORY PHYSIOLOGY.....	5T32 HL07287-02	100,683
CARRICO, C. JAMES.....	TRAUMA AND BURNS.....	5T32 GM07037-05	73,458
DE ROUEN, TIMOTHY A.....	CARDIOVASCULAR BIOSTATISTICS.....	5T32 HL07183-04	117,064
DODGE, HAROLD T.....	CARDIOVASCULAR RESEARCH.....	5T32 HL07278-03	84,714
FALKOW, STANLEY.....	BIOLOGIC BASIS OF INFECTION AND ITS CONTROL.....	5T32 AI07149-02	67,096
FEIGL, ERIC O.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07090-05	94,837
FINCH, CLEMENT A.....	HEMATOLOGY AND NUTRITIONAL ANEMIAS.....	5T32 AM07237-03	48,814
GALE, JAMES L.....	EPIDEMIOLOGY—EYE DISEASES.....	5T32 EY07017-05	64,870
GORDON, MILTON P.....	MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07270-05	334,609
HARKER, LAURENCE A.....	HEMATOLOGY.....	5T32 HL07093-05	94,938
HOLMES, KING K.....	VENEREAL DISEASE.....	5T32 AI07140-02	47,466
HORNBEIN, THOMAS F.....	ANESTHESIA RESEARCH.....	1T32 GM07604-01A1	65,441
JACKSON, KENNETH L.....	RADIOLOGICAL SCIENCES.....	5T32 CA09081-04	68,583
KALINA, ROBERT E.....	VISION RESEARCH—MULTIDISCIPLINARY.....	5T32 EY07013-05	76,065
KELLEY, VINCENT C.....	ABNORMAL BIOLOGIC DEVELOPMENT AND MENTAL RETARDATION.....	1T32 HD07172-01	79,613
KLEBANOFF, SEYMOUR J.....	HOST DEFENSE IN ALLERGY AND INFECTIOUS DISEASE.....	5T32 AI07044-04	163,119
LEE, JOHN A.....	CANCER EPIDEMIOLOGY AND BIOSTATISTICS.....	5T32 CA09168-05	103,839
LOEB, LAWRENCE A.....	BASIC PATHOBIOLOGY.....	5T32 GM07187-05	103,829
MANNIK, MART.....	RHEUMATOLOGY.....	5T32 AM07108-05	81,515
MARTIN, GEORGE M.....	GENETIC APPROACHES TO AGING RESEARCH.....	5T32 AG00057-02	88,066
MOTTET, N. KARLE.....	ENVIRONMENTAL PATHOLOGY/PATHOPHYSIOLOGY.....	5T32 ES07032-02	102,564
MOTULSKY, ARNO G.....	MEDICAL GENETICS.....	5T32 GM07454-03	76,901
NELSON, WENDEL L.....	DRUG ACTION, METABOLISM AND KINETICS.....	1T32 GM07750-01	62,195
NOWINSKI, ROBERT C.....	VIRAL ONCOLOGY.....	5T32 CA09229-02	69,436
ODLAND, GEORGE F.....	DERMATOLOGY.....	5T32 AM07019-05	45,906
PAGE, ROY C.....	PERIODONTAL DISEASES AND CHRONIC INFLAMMATION.....	5T32 DE07063-04	126,343
PATTON, HARRY D.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07108-05	122,505
PATTON, HARRY D.....	NEUROBIOLOGY.....	5T32 NS07097-02	72,049
ROMAN, HERSCHEL L.....	GENETICS—GENERAL AND MEDICAL.....	1T32 GM07735-01	191,424
STRIKER, GARY E.....	MEDICAL SCIENTIST.....	5T32 GM07266-05	185,547
TAMARIN, ARNOLD.....	ORAL BIOLOGY—SALIVARY SECRETIONS.....	5T32 DE07023-05	113,433
TELLER, DAVIDA Y.....	VISUAL SCIENCES.....	5T32 EY07031-04	34,538
THOMAS, E. DONNALL.....	ONCOLOGY.....	5T32 CA09319-02	169,184
VOLWILER, WADE.....	GASTROENTEROLOGY.....	5T32 AM07113-05	40,129
WARD, ARTHUR A, JR.....	CLINICAL INVESTIGATION.....	1T32 NS07144-01	37,020
WHITELEY, ARTHUR H.....	DEVELOPMENT BIOLOGY—INTERDISCIPLINARY.....	1T32 HD07183-01	107,603
ORGANIZATION TOTAL	41 3,975,878		
STATE TOTAL	43 4,056,638		
WEST VIRGINIA			
MORGANTOWN			
WEST VIRGINIA UNIVERSITY ZIP CODE 26506			
FLEMING, WILLIAM W.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07039-05	94,980

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1979—Continued

Program director	General area of training	Grant number	Dollars
WEST VIRGINIA—Continued			
HEDGE, GEORGE A.....	ENDOCRINOLOGY.....	5T32 AM07312-02	55,756
ORGANIZATION TOTAL	2 150,736		
STATE TOTAL	2 150,736		
WISCONSIN			
MADISON			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
ALLEN, JAMES R.....	PATHOBIOLOGY.....	5T32 GM07194-05	84,872
AUERBACH, ROBERT.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07118-02	123,985
BACH, FRITZ H.....	CELLULAR AND TUMOR IMMUNITY.....	5T32 CA09106-04	202,420
BEINERT, HELMUT.....	ENZYMOLOGY—MAMMALIAN METABOLISM.....	5T32 AM07049-05	51,336
BUMPASS, LARRY L.....	DEMOGRAPHY AND ECOLOGY.....	5T32 HD07014-05	113,608
CAMERON, JOHN R.....	RADIOLOGICAL SCIENCES.....	5T32 CA09206-02	67,585
ERNEST, J TERRY.....	VISUAL SCIENCES.....	1T32 EY07059-01	71,754
HARPER, ALFRED E.....	METABOLIC REGULATION AND WEIGHT CONTROL.....	5T32 GM07058-03	81,233
HIND, JOSEPH E.....	SENSORY PHYSIOLOGY AND BIOPHYSICS.....	5T32 NS07026-04	80,353
HINSOILL, RONALD D.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07015-05	107,822
KALIL, RONALD E.....	NEUROSCIENCES.....	5T32 GM07507-02	75,533
MILLER, ELIZABETH C.....	CHEMICAL CARCINOGENESIS.....	5T32 CA09020-05	106,103
MUELLER, GERALD C.....	TUMOR BIOLOGY.....	5T32 CA09230-04	37,456
PITOT, HENRY C.....	EXPERIMENTAL ONCOLOGY.....	5T32 CA09135-05	310,661
RANKIN, JOHN H.....	PULMONARY MEDICINE.....	5T32 HL07016-05	78,676
SIMPSON, DAVID P.....	NEPHROLOGY.....	5T32 AM07238-03	23,810
SUSMAN, MILLARD.....	MEDICAL GENETICS.....	5T32 GM07131-05	152,707
SUSMAN, MILLARD.....	GENETICS.....	5T32 GM07133-05	271,290
SUTTIE, JOHN W.....	NUTRITION.....	5T32 DE07031-05	106,164
TEMIN, HOWARD M.....	VIRAL ONCOLOGY.....	5T32 CA09075-05	263,612
WELLS, ROBERT D.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07215-05	564,860
WOLF, RICHARD C.....	ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY.....	5T32 HD07007-03	130,694
ORGANIZATION TOTAL	22 3,106,534		
MILWAUKEE			
MEDICAL COLLEGE OF WISCONSIN ZIP CODE 53233			
ASTER, RICHARD H.....	HEMATOLOGY AND BLOOD BANKING SCIENCES.....	5T32 HL07209-04	38,351
EDELHAUSER, HENRY F.....	EYE PHYSIOLOGY AND BIOCHEMISTRY.....	5T32 EY07016-05	30,116
FINK, JORDAN N.....	ALLERGIC DISEASES.....	5T32 AI07006-05	33,822
FUJIMOTO, JAMES M.....	PHARMACOLOGIC TOXICOLOGY OF ENVIRONMENTAL CHEMICALS.....	5T32 ES07043-03	84,700
SOERGEL, KONRAD H.....	NATIONAL RESEARCH SERVICE INSTITUTIONAL GRANT.....	5T32 AM07267-02	36,157
ORGANIZATION TOTAL	5 223,146		
STATE TOTAL	27 3,329,680		

Table 4.—Cancer Research Facilities Construction Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979

Responsible official	Purpose of grant	Grant number	Dollars
TOTAL, 10 GRANTS.....			12,452,268
CALIFORNIA			
LA JOLLA			
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
MENDELSON, JOHN.....	CANCER RESEARCH FACILITY.....	1C06 CA25814-01	1,349,056
ORGANIZATION TOTAL	1	1,349,056	
LOS ANGELES			
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
PARKER, ROBERT G.....	REMODEL CANCER RESEARCH FACILITY.....	3C06 CA23748-01S1	45,000
ORGANIZATION TOTAL	1	45,000	
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
MORRISROE, DAVID W.....	NEW CANCER RESEARCH FACILITY.....	3C06 CA23167-01S1	1,529,921
ORGANIZATION TOTAL	1	1,529,921	
SAN FRANCISCO			
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
PHILLIPS, THEODORE L.....	CANCER RESEARCH FACILITY.....	1C06 CA25818-01	589,000
ORGANIZATION TOTAL	1	589,000	
STATE TOTAL	4	3,512,977	
HAWAII			
HONOLULU			
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
PIETTE, LAWRENCE H.....	NEW CANCER RESEARCH FACILITY.....	3C06 CA18236-01S1	27,502
ORGANIZATION TOTAL	1	27,502	
STATE TOTAL	1	27,502	

NOTE: For comments on organizations, see Appendix.

Table 4.—Cancer Research Facilities Construction Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official		Purpose of grant	Grant number	Dollars
MARYLAND				
BALTIMORE				
JOHNS HOPKINS UNIVERSITY		ZIP CODE 21218		
ROSEMAN, SAUL	EXPAND CANCER RESEARCH FACILITY.....		1C06 CA24501-01	2,594,430
ORGANIZATION TOTAL	1	2,594,430		
STATE TOTAL	1	2,594,430		
MICHIGAN				
DETROIT				
MICHIGAN CANCER FOUNDATION		ZIP CODE 48201		
PETTIT, JOHN W	CANCER RESEARCH FACILITY.....		1C06 CA21123-01A2'	769,400
ORGANIZATION TOTAL	1	769,400		
STATE TOTAL	1	769,400		
NEW YORK				
NEW YORK				
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH		ZIP CODE 10021		
KELLY, REGINA.....	PROGRAM FOR BIOHAZARD AND ANIMAL CARE IMPROVEMENT.....		1C06 CA25872-01	3,175,259
ORGANIZATION TOTAL	1	3,175,259		
STATE TOTAL	1	3,175,259		
NORTH CAROLINA				
CHAPEL HILL				
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL		ZIP CODE 27514		
FRIDAY, WILLIAM.....	CANCER RESEARCH FACILITY.....		1C06 CA25855-01	1,372,700
ORGANIZATION TOTAL	1	1,372,700		
STATE TOTAL	1	1,372,700		
TENNESSEE				
MEMPHIS				
ST. JUDE CHILDREN'S RESEARCH HOSPITAL		ZIP CODE 38101		
HARRINGTON, R L.....	ANIMAL CARE FACILITY FOR CANCER RELATED RESEARCH		1C06 CA25869-01	1,000,000
ORGANIZATION TOTAL	1	1,000,000		
STATE TOTAL	1	1,000,000		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979

Project director	Project title	Grant number	Dollars
TOTAL, 97 GRANTS			19,299,496
ALABAMA			
BIRMINGHAM			
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294			
BUTTERWORTH, C E, JR	NUTRITIONAL SUPPORT & REHABILITATION FOR CANCER PATIENTS	5R18 CA17928-04	79,990
GAMS, RICHARD A	CANCER CONTROL—DEVELOPMENTAL AND SUPPORT GRANT	5R18 CA22842-02	529,728
SHINGLETON, HUGH M.	GYNECOLOGIC CANCER EDUCATION	1R18 CA24118-01	210,010
ORGANIZATION TOTAL	3 819,728		
STATE TOTAL	3 819,728		
CALIFORNIA			
LOS ANGELES			
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027			
KELLERMAN, JONATHAN	PAIN AND ANXIETY IN CHILDREN WITH ACUTE LEUKEMIA	1R18 CA26292-01	31,764
ORGANIZATION TOTAL	1 31,764		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
BERKANOVIC, EMIL	PROCESSES IN HEALTH BEHAVIOR AND CANCER CONTROL	5R18 CA18451-04	121,009
CULLEN, JOSEPH W.	CANCER CONTROL DEVELOPMENTAL OUTREACH GRANT	5R18 CA23974-02	139,665
ORGANIZATION TOTAL	2 260,674		
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
GEORGE, FREDERICK W, III	COMMUNITY RADIATION ONCOLOGY PROGRAM	1R18 CA25117-01	131,121
MC KENNA, ROBERT J.	SUPPORT FOR REGIONAL ACTIVITIES CANCER CENTER	3R18 CA16419-04S1	143,192
MC KENNA, ROBERT J.	SUPPORT FOR REGIONAL ACTIVITIES CANCER CENTER	2R18 CA16419-05	410,522
MORROW, C PAUL	GYNECOLOGIC ONCOLOGY PROGRAM	5R18 CA20501-03	44,803
MORROW, C PAUL	MODEL REGIONAL TROPHOBLASTIC DISEASE PROGRAM	5R18 CA20749-03	37,075
ORGANIZATION TOTAL	5 766,713		

NOTE: Grants are listed according to the State or country and city of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PALO ALTO			
NORTHERN CALIFORNIA CANCER PROGRAM, INC. ZIP CODE 94304			
CARTER, STEPHEN K	NO. CALIFORNIA CANCER CONTROL	5R18 CA22721-02	1,033,509
CARTER, STEPHEN K	NCOG ED./DEMO. PROGRAM FOR COMMUNITY HEALTH PROVIDERS	1R18 CA24751-01	582,431
ORGANIZATION TOTAL	2 1,615,940		
SAN DIEGO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN DIEGO STATE UNIVERSITY ZIP CODE 92182			
SPINETTA, JOHN J.	ADJUSTMENT AND ADAPTATION IN CHILDREN WITH CANCER	5R18 CA21254-03	191,114
ORGANIZATION TOTAL	1 191,114		
STATE TOTAL	11 2,866,205		
COLORADO			
DENVER			
COLORADO REGIONAL CANCER CENTER ZIP CODE 80262			
ARNOLD, MARY	CANCER IN WOMEN RECEIVING EXOGENOUS ESTROGENS	1R18 CA25478-01	87,844
BERG, JOHN W.	MONITORING FOR CANCER RISKS	1R18 CA25254-01	107,458
ORGANIZATION TOTAL	2 195,302		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO MEDICAL CENTER ZIP CODE 80262			
KIRSCH, WOLFF M.	PAIN CONTROL IN CANCER PATIENTS	5R18 CA20370-03	60,027
ORGANIZATION TOTAL	1 60,027		
STATE TOTAL	3 255,329		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
KEGELES, S STEPHEN	WOMAN'S ACCEPTANCE OF BREAST SELF-EXAMINATION	1R18 CA26216-01	115,778
ORGANIZATION TOTAL	1 115,778		
NEW HAVEN			
YALE UNIVERSITY ZIP CODE 06520			
DIXON, JANE	NURSING INTERVENTIONS IN NUTRITION OF CANCER PATIENTS	1R18 CA26619-01	176,860
GENEL, MYRON	MONITORING FAMILIAL MEDULLARY CARCINOMA OF THE THYROID	5R18 CA18863-04	36,495
ORGANIZATION TOTAL	2 213,355		
STATE TOTAL	3 329,133		
DELAWARE			
WILMINGTON			
WILMINGTON MEDICAL CENTER ZIP CODE 19801			
WHITNEY, LESLIE W.	TUMOR CONTROL CENTER PROGRAM	3R18 CA18940-02S2	15,979
WHITNEY, LESLIE W.	TUMOR CONTROL CENTER PROGRAM	2R18 CA18940-03	191,595

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
DELAWARE—Continued			
WHITNEY, LESLIE W.....	CANCER CONTROL DEVELOPMENTAL AND SUPPORT GRANT.....	5R18 CA22071-03	154,646
ORGANIZATION TOTAL	3 362,220		
STATE TOTAL	3 362,220		
DIST OF COL			
WASHINGTON			
HOWARD UNIVERSITY ZIP CODE 20059			
WHITE, JACK E.....	CANCER CENTER COMMUNITY OUTREACH DEVELOPMENTAL GRANT.....	5R18 CA18510-03	350,231
ORGANIZATION TOTAL	1 350,231		
STATE TOTAL	1 350,231		
FLORIDA			
GAINESVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611			
PENNYPACKER, HENRY S.....	SIMULATED BREASTS FOR THE TRAINING OF LUMP DETECTION.....	5R18 CA20791-02	164,632
ORGANIZATION TOTAL	1 164,632		
MIAMI			
UNIVERSITY OF MIAMI ZIP CODE 33101			
HEALEY, JOHN E, JR.....	CANCER CONTROL DEVELOPMENTAL AND SUPPORT GRANT.....	5R18 CA17910-05	182,180
ORGANIZATION TOTAL	1 182,180		
STATE TOTAL	2 346,812		
ILLINOIS			
CHICAGO			
CHILDREN'S MEMORIAL HOSPITAL ZIP CODE 60614			
SCHULMAN, JEROME L.....	COPING IN FAMILIES WITH A LEUKEMIC CHILD.....	5R18 CA19344-04	123,203
ORGANIZATION TOTAL	1 123,203		
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
STEINER, JAN W.....	DEVELOPMENT OF COORDINATED CANCER PROGRAM.....	3R18 CA20071-03S1	141,838
WARNECKE, RICHARD B.....	CANCER INFORMATION NEEDS IN ILLINOIS.....	5R18 CA21954-03	127,521
ORGANIZATION TOTAL	2 269,359		
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
LOGEMANN, JERILYN A.....	EVALUATION OF REHABILITATION OF OROPHARYNGEAL CANCER.....	5R18 CA18901-05	77,357
LOGEMANN, JERILYN A.....	PROSTHETIC REHABILITATION OF OROPHARYNGEAL CANCER.....	5R18 CA20876-03	63,890
ORGANIZATION TOTAL	2 141,247		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
BIBBO, MARLUCE.....	ASSESSMENT OF TECHNIQS FOR ENDOMETRIAL CANCER DETECTION.....	5R18 CA22460-02	36,074
ROBSON, MARTIN C.....	REHABILITATION OF THE HEAD AND NECK CANCER PATIENT.....	5R18 CA20396-02	66,276
ORGANIZATION TOTAL	2 102,350		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
ILLINOIS—Continued			
URBANA			
REGIONAL HEALTH RESOURCE CENTER	ZIP CODE 61801		
WILLIAMS, BEN T.....	DEVELOPMENT OF A COMPUTER-BASED CANCER PROFILE PROGRAM.....	1R18 CA24644-01	59,750
ORGANIZATION TOTAL	1	59,750	
STATE TOTAL	8	695,909	
IOWA			
IOWA CITY			
UNIVERSITY OF IOWA	ZIP CODE 52242		
KISKER, C THOMAS.....	COMMUNITY BASED THERAPY FOR CHILDREN WITH CANCER.....	5R18 CA18139-05	134,208
ORGANIZATION TOTAL	1	134,208	
STATE TOTAL	1	134,208	
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS	ZIP CODE 66103		
CAIRNS, NANCY U.....	PEDIATRIC CANCER CONTROL: SCHOOL AND NURSING OUTREACH.....	1R18 CA25271-01	161,736
LANSKY, SHIRLEY B.....	CHILDHOOD CANCER: PSYCHOSOCIAL REHABILITATION.....	5R18 CA17806-05	190,733
LOWMAN, JAMES T.....	CANCER CONTROL DEVELOPMENT AND SUPPORT GRANT.....	5R18 CA22663-02	80,713
ORGANIZATION TOTAL	3	433,182	
STATE TOTAL	3	433,182	
KENTUCKY			
LEXINGTON			
EPHRAIM MC DOWELL CANCER RESEARCH FOUNDATION CORPORATION	ZIP CODE 40503		
GOLDENBERG, DAVID M.....	COMMUNITY OUTREACH DEVELOPMENT PROGRAM.....	3R18 CA22124-02S1	36,060
GOLDENBERG, DAVID M.....	COMMUNITY OUTREACH DEVELOPMENT PROGRAM.....	5R18 CA22124-03	255,917
WALKINSHAW, MAUREEN D.....	CANCER HOPELINE: INFORMATION/SUPPORT SYSTEM.....	1R18 CA26437-01	82,009
ORGANIZATION TOTAL	3	373,986	
UNIVERSITY OF KENTUCKY	ZIP CODE 40506		
BLUES, ANN G.....	HOME CARE FOR THE TERMINALLY ILL: A STUDY OF 3 MODELS.....	1R18 CA26682-01	62,080
ORGANIZATION TOTAL	1	62,080	
LOUISVILLE			
UNIVERSITY OF LOUISVILLE	ZIP CODE 40208		
MOORE, CONDUCT.....	CANCER CONTROL DEVELOPMENTAL AND SUPPORT GRANT.....	5R18 CA22091-02	317,359
ORGANIZATION TOTAL	1	317,359	
STATE TOTAL	5	753,425	

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
MARYLAND			
BALTIMORE			
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218			
THOMAS, CAROLINE B.....	PSYCHOLOGICAL AND FAMILIAL PRECURSORS OF CANCER.....	5R18 CA24416-02	144,130
WAALKES, T PHILLIP.....	CANCER CONTROL DEVELOPMENT AND SUPPORT GRANT.....	2R18 CA17448-04A1	419,167
WAALKES, T PHILLIP.....	EXPLORATORY STUDIES FOR A STATE-WIDE CANCER NETWORK.....	5R18 CA20322-03	272,637
ORGANIZATION TOTAL	3 835,934		
STATE TOTAL	3 835,934		
MASSACHUSETTS			
BOSTON			
BOSTON UNIVERSITY ZIP CODE 02215			
ALBERT, ARTHUR E.....	SCREENING FOR THE EARLY DETECTION OF CANCER.....	5R18 CA17807-05	115,213
ORGANIZATION TOTAL	1 115,213		
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
WEISMAN, AVERY D.....	PSYCHOSOCIAL SCREENING AND INTERVENTIONS IN CANCER CARE.....	5R18 CA19797-03	269,810
ORGANIZATION TOTAL	1 269,810		
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115			
NATHAN, DAVID G.....	PSYCHOSOCIAL SEQUELAE OF CHILDHOOD CANCER.....	5R18 CA18429-05	252,745
PATTERSON, W BRADFORD.....	CANCER CONTROL DEVELOPMENTAL GRANT.....	5R18 CA16408-05	1,301,115
STONBERG, MARION F.....	REGIONAL DEVELOPMENT OF ONCOLOGIC SOCIAL WORK SKILLS.....	5R18 CA20615-02	95,431
ORGANIZATION TOTAL	3 1,649,291		
UNIVERSITY HOSPITAL ZIP CODE 02118			
FRIEDMAN, ROBERT H.....	CANCER CARE DATA MANAGEMENT SYSTEM.....	5R18 CA19134-02	253,056
ORGANIZATION TOTAL	1 253,056		
STATE TOTAL	6 2,287,370		
MINNESOTA			
MINNEAPOLIS			
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL ZIP CODE 55455			
MARTINSON, IDA M.....	HOME CARE FOR CHILD WITH CANCER.....	3R18 CA19490-03S1	141,978
ORGANIZATION TOTAL	1 141,978		
ROCHESTER			
MAYO FOUNDATION ZIP CODE 55901			
IVINS, JOHN C.....	CANCER REHABILITATION PROGRAM.....	1R18 CA23751-01	222,190
ORGANIZATION TOTAL	1 222,190		
STATE TOTAL	2 364,168		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
NEW YORK			
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH—ROSSELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
AUNGST, C WILLIAM	CANCER CONTROL OUTREACH PROGRAM	5R18 CA16411-05	362,631
FREEMAN, ARNOLD I	CNS PROPHYLAXIS IN CHILDHOOD ACUTE LYMPHOCYTIC LEUKEMIA	1R18 CA25402-01	147,708
WALLACE, HAROLD J, JR	DEMONSTRATION UNIT FOR ADOLESCENT CANCER PATIENTS	5R18 CA20617-02	245,548
ORGANIZATION TOTAL	3 755,887		
NEW YORK			
AMERICAN HEALTH FOUNDATION ZIP CODE 10017			
ARNOLD, CHARLES	CANCER CONTROL AND PREVENTION PROGRAM SUPPORT	3R18 CA17867-03S2	82,801
ORGANIZATION TOTAL	1 82,801		
COLUMBIA UNIVERSITY ZIP CODE 10027			
ROGERS, THERESA F	LAY GROUP SUPPORT IMPACT ON IMPAIRED'S RECOVERY/FUNCTION	3R18 CA22219-02S1	51,408
ROGERS, THERESA F	LAY GROUP SUPPORT IMPACT ON IMPAIRED'S RECOVERY/FUNCTION	5R18 CA22219-03	196,790
ORGANIZATION TOTAL	2 248,198		
NEW YORK UNIVERSITY ZIP CODE 10003			
LEHNEIS, HANS R	ADVANCED PROSTHETICS/ORTHOTICS IN CANCER MANAGEMENT	5R18 CA20703-03	170,755
WOLFF, B BERTHOLD	EVALUATION AND CONTROL OF CHRONIC PAIN IN CANCER	5R18 CA20652-03	187,031
ORGANIZATION TOTAL	2 357,786		
ROCHESTER			
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
MORROW, GARY R	COUNSELING INTERVENTION FOR CHEMOTHERAPY SIDE EFFECTS	1R18 CA26832-01	36,279
SCHMALE, ARTHUR H	PSYCHOSOCIAL COLLABORATIVE GROUP FOR CANCER CONTROL	2R18 CA19681-03	350,785
WOODARD, ELIZABETH D	HUMAN RADIATION CARCINOGENESIS STUDY	5R18 CA19764-03	102,487
ORGANIZATION TOTAL	3 489,551		
SYRACUSE			
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210			
COLTON, RAYMOND H	AN INVESTIGATION OF VOICE CHANGE AFTER RADIOTHERAPY	5R18 CA17962-05	75,406
ORGANIZATION TOTAL	1 75,406		
STATE TOTAL	12 2,009,629		
NORTH CAROLINA			
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
CLIPPINGER, FRANK W	SENSORY FEEDBACK LEG PROSTHESIS FOR CANCER PATIENTS	3R18 CA17945-03S2	11,966
CLIPPINGER, FRANK W	SENSORY FEEDBACK LEG PROSTHESIS FOR CANCER PATIENTS	2R18 CA17945-04	173,038
HAMMOND, CHARLES B	REGIONAL TROPHOBLASTIC DISEASE CENTER	2R18 CA19272-04	108,427
ORGANIZATION TOTAL	3 293,431		
STATE TOTAL	3 293,431		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
OHIO			
CINCINNATI			
CHILDREN'S HOSPITAL MEDICAL CENTER	ZIP CODE 45229		
BUNCHER, CHARLES R	CANCER CONTROL DEVELOPMENT: CINCINNATI STRATEGY	1R18 CA25299-01	143,428
ORGANIZATION TOTAL	1 143,428		
COLUMBUS			
OHIO STATE UNIVERSITY	ZIP CODE 43210		
BATTLES, JAMES B.	A REGIONAL AMBULATORY CANCER CHEMOTHERAPY PROGRAM	3R18 CA17942-04S1	21,659
CAVALARIS, CONSTANTINE J.	OHIO STATEWIDE CANCER CONTROL SUPPORT AND DEVELOPMENT	1R18 CA25657-01	416,911
ORGANIZATION TOTAL	2 438,570		
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO	ZIP CODE 43614		
SKEEL, ROLAND T.	NORTHWEST OHIO CANCER NETWORK OUTREACH PROGRAM	5R18 CA21931-02	138,927
ORGANIZATION TOTAL	1 138,927		
STATE TOTAL	4 720,925		
OREGON			
PORTLAND			
MEDICAL RESEARCH FOUNDATION OF OREGON	ZIP CODE 97225		
HUTCHINSON, ALFRED C.	A CONCEPT FOR OPTIMAL CANCER CARE IN OREGON	5R18 CA21267-03	218,133
ORGANIZATION TOTAL	1 218,133		
STATE TOTAL	1 218,133		
PENNSYLVANIA			
PHILADELPHIA			
AMERICAN COLLEGE OF RADIOLOGY--RADIATION ONCOLOGY STUDY CENTER	ZIP CODE 19107		
KRAMER, SIMON	CLINICAL AND RESEARCH RADIATION THERAPY IN CANCER CARE	5R18 CA15978-06	1,626,191
ORGANIZATION TOTAL	1 1,626,191		
CHILDREN'S HOSPITAL OF PHILADELPHIA	ZIP CODE 19104		
MEADOWS, ANNA T.	A PROGRAM OF CANCER INFORMATION EXCHANGE	1R18 CA26191-01	57,293
ORGANIZATION TOTAL	1 57,293		
FOX CHASE CANCER CENTER	ZIP CODE 19111		
DONALDSON, MILTON H.	CANCER CONTROL OUTREACH PROGRAM	3R18 CA23321-02S1	162,121
GROVER, PRAKASH L.	MEASURING PHYSICAL FUNCTION IN CANCER REHABILITATION	1R18 CA25289-01	82,340
ORGANIZATION TOTAL	2 244,461		
WILKES-BARRE			
COMMUNITY CANCER CORPORATION OF LUZERNE COUNTY	ZIP CODE 18703		
GRECO, VICTOR F.	A PILOT DEMONSTRATION DETECTION PROGRAM	3R18 CA22190-01S1	16,450
GRECO, VICTOR F.	A PILOT DEMONSTRATION DETECTION PROGRAM	5R18 CA22190-02	186,903
ORGANIZATION TOTAL	2 203,353		
STATE TOTAL	6 2,131,298		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Project title	Grant number	Dollars
TENNESSEE			
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101			
GOFF, JOHN R.....	NEUROPSYCHOLOGICAL EFFECTS OF LEUKEMIA & ITS TREATMENT	5R18 CA24079-02	128,397
ORGANIZATION TOTAL	1 128,397		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163			
HOON, PETER W.....	SEXUAL EFFECTS OF CERVICAL CANCER	1R18 CA26364-01	103,338
ORGANIZATION TOTAL	1 103,338		
NASHVILLE			
VANDERBILT UNIVERSITY ZIP CODE 37240			
BURISH, THOMAS G.....	REDUCING ADVERSE REACTIONS TO CANCER CHEMOTHERAPY.....	1R18 CA25516-01	52,740
ORGANIZATION TOTAL	1 52,740		
STATE TOTAL	3 284,475		
TEXAS			
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON ZIP CODE 77550			
BAILEY, BYRON J.....	ELECTRONIC LARYNGEAL PROSTHESIS	5R18 CA17961-05	117,377
ORGANIZATION TOTAL	1 117,377		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE ZIP CODE 77025			
SPIRA, MELVIN.....	FREE FLAP TRACHEA AND ESOPHAGEAL RECONSTRUCTION.....	5R18 CA23783-02	43,906
SPIRA, MELVIN.....	A NEW METHOD USING OMENTUM TO RECONSTRUCT DEFORMITIES.....	1R18 CA25650-01	105,567
ORGANIZATION TOTAL	2 149,473		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025			
JACKSON, CARMALT B, JR.....	CANCER CONTROL DEVELOPMENT	3R18 CA16413-03S2	9,381
JACKSON, CARMALT B, JR.....	CANCER CONTROL PROGRAM FOR FAMILY PRACTITIONERS.....	5R18 CA19460-03	210,004
ORGANIZATION TOTAL	2 219,385		
SAN ANTONIO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284			
ZELTZER, LONNIE K.....	USE OF SELF-HYPNOSIS FOR CONTROL OF PAIN	1R18 CA27376-01	145,859
ORGANIZATION TOTAL	1 145,859		
STATE TOTAL	6 632,094		
VERMONT			
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05401			
FOSTER, ROGER S, JR.....	BREAST CANCER DETECTION BY BREAST SELF-EXAMINATION.....	1R18 CA26363-01	108,241
ORGANIZATION TOTAL	1 108,241		
STATE TOTAL	1 108,241		

**Table 5.—Cancer Control Grants, by Area, Organization, and Project
Director, Fiscal Year 1979—Continued**

Project director	Project title	Grant number	Dollars
WASHINGTON			
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER		ZIP CODE 98104	
HONGLADAROM, GAIL L.....	COMMUNITY-BASED CANCER NURSING EDUCATIONAL PROGRAM	1R18 CA25570-01	213,381
HUTCHINSON, WILLIAM B.....	CANCER CONTROL DEVELOPMENT GRANT	5R18 CA16404-05	738,108
HUTCHINSON, WILLIAM B.....	PROJECT CHOICE. CANCER PREVENTION IS YOUR CHOICE.....	1R18 CA25523-01	108,950
POLISSAR, LINCOLN.....	REFERRAL OF CANCER PATIENTS IN THE PUGET SOUND REGION.....	1R18 CA25919-01	67,036
ORGANIZATION TOTAL	4 1,127,475		
VIRGINIA MASON RESEARCH CENTER		ZIP CODE 98101	
CARLILE, THOMAS.....	PREDICTIVE VALUE OF WOLFE CLASS IN BCDDP WOMEN.....	1R18 CA26071-01	257,301
ORGANIZATION TOTAL	1 257,301		
STATE TOTAL	5 1,384,776		
WISCONSIN			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON		ZIP CODE 53706	
CLEELAND, CHARLES S.....	A PILOT STUDY OF CANCER PAIN	1R18 CA26582-01	152,956
JOHNSON, ROBERT O.....	DEVELOPMENT OF REGIONAL CANCER CONTROL PROGRAM	5R18 CA16405-04	529,684
ORGANIZATION TOTAL	2 682,640		
STATE TOTAL	2 682,640		

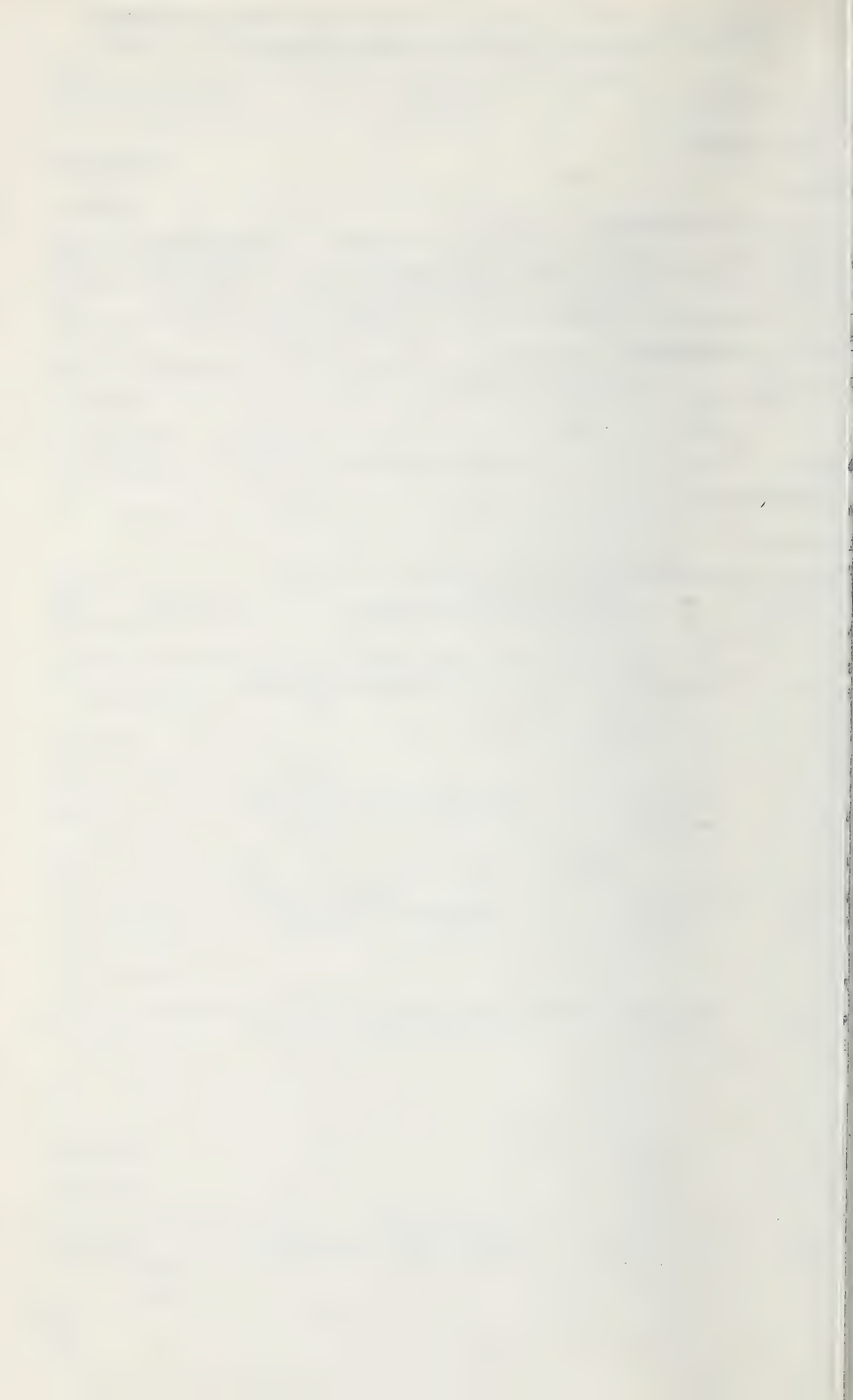


Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979

Responsible official			Grant number	Dollars
TOTAL, 79 GRANTS				2,007,894
ALABAMA				
MONTGOMERY				
ALABAMA HOSPITAL ASSOCIATION		ZIP CODE 36117		
CRAWFORD, FRED C.....			1G08 LM03230-01	59,251
ORGANIZATION TOTAL	1	59,251		
TUSKEGEE INSTITUTE				
TUSKEGEE INSTITUTE		ZIP CODE 36088		
JOHNSON, WILLIAM E, JR.....			5G08 LM03176-02	12,350
ORGANIZATION TOTAL	1	12,350		
STATE TOTAL	2	71,601		
ARKANSAS				
PARAGOULD				
COMMUNITY METHODIST HOSPITAL		ZIP CODE 72450		
PRATT, PATTY.....			2G07 LM03046-02A1	36,000
ORGANIZATION TOTAL	1	36,000		
SPRINGDALE				
SPRINGDALE MEMORIAL HOSPITAL		ZIP CODE 72764		
CLEVINGER, VIRGINIA.....			5G08 LM02978-03	43,683
ORGANIZATION TOTAL	1	43,683		
STATE TOTAL	2	79,683		

NOTE: For comments on organizations, see Appendix.

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
CALIFORNIA				
ANAHEIM				
ANAHEIM MEMORIAL HOSPITAL			ZIP CODE 92801	
MYRICK, CAROLE			1G07 LM03323-01	21,520
ORGANIZATION TOTAL	1	21,520		
FULLERTON				
SOUTHERN CALIFORNIA COLLEGE OF OPTOMETRY			ZIP CODE 92631	
CARLSON, PATRICIA T.			5G08 LM03159-02	20,473
ORGANIZATION TOTAL	1	20,473		
MARTINEZ				
CONTRA COSTA COUNTY MEDICAL SERVICES			ZIP CODE 94553	
WHITE, GLENN L.			1G07 LM03182-01	3,835
ORGANIZATION TOTAL	1	3,835		
SAN DIEGO				
CHILDREN'S HOSPITAL AND HEALTH CENTER			ZIP CODE 92123	
WOOD, CAROLYN R.			2G07 LM03161-02	6,000
ORGANIZATION TOTAL	1	6,000		
SAN FRANCISCO				
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO			ZIP CODE 94143	
BISHOP, DAVID			1G08 LM03310-01	39,223
ORGANIZATION TOTAL	1	39,223		
SAN JOSE				
MEDI-SHARE			ZIP CODE 95128	
SKILLICORN, STANLEY			5G08 LM02733-03	4,650
ORGANIZATION TOTAL	1	4,650		
SAN JOSE HOSPITAL AND HEALTH CENTER			ZIP CODE 95112	
RUSSELL, SUSAN L.			1G08 LM03269-01	50,000
ORGANIZATION TOTAL	1	50,000		
STATE TOTAL	7	145,701		
COLORADO				
BOULDER				
BOULDER COMMUNITY HOSPITAL			ZIP CODE 80302	
BOYER, G ROBERT			1G07 LM03102-01	4,000
ORGANIZATION TOTAL	1	4,000		
MENTAL HEALTH CENTER OF BOULDER COUNTY			ZIP CODE 80302	
MARTINEZ, FLOYD H.			1G07 LM03285-01	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	2	8,000		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official		Grant number		Dollars
CONNECTICUT				
MIDDLETOWN				
CONNECTICUT STATE DEPARTMENT OF MENTAL HEALTH-CONNECTICUT VALLEY HOSPITAL		ZIP CODE 06457		
ASBELL, MILDRED S.....		5G08 LM03064-02		6,355
ORGANIZATION TOTAL	1		6,355	
NEW HAVEN				
YALE UNIVERSITY		ZIP CODE 06520		
VISELTEAR, ARTHUR J.....		1G08 LM03072-01		32,813
ORGANIZATION TOTAL	1		32,813	
WATERBURY				
NORTHWESTERN CONNECTICUT HEALTH SCIENCE LIBRARY CONSORTIUM		ZIP CODE 06702		
FULLER, JEAN		1G07 LM03155-01		18,000
ORGANIZATION TOTAL	1		18,000	
STATE TOTAL	3		57,168	
FLORIDA				
GAINESVILLE				
STATE UNIVERSITY SYSTEM OF FLORIDA-UNIVERSITY OF FLORIDA		ZIP CODE 32611		
SRYGLEY, TED F.....		1G08 LM03244-01		98,871
ORGANIZATION TOTAL	1		98,871	
STATE TOTAL	1		98,871	
IDAHO				
BOISE				
IDAHO STATE DEPARTMENT OF EDUCATION		ZIP CODE 83720		
MILLER, HELEN M.....		5G08 LM02880-03		31,500
MILLER, HELEN M.....		1G08 LM03357-01		46,619
ORGANIZATION TOTAL	2		78,119	
MC CALL				
MC CALL MEMORIAL HOSPITAL		ZIP CODE 83638		
HART, GERALD L.....		1G07 LM03241-01		4,000
ORGANIZATION TOTAL	1		4,000	
POCATELLO				
BANNOCK MEMORIAL HOSPITAL		ZIP CODE 83201		
MC NAMARA, MARGARET.....		1G07 LM03314-01		15,436
ORGANIZATION TOTAL	1		15,436	
STATE TOTAL	4		97,555	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
ILLINOIS				
CHICAGO				
JOHN CRERAR LIBRARY	ZIP CODE 60616			
MAY, RUBY S.....			1G08 LM03240-01	12,100
ORGANIZATION TOTAL	1	12,100		
WINFIELD				
CENTRAL DU PAGE HOSPITAL	ZIP CODE 60190			
ROWE, DOROTHY B.....			1G08 LM03249-01	50,000
ORGANIZATION TOTAL	1	50,000		
STATE TOTAL	2	62,100		
INDIANA				
WEST LAFAYETTE				
PURDUE UNIVERSITY	ZIP CODE 47907			
MEYER, KENNETH B.....			5G08 LM02883-03	51,314
ORGANIZATION TOTAL	1	51,314		
STATE TOTAL	1	51,314		
KENTUCKY				
MOREHEAD				
MOREHEAD STATE UNIVERSITY	ZIP CODE 40351			
ELLIS, JACK D.....			3G07 LM03158-01S1	3,000
ORGANIZATION TOTAL	1	3,000		
PARIS				
BOURBON COUNTY HOSPITAL	ZIP CODE 40361			
LUCHTEFELD, SHERYL.....			1G07 LM03329-01	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	2	7,000		
LOUISIANA				
BATON ROUGE				
LOUISIANA HEALTH AND HUMAN RESOURCES ADMINISTRATION	ZIP CODE 70802			
LAMBREMONT, J.....			1G08 LM03258-01	33,881
ORGANIZATION TOTAL	1	33,881		
STATE TOTAL	1	33,881		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official		Grant number	Dollars
MAINE			
AUGUSTA			
AUGUSTA GENERAL HOSPITAL	ZIP CODE 04330		
GOODWIN, CLAIRE K		1G08 LM03219-01	28,500
ORGANIZATION TOTAL	1	28,500	
MAINE HOSPITAL ASSOCIATION	ZIP CODE 04330		
HEGGIE, W GRANT, JR.		3G08 LM02908-02S1	8,000
WEISENBERG, JANE M		1G08 LM03211-01	35,760
ORGANIZATION TOTAL	2	43,760	
LEWISTON			
CENTRAL MAINE MEDICAL CENTER	ZIP CODE 04240		
GENETTI, RAYNNA B		1G08 LM03348-01	46,975
ORGANIZATION TOTAL	1	46,975	
LINCOLN			
PENOBSCOT VALLEY HOSPITAL	ZIP CODE 04457		
JONASON, LEONIDAS		1G07 LM03302-01	3,575
ORGANIZATION TOTAL	1	3,575	
STATE TOTAL	5	122,810	
MARYLAND			
BALTIMORE			
JOHNS HOPKINS UNIVERSITY	ZIP CODE 21218		
LEYS, RUTH		2G08 LM02886-03	29,517
ORGANIZATION TOTAL	1	29,517	
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE	ZIP CODE 21201		
FENG, CYRIL C		1G08 LM03257-01	35,035
ORGANIZATION TOTAL	1	35,035	
BETHESDA			
AMERICAN COLLEGE OF CARDIOLOGY	ZIP CODE 20014		
MILLER, MARTHA L		1G07 LM03199-01	3,600
ORGANIZATION TOTAL	1	3,600	
UNDERSEA MEDICAL SOCIETY	ZIP CODE 20014		
SHILLING, CHARLES W		1G08 LM03134-01A1	17,615
ORGANIZATION TOTAL	1	17,615	
STATE TOTAL	4	85,767	
MASSACHUSETTS			
CAMBRIDGE			
MOUNT AUBURN HOSPITAL	ZIP CODE 02138		
WITTE, LAWRENCE M		5G08 LM03024-03	39,016
ORGANIZATION TOTAL	1	39,016	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
MASSACHUSETTS—Continued				
WORCESTER				
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER			ZIP CODE 01605	
MORTON, DONALD J.....			1G07 LM03147-01	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	2	43,016		
MICHIGAN				
HOLLAND				
HOLLAND COMMUNITY HOSPITAL			ZIP CODE 49423	
KARS, MARJORIE.....			1G07 LM03320-01	3,549
ORGANIZATION TOTAL	1	3,549		
MARQUETTE				
MARQUETTE GENERAL HOSPITAL			ZIP CODE 49855	
KINGSBURY, MILDRED E.....			1G07 LM03332-01	30,000
ORGANIZATION TOTAL	1	30,000		
STATE TOTAL	2	33,549		
MINNESOTA				
CANBY				
CANBY COMMUNITY HOSPITAL DISTRICT ONE			ZIP CODE 56220	
RAIBER, LINDA.....			1G07 LM03237-01	4,000
ORGANIZATION TOTAL	1	4,000		
MINNEAPOLIS				
FAIRVIEW COMMUNITY HOSPITALS			ZIP CODE 55454	
MC INTOSH, LINDA.....			5G08 LM02682-03	13,221
ORGANIZATION TOTAL	1	13,221		
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL			ZIP CODE 55455	
BRUDVIG, GLENN L.....			5G08 LM02586-03	52,522
ORGANIZATION TOTAL	1	52,522		
STATE TOTAL	3	69,743		
MISSOURI				
HANNIBAL				
ST. ELIZABETH'S HOSPITAL			ZIP CODE 63401	
BRUM, JOSEPH G.....			2G07 LM03075-02A1	3,000
ORGANIZATION TOTAL	1	3,000		
STATE TOTAL	1	3,000		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
NEBRASKA				
LINCOLN				
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN			ZIP CODE 68588	
JONES, GARY L			5G08 LM02911-03	146,502
ORGANIZATION TOTAL	1	146,502		
STATE TOTAL	1	146,502		
NEW HAMPSHIRE				
CONCORD				
NEW HAMPSHIRE STATE DEPARTMENT OF HEALTH AND WELFARE—NEW HAMPSHIRE HOSPITAL			ZIP CODE 03301	
PETERS, H IRENE			1G07 LM03238-01	3,995
ORGANIZATION TOTAL	1	3,995		
NORTH CONWAY				
MEMORIAL HOSPITAL			ZIP CODE 03860	
AVIGNONE, CYNTHIA L			1G07 LM03146-01	3,910
ORGANIZATION TOTAL	1	3,910		
STATE TOTAL	2	7,905		
NEW JERSEY				
EDISON				
JOHN F. KENNEDY MEDICAL CENTER			ZIP CODE 08817	
TIPTON, ROBERTA			1G07 LM03325-01	4,000
ORGANIZATION TOTAL	1	4,000		
ELIZABETH				
ELIZABETH GENERAL HOSPITAL AND DISPENSARY			ZIP CODE 07201	
BOSS, CATHERINE M			5G08 LM02999-02	19,356
ORGANIZATION TOTAL	1	19,356		
STATE TOTAL	2	23,356		
NEW YORK				
CANTON				
NORTH COUNTRY REFERENCE AND RESEARCH RESOURCES COUNCIL			ZIP CODE 13617	
KIMBALL, RICHARD H			1G07 LM03316-01	8,960
ORGANIZATION TOTAL	1	8,960		
JOHNSON CITY				
CHARLES S. WILSON MEMORIAL HOSPITAL			ZIP CODE 13790	
EDSALL, SHIRLEY			5G08 LM03170-02	36,248
ORGANIZATION TOTAL	1	36,248		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
NEW YORK—Continued				
NEW YORK				
CITY UNIVERSITY OF NEW YORK--MOUNT SINAI SCHOOL OF MEDICINE			ZIP CODE 10029	
GOLDSTEIN, RACHAEL K.....			5G08 LM02780-03	79,592
ORGANIZATION TOTAL	1	79,592		
NEW YORK PSYCHOANALYTIC INSTITUTE			ZIP CODE 10028	
WOLPE, KATHARINE B.....			1G08 LM03206-01	48,851
ORGANIZATION TOTAL	1	48,851		
ROCHESTER				
PARK RIDGE HOSPITAL			ZIP CODE 14626	
SHIRLEY, EILEEN P.....			1G07 LM03328-01	4,000
ORGANIZATION TOTAL	1	4,000		
UTICA				
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE--UTICA-MARCY PSYCHIATRIC CENTERS			ZIP CODE 13502	
SMITH, TOMS E.....			5G08 LM03059-02	19,924
ORGANIZATION TOTAL	1	19,924		
STATE TOTAL	6	197,575		
NORTH CAROLINA				
GOLDSBORO				
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES--CHERRY HOSPITAL			ZIP CODE 27530	
TABORY, MAXIM.....			5G08 LM02983-02	17,446
ORGANIZATION TOTAL	1	17,446		
RALEIGH				
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES--DOROTHEA DIX HOSPITAL			ZIP CODE 27611	
WALKER, PRESTON A.....			5G08 LM03125-02	10,389
ORGANIZATION TOTAL	1	10,389		
STATE TOTAL	2	27,835		
OHIO				
ATHENS				
CONSORTIUM FOR HEALTH EDUCATION IN APPALACHIA OHIO			ZIP CODE 45701	
BURKE, DAVID L.....			1G08 LM03256-01	65,136
ORGANIZATION TOTAL	1	65,136		
STATE TOTAL	1	65,136		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
OKLAHOMA				
OKLAHOMA CITY				
PRESBYTERIAN HOSPITAL	ZIP CODE 73104			
WILLIAMS, DOROTHY			1G07 LM03326-01	15,310
ORGANIZATION TOTAL	1	15,310		
STATE TOTAL	1	15,310		
OREGON				
PENDLETON				
COUNCIL FOR MEDICAL EDUCATION AND DEVELOPMENT	ZIP CODE 97801			
BOWERS, GEORGE G.			1G07 LM03203-01	4,000
ORGANIZATION TOTAL	1	4,000		
PORTLAND				
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER	ZIP CODE 97201			
MORGAN, JAMES E.			5G08 LM03115-02	81,715
ORGANIZATION TOTAL	1	81,715		
STATE TOTAL	2	85,715		
PENNSYLVANIA				
ALLENTOWN				
ALLENTOWN AND SACRED HEART HOSPITAL CENTER	ZIP CODE 18103			
WESTON, KAREN W.			1G07 LM03317-01	20,044
ORGANIZATION TOTAL	1	20,044		
CHESTER				
CROZER-CHESTER MEDICAL CENTER	ZIP CODE 19013			
BROWN, LEE C.			5G08 LM02996-03	32,721
ORGANIZATION TOTAL	1	32,721		
PHILADELPHIA				
COLLEGE OF PHYSICIANS OF PHILADELPHIA	ZIP CODE 19103			
MORSE, ELLIOTT H.			1G08 LM03315-01	50,000
ORGANIZATION TOTAL	1	50,000		
JAMES C. GIUFFRE MEDICAL CENTER	ZIP CODE 19122			
JONIEC, ALLATHEA			1G07 LM03321-01	3,971
ORGANIZATION TOTAL	1	3,971		
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE	ZIP CODE 19104			
CHASE, ELIZABETH W.			5G08 LM03015-03	26,977
ORGANIZATION TOTAL	1	26,977		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official		Grant number	Dollars
PENNSYLVANIA—Continued			
PITTSBURGH			
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
STARK, LUCILE.....		5G08 LM03139-02	23,786
ORGANIZATION TOTAL	1	23,786	
SAYRE			
ROBERT PACKER HOSPITAL ZIP CODE 18840			
ANTES, E JEAN.....		1G08 LM03301-01	66,033
ORGANIZATION TOTAL	1	66,033	
SOMERSET			
PENNSYLVANIA STATE DEPARTMENT OF PUBLIC WELFARE--SOMERSET STATE HOSPITAL ZIP CODE 15501			
KLINE, EVE.....		1G07 LM03275-01	4,000
ORGANIZATION TOTAL	1	4,000	
STATE TOTAL	8	227,532	
SOUTH DAKOTA			
ABERDEEN			
ST. LUKE'S HOSPITAL ZIP CODE 57401			
PETERSEN, BYRON L.....		1G07 LM03297-01	5,953
ORGANIZATION TOTAL	1	5,953	
VERMILLION			
UNIVERSITY OF SOUTH DAKOTA ZIP CODE 57069			
BRENNEN, PATRICK W.....		5G08 LM02920-03	30,063
ORGANIZATION TOTAL	1	30,063	
WATERTOWN			
ST. ANN'S HOSPITAL ZIP CODE 57201			
CONEJO, DAVID.....		1G07 LM03233-01	4,000
ORGANIZATION TOTAL	1	4,000	
STATE TOTAL	3	40,016	
TEXAS			
TEXARKANA			
NORTHEAST TEXAS COUNCIL OF HEALTH RESOURCES ZIP CODE 75501			
TRAMMELL, HAROLD J.....		5G08 LM02348-03	17,692
ORGANIZATION TOTAL	1	17,692	
STATE TOTAL	1	17,692	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
UTAH				
SALT LAKE CITY				
INTERMOUNTAIN HEALTH CARE—PRIMARY CHILDREN'S MEDICAL CENTER			ZIP CODE 84103	
BAER, MARY L			1G07 LM03239-01	2,950
ORGANIZATION TOTAL	1	2,950		
STATE TOTAL	1	2,950		
VERMONT				
BRATTLEBORO				
BRATTLEBORO RETREAT			ZIP CODE 05301	
RAND, JANE			1G07 LM03283-01	3,995
ORGANIZATION TOTAL	1	3,995		
STATE TOTAL	1	3,995		
VIRGINIA				
RICHMOND				
VIRGINIA COMMONWEALTH UNIVERSITY			ZIP CODE 23284	
SHAFFER, MELVIN C.			5G08 LM03057-02	63,616
ORGANIZATION TOTAL	1	63,616		
STATE TOTAL	1	63,616		
WASHINGTON				
BREMERTON				
HARRISON MEMORIAL HOSPITAL			ZIP CODE 98310	
O'NEILL, JULIE L			1G07 LM03298-01	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	1	4,000		
WEST VIRGINIA				
NEW MARTINSVILLE				
WETZEL COUNTY HOSPITAL			ZIP CODE 26155	
RUST, MICHAEL T.			1G07 LM03228-01A1	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	1	4,000		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1979—Continued

Responsible official			Grant number	Dollars
WYOMING				
CASPER				
MEMORIAL HOSPITAL OF NATRONA COUNTY			ZIP CODE 82601	
SPENCER, LEWIS.....			1G07 LM03294-01	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	1	4,000		

APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetic sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization. The tables in which the organizations may be found are shown in parentheses following their locations.

United States

- Affiliated Hospitals Center--Boston (2 units), Mass. (2,3)
California State University and Colleges System--Los Angeles, Northridge, San Diego, Calif. (2,3,5)
City University of New York--New York (4 units), N.Y. (2,3,6)
College of Medicine and Dentistry of New Jersey--Newark, Piscataway, N.J. (2,3)
Cornell University--Ithaca, New York, N.Y. (2,3)
Ephraim Mc Dowell Cancer Research Foundation Corporation (formerly shown as Ephraim McDowell Community Cancer Network)--Lexington, Ky. (5)
Harvard University--Boston, Cambridge, Mass. (2,3)
Indiana University--Bloomington, Indianapolis, Ind. (2,3)
Intermountain Health Care (formerly known and shown as Latter-Day Saints Hospital System)--Salt Lake City, Utah (6)
Louisiana State University--Baton Rouge, New Orleans, La. (2,3)
New York State Department of Health (may include awards to Health Research, Inc.)--Albany, Buffalo, N.Y. (2,3,5)
New York State Department of Mental Hygiene (may include awards to New York State Research Foundation for Mental Hygiene, Inc.)--New York, Utica, N.Y. (2,6)
North Carolina Department of Human Resources (may include awards to North Carolina Foundation for Mental Health Research, Inc.)--Chapel Hill, Goldsboro, Raleigh (2 units), N.C. (2,6)
Northeastern Ohio Universities College of Medicine (formerly shown in Kent, Ohio)--Rootstown, Ohio (2)
Northwestern University--Chicago, Evanston, Ill. (2,3,5)
Oregon State Higher Education System--Corvallis, Eugene, Portland, Oreg. (2,3,6)
Pennsylvania State University--Hershey, University Park, Pa. (2,3)
Rutgers The State University--New Brunswick, Newark, N.J. (2,3)
State University of New York--Buffalo, New York, Stony Brook, Syracuse, N.Y. (2,3,5)
State University System of Florida--Gainesville, Tallahassee, Fla. (2,3,5,6)
Texas Agricultural and Mechanical University System--College Station, Prairie View, Tex. (2,3)
Tulane University--Covington, New Orleans, La. (2,3)

U.S. Department of Agriculture--Gainesville, Fla.; Beltsville, Md. (2)

U.S. Department of Defense--Washington, D.C.; Bethesda (2 units), Md. (2)

U.S. Department of Health, Education, and Welfare--Phoenix, Ariz.; Washington, D.C.; Atlanta, Ga.; Baltimore, Bethesda, Rockville (2 units), Md.; Research Triangle Park, N.C. (2)

University of Arkansas--Fayetteville, Little Rock, Ark. (2)

University of California--Berkeley, Davis, Irvine, La Jolla, Los Angeles, Riverside, San Francisco, Santa Barbara, Santa Cruz, Calif. The unit in La Jolla may include awards to the Friends of Psychiatric Research of San Diego. (2-6)

University of Colorado System--Boulder, Denver, Colo. (2,3,5)

University of Connecticut--Farmington, Storrs, Conn. (2,3,5)

University of Illinois--Chicago, Urbana, Ill. (2,3)

University of Kansas--Kansas City, Lawrence, Kans. (2,3,5)

University of Maryland System--Baltimore, College Park, Md. (2,3,6)

University of Massachusetts--Amherst, Worcester, Mass. (2,3,6)

University of Miami--Coral Gables, Miami, Fla. (2,3,5)

University of Minnesota--Duluth, Minneapolis, Minn. (2,3,5,6)

University of Mississippi--Jackson, University, Miss. (2,3)

University of Missouri--Columbia, Kansas City, Mo. (2,3)

University of Nebraska System--Lincoln, Omaha, Nebr. (2,3,6)

University of North Carolina System--Chapel Hill, Greensboro, Raleigh, N.C. (2-4)

University of Puerto Rico--San Juan (2 units), P.R. (2)

University of Tennessee System--Knoxville, Memphis, Tenn. (2,3,5)

University of Texas System--Austin, Dallas, Galveston, Houston (2 units), Richardson, San Antonio, Tex. (2,3,5)

University System of Georgia--Athens, Atlanta, Augusta, Savannah, Ga. (2,3)

Other Countries

Max Planck Society for the Advancement of Science--Frankfurt, Gottingen, Tübingen, Germany, Federal Republic of (2)

Medical Research Council--Cambridge, London, United Kingdom (2)

National Institute of Health and Medical Research--Nice, Paris, France (2)

NIH Publication No. 80 - 1043

MAURICE LEVIN
WESTWOOD BLDG., RM A1-18A *034963

NATIONAL INSTITUTES OF HEALTH

Research and Development
Contracts

Fiscal Year 1979 Funds



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service National Institutes of Health

DISCRIMINATION PROHIBITED: Under provisions of applicable public laws enacted by Congress since 1964, no person in the United States shall, on the ground of race, color, national origin, sex, or handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. In addition, Executive Order 11141 prohibits discrimination on the basis of age by contractors and subcontractors in the performance of Federal contracts. Therefore, the National Institutes of Health grants and awards program, like every program or activity receiving financial assistance from the Department of Health, Education, and Welfare, must be operated in compliance with these laws and executive order.

NATIONAL INSTITUTES OF HEALTH

Research and Development Contracts

Fiscal Year 1979 Funds

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service **National Institutes of Health**

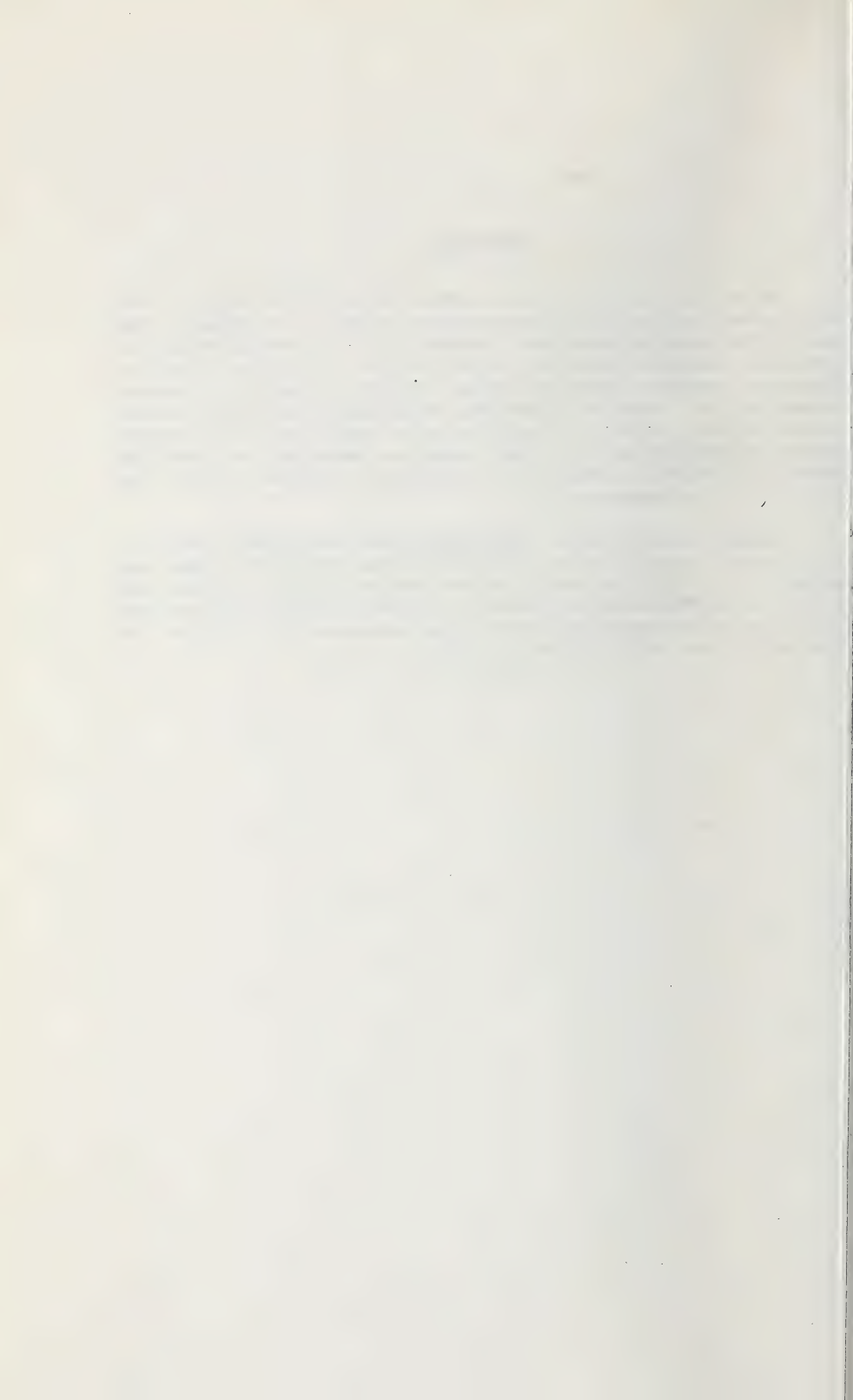
NIH Publication No. 80 - 1044

Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the research contract mechanism is used under appropriate circumstances.

Listings of NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents a list of the contracts awarded by NIH from fiscal year 1979 funds and which were reported to the NIH central record system (IMPAC) as of December 13, 1979. Contracts reported in other systems at NIH are excluded from the report.



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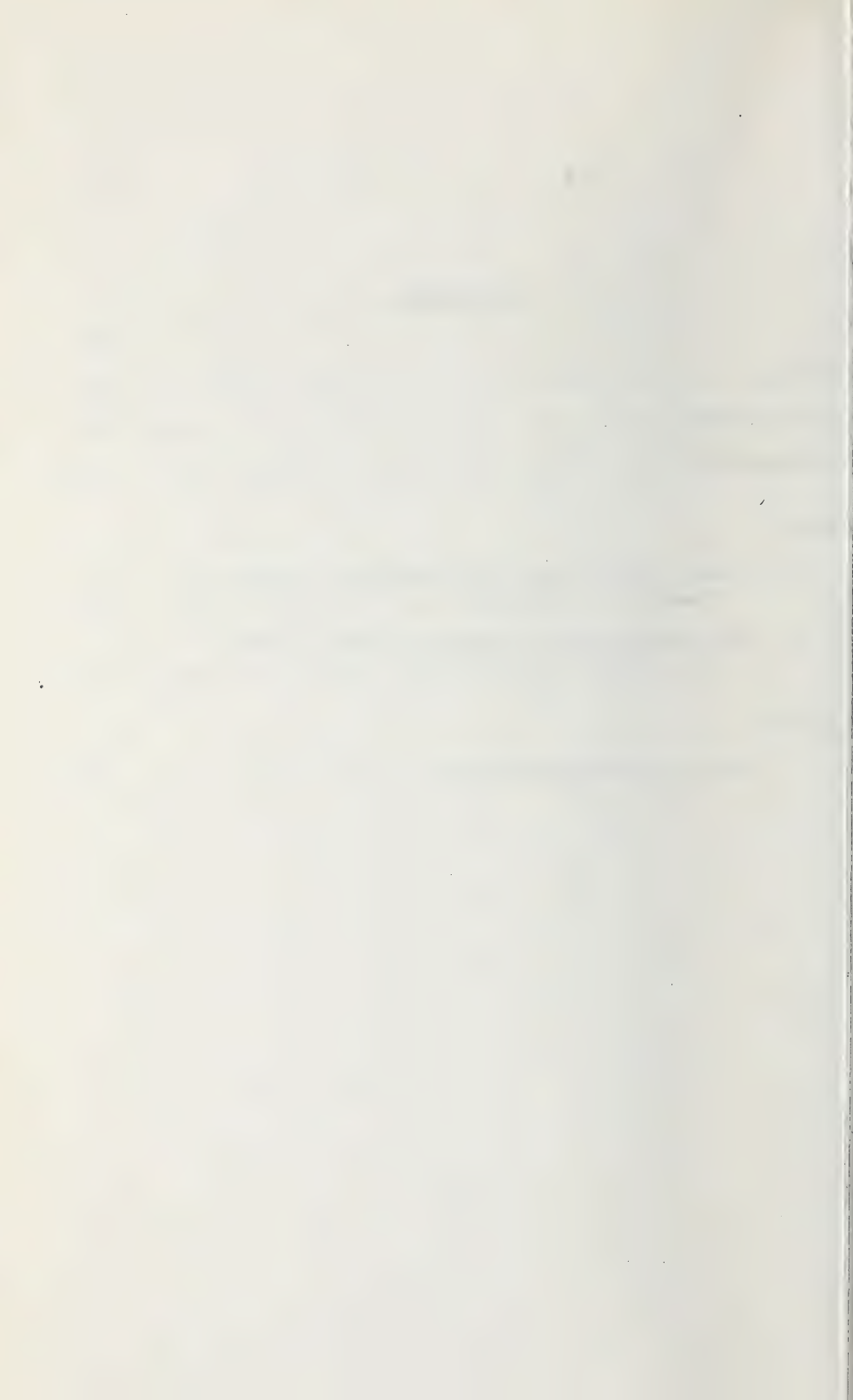
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TECHNICAL NOTE

Explanation of the Contract Mechanism

The increasing importance of research contracts in the NIH extramural research programs has generated considerable analysis and discussion covering, among other aspects, the development of criteria for use of the contract mechanism. These criteria as listed in the NIH Guide for Grants and Contracts, Vol. 6, No. 13, July 1, 1977 are as follows:

BASIC CRITERIA Contracts are used for procurement of research and development when the following considerations obtain:

- a. the NIH procures a specific service or defined end product, including research, development, and related activities for identified NIH program needs, e. g., evaluation studies, technical assistance, surveys, consulting services, training projects where NIH selects the individuals or specifies the content of the program, planning for NIH use, production of publications or audiovisual materials (other than as results of R & D (research and development) projects or as proceedings of scientific conferences which are not being procured for use by the Government); and
- b. the NIH exercises direction or control under terms of the agreement by specifying the scope of the work and manner of performance and requires responsiveness by the performer in the event a change in direction of the effort is necessitated by program developments; and
- c. NIH staff closely monitors technical and administrative performance during the course of the activity to ensure that work on the project is accomplished in accordance with terms of the agreement.

MANDATORY USE OF CONTRACTS Notwithstanding any of the foregoing, selection of contracts is mandatory whenever:

- a. an award is made to a commercial, i.e., profit-making, organization; or
- b. material having a security classification is involved.

Organization Identification

In this presentation of research contracts, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the project director lies. The major part of contractual activities are conducted by universities, research foundations, and commercial and industrial organizations across the Nation. Study of grantee organizations in the United States has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education belonging to a system of higher education is comprised of two or more components, and each component has equal standing in the system, the name of the component is shown after the name of the institution.
2. If a foundation has been established for the purpose of receiving and administering funds, the name and location of the organization having professional responsibility for the contract are shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
3. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and there are as many listings within a given city as there are components of the organization receiving contracts.

In the case of industrial organizations and associations, professional responsibility is assumed to reside at the address of the contractor and not necessarily at the "site of performance." Divisions of parent organizations are shown if they are indicated on the contract, and subsidiaries are linked to parent organizations when the relationship is known.

These qualifications do not apply to foreign organizations or in all cases to organizations in the United States, either because of insufficient information or because of an organizational structure unique to a particular organization.

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed in the Appendix in alphabetic sequence.

ABBREVIATIONS

The component of NIH supporting a contract is indicated by the code letters in the left-hand column. These code letters form part of the identification of the research contract number in Table 2.

<i>Code for supporting component</i>		<i>Abbreviation of supporting component</i>
	Institutes and Research Divisions*.....	IRD
AG	National Institute on Aging.....	NIA
AI	National Institute of Allergy and Infectious Diseases.....	NIAID
AM	National Institute of Arthritis, Metabolism, and Digestive Diseases.....	NIAMDD
CA	National Cancer Institute.....	NCI
CB	Division of Cancer Biology and Diagnosis	
CM	Division of Cancer Treatment	
CN	Division of Cancer Control and Rehabilitation	
CO	Office of the Director, NCI	
CP	Division of Cancer Cause and Prevention	
CL	Clinical Center.....	CLC
CT	Division of Computer Research and Technology.....	DCRT
DE	National Institute of Dental Research.....	NIDR
ES	National Institute of Environmental Health Sciences.....	NIEHS
EY	National Eye Institute.....	NEI
GM	National Institute of General Medical Sciences.....	NIHMS
HD	National Institute of Child Health and Human Development.....	NICHHD
HL	National Heart, Lung, and Blood Institute.....	NHLBI
HB	Division of Blood Diseases and Resources	
HI	Division of Intramural Research	
HO	Office of the Director, NHLBI	
HR	Division of Lung Diseases	
HV	Division of Heart and Vascular Diseases	
NS	National Institute of Neurological and Communicative Disorders and Stroke.....	NINCDS
RG	Division of Research Grants.....	DRG
RR	Division of Research Resources.....	DRR
RS	Division of Research Services.....	DRS
LM	National Library of Medicine.....	NLM
OD	Office of the Director, NIH.....	NIH
TW	Fogarty International Center.....	FIC

*For convenience of presentation, includes the following service components: Clinical Center, Division of Computer Research and Technology, Division of Research Grants, Division of Research Resources, and Division of Research Services.



TABLE 1.--SUMMARY OF RESEARCH AND DEVELOPMENT CONTRACTS, BY SUPPORTING COMPONENT, FISCAL YEAR 1979

SUPPORTING COMPONENT		NUMBER	DOLLARS
TOTAL NATIONAL INSTITUTES OF HEALTH.....			
		1,896	477,215,799
TOTAL INSTITUTES AND RESEARCH DIVISIONS*.....			
		1,830	465,574,829
CLINICAL CENTER.....			
		2	3,052,471
DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY.....			
		3	3,483,121
DIVISION OF RESEARCH GRANTS.....			
		2	106,704
DIVISION OF RESEARCH RESOURCES.....			
		28	5,392,910
DIVISION OF RESEARCH SERVICES.....			
		8	1,039,993
NATIONAL CANCER INSTITUTE.....			
		927	267,254,319
DIVISION OF CANCER BIOLOGY AND DIAGNOSIS.....			
		193	23,795,756
DIVISION OF CANCER CAUSE AND PREVENTION.....			
		326	92,446,746
DIVISION OF CANCER CONTROL AND REHABILITATION.....			
		140	38,320,514
DIVISION OF CANCER TREATMENT.....			
		235	71,923,790
OFFICE OF THE DIRECTOR, NCI.....			
		33	40,767,513
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE.....			
		292	91,282,878
DIVISION OF BLOOD DISEASES AND RESOURCES.....			
		41	8,056,105
DIVISION OF HEART AND VASCULAR DISEASES.....			
		207	75,990,176
DIVISION OF INTRAMURAL RESEARCH.....			
		4	772,660
DIVISION OF LUNG DISEASES.....			
		37	5,927,179
OFFICE OF THE DIRECTOR, NHLBI.....			
		3	536,758
NATIONAL EYE INSTITUTE.....			
		49	5,394,785
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES.....			
		117	16,637,424
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES.....			
		81	15,318,248
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT.....			
		158	20,953,659
NATIONAL INSTITUTE OF DENTAL RESEARCH.....			
		30	3,597,300
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES.....			
		40	7,450,581
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.....			
		2	532,823
NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE.....			
		77	21,474,333
NATIONAL INSTITUTE ON AGING.....			
		14	2,603,280
NATIONAL LIBRARY OF MEDICINE.....			
		60	9,927,096
OFFICE OF THE DIRECTOR.....			
		6	1,713,874

*For convenience of presentation, includes the following service components: Clinical Center, Division of Computer Research and Technology, Division of Research Grants, Division of Research Resources, and Division of Research Services.

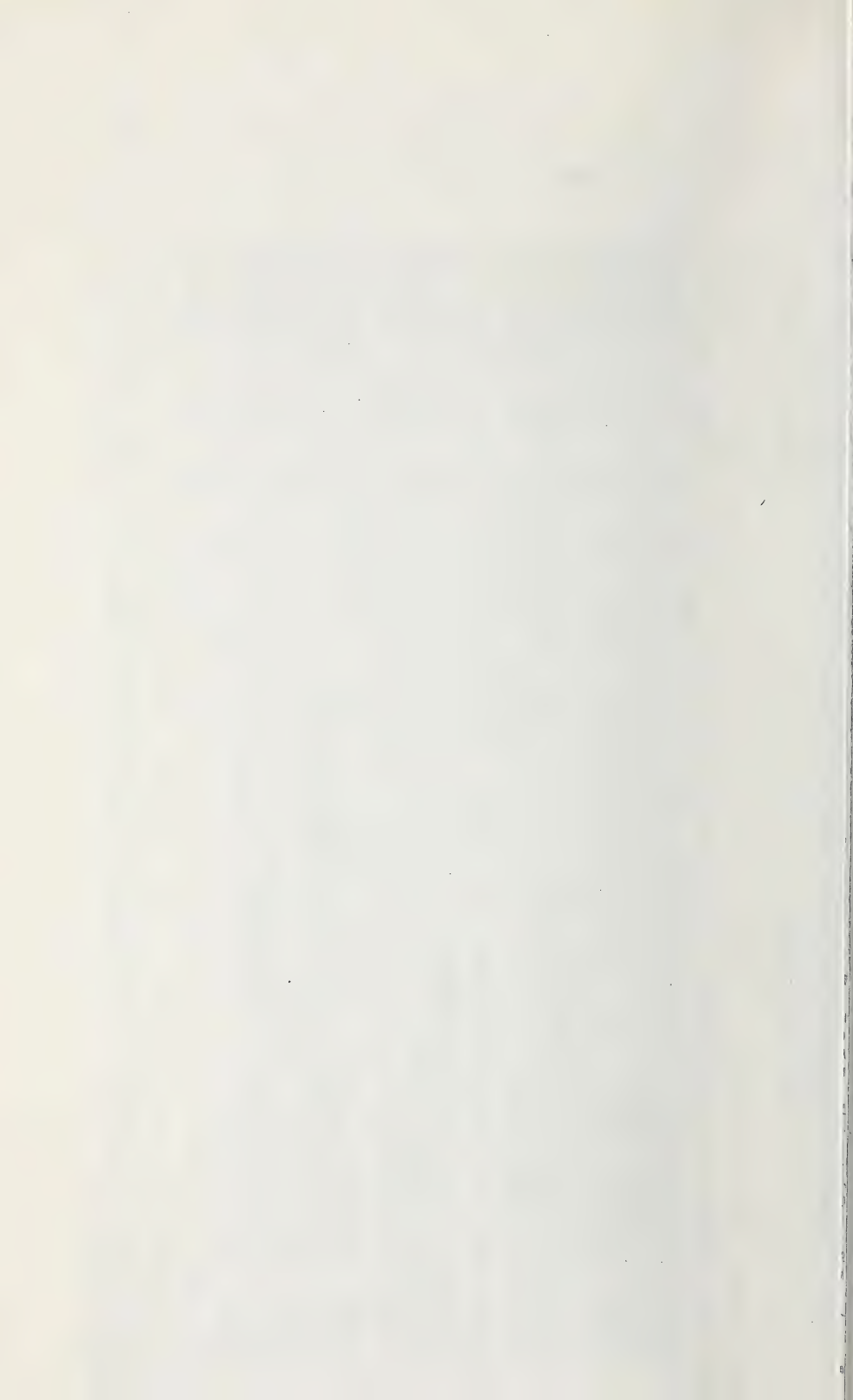


Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979

Project director	Purpose of contract	Contract No.	Dollars
GRAND TOTAL, 1,596 CONTRACTS.....			477,215,799
UNITED STATES,* 1,781 CONTRACTS.....			463,160,916
OTHER COUNTRIES, 115 CONTRACTS.....			14,054,883

UNITED STATES

ALABAMA

BIRMINGHAM

SOUTHERN RESEARCH INSTITUTE ZIP CODE 35205

CHOPRA, DHARAM P.....	CULTURE EPITHELIAL TYPES FROM COLON OF THE RAT.....	5N01 CP75914-02	103,427
COWSAR, DONALD R.....	FLUORIDE RELEASING SYSTEM FOR ORAL USE.....	3N01 DE42446-13	15,094
DENINE, E PAUL.....	STUDY TOXICITY-PHARMACOLOGY OF ANTITUMOR DRUGS.....	1N01 CM97263-00	327,000
HILL, DONALD L.....	PHARMACOLOGICAL STUDIES OF ANTITUMOR AGENTS.....	5N01 CM87162-01	322,000
HILL, DONALD L.....	METABOLISM OF CARCINOGENIC COMPOUNDS.....	2N01 CP55721-09	120,445
MONTGOMERY, JOHN A.....	SYNTHESIS OF POTENTIAL ANTICANCER AGENTS.....	3N01 CM43762-08	24,800
SCHABEL, FRANK M, JR.....	ANALYSIS, TESTING & EVALUATION OF ANTICANCER AGENTS.....	3N01 CM43756-06	512,000
SCHABEL, FRANK M, JR.....	PRECLINICAL DEVELOPMENT OF NEW ANTICANCER THERAPIES.....	3N01 CM97309-01	1,739,910
SHEALY, Y FULMER.....	SYNTHESIS OF RETINOLIDS FOR LONG TERM ANIMAL STUDIES.....	5N01 CP85616-02	332,006
WILKOFF, LEE J.....	ORGAN CULTURE ASSAY OF VITAMIN A ANALOGS.....	1N01 CP95605-00	110,000
ORGANIZATION TOTAL	10	3,606,682	

UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294

BAKER, HENRY J, JR.....	OPERATION OF A PATHOLOGICAL MONITORING SERVICE CENTER.....	3N01 CM67083-05	24,900
BELCHER, ANNE E.....	DEVELOP MODEL ONCOLOGY NURSING EDUCATION PROGRAM.....	1N01 CN95428-00	210,440
BUTTERWORTH, C E, JR.....	EFFECT OF ORAL CONTRACEPTIVE STEROIDS ON METABOLISM.....	2N01 HD42862-09	79,115
GAMS, RICHARD A.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	1N01 CN95471-00	517,142
HAMILTON, VIRGINIA V.....	PREPARATION OF A BIOGRAPHIC MONOGRAPH.....	3N01 LM64703-05	30,797
HIRAMOTO, RAYMOND N.....	IMMUNE FUNCTION IN THYMIC HORMONE TREATED MICE.....	1N01 AG92100-00	158,154
HUNTER, ERIC.....	IN VITRO TRANSFORMING POTENTIAL OF MPMV.....	5N01 CP71013-03	69,570
LAMON, EDDIE W.....	RELATION OF EMBRYONIC ANTIGEN TO TUMOR ANTIGENS.....	3N01 CP43394-04	4,926
LINDSEY, J RUSSELL.....	RODENT DISEASE DIAGNOSTIC LABORATORY.....	1N01 CP95616-00	118,002
MADDOX, WILLIAM A.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45129-08	28,621
MC GHEE, JERRY R.....	SALIVARY IMMUNOGLOBULIN A DEFICIENCY & DENTAL CARIES.....	3N01 DE52456-12	189,515
NIEDERMEIER, WILLIAM.....	STUDY OF TRANSFORMED MAMMARY EPITHELIAL CELLS IN VITRO.....	5N01 CB74092-02	152,400
OVERMAN, ALBERT.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	5N01 HV12440-17	482,468
SCHNAPER, HAROLD W.....	INTERVENTION FOR PREVENTION OF CORONARY HEART DISEASE.....	5N01 HV33107-10	559,413
SHEFFIELD, L THOMAS.....	ESTABLISHMENT OF A LIPID RESEARCH CLINIC.....	2N01 HV12159-11	324,906
SHIOTA, TETSUO.....	CARIOGENIC STREPTOCOCCI MUTANTS TO PREVENT DENTAL CARIES.....	3N01 DE62491-06	5,727
WHITLEY, RICHARD J.....	CENTRAL FACILITY TO STUDY HERPES ZOSTER.....	3N01 AI22532-16	771,835
ORGANIZATION TOTAL	17	3,727,931	

* Includes Puerto Rico.

NOTE: For information on how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see appendix.

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ALABAMA—Continued			
MOBILE			
UNIVERSITY OF SOUTH ALABAMA ZIP CODE 36688			
MOHR, J P.....	DEVELOP PILOT STROKE DATA BANK NETWORK CENTER.....	5N01 NS82397-02	157,500
ORGANIZATION TOTAL	1 157,500		
PRATTVILLE			
SOUTHERN ANIMAL FARMS ZIP CODE 36067			
CURLEE, JOSEPH.....	OPERATION OF A RODENT PRODUCTION CENTER.....	1N01 CM97245-00	189,820
ORGANIZATION TOTAL	1 189,820		
STATE TOTAL	29 7,681,933		
ARIZONA			
SACATON			
GILA RIVER INDIAN COMMUNITY COUNCIL ZIP CODE 85247			
HEDRICK, HILTON O.....	DIABETES AND ARTHRITIS IN PIMA-MARICOPA INDIAN TRIBES.....	1N01 AM92207-00	72,330
ORGANIZATION TOTAL	1 72,330		
TEMPE			
ARIZONA STATE UNIVERSITY ZIP CODE 85281			
PETTIT, GEORGE R.....	ISOLATE ANTINEOPLASTIC AGENTS FROM MARINE ORGANISMS.....	1N01 CM97262-00	128,000
PETTIT, GEORGE R.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS.....	1N01 CM97297-00	131,742
ORGANIZATION TOTAL	2 259,742		
TUCSON			
HILLHAVEN FOUNDATION—HILLHAVEN HOSPICE ZIP CODE 85712			
HACKLEY, JOHN A.....	IMPLEMENT HOSPICE CONCEPT FOR TERMINAL CANCER PATIENTS.....	5N01 CN85392-01	450,000
ORGANIZATION TOTAL	1 450,000		
UNIVERSITY OF ARIZONA ZIP CODE 85721			
GROSS, JOSEPH F.....	MICROCIRCULATION/MOLECULAR TRANSPORT IN MAMMARY CANCER.....	2N01 CB63981-03	84,800
OVITT, THERON W.....	NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	5N01 HV72931-04	356,187
PRESENT, ARTHUR J.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55097-08	391,011
SIPES, I GLENN.....	EXTRAPOLATION OF PCB DEPOSITION.....	2N01 ES72111-05	64,906
SIPES, I GLENN.....	PHARMACOKINETICS OF XENOBIOTICS.....	5N01 ES82130-03	66,577
ORGANIZATION TOTAL	5 963,481		
STATE TOTAL	9 1,745,553		
ARKANSAS			
LITTLE ROCK			
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES CAMPUS ZIP CODE 72201			
FLANIGAN, WILLIAM J.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI52511-07	9,700

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ARKANSAS—Continued			
SUEN, JAMES Y.....	CANCER CONTROL PROJECT FOR HEAD AND NECK CANCER.....	5N01 CN55253-05	205,865
ORGANIZATION TOTAL	2	215,565	
STATE TOTAL	2	215,565	
CALIFORNIA			
BERKELEY			
ANDROS, INC. ZIP CODE 94710			
PORTNER, PEER M.....	DEVELOPMENT OF LEFT VENTRICULAR ASSIST SYSTEM.....	5N01 HV42914-14	759,895
PORTNER, PEER M.....	ELECTRICAL ENERGY TRANSMISSION TECHNIQUE DEVELOPMENT.....	5N01 HV72933-04	138,853
PORTNER, PEER M.....	DEVELOPMENT OF A LEFT HEART ASSIST BLOOD PUMP.....	5N01 HV72938-02	201,117
ORGANIZATION TOTAL	3	1,099,865	
UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720			
HEATHCOCK, CLAYTON H.....	SYNTHESIS OF NEW RETINOIDS.....	5N01 CP75934-06	55,166
MARGEN, SHELTON.....	PREPARE DATA TAPES FOR THE NATIONAL ARCHIVES.....	1N01 HD92817-00	8,600
PAFFENBARGER, RALPH S, JR.....	EPIDEMIOLOGY OF PRE- AND POST-MENOPAUSAL BREAST CANCER.....	2N01 CB63998-05	9,576
VAN DEN BERG, BARBARA J.....	THE ONE-CHILD FAMILY.....	5N01 HD82851-01	69,592
ORGANIZATION TOTAL	4	142,934	
WESTERN INSTITUTE FOR OCCUPATIONAL AND ENVIRONMENTAL SCIENCES ZIP CODE 94704			
POLAKOFF, PHILLIP L.....	WORKER NOTIFICATION AND INFORMATION PROGRAMS.....	1N01 CN95438-00	228,572
POLAKOFF, PHILLIP L.....	HEALTH EFFECTS OF CARCINOGENIC EXPOSURE.....	1N01 CN95450-00	422,436
ORGANIZATION TOTAL	2	651,008	
CLAREMONT			
CLAREMONT UNIVERSITY CENTER SYSTEM—POMONA COLLEGE ZIP CODE 91711			
HANSCH, CORWIN H.....	STRUCTURE ACTIVITY STUDIES AMONG ANTICANCER AGENTS.....	2N01 CM67062-03	51,216
ORGANIZATION TOTAL	1	51,216	
CUPERTINO			
TYMSHARE, INC. ZIP CODE 95014			
NOT AVAILABLE.....	DATA COMMUNICATION SERVICES.....	2N01 LM44711-15	150,000
ORGANIZATION TOTAL	1	150,000	
DAVIS			
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616			
BORHANI, NEMAT O.....	COOPERATIVE HYPERTENSION DETECTION & FOLLOW-UP STUDY.....	5N01 HV22945-13	150,000
BORHANI, NEMAT O.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	5N01 HV22977-11	1,142,286
BORHANI, NEMAT O.....	CENTER FOR THE ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52916-04	79,808
BORHANI, NEMAT O.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72954-07	74,282
BORHANI, NEMAT O.....	TWIN STUDY FOLLOW-UP EXAMINATION.....	1N01 HV92929-00	52,536
CARDIFF, ROBERT D.....	CULTIVATION OF HUMAN AND MOUSE MAMMARY TUMOR VIRUSES.....	2N01 CP61013-09	102,791
HENDRICKX, ANDREW G.....	MAINTENANCE OF A NONHUMAN PRIMATE BREEDING COLONY.....	1N01 HD92828-00	235,164
JENSEN, HANNE M.....	CHARACTERIZE PREMALIGNANT HUMAN MAMMARY HYPERPLASIAS.....	5N01 CB84316-01	85,550
KAWAKAMI, THOMAS G.....	COMPARATIVE LEUKEMIA AND SARCOMA VIRAL STUDIES.....	2N01 CP33242-09	426,000
KILLAM, EVA K.....	SPECIAL ANIMAL COLONY (BABOON MODEL OF EPILEPSY).....	5N01 RR82133-01	27,035
KRAUS, JESS F.....	SUDDEN INFANT DEATH SYNDROME RISK FACTOR (COOPERATIVE).....	3N01 HD72840-02	91,785
RUEBNER, BORIS H.....	BIOLOGY OF NEOPLASTIC LIVER LESIONS IN MICE.....	3N01 CP65845-07	49,322
ORGANIZATION TOTAL	12	2,516,559	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
EMERYVILLE			
THORATEC LABORATORIES CORPORATION ZIP CODE 94662			
RUSSELL, JEROME A	DEVELOP AND EVALUATE LEFT HEART ASSIST BLOOD PUMPS	5N01 HV72939-02	624,143
RUSSELL, JEROME A	FABRICATION OF CARDIOVASCULAR DEVICES	1N01 HV92906-00	209,957
WARD, ROBERT S	PROCUREMENT OF PRIMARY REFERENCE MATERIALS	1N01 HV92933-00	272,821
ORGANIZATION TOTAL	3 1,106,921		
FOLSOM			
GENERAL TIRE AND RUBBER COMPANY—AEROJET LIQUID ROCKET COMPANY ZIP CODE 95630			
MOISE, JOHN C	DEVELOP ENERGY CONVERTERS TO CONTROL HEART ASSIST DEVICE	5N01 HV72971-03	496,613
MOISE, JOHN C	THERMAL ENGINE SYSTEM DEVELOPMENT	1N01 HV92909-00	903,698
ORGANIZATION TOTAL	2 1,400,311		
GENERAL TIRE AND RUBBER COMPANY—CORDOVA CHEMICAL COMPANY ZIP CODE 95630			
OLSEN, ROBERT	PREPARATION OF BULK CHEMICALS AND DRUGS	3N01 CM87201-02	251,774
ORGANIZATION TOTAL	1 251,774		
GILROY			
SIMONSEN LABORATORIES ZIP CODE 95020			
RUSSELL, JAMES D	GENETIC CENTER FOR RODENTS IN BIOCONTAINMENT ENVIRONMENT	5N01 CM77166-03	631,544
RUSSELL, JAMES D	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER	1N01 CM97247-00	329,190
RUSSELL, JAMES D	RODENT PRODUCTION COLONIES FOR NCI	1N01 CP95643-00	141,470
ORGANIZATION TOTAL	3 1,102,204		
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717			
MORAN, EDGAR	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	1N01 CM97318-00	56,433
ORGANIZATION TOTAL	1 56,433		
LA JOLLA			
CDP ASSOCIATES ZIP CODE 92037			
TAYLOR, CAROLYN A	STUDY TECHNOLOGY TRANSFER IN CANCER PATIENT MANAGEMENT	3N01 CO85422-01	11,884
ORGANIZATION TOTAL	1 11,884		
LA JOLLA CANCER RESEARCH FOUNDATION ZIP CODE 92037			
GREEN, SIDNEY	STORAGE AND MAINTENANCE OF BIOLOGICAL MATERIALS	3N01 CP81061-01	1,045
ORGANIZATION TOTAL	1 1,045		
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
COHN, MELVIN	SUPPLY OF IMMUNE-RELATED CELL LINES	3N01 CB23886-12	110,891
FAN, HUNG Y	CELLULAR DIFFERENTIATION AND VIRAL ONCOGENESIS	3N01 CP71008-05	162,601
RIVIER, JEAN	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS	3N01 HD82821-02	270,452
ORGANIZATION TOTAL	3 543,944		
SCIENCE APPLICATIONS ZIP CODE 92038			
REED, J H	ANALYZE ORGANIC CHLORINE AND BROMINE RESIDUES IN TISSUE	5N01 ES82105-02	111,427
ORGANIZATION TOTAL	1 111,427		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
DIXON, FRANK J.....	IMMUNOLOGIC STUDY OF RNA (TYPE C) VIRUSES.....	2N01 CP71018-08	470,000
FELDMAN, JOSEPH D.....	ROLE OF CIRCULATING TUMOR ANTIGENS IN IMMUNOTHERAPY.....	2N01 CB43874-05	128,726
LERNER, RICHARD A.....	IMMUNE RESPONSE TO RECOMBINANT ONCORNAVIRUS.....	3N01 CP91012-01	87,880
ORGANIZATION TOTAL	3 686,606		
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
HENDERSON, LEE W.....	COMPARISON OF HEMODIALYSIS AND HEMOFILTRATION.....	3N01 AM72230-01	19,791
IGNELZI, RONALD J.....	PAIN CONTROL IN CANCER.....	1N01 CN95487-00	180,453
MARSHALL, LAWRENCE F.....	COMPREHENSIVE CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	3N01 NS72370-03	20,087
MARSHALL, LAWRENCE F.....	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92309-01	377,943
MARSHALL, LAWRENCE F.....	CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	3N01 NS92312-01	645,012
MATTSON, FRED H.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	2N01 HV12160-16	645,800
RICHMAN, DOUGLAS D.....	DEVELOP A NEW TECHNIQUE FOR RAPID VIRAL DIAGNOSIS.....	1N01 AI92615-00	73,626
SATO, GORDON H.....	GROWTH/PASSAGE OF MAMMARY EPITHELIAL CELLS IN CULTURE.....	5N01 CB74188-03	65,300
SHIMKIN, MICHAEL B.....	STUDY OF PULMONARY TUMORS FOR COCARCINOGENIC BIOASSAY.....	3N01 CP33232-22	144,229
SHIMKIN, MICHAEL B.....	PULMONARY ADENOMA INDUCTION IN STRAIN A MOUSE.....	1N01 CP95608-00	323,540
TALLAL, PAULA.....	EVALUATE PRESCHOOL IMPAIRMENT IN LANGUAGE DEVELOPMENT.....	1N01 NS92322-00	340,530
TIMMS, RICHARD M.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	2N01 HR62946-09	234,866
YEN, SAMUEL S.....	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS.....	1N01 HD92842-00	142,863
ZEIGER, ROBERT S.....	CONSEQUENCES OF ALLERGIC DISEASE PREVENTION.....	5N01 HD92832-01	327,199
ORGANIZATION TOTAL	14 3,541,239		
LOMA LINDA			
LOMA LINDA UNIVERSITY ZIP CODE 92354			
HODGKIN, JOHN E.....	STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING.....	5N01 HR72904-05	259,524
JUDKINS, MELVIN P.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32975-09	120,338
ORGANIZATION TOTAL	2 379,862		
LOS ANGELES			
ALPHA THERAPEUTIC CORPORATION ZIP CODE 90032			
LEVINE, EDWARD M.....	FLUOROCARBON COMPOUNDS FOR BLOOD REPLACEMENT.....	1N01 HB92927-00	386,000
ORGANIZATION TOTAL	1 386,000		
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048			
DANZER, HAL C.....	DEVELOPMENT AND TESTING OF VAGINAL CONTRACEPTIVES.....	5N01 HD82856-01	132,069
GORDON, ARTHUR.....	SORBENTS FOR TREATMENT OF END STAGE RENAL DISEASE.....	1N01 AM92215-00	96,224
MAXWELL, MORTON H.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	5N01 HV12436-19	855,819
SCHOENFELD, LESLIE J.....	COOPERATIVE CLINICAL STUDY OF DISSOLUTION OF GALLSTONES.....	3N01 AM32216-13	1,423,591
ORGANIZATION TOTAL	4 2,507,703		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 90027			
ZIEL, HARRY.....	CONJUGATED ESTROGENS AND THE RISK OF BREAST CANCER.....	1N01 CP91028-00	95,104
ORGANIZATION TOTAL	1 95,104		
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY—UNIV OF SO CALIFORNIA MED CTR ZIP CODE 90033			
BERNSTEIN, GERALD S.....	HEALTH STATUS OF AMERICAN MEN.....	2N01 HD72802-03	569,928
BERNSTEIN, GERALD S.....	DEVELOPMENT AND TESTING OF VAGINAL CONTRACEPTIVES.....	3N01 HD82857-01	11,829
BLOCK, JEROME B.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95481-00	142,039
HODGMAN, JOAN E.....	DEVELOPMENTAL PHENOMENA AND THE OCCURRENCE OF SIDS.....	3N01 HD22777-21	38,776
HODGMAN, JOAN E.....	PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42823-10	17,526
MARCH, CHARLES M.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES.....	1N01 HD92810-00	133,575
ORGANIZATION TOTAL	6 913,673		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
UMF SYSTEMS ZIP CODE 90066			
JOYCE, PATRICK D.....	PRESERVATION MICROFILMING OF BIOMEDICAL JOURNALS.....	2N01 LM84721-02	306,600
ORGANIZATION TOTAL 1	306,600		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
BABB, THOMAS L.....	CEREBELLAR STIMULATION FOR CONTROL OF SEIZURE.....	2N01 NS42331-06	91,538
BECKMAN, LINDA J.....	DECISION MAKING AND FERTILITY REGULATION.....	2N01 HD52807-06	133,915
CHASE, MICHAEL H.....	INFORMATION CENTER IN BRAIN AND OTHER NEUROSCIENCES.....	1N01 NS92304-00	330,000
CHERRY, JAMES D.....	INFLUENZA STUDIES—VACCINE TRIALS, VIROLOGIC, CLINICAL.....	2N01 A162510-07	161,528
COBURN, JACK W.....	CONTROLLED EVALUATION OF MAINTENANCE PERITONEAL DIALYSIS.....	2N01 AM52218-04	90,728
COBURN, JACK W.....	PROPHYLACTIC AGENT FOR RENAL OSTEOCYSTROPHY IN DIALYSIS.....	2N01 AM72204-04	196,250
CULLEN, JOSEPH W.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN85397-02	183,171
DIXON, WILFRED.....	SUPPORT OF THE BMD/BMDP PROGRAM.....	2N01 RR82107-02	439,400
EILBER, FREDERICK R.....	IMMUNOTHERAPY AS ADJUNCT TO CHEMOTHERAPY IN CARCINOMAS.....	2N01 CB53941-05	100,000
ELASHOFF, ROBERT M.....	MALIGNANT MELANOMA OF WOMEN ON CONTRACEPTIVE STEROIDS.....	3N01 HD82803-02	135,322
EYMAN, RICHARD K.....	FOSTER FAMILY CARE IMPACT ON MENTALLY RETARDED CHILDREN.....	5N01 HD72847-03	103,303
FAREED, GEORGE C.....	HUMAN PAPPOVIRUS BK AND JC AND SIMIAN VIRUS 40.....	2N01 CP71009-02	23,000
FOX, CHARLES F.....	CELL SURFACE RECEPTOR FOR ONCORNAVIRUS.....	1N01 CP91010-00	77,010
GALE, ROBERT P.....	COLLECTION, FUNCTION AND TRANSFUSION OF GRANULOCYTES.....	2N01 HB62971-05	99,931
HOLMES, CARMACK.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	3N01 CM77151-06	83,548
KOPELOW, STANLEY M.....	DIABETIC RETINOPATHY STUDY—CLINICAL CENTER.....	3N01 EY42173-07	13,569
KOPPLE, JOEL D.....	NITROGEN METABOLISM IN UREMIA.....	2N01 SC32210-10	129,106
KOPPLE, JOEL D.....	DIETARY MAINTENANCE OF CHRONIC UREMIC PATIENTS.....	1N01 AM92220-00	149,416
MASSEY, FRANK J.....	HEALTH STATUS OF VASECTOMIZED MEN—COORDINATING CENTER.....	3N01 HD62607-04	312,103
MORTON, DONALD L.....	THERAPY OF CARCINOMA OF THE BREAST.....	2N01 CB43917-07	75,000
MORTON, DONALD L.....	HUMAN MELANOMA: EVALUATION OF BCG IMMUNOTHERAPY.....	2N01 CB64076-05	135,784
NOT AVAILABLE.....	REGIONAL MEDICAL LIBRARY SERVICES.....	2N01 LM34708-15	53,717
PARKER, ROBERT.....	CLINICAL NEUTRON THERAPY PROGRAM.....	1N01 CM97315-00	5,922,422
RAMMIRY, KENNETH.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM67097-08	100,000
SAXON, ANDREW.....	SKIN TESTING WITH PENICILLIN DERIVATIVES IN ADULTS.....	1N01 A192634-00	62,192
SPIVEY, GARY H.....	EPIDEMIOLOGY OF BENIGN BREAST DISEASE.....	5N01 CB74202-02	174,650
STERMAN, MAURICE B.....	DEVELOPMENTAL PHENOMENA & SIDS OCCURRENCE.....	2N01 HD42810-17	56,223
TAKASUGI, MITSUO.....	NORMAL CELL MEDIATED REACTIVITY TO HUMAN TUMOR ANTIGENS.....	2N01 CB74133-02	74,282
TAKASUGI, MITSUO.....	VIRUSES, GENETICS & IMMUNITY IN HUMAN CANCER ETIOLOGY.....	3N01 CP43211-09	88,340
TERASAKI, PAUL I.....	HLA TYPING FOR PLATELET AND LEUKOCYTE TRANSFUSIONS.....	1N01 CM97239-00	398,000
ORGANIZATION TOTAL 30	9,993,448		
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
BATEMAN, JOSEPH R, III.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	3N01 CM53842-12	48,150
BLANKENHORN, DAVID H.....	ATHEROSCLEROSIS ASSESSMENT—ANGIOGRAPHY AND ULTRASOUND.....	5N01 HV72930-04	322,972
BOYLEN, C THOMAS.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	3N01 HR62947-09	52,115
CHAN, KENNETH K.....	DISPOSITION AND METABOLISM OF ANTINEOPLASTIC AGENTS.....	3N01 CM67065-04	21,000
GARDNER, MURRAY B.....	ETIOLOGY AND EPIDEMIOLOGY OF HUMAN CANCER.....	3N01 CP53500-10	271,000
GARDNER, MURRAY B.....	WILD MOUSE STUDIES.....	2N01 CP81032-03	447,236
GARDNER, MURRAY B.....	HUMAN SRC GENE AND IMMUNOPREVENTION.....	2N01 CP81033-02	166,757
GARDNER, MURRAY B.....	CANCER IMMUNOPREVENTION.....	5N01 CP81063-03	212,000
GUISS, LEWIS W.....	EARLY DETECTION OF BREAST CANCER.....	2N01 CN45098-08	247,146
HAMMOND, G DENMAN.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55235-08	227,735
HAMMOND, G DENMAN.....	CHILDREN'S CANCER STUDY GROUP.....	3N01 CN65374-05	755,313
HAYWOOD, L JULIAN.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72970-06	74,038
HEIDELBERGER, CHARLES D.....	SYNTHESIS OF DNA AND ENZYME BINDING COMPOUNDS.....	3N01 CM67084-04	24,900
HEIDELBERGER, CHARLES D.....	CARCINOGENESIS IN VITRO: INITIATION AND PROMOTION.....	2N01 CP65831-05	157,795
HENDERSON, BRIAN E.....	STUDY OF CANCER INCIDENCE IN THE SOUTH PACIFIC.....	1N01 CP91027-00	32,856
HODGKINSON, BERNARD J.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72133-03	80,330
MARMORSTON, JESSIE.....	CORONARY HEART DISEASE RISK FACTOR INTERVENTION.....	5N01 HV42931-08	513,585
MARMORSTON, JESSIE.....	ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52934-05	136,879
MASSRY, SHAUL G.....	ROLE OF PARATHYROID AS A UREMIC TOXIN.....	2N01 AM72218-02	90,500
MASSRY, SHAUL G.....	SEXUAL DYSFUNCTION IN END-STAGE RENAL DISEASE.....	2N01 AM72225-03	160,814
MEDNICK, BIRGITTE R.....	STUDY FAMILY STRUCTURE AND MATERNAL STATE.....	5N01 HD82807-01	98,849

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
PORTNOY, BERNARD	EVALUATION OF H1N1 INFLUENZA VACCINE	2N01 A182562-01	71,500
RASHEED, SURAIYA	INFLUENCE OF INTERACTION BETWEEN ENVIRONMENTAL FACTORS	3N01 CP61041-03	24,995
RYAN, STEPHEN J.	EVALUATION OF EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY52141-05	53,716
TOWNSEND, DUANE E	STUDY OF GENITAL TRACT ANOMALIES	5N01 CN45122-06	631,242
VOGT, PETER K	CONDITIONAL LETHAL MUTANTS OF RNA TUMOR VIRUSES	2N01 CP53518-06	80,000
ORGANIZATION TOTAL	26	5,003,623	
MENLO PARK			
SRI INTERNATIONAL ZIP CODE 94025			
BLOOM, JOAN	PSYCHOLOGICAL ASPECTS OF BREAST CANCER	3N01 CN55313-10	100,087
CHESNEY, MARGARET A	TWIN STUDY FOLLOW-UP EXAMINATION	1N01 HV92931-00	45,214
DAWSON, MARCIA I	SYNTHESIS OF NEW RETINOIDS	5N01 CP75931-05	149,736
DAWSON, MARCIA I	POLYMERIC INTRAVAGINAL CONTRACEPTIVES	3N01 HD72828-02	12,240
DE GRAW, JOSEPH I	SYNTHESIS AND TESTING OF MALE CONTRACEPTIVE AGENTS	5N01 HD82817-02	23,805
FODGE, DOUGLAS W	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS	2N01 CP55701-09	361,028
GREEN, PHILIP S	DEVELOP ULTRASONIC ENDOSCOPIC PROBES	3N01 CB74136-03	261,291
HELLER, JORGE	DEVELOP AND TEST NEW BIODEGRADABLE DRUG DELIVERY SYSTEMS	5N01 HD72826-02	270,465
LEAFFER, MORRIS	PREPARATION OF RADIOLABELED MATERIALS	3N01 CM63776-04	10,000
LEAFFER, MORRIS	PREPARATION OF RADIOLABELED MATERIALS	1N01 CM97256-00	247,570
LEE, WILLIAM W	SYNTHESIS OF RADIOSENSITIZING AGENTS	5N01 CM87207-02	194,000
LIM, PETER	ANALYSIS OF CHEMICAL AND PHARMACEUTICAL FORMULATIONS	5N01 CM87183-01	501,174
MC CALEB, KIRTLAND E	RESOURCE FOR INFORMATION NEEDS OF DCCP, NCI AND IARC	1N01 CP95607-00	895,747
MC GEE, ARTHUR A	STUDY OF CHEMICALS THAT AFFECT MAN AND HIS ENVIRONMENT	3N01 CP33285-22	401,593
MITCHELL, ANN D	MUTAGENESIS SYSTEM FOR CARCINOGENESIS SCREENING	5N01 CP65854-04	261,679
PETERS, JOHN H	OXALATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT	1N01 AM92213-00	71,573
PETERS, JOHN H	EFFECTS OF DIET ON CARCINOGENIC POTENTIAL OF SECRETIONS	5N01 CP85620-01	185,861
PINCUS, JACK H	ANALYZE ENVIRONMENTAL CHEMICALS BY RADIOIMMUNOASSAY	1N01 ES90006-00	183,800
PRYOR, GORDON T	NEUROBEHAVIORAL ASSESSMENT OF POTENTIAL NEUROTOXINS	5N01 ES82154-03	105,815
REIST, ELMER J	SYNTHESES OF HETERO-SUBSTITUTED POLYAROMATIC HYDROCARBON	5N01 CP85612-02	134,733
SIMMON, VINCENT F	MUTAGENESIS SYSTEMS FOR CARCINOGENESIS SCREENING	2N01 CP65857-04	147,090
SIMMON, VINCENT F	MICROBIAL MUTAGENESIS TESTING	5N01 ES90001-01	351,500
TANABE, MASATO	ANTIPIROGESTAL AGENTS	5N01 HD82810-02	143,239
WEAVER, CHARLES S	DEVELOP WEARABLE 4 CHANNEL EEG CASSETTE RECORDING SYSTEM	3N01 NS32322-16	11,365
ORGANIZATION TOTAL	24	5,070,605	
ZWENG MEMORIAL RETINAL RESEARCH FOUNDATION ZIP CODE 94025			
LITTLE, HUNTER L	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY	5N01 EY72140-03	8,134
ORGANIZATION TOTAL	1	8,134	
OAKLAND			
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFORNIA ZIP CODE 94609			
LUBIN, BERTRAM H	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	2N01 HB73004-04	162,255
ORGANIZATION TOTAL	1	162,255	
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 94612			
BAKER, T HART	HOSPICE CONCEPT FOR TERMINAL CANCER PATIENTS	5N01 CN85375-01	450,000
COOPER, J FENIMORE	CLINICAL EVALUATION OF IMMUNODIAGNOSTIC TESTS FOR CANCER	2N01 CB74169-02	40,444
FRIEDMAN, GARY D	STUDY ENVIRONMENTAL CANCER—PREPAID HEALTH PLAN	2N01 CP81047-01	149,950
GROVER, JOHN	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HW82905-04	116,922
PELLEGRIN, FREDERICK A	STUDY OF CONTRACEPTIVE DRUGS	5N01 HD32710-22	332,705
RAMCHARAN, SAVITRI	CONTRACEPTIVE AGENTS EFFECT ON BIRTH DEFECT FREQUENCY	5N01 HD42861-08	39,300
WILD, J E	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	5N01 HV33105-14	799,659
ORGANIZATION TOTAL	7	1,928,980	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
SAMUEL MERRITT HOSPITAL ZIP CODE 94609			
SCHWEITZER, ROBERT	SCREENING FOR EARLY DETECTION OF CANCER OF THE BREAST.....	2N01 CN45068-10	226,366
ORGANIZATION TOTAL	1 226,366		
OXNARD			
GOULD, INC.—STATHAM INSTRUMENTS DIVISION ZIP CODE 93030			
CHAMBERS, JACK A.....	ELECTRICAL ENERGY CONVERTER DEVELOPMENT	5N01 HV82916-03	435,358
ORGANIZATION TOTAL	1 435,358		
PALO ALTO			
ALZA CORPORATION ZIP CODE 94304			
PHARRISS, BRUCE B.....	DEVELOP AND TEST NEW BIODEGRADABLE DRUG DELIVERY SYSTEM	2N01 HD72825-02	455,411
ORGANIZATION TOTAL	1 455,411		
NORTHERN CALIFORNIA CANCER PROGRAM, INC. ZIP CODE 94304			
CARTER, STEPHEN K.....	ADJUVANT CHEMOTHERAPY IN HEAD AND NECK CARCINOMA.....	5N01 CM87154-01	99,346
SILVERMAN, SOL, JR.....	NETWORK DEMONSTRATION PROJECT IN HEAD AND NECK CANCER	5N01 CN55180-05	246,378
ORGANIZATION TOTAL	2 345,724		
PALO ALTO MEDICAL RESEARCH FOUNDATION ZIP CODE 94301			
LEWIS, BERNARD I.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52911-04	110,000
ORGANIZATION TOTAL	1 110,000		
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
DAVIDSON, NORMAN R.....	ELECTRON MICROSCOPIC STUDY OF TUMOR VIRUS NUCLEIC ACIDS.....	2N01 CP43306-07	45,504
RICHARDS, JOHN H.....	SPECIAL ANIMAL COLONY (INBRED GUINEA PIG)	5N01 RR82131-01	23,090
ORGANIZATION TOTAL	2 68,594		
HUNTINGTON MEMORIAL HOSPITAL ZIP CODE 91105			
AGNEW, WILLIAM F.....	STUDY OF FEASIBILITY OF A SENSORY PROSTHESIS	2N01 NS02275-12	200,315
ORGANIZATION TOTAL	1 200,315		
XEROX CORPORATION ZIP CODE 91107			
EIN-GAL, MOSHE.....	DEVELOP SOLID STATE IMAGE RECEPTORS FOR X-RAY IMAGING.....	5N01 CB74211-05	523,597
ORGANIZATION TOTAL	1 523,597		
REDWOOD CITY			
AMPEX CORPORATION ZIP CODE 94063			
NOT AVAILABLE.....	PROVIDE AND INSTALL A DIGITAL VIDEO PRODUCTION SYSTEM.....	1N01 LM94713-00	214,980
ORGANIZATION TOTAL	1 214,980		
SACRAMENTO			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY ZIP CODE 95814			
AUSTIN, DONALD F.....	SAN FRANCISCO RESOURCE FOR CANCER EPIDEMIOLOGY	3N01 CP81018-06	1,549,621
LEONARD, ALVIN R.....	HIGH BLOOD PRESSURE CONTROL PROGRAM	5N01 HV72985-05	891,268
ORGANIZATION TOTAL	2 2,440,889		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
SAN DIEGO			
GENERAL ATOMIC COMPANY	ZIP CODE 92138		
HAUBOLD, AXEL D.....	DEVELOP CARBON FILM DEPOSITS FOR PROSTHETIC DEVICES.....	2N01 HV42928-09	132,371
ORGANIZATION TOTAL	1 132,371		
WSA, INC.	ZIP CODE 92121		
DOBSON, JACK.....	ASSESSMENT OF RADIATION THERAPY EQUIPMENT NEEDS.....	5N01 C085406-02	64,889
ORGANIZATION TOTAL	1 64,889		
SAN FRANCISCO			
INSTITUTES OF MEDICAL SCIENCES	ZIP CODE 94120		
HILL, J DONALD.....	EXTRACORPOREAL SUPPORT FOR RESPIRATORY INSUFFICIENCY.....	3N01 HR42917-08	3,673
HULLEY, STEPHEN B.....	INTERVENTION TRIAL FOR CORONARY HEART DIS PREVENTION.....	5N01 HV22981-15	48,505
WIDDOWSON, GRAHAM.....	SUPPORT FOR CENTRAL LABORATORY.....	3N01 HV33101-09	2,176,356
ORGANIZATION TOTAL	3 2,228,534		
PACIFIC MEDICAL CENTER	ZIP CODE 94115		
CAVENDER, JOHN C.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY82101-05	44,598
ORGANIZATION TOTAL	1 44,598		
RALPH K. DAVIES MEDICAL CENTER-FRANKLIN HOSPITAL	ZIP CODE 94114		
GOTCH, FRANK A.....	EVALUATION OF HOLLOW-FIBER DIALYZERS.....	3N01 AM42202-13	131,486
ORGANIZATION TOTAL	1 131,486		
SAN FRANCISCO CORONER'S OFFICE	ZIP CODE 94103		
STEPHENS, BOYD G.....	PATHOLOGICAL COORDINATING LABORATORY.....	3N01 HD82845-01	52,000
ORGANIZATION TOTAL	1 52,000		
SAN FRANCISCO MEDICAL SOCIETY	ZIP CODE 94118		
PERKINS, HERBERT A.....	REFERENCE HLA LABORATORIES.....	5N01 A182547-03	25,428
ORGANIZATION TOTAL	1 25,428		
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO	ZIP CODE 94143		
ARIEFF, ALLEN I.....	ABNORMALITIES OF NERVOUS SYSTEM FUNCTION IN UREMIA.....	2N01 AM52204-07	88,417
EPSTEIN, CHARLES J.....	DEVELOP MODELS FOR GENETIC DISORDERS ON TRISOMY 21.....	2N01 HD82858-02	191,396
FRICK, OSCAR L.....	STUDY DEVELOPMENT OF FOOD ALLERGY IN CHILDREN.....	1N01 HD92833-00	294,348
GALIN, DAVID.....	NEUROPSYCHOLOGICAL STUDIES OF READING DISABILITIES.....	2N01 HD82824-04	350,951
GOODMAN, JOEL W.....	CHARACTERIZATION OF ANTIGEN BINDING T-CELL RECEPTORS.....	2N01 CB74178-02	87,963
GREENSPAN, JOHN S.....	RECURRENT APHTHOUS STOMATITIS AND BEHCET'S SYNDROME.....	3N01 DE82415-02	120,135
HOPEWELL, PHILIP C.....	INTERMITTENT POSITIVE PRESSURE BREATHING CLINICAL STUDY.....	5N01 HR72906-05	320,046
IRVINE, ALEXANDER R.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	2N01 EY62139-07	54,847
JAFFE, ROBERT B.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES.....	3N01 HD92812-01	174,679
MARTIN, DAVID W, JR.....	PROPAGATION OF MUTANT SOMATIC CELLS.....	5N01 CP43239-09	64,470
MERZENICH, MICHAEL M.....	DEVELOP MULTICHANNEL ELECTRODES FOR AUDITORY PROSTHESIS.....	2N01 NS72367-02	90,871
PETERS, ROBERT W.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV82901-03	102,512
PETRAKIS, NICHOLAS L.....	BENIGN BREAST LESIONS IN RISK FOR BREAST CANCER.....	5N01 CB84319-01	15,000
TANAGHO, EMIL A.....	STUDY OF URINARY BLADDER EVACUATION.....	3N01 NS32307-09	113,509
WARA, WILLIAM M.....	IMMUNO-STIMULANTS IN LOCALIZED RADIATION THERAPY.....	2N01 CB64004-03	111,748
ZIPPIN, CALVIN.....	TUMOR REGISTRY TRAINING PROGRAM AND ALLIED ACTIVITIES.....	2N01 CP43383-09	196,140
ORGANIZATION TOTAL	16 2,377,032		
WEST COAST CANCER FOUNDATION	ZIP CODE 94133		
ENELow, ALLEN J.....	PSYCHOLOGICAL ASPECTS OF BREAST CANCER.....	3N01 CN55314-08	12,878
ORGANIZATION TOTAL	1 12,878		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
SAN JOSE			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN JOSE STATE UNIVERSITY ZIP CODE 95192			
ADAMS, GEORGIA	DEVELOP MODEL ONCOLOGY NURSING EDUCATION PROGRAM	1N01 CN95480-00	402,002
ORGANIZATION TOTAL	1 402,002		
SANTA CLARA VALLEY MEDICAL CENTER ZIP CODE 95128			
KRAUT, JOSEPH W.	CLINICAL ONCOLOGY PROGRAM	3N01 CN65378-03	74,999
ORGANIZATION TOTAL	1 74,999		
SANTA BARBARA			
SYSTEMETRICS, INC. ZIP CODE 93105			
LUBALIN, JAMES S.	NAT'L COMM ON DIGESTIVE DISEASES SUPPORT SERVICE	3N01 AM72216-05	24,232
ORGANIZATION TOTAL	1 24,232		
SANTA CLARA			
TECHNICON CORPORATION—TECHNICON MEDICAL INFORMATION SYSTEMS CORPORATION ZIP CODE 95051			
FURSTENAU, BERNIE	COMPUTER BASED HOSPITAL INFORMATION SYSTEM	3N01 CL52154-20	2,995,771
ORGANIZATION TOTAL	1 2,995,771		
SANTA CRUZ			
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064			
TALAMANTES, FRANK J, JR.	ESTROGEN/PROGESTIN EFFECTS ON BREAST IN NEONATAL PERIOD	2N01 CB74091-02	95,000
WIPKE, T TODD	PREDICTION OF METABOLITES FOR CARCINOGENICITY	2N01 CP75816-05	88,237
ORGANIZATION TOTAL	2 183,237		
SANTA MONICA			
RAND CORPORATION ZIP CODE 90406			
HOPWOOD, MARSHA	EVALUATE CLINICAL INFORMATION PROCESSING	5N01 RR82122-02	275,000
KANE, ROBERT L.	APPROACHES TO BREAST CANCER PATIENT MANAGEMENT	1N01 CN95478-00	362,851
MORRISON, PETER A.	CONSEQUENCES OF LATE ADOLESCENT CHILDBEARING	5N01 HD72819-02	46,600
ORGANIZATION TOTAL	3 684,451		
SIMI VALLEY			
PHARM-ECO LABORATORIES ZIP CODE 93065			
DRAPER, MARSHALL D.	PREPARATION OF BULK CHEMICALS AND DRUGS	5N01 CM87200-02	258,223
ORGANIZATION TOTAL	1 258,223		
STANFORD			
STANFORD UNIVERSITY ZIP CODE 94305			
ALDERMAN, EDWIN L.	CORONARY ARTERY SURGERY COLLABORATIVE STUDIES	5N01 HV32974-10	183,161
BERNFELD, MERTON R.	STROMA IN NEOPLASTIC AND PRENEOPLASTIC MAMMARY GLAND	2N01 CB53903-04	92,000
ENGLEMEN, EDGAR G.	ACQUISITION OF HOMOZYGOUS TYPING CELLS	5N01 AI82551-03	98,356
FARQUHAR, JOHN W.	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV12161-17	1,237,170
GRUMET, F CAPL.	ACQUISITION OF HLA-A, B AND C LOCI AND B CELL ANTISERA	5N01 AI82558-03	55,738
HERZENBERG, LEONARD A.	DUAL PARAMETER CELL-SORTER	3N01 CB23888-07	3,981
KAPLAN, HENRY S.	RADLV INFECTION AND LYMPHOCYTE DIFFERENTIATION IN MICE	5N01 CP71052-02	140,498
KAPLAN, HENRY S.	HODGKIN'S DISEASE AND OTHER LYMPHOMA RESEARCH	1N01 CP91044-00	450,000

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
LUCAS, ZOLTAN J.....	DIRECT ASSAY FOR LYMPHOKINE.....	2N01 CB84263-03	155,034
MC SHANE, DENNIS J.....	PILOT DATA BANK NETWORK IN STROKE.....	3N01 NS82390-03	366,680
MERIGAN, THOMAS C.....	EVALUATION OF THERAPEUTIC EFFICACY OF HUMAN INTERFERON.....	5N01 A142527-17	675,415
MISFELDT, DAYTON S.....	GROWTH/PASSAGE OF MAMMARY EPITHELIAL CELLS IN CULTURE.....	5N01 CB74094-02	72,800
PAFFENBARGER, RALPH S, JR.....	ORAL CONTRACEPTIVES AND BENIGN BREAST DISEASE.....	1N01 HD92813-00	55,829
ROSENBERG, LEON T.....	CYTOTOXIC ACTIVITY OF SYNGENEIC COMPLEMENT.....	2N01 CB84245-02	90,000
SUSSMAN, HOWARD H.....	BIOLOGIC MARKERS IN BREAST CANCER PATIENTS.....	5N01 CB74086-02	126,900
SWENSON, ROBERT S.....	NUTRITION-ACUTE RENAL FAILURE AFTER HEART SURGERY.....	3N01 AM82207-01	600
WEINER, MICHAEL W.....	ROLE OF ACETATE IN DIALYSATE FOR HEMODIALYSIS.....	2N01 AM52210-04	83,339
WEISSMAN, IRVING L.....	ISOLATE & CHARACTERIZE T CELLS & NORMAL CELL RECEPTORS.....	1N01 CP91011-00	100,000
WHITE, ROBERT L.....	TRANSDERMAL ELECTRONICS FOR AUDITORY PROSTHESIS.....	3N01 NS52306-06	167,328
WHITE, ROBERT L.....	DEVELOP ELECTRODES FOR AUDITORY PROSTHESIS.....	2N01 NS72366-02	146,360
ORGANIZATION TOTAL	20	4,301,189	
SUNNYVALE			
RASOR ASSOCIATES ZIP CODE 94086			
RASOR, N S.....	NONINVASIVE ASSESSMENT OF PULMONARY HYPERTENSION.....	2N01 HR62917-04	153,685
ORGANIZATION TOTAL	1	153,685	
TARZANA			
STEIGER, FINK AND KOSECOFF, INC. ZIP CODE 91356			
KOSECOFF, JACQUELINE.....	RESEARCH ON CHILDLESSNESS AND THE ONE-CHILD FAMILY.....	1N01 HD92814-00	39,719
ORGANIZATION TOTAL	1	39,719	
TORRANCE			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT-LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER ZIP CODE 90509			
PARLOW, ALBERT F.....	ISOLATE RAT AND HUMAN PITUITARY HORMONES.....	5N01 AM92206-01	510,363
SWERDLOFF, RONALD S.....	PHARMACOKINETICS OF TESTOSTERONE ENANTHATE.....	5N01 HD82830-01	58,283
WEITZMAN, RICHARD E.....	MECHANISM OF HYPOTENSION OCCURRING DURING DIALYSIS.....	3N01 AM82209-05	10,555
ORGANIZATION TOTAL	3	579,201	
UNIVERSAL CITY			
MCA, INC. ZIP CODE 91608			
NOT AVAILABLE.....	PROVIDE INDUSTRIAL VIDEO DISC PLAYERS.....	1N01 LM94715-00	30,317
ORGANIZATION TOTAL	1	30,317	
VAN NUYS			
BIO-SCIENCE LABORATORIES ZIP CODE 91405			
IBBOTT, FRANK A.....	FOLLOW-UP & TOXICITY BLOOD DETERMINATIONS-LRC PATIENTS.....	3N01 HV32961-10	358,030
IBBOTT, FRANK A.....	CENTRAL LABORATORY FOR PROPRANOLOL HEART TRIAL.....	2N01 HV72950-04	143,116
ORGANIZATION TOTAL	2	501,146	
STATE TOTAL	237	60,499,979	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
COLORADO			
BOULDER			
INSTITUTE FOR RESEARCH ON SOCIAL PROBLEMS ZIP CODE 80302			
KATZ, PHYLLIS A.....	STUDY SEX ROLE DEVELOPMENT AND THE SINGLE-CHILD FAMILY.....	1N01 HD92820-00	93,285
ORGANIZATION TOTAL 1	93,285		
DENVER			
COLORADO REGIONAL CANCER CENTER ZIP CODE 80262			
SEMPEL, MARTIN.....	COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	5N01 CN55236-10	413,685
ORGANIZATION TOTAL 1	413,685		
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER ZIP CODE 80206			
BRENNAN, PATRICK J.....	PURIFY/CHARACTERIZE MYCOBACTERIUM LEPRAE ANTIGENS.....	1N01 A192625-00	37,988
CREER, THOMAS.....	SELF-MANAGEMENT SYSTEMS FOR ASTHMATIC CHILDREN.....	5N01 HR72972-02	71,697
MC CLATCHY, J KENNETH.....	SEROLOGICAL IDENTIFICATION OF ATYPICAL MYCOBACTERIA.....	2N01 A102079-13	42,220
ORGANIZATION TOTAL 3	151,905		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO MEDICAL CENTER ZIP CODE 80262			
ALFREY, ALLEN C.....	TRACE ELEMENT ABNORMALITIES IN CHRONIC UREMIA.....	2N01 AM42217-07	97,280
BARKEN, ROGER.....	CLINICAL EVALUATION OF RESPIRATORY VACCINES.....	5N01 A122501-16	102,943
CUNHA, GERALD R.....	TISSUE INTERACTIONS—HORMONALLY INDUCED CELLULAR CHANGE.....	5N01 CP75875-03	154,910
HATHAWAY, WILLIAM E.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY.....	3N01 HB53023-05	19,156
HENDEE, WILLIAM R.....	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS.....	2N01 CN45160-12	86,506
KOHLER, PETER F.....	SKIN TESTING WITH PENICILLIN DERIVATIVES IN ADULTS.....	1N01 A192631-00	51,000
PETTY, THOMAS L.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	3N01 HR62942-09	187,178
REEVES, JOHN T.....	NONINVASIVE ASSESSMENT OF PULMONARY HYPERTENSION.....	2N01 HR62920-03	68,477
SINGLETON, JOHN W.....	NATIONAL COOPERATIVE STUDY OF CROHN'S DISEASE.....	3N01 AM22210-17	8,894
STEWART, JOHN M.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	2N01 HD62843-05	68,330
STEWART, JOHN M.....	SPECIFIC IMMUNIZATION AGAINST FSH AS MALE CONTRACEPTIVE.....	5N01 HD82814-01	69,268
STEWART, JOHN M.....	DEVELOPMENT OF KALLIKREIN-KININ SYSTEM ANTAGONISTS.....	5N01 HV72946-03	69,200
ORGANIZATION TOTAL 12	983,142		
UNIVERSITY OF DENVER ZIP CODE 80210			
MENDELSON, HAROLD.....	IDENTIFY EFFECTIVE CANCER CONTROL PROMOTION APPROACHES.....	1N01 CN95442-00	104,588
ORGANIZATION TOTAL 1	104,588		
STATE TOTAL 18	1,746,605		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
BIGAZZI, PIERLUIGI E.....	IMMUNOLOGIC STUDIES OF VASECTOMY.....	2N01 HD52842-09	121,769
DOHERTY, NEVILLE.....	EFFECTIVENESS OF VARIOUS CARRIES PREVENTIVE AGENTS.....	5N01 DE52449-10	24,824
LINDQUIST, RICHARD R.....	EFFECT OF MAMMARY CANCER CELLS ON VASCULAR ENDOTHELIUM.....	5N01 CB74089-02	70,800
MAHER, JOHN F.....	PERITONEAL PERMEABILITY AND DRUG ENHANCEMENT IN UREMIA.....	2N01 AM52220-03	76,710
ORGANIZATION TOTAL 4	294,103		
HARTFORD			
CONNECTICUT STATE DEPARTMENT OF HEALTH ZIP CODE 06115			
HONEYMAN, MERTON S.....	CANCER END RESULTS EVALUATION.....	3N01 CP61002-09	307,946

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CONNECTICUT—Continued			
OSTFELD, ADRIAN M.....	HIGH BLOOD PRESSURE CONTROL PROGRAM.....	5N01 HV72984-05	727,716
ORGANIZATION TOTAL	2	1,035,662	
NEW HAVEN			
HASKINS LABORATORIES ZIP CODE 06510			
LIBERMAN, ALVIN M.....	STUDY OF LANGUAGE DEVELOPMENT IN CHILDREN.....	3N01 HD12420-09	88,079
ORGANIZATION TOTAL	1	88,079	
YALE UNIVERSITY ZIP CODE 06520			
COHEN, LAWRENCE S.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62925-05	91,032
COLE, JACK W.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55232-09	262,812
FURTHMAYR, HEINZ.....	ISOLATE/CHARACTERIZE ANTIBODIES TO COLLAGEN, PROCOLLAGEN.....	5N01 CB84225-01	82,200
GREENSPAN, RICHARD.....	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM.....	1N01 HR92904-00	127,351
HITCHCOCK, MARGARET.....	EVALUATE NIEHS ENVIRONMENTAL TOXICOLOGY TRAINING PROGRAM.....	1N01 ES90005-00	88,456
MATTHAY, RICHARD A.....	INTRATUMORAL BCG IMMUNOTHERAPY.....	2N01 CB74191-02	74,400
MEIGS, J WISTER.....	SUPPORT FOR CANCER EPIDEMIOLOGY PROGRAM.....	2N01 CP32335-14	421,000
PEARSON, HOWARD A.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	3N01 HB72996-05	236,494
RUDDLE, FRANK H.....	PROPAGATION OF HAPLOID AND PARTIAL MONOSOMIC CELL LINES.....	2N01 CP55673-09	59,000
SPIRO, HOWARD M.....	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	3N01 CM43797-11	142,669
SPIRO, HOWARD M.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	3N01 CM53843-10	74,215
ORGANIZATION TOTAL	11	1,659,629	
STORRS			
UNIVERSITY OF CONNECTICUT ZIP CODE 06268			
FOX, MARTIN D.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM—DATA CENTER.....	5N01 HV72929-02	104,720
ORGANIZATION TOTAL	1	104,720	
STATE TOTAL	19	3,182,193	
DELAWARE			
WILMINGTON			
WILMINGTON MEDICAL CENTER ZIP CODE 19801			
WHITNEY, LESLIE W.....	SERUM FROM PATIENTS WITH BREAST LESIONS.....	3N01 CB74137-02	13,181
WHITNEY, LESLIE W.....	SCREENING FOR DETECTION OF BREAST CANCER.....	2N01 CN45047-06	269,596
WHITNEY, LESLIE W.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45151-06	107,052
ORGANIZATION TOTAL	3	389,829	
STATE TOTAL	3	389,829	
DIST OF COL			
WASHINGTON			
AMERICAN INSTITUTES FOR RESEARCH ZIP CODE 20007			
POLIT, DENISE F.....	ONE-PARENT/ONE-CHILD FAMILY.....	5N01 HD82852-02	71,496
POLIT, DENISE F.....	CONTRACEPTIVE DECISION MAKING IN ADOLESCENT COUPLES.....	1N01 HD92835-00	54,510
SHANNER, WILLIAM M.....	DEVELOP/EVALUATE PULMONARY MEDICINE CONTINUING EDUC.....	3N01 HR62932-03	19,642
SHANNER, WILLIAM M.....	SELF-MANAGEMENT SYSTEMS FOR ASTHMATIC CHILDREN.....	5N01 HR72974-03	238,929
ORGANIZATION TOTAL	4	384,577	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DIST OF COL—Continued			
AMERICAN NATIONAL RED CROSS ZIP CODE 20006			
FRIEDMAN, LEONARD I.....	CONTINUOUS FLOW PLASMAPHERESIS SYSTEM	3N01 HB62928-06	13,500
ORGANIZATION TOTAL 1	13,500		
AMERICAN SOCIETY FOR MICROBIOLOGY ZIP CODE 20006			
ACKER, ROBERT F.....	RECOMBINANT DNA—MICROBIOLOGY TECH. & BIOHAZARD CONTROL	3N01 A172527-02	5,802
WATKINS, ROBERT D.....	SURVEY MICROBIOLOGICAL MANPOWER	3N01 A192600-01	92,845
ORGANIZATION TOTAL 2	98,647		
ANALYSIS GROUP ZIP CODE 20010			
AMBROSE, RUPERT.....	SERVICES FOR DIABETES MELLITUS COORDINATING COMMITTEE	1N01 AM92222-00	98,013
ORGANIZATION TOTAL 1	98,013		
ANALYSTS OF GOVERNMENT SERVICES ZIP CODE 20009			
STOLLMACK, STEVEN.....	SOCIETAL CONSEQUENCES OF ADOLESCENT CHILDBEARING.....	1N01 HD92826-00	109,705
ORGANIZATION TOTAL 1	109,705		
ASSOCIATION OF AMERICAN MEDICAL COLLEGES ZIP CODE 20036			
JOLLY, H PAUL, JR.....	MAINTAIN AND REFINE THE MEDICAL COLLEGE FACULTY ROSTER.....	2N01 OD82116-05	209,986
JOLLY, H PAUL, JR.....	REGISTRY OF MINORITY AND FEMALE MEDICAL SCHOOL FACULTY	1N01 OD92115-00	52,942
SHERMAN, CHARLES R.....	FACTORS IN DEVELOPMENT OF MEDICAL FACULTY MEMBERS	3N01 OD62149-09	23,368
SUTER, EMANUEL.....	DEVELOP A RESOURCE FOR EDUCATING HEALTH PROFESSIONALS.....	2N01 LM64711-07	178,580
WILSON, MARJORIE P.....	STUDY OF GUIDELINES FOR ACADEMIC HEALTH SCIENCE LIBRARY.....	1N01 LM94716-00	214,413
ORGANIZATION TOTAL 5	679,289		
CHILDREN'S HOSPITAL NATIONAL MEDICAL CENTER ZIP CODE 20010			
KIM, HYUN W.....	STUDY OF RESPIRATORY DISEASE.....	2N01 A12091-20	231,411
PARROTT, ROBERT H.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER	5N01 A172535-03	245,166
ORGANIZATION TOTAL 2	476,577		
CLEMENTS ASSOCIATES ZIP CODE 20007			
GOODMAN, DAWN.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	1N01 CP95646-00	360,984
ORGANIZATION TOTAL 1	360,984		
COUNCIL ON LIBRARY RESOURCES ZIP CODE 20036			
COLE, FRED.....	MEDICAL LIBRARY MANAGEMENT INTERN PROGRAM	2N01 LM74715-04	120,000
ORGANIZATION TOTAL 1	120,000		
GEORGE WASHINGTON UNIVERSITY ZIP CODE 20052			
DAVIS, DAVID O.....	CLINICAL EVAL. OF COMPUTERIZED TRANSAXIAL TOMOGRAPHY.....	2N01 CB43981-07	14,279
KRUEGER, DEAN E.....	INTERMITTENT POSITIVE PRESSURE BREATHING—DATA STUDY.....	5N01 HR72901-03	208,756
LA ROSA, JOHN C.....	SUPPORT FOR LIPID RESEARCH CLINIC CENTER	5N01 HV32931-11	834,407
LESSIN, LAWRENCE S.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB72994-05	467,301
MATHESON, NINA W.....	ESTABLISHMENT OF REGION IV JOURNAL CLEARINGHOUSE	3N01 LM64719-06	1,734
MC GOWAN, LARRY.....	STUDY OF OVARIAN CANCER IN GREATER WASHINGTON, D C	2N01 CP81051-01	89,422
RIOS, JORGE.....	ECG CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52941-05	95,242
SHAW, LAWRENCE W.....	RISK OF SERIOUS COMPLICATIONS IN IUD WEARERS	3N01 HD52852-09	212,197
ORGANIZATION TOTAL 8	1,923,338		
GEORGETOWN UNIVERSITY ZIP CODE 20057			
GERIN, JOHN L.....	OPERATE MOLECULAR ANATOMY LABORATORIES.....	5N01 A182572-03	928,952
RIDLEY, JEANNE C.....	A STUDY OF LOW FERTILITY COHORTS IN THE UNITED STATES	5N01 HD62818-04	70,516
SCHEIN, PHILIP S.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM67094-07	122,000
SCHEIN, PHILIP S.....	GASTROINTESTINAL CANCER RESEARCH PROGRAM	2N01 CM67110-10	94,859
SCHEIN, PHILIP S.....	PHASE II STUDIES IN GASTROINTESTINAL CANCER	1N01 CM97310-00	120,000
SHNIDER, BRUCE L.....	SUPPORT SERVICES FOR NCI EXTRAMURAL CLINICAL TRIALS	3N01 CM87194-02	229,890

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DIST OF COL—Continued			
SHNIDER, BRUCE I.....	EARLY DETECTION OF CANCER OF THE BREAST	2N01 CN45062-08	328,870
SLOTKOFF, LAWRENCE M.....	THERAPY FOR HYPERTENSION IN THE GENERAL POPULATION	5N01 HV72915-03	330,884
WOOLLEY, PAUL V.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97208-00	130,069
ORGANIZATION TOTAL	9 2,356,036		
HERNER & COMPANY ZIP CODE 20037			
NOT AVAILABLE.....	INDEXING JOURNAL ARTICLES IN THE BIOMEDICAL SCIENCES.....	2N01 LM84701-02	127,600
ORGANIZATION TOTAL	1 127,600		
HOWARD UNIVERSITY ZIP CODE 20058			
JENKINS, RENEE R.....	SOCIOSEXUAL DEVELOPMENT OF BLACK ADOLESCENTS	5N01 HD82840-01	107,253
SCOTT, ROLAND B.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	2N01 HB72991-04	150,548
WHITE, JACK E.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55230-10	239,927
ORGANIZATION TOTAL	3 497,728		
MARKET FACTS ZIP CODE 20006			
WEBER, STEPHEN J.....	IMPACT OF TWO CLINICAL TRIALS ON MEDICAL PRACTICE.....	5N01 HV82940-04	202,623
ORGANIZATION TOTAL	1 202,623		
NATIONAL ACADEMY OF SCIENCES ZIP CODE 20418			
GARDNER, PHYLLIS A.....	US NATL COMMITTEE ON THE INTL COUNCIL OF PATHOLOGY	2N01 CO65280-07	22,300
GROGAN, EARL W.....	SUPPORT THE INSTITUTE OF LABORATORY ANIMAL RESOURCES	1N01 RR92109-00	105,000
HRUBEC, ZDENEK.....	NAS-NRC TWIN REGISTRY.....	2N01 HV53010-05	104,215
JABLON, SEYMOUR.....	EPIDEMIOLOGICAL STUDIES.....	2N01 CP53573-05	127,715
KELLY, WILLIAM C.....	NEED FOR BIOMEDICAL AND BEHAVIORAL RESEARCH PERSONNEL.....	2N01 OD52109-14	129,300
KELLY, WILLIAM C.....	STUDY MANPOWER FOR BIOMEDICAL AND BEHAVIORAL SCIENTISTS	1N01 OD92112-00	1,137,942
KIESLER, SARA.....	COMMITTEE ON AGING FOCUS ON THE ELDERLY FAMILY.....	5N01 AG82111-01	186,700
MUCKENHERN, NANCY.....	PREPARE MANUAL FOR PRIMATE POPULATION SURVEYS.....	1N01 RS92117-00	24,000
NOT AVAILABLE.....	ADVISORY SERVICE TO NLM TOXICOLOGY INFORMATION PROGRAM	2N01 LM64714-06	48,600
SINGER, ALLEN.....	ANALYZE RECORDS OF APPLICANTS AND AWARDEES.....	3N01 RG82125-02	46,704
WEISS, DANIEL L.....	ANALYZE RESEARCH ON EFFECTS OF IONIZING RADIATION	1N01 CO95466-00	862,904
YAGER, ROBERT H.....	STUDY ANIMAL BREEDING & MAINTENANCE STANDARDS	5N01 CM53850-05	20,000
YAGER, ROBERT H.....	PHARMACOLOGY AND TUMOR BANK.....	5N01 CM57013-09	26,000
ORGANIZATION TOTAL	13 2,841,380		
PAN AMERICAN HEALTH ORGANIZATION ZIP CODE 20037			
LITVAK, JORGE.....	LATIN AMERICAN CANCER RESEARCH INFORMATION PROJECT	2N01 CO65332-07	541,238
MORO, MANUEL.....	PLANNING/CONSULTATION SERVICE FOR NONHUMAN PRIMATE PROG.....	5N01 RS52151-09	163,175
ORGANIZATION TOTAL	2 704,413		
PORTER, NOVELLI AND ASSOCIATES ZIP CODE 20007			
NOVELLI, WILLIAM R.....	CANCER COMMUNICATIONS PROGRAM SUPPORT SERVICES	3N01 CO95447-01	937,929
ORGANIZATION TOTAL	1 937,929		
TELE SEC ZIP CODE 20006			
PASTOR, NANCY.....	CONVERT SHELF-LIST AND RELATED RECORDS.....	1N01 LM94711-00	871,547
TARVER, HELGA.....	NLM SERIAL AND MONOGRAPH BINDING PREPARATION	2N01 LM84718-04	156,835
ORGANIZATION TOTAL	2 1,028,382		
TELENET COMMUNICATIONS CORPORATION ZIP CODE 20036			
NOT AVAILABLE.....	TELECOMMUNICATIVE SERVICE.....	2N01 LM74722-05	108,990
ORGANIZATION TOTAL	1 108,990		
THOMAS BUFFINGTON AND ASSOCIATES ZIP CODE 20007			
BUFFINGTON, THOMAS.....	CANCER COMMUNICATIONS FOR MINORITY AUDIENCES	1N01 CO95467-00	99,283
ORGANIZATION TOTAL	1 99,283		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DIST OF COL—Continued			
TRITON CORPORATION ZIP CODE 20006			
SYTLES, ADAM	COMPUTER SERVICES FOR THE NONMELANOMA SKIN CANCER STUDY	1N01 CP91032-00	79,997
ORGANIZATION TOTAL 1	79,997		
U.S. SMITHSONIAN INSTITUTION ZIP CODE 20560			
HOPE, W DUANE	REGISTRY OF TUMORS IN LOWER ANIMALS	2N01 CB33874-08	165,617
ORGANIZATION TOTAL 1	165,617		
U.S. SMITHSONIAN INSTITUTION—SMITHSONIAN SCIENCE INFORMATION EXCHANGE ZIP CODE 20036			
LIEBMAN, SAMUEL	DEVELOP INFORMATION SYSTEM ON TOXICOLOGY	1N01 LM94706-00	105,588
ORGANIZATION TOTAL 1	105,588		
URBAN INSTITUTE ZIP CODE 20037			
HOFFERTH, SANDRA L	CONSEQUENCES OF REMAINING CHILDLESS OR HAVING ONE CHILD	5N01 HD82850-01	89,107
MOORE, KRISTIN A	FACTORS OF ADOLESCENT PREGNANCY AND CHILDBEARING	5N01 HD82843-01	30,657
MOORE, KRISTIN A	SOCIETAL CONSEQUENCES OF ADOLESCENT CHILDBEARING	1N01 HD92822-00	117,398
ORGANIZATION TOTAL 3	237,162		
STATE TOTAL 66	13,757,358		
FLORIDA			
FORT LAUDERDALE			
LEO GOODWIN INSTITUTE FOR CANCER RESEARCH ZIP CODE 33314			
WARREN, JOEL	OPERATE A PRIMARY GENETIC CENTER FOR GERMFREE RODENTS	5N01 CM77165-02	554,089
ORGANIZATION TOTAL 1	554,089		
GAINESVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611			
LOTZKAR, STANLEY	USE OF MOUTHRINSE AS A DENTAL CARIES PREVENTION	5N01 DE72404-03	81,833
MOYE, H ANSON	OXOLATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT	1N01 AM92212-00	44,590
TEAS, DONALD C	AUDITORY SENSITIVITY & DISCRIMINATION IN YOUNG CHILDREN	5N01 NS52313-08	115,889
WEINER, ROY S	CRYOPRESERVATION OF HUMAN MONOCYTES	2N01 CB74131-02	99,258
WEINER, ROY S	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	1N01 CM97320-00	408,012
ORGANIZATION TOTAL 5	749,582		
JACKSONVILLE			
ST. VINCENT'S MEDICAL CENTER ZIP CODE 32204			
MC CLAW, MARVIN V	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN55210-06	255,985
ORGANIZATION TOTAL 1	255,985		
MELBOURNE			
FLORIDA INSTITUTE OF TECHNOLOGY ZIP CODE 32901			
STORRS, ELEANOR E	MAINTAIN ARMADILLO COLONY INFECTED WITH M LEPRAE	1N01 AI92637-00	60,897
ORGANIZATION TOTAL 1	60,897		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
FLORIDA—Continued			
MIAMI			
FLORIDA DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES—DADE COUNTY HEALTH DEPARTMENT		ZIP CODE 33125	
CHRISTAKIS, GEORGE	STUDY OF MULTIPLE-RISK FACTOR IN CORONARY HEART DISEASE	5N01 HV42933-11	848,743
ORGANIZATION TOTAL	1	848,743	
PAPANICOLAOU CANCER RESEARCH INSTITUTE		ZIP CODE 33136	
ALTMAN, NORMAN H.	OPERATION OF AN ANIMAL DISEASE DIAGNOSTIC LABORATORY	5N01 CM87230-01	107,247
ALTMAN, NORMAN H.	BREEDING RHESUS AND SQUIRREL MONKEYS	3N01 RS52131-10	287,196
ALTMAN, NORMAN H.	CONSIGNEE AND HOLDING FUNCTIONS FOR NEW WORLD PRIMATES	3N01 RS72107-05	88,038
ORGANIZATION TOTAL	3	482,481	
UNIVERSITY OF MIAMI		ZIP CODE 33101	
BAUER, CHARLES	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	2N01 HR62951-08	283,530
BLANKENSHIP, GEORGE	EVALUATION OF EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY52142-05	86,052
BLANKENSHIP, GEORGE	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY	5N01 EY82102-04	50,603
DAVIES, JOHN E.	STUDY ETIOLOGIC FACTORS FOR LUNG CANCER	3N01 CP81000-02	39,083
GORDON, MICHAEL S.	CARDIOLOGY PATIENT SIMULATOR EVALUATION	2N01 HV62969-07	359,220
HAINES, HAROLD G.	IMMUNOLOGICAL MARKERS APPLICABLE TO CYTOLOGY AUTOMATION	3N01 CB74096-04	4,548
HARKNESS, DONALD R.	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72992-04	245,611
KALSER, MARTIN H.	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA	5N01 CM43800-14	199,654
LAZZARA, RALPH	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52928-06	66,858
LESSNER, HOWARD E.	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA	3N01 CM67093-05	110,852
LICHTER, WOLF	CELL CULTURE SCREENING OF NEW MATERIALS FOR CYTOTOXICITY	3N01 CM67077-06	25,600
LICHTER, WOLF	CELL CULTURE SCREENING FOR CYTOTOXICITY	1N01 CM97290-00	175,930
LOPEZ, DIANA M.	IMMUNOLOGICAL STUDIES OF ANIMAL BREAST CARCINOMA	3N01 CP53532-07	20,592
MANSSELL, PETER W.	A COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK	5N01 CN55243-06	257,323
NORTON, EDWARD W.	STUDY OF DIABETIC RETINOPATHY	3N01 EY32118-09	11,632
SIGEL, M. MICHAEL	IMMUNODEPRESSANT ACTIVITY OF ANTICANCER DRUGS	3N01 CM57041-05	54,967
ORGANIZATION TOTAL	16	1,992,055	
MIAMI BEACH			
MIAMI HEART INSTITUTE		ZIP CODE 33140	
CANOSA, FRANK L.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82907-03	114,964
GOSSELIN, ARTHUR J.	COLLABORATIVE STUDIES ON CORONARY ARTERY SURGERY	5N01 HV32979-11	75,357
ORGANIZATION TOTAL	2	190,321	
MOUNT SINAI MEDICAL CENTER		ZIP CODE 33140	
BERNSTEIN, WILLIAM H.	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52933-06	151,412
ORGANIZATION TOTAL	1	151,412	
SAINT PETERSBURG			
LIFE SCIENCES, INC.		ZIP CODE 33710	
BEARD, JOSEPH W.	PRODUCE AVIAN LEUCOSIS VIRUSES	5N01 CP33291-08	548,076
FARROW, WENDALL M.	PRODUCE & MAINTAIN GERM-FREE ANIMALS	2N01 CP61005-05	432,718
NONOYAMA, MEIHAN	STUDY OF THE MAREK'S DISEASE HERPES VIRUS	2N01 CP33205-12	499,490
NONOYAMA, MEIHAN	PRODUCE POTENTIAL ONCOGENIC DNA VIRUSES	2N01 CP81023-02	199,966
ORGANIZATION TOTAL	4	1,680,250	
TALLAHASSEE			
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY		ZIP CODE 32306	
DOUGHERTY, RALPH C.	SCREENING ANALYSIS FOR AROMATIC HYDROCARBON RESIDUES	5N01 ES90003-02	166,805
ORGANIZATION TOTAL	1	166,805	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
FLORIDA—Continued			
TAMPA			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA ZIP CODE 33620			
ENDICOTT, JAMES N.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	3N01 CM87220-02	43,221
ORGANIZATION TOTAL 1	43,221		
STATE TOTAL 37	7,175,841		
GEORGIA			
ATHENS			
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602			
MC CALL, JOHN W.....	FILARIASIS CHEMOTHERAPY REPOSITORY RESEARCH SERVICE	5N01 AI52519-05	68,000
PRICE, JAMES C.....	RETINOIDS ENCAPSULATION FOR LABORATORY DIETS	3N01 CP85663-02	71,396
ORGANIZATION TOTAL 2	139,396		
ATLANTA			
EMORY UNIVERSITY ZIP CODE 30322			
CHAWLA, RAJENDAR K.....	IMMUNODIAGNOSTIC MARKERS FOR BREAST CARCINOMA.....	2N01 CB84308-01	76,567
CHILD, MARGARET A.....	METROPOLITAN ATLANTA SEER PROGRAM	2N01 CP61027-07	708,928
CHILD, MARGARET A.....	ROLE OF SACCHARIN IN BLADDER CANCER.....	2N01 CP81014-03	74,491
DOBY, JOHN T.....	INVESTIGATE CONSEQUENCES OF BEING REARED AN ONLY CHILD.....	1N01 HD92802-00	69,938
EGAN, ROBERT.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55277-09	82,337
HALL, DALLAS W.....	RISK OF DIABETES FROM STEROID CONTRACEPTIVES.....	2N01 HD82818-02	146,000
HEYMSFIELD, STEVEN.....	ASSESS PROTEIN CALORIC UNDERNUTRITION IN CANCER PATIENTS.....	3N01 CP85651-05	215,152
LIBBEY, MIRIAM.....	REGIONAL MEDICAL LIBRARY FOR THE SOUTHEASTERN REGION	5N01 LM24712-10	396,804
MC CLURE, HAROLD M.....	SUPPORT FOR COLONY OF IRRADIATED MONKEYS.....	2N01 CP33343-06	29,239
MC CLURE, HAROLD M.....	ORAL FACIAL MALFORMATIONS IN THE RHESUS MONKEY	5N01 DE52452-09	57,800
MC LAREN, JOHN R.....	STUDY IMMUNE STIMULANTS IN RADIATION THERAPY.....	2N01 CB64061-04	73,218
PREEDY, JOHN R.....	ENDOCRINE EVENTS AT THE TIME OF FIRST PREGNANCY.....	5N01 CB74101-02	128,800
SCHLANT, ROBERT C.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52917-05	80,372
SCHLANT, ROBERT C.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82902-03	112,996
TUTTLE, ELBERT P, JR.....	COOPERATIVE STUDY OF HYPERTENSION	5N01 HV22938-14	247,354
ORGANIZATION TOTAL 15	2,499,996		
GEORGIA CANCER MANAGEMENT NETWORK ZIP CODE 30329			
BROWN, ROBERT L.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN55131-07	80,706
ORGANIZATION TOTAL 1	80,706		
GEORGIA DEPARTMENT OF HUMAN RESOURCES ZIP CODE 30334			
WILBER, JOSEPH A.....	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL.....	1N01 HV92912-00	475,153
ORGANIZATION TOTAL 1	475,153		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA STATE UNIVERSITY ZIP CODE 30303			
IBRAHIM, ADLY N.....	DEVELOPMENT OF IMMUNODIAGNOSTIC TESTS FOR CANCER	2N01 CB84267-01	75,720
ORGANIZATION TOTAL 1	75,720		
AUGUSTA			
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901			
BLACK, OWEN, JR.....	POTENTIAL FOR METABOLIC ACTIVATION IN ANIMAL PANCREAS	3N01 CP55656-07	2,000
GREEN, JOSEPH B.....	COMPREHENSIVE EPILEPSY PROGRAM.....	3N01 NS62340-09	1,156,259
MILNER, PAUL F.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB73000-05	189,377
ORGANIZATION TOTAL 3	1,347,636		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
GEORGIA—Continued			
CLAXTON			
EVANS COUNTY HEALTH DEPARTMENT ZIP CODE 30417			
HAMES, CURTIS G	EFFECTS OF CONTRACEPTIVE STEROIDS ON BLOOD PRESSURE	5N01 HD52830-07	114,587
ORGANIZATION TOTAL	1	114,587	
DORAVILLE			
MACMILLAN, INC.—ASSOCIATION FILMS ZIP CODE 30340			
FLY, WILLIAM O	FILM DISTRIBUTION PROGRAM-NLM	2N01 LM84712-01	38,500
ORGANIZATION TOTAL	1	38,500	
STATE TOTAL	25	4,771,694	
HAWAII			
HONOLULU			
KUAKINI MEDICAL CENTER ZIP CODE 96817			
NOMURA, ABRAHAM M	JAPAN-HAWAII CANCER STUDY	2N01 CP61060-06	454,440
STEMMERMANN, GRANT N	DATA COLLECTION IN CLINICAL PATHOLOGY AND MORBID ANATOMY	5N01 HV62955-10	274,624
ORGANIZATION TOTAL	2	729,064	
PACIFIC HEALTH RESEARCH INSTITUTE ZIP CODE 96813			
GILBERT, FRED I, JR	SCREENING FOR DETECTION OF BREAST CANCER	2N01 CN45046-07	242,128
MC NAMARA, J JUDSON	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52936-07	85,558
MC NAMARA, J JUDSON	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72956-03	88,270
ORGANIZATION TOTAL	3	415,956	
QUEEN'S MEDICAL CENTER ZIP CODE 96813			
OISHI, NOBORU	DEVELOP AND EVALUATE CANCER CARE COORDINATING TEAM	3N01 CN65197-06	50,614
ORGANIZATION TOTAL	1	50,614	
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
CHUNG, CHIN S	ABORTION—SUBSEQUENT REPRODUCTIVE FUNCTION/PREGNANCY	5N01 HD62801-05	118,359
LIU, ROBERT S	SYNTHESIS OF NEW RETINOIDS	5N01 CP75933-04	42,847
MATSUMOTO, HIROMU	CYCASIN AND MACROZAMIN AS POTENTIAL CARCINOGENS	2N01 CP75915-06	41,021
MI, MING-PI	OCCUPATIONAL CANCER RISK IN HAWAII	2N01 CP71006-03	119,678
NOMURA, ABRAHAM M	DIET AND NONCONTRACEPTIVE ESTROGENS IN BREAST CANCER	3N01 CB53884-07	97,011
PIETTE, LAWRENCE H	DEMOGRAPHIC CANCER RESEARCH PROGRAM IN HAWAII	5N01 CP53511-11	1,220,297
SAGAWA, YONEO	COLLECTION OF INDIGENOUS AND EXOTIC PLANTS	5N01 CM33747-13	86,360
ORGANIZATION TOTAL	7	1,725,573	
STATE TOTAL	13	2,921,207	
IDAHO			
BOISE			
ST. LUKE'S HOSPITAL ZIP CODE 83702			
WARD, ELIZABETH	BREAST CANCER DETECTION DEMONSTRATION PROJECT	3N01 CN55305-07	22,897
ORGANIZATION TOTAL	1	22,897	
STATE TOTAL	1	22,897	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS			
CHICAGO			
AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE ZIP CODE 60601			
KROHMER, JACK.....	COORD. COMITTEE FOR CANCER CONTROL RADIOL. PHYSICS CENTER.....	2N01 CN45162-08	206,260
ORGANIZATION TOTAL	1 206,260		
AMERICAN COLLEGE OF SURGEONS ZIP CODE 60611			
MAYER, ANDREW.....	NATIONAL CANCER CONSULTATIVE PROGRAMS FOR HOSPITALS.....	3N01 CN65282-11	176,689
ORGANIZATION TOTAL	1 176,689		
AMERICAN DENTAL ASSOCIATION HEALTH FOUNDATION ZIP CODE 60611			
SIEW, CHAKWAN.....	PHENYTOIN GINGIVAL HYPERPLASIA IN THE FERRET.....	5N01 RR82147-01	39,112
ORGANIZATION TOTAL	1 39,112		
BLUE CROSS ASSOCIATION ZIP CODE 60611			
KLEIN, DAVID H.....	DEMONSTRATION FOR REIMBURSEMENT IN CANCER CONTROL.....	5N01 CN65371-07	222,630
ORGANIZATION TOTAL	1 222,630		
DE PAUL UNIVERSITY ZIP CODE 60604			
BAKER, THERESA L.....	DISRUPTIVE EFFECT OF FERTILITY ON COLLEGE-EDUCATED WOMEN.....	1N01 HD92816-00	42,098
ORGANIZATION TOTAL	1 42,098		
HEKTOEN INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 60612			
SZANTO, PAUL B.....	SUPPLY OF MATERIALS FROM NEOPLASTIC SUBJECTS.....	5N01 CP43344-06	159,999
ORGANIZATION TOTAL	1 159,999		
IIT RESEARCH INSTITUTE ZIP CODE 60616			
BAXTER, DAVID W.....	SUPPLY HAMSTERS TREATED WITH RESPIRATORY CARCINOGENS.....	5N01 CP43289-06	184,812
GRAY, ALLAN P.....	POLYCHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS.....	5N01 CP85945-01	53,825
GRAY, ALLAN P.....	SYNTHESIS OF RADIO TETRACHLORODIBENZOFURAN.....	3N01 ES82115-02	3,408
KEITH, JAMES N.....	CHEMICAL REPOSITORY.....	5N01 CP55646-10	168,064
MOON, RICHARD C.....	PREVENTION OF PRENEOPLASTIC LESIONS OF THE MAMMARY GLAND.....	5N01 CB74207-02	90,300
MOON, RICHARD C.....	STUDY OF MODULATING FACTORS IN CARCINOGENESIS.....	2N01 CP23292-09	499,210
MOON, RICHARD C.....	PREVENTION OF EPITHELIAL CANCER BY RETINOLIDS.....	5N01 CP75939-03	128,235
REED, JOSEPHINE M.....	CELL CULTURE SCREENING OF NEW MATERIALS FOR CYTOTOXICITY.....	3N01 CM63832-03	23,200
REMAY, ROBERT F.....	TRAINING COURSE ON SAFE HANDLING OF CHEMICAL CARCINOGENS.....	1N01 CO95425-00	179,709
SCHIFF, LEONARD J.....	COLON CARCINOGENESIS IN ORGAN CULTURE.....	5N01 CP75953-02	85,093
SCHIPMA, PETER B.....	COMPUTER SUPPORT FOR CANCER INFORMATION DISSEMINATION.....	5N01 CO55221-08	448,343
SHEFNER, ALAN M.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY.....	5N01 CM57004-08	962,889
SHEFNER, ALAN M.....	ACTIVITIES IN SUPPORT OF PRIMARY DRUG SCREENING.....	1N01 CM97213-00	299,440
SHEFNER, ALAN M.....	IN VIVO SCREENING PROGRAM.....	1N01 CM97316-00	936,493
SHEFNER, ALAN M.....	INGESTED ASBESTOS EFFECTS.....	5N01 ES52157-09	358,585
ORGANIZATION TOTAL	15 4,421,606		
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
STEINER, JAN W.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55245-08	201,600
STEINER, JAN W.....	DEMONSTRATION PROJECT FOR HEAD & NECK CANCER.....	2N01 CN65256-06	413,947
WARNECKE, RICHARD B.....	HEAD AND NECK CANCER PATIENT MANAGEMENT.....	1N01 CN95446-00	221,959
ORGANIZATION TOTAL	3 837,506		
JOHN CRERAR LIBRARY ZIP CODE 60616			
PLETZKE, CHESTER J.....	REGIONAL MEDICAL LIBRARY SERVICES.....	3N01 LM84713-02	189,616
ORGANIZATION TOTAL	1 189,616		
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
KOSHY, MABEL.....	COOPERATIVE STUDY--CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB72998-06	738,894

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS—Continued			
SCOMMEGNA, ANTONIO	INTRAUTERINE RELEASE OF ESTRIOL FOR CONTRACEPTION	2N01 HD32739-15	47,419
ORGANIZATION TOTAL	2 786,313		
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
CHATTERTON, ROBERT T, JR.	PREDICT AND DETECT OVULATION IN HUMANS	1N01 HD92841-00	40,290
CUGELL, DAVID W.	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE	3N01 HR62945-08	165,175
DEPP, RICHARD	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62950-08	247,818
HARING, OLGA M.	CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52929-05	112,857
HARING, OLGA M.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72963-03	120,820
HSU, CLEMENT C.	ASSAYS FOR TUMOR ASSOCIATED ANTIGENS	2N01 CB74132-03	70,611
MARTIN, ALICE O.	FIELD TEST CHROMOSOME PREPARATION AND KARYOTYPING DEVICE	2N01 HD82855-02	270,763
MOLTENI, AGOSTINO	HYPERTENSION DETECTION & FOLLOW-UP PROGRAM CENTRAL LAB	5N01 HV32933-08	415,744
PATTERSON, ROY	SKIN TEST PENICILLIN DERIVATIVES IN HOSPITALIZED ADULTS	1N01 A92632-00	61,516
STAMLER, JEREMIAH	STUDY HYPERTENSION IN THE GENERAL POPULATION	5N01 HV12441-16	375,363
STAMLER, JEREMIAH	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE	5N01 HV22978-16	808,692
ORGANIZATION TOTAL	11 2,689,649		
PLANNED PARENTHOOD ASSOCIATION-CHICAGO AREA ZIP CODE 60604			
MEARA, HANNAH	INTERACTIVE PROCESSES IN NEVER-MARRIED FEMALE AND MALE	5N01 HD82836-01	61,419
ORGANIZATION TOTAL	1 61,419		
REHABILITATION INSTITUTE OF CHICAGO ZIP CODE 60611			
ADDISON, ROBERT A.	PAIN CONTROL IN CANCER	1N01 CN95417-00	183,121
ORGANIZATION TOTAL	1 183,121		
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
BACUS, JAMES W.	APPLY DIGITAL IMAGE PROCESSING TO CYTOLOGY AUTOMATION	5N01 CB74190-04	382,181
SCHOENBERGER, JAMES A.	CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52919-04	128,598
SCHOENBERGER, JAMES A.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72967-04	124,574
WOLFE, LAUREN G.	MARMOSSET COLONY FOR CANCER RESEARCH	5N01 CP71014-02	293,986
ORGANIZATION TOTAL	4 929,339		
ST. JOSEPH HOSPITAL ZIP CODE 60657			
BERKSON, DAVID M.	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52927-04	112,349
ORGANIZATION TOTAL	1 112,349		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
ENKER, WARREN E.	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA	3N01 CM67095-08	16,937
FITCH, FRANK W.	CHARACTERIZATION OF ANTIGEN-BINDING T-CELL RECEPTORS	2N01 CB74149-05	86,883
HARVEY, RONALD G.	DERIVATIVES OF CARCINOGENIC POLYCYCLIC HYDROCARBONS	5N01 CP33385-13	103,000
HERBST, ARTHUR L.	LONG-TERM EFFECTS OF DIETHYLSTILBESTROL DURING PREGNANCY	5N01 HD82829-01	280,765
HUNTER, ROBERT L.	REAGENTS TO CHARACTERIZE HUMAN CELL SUBPOPULATIONS	2N01 CB84287-01	83,692
JENSEN, ELWOOD V.	PREDICTION OF RESPONSE TO ADRENALECTOMY	2N01 CB43969-07	85,000
MATTHEWS, MARTIN B.	PREPARE ACID MUCOPOLYSACCHARIDE STANDARDS	5N01 AM52205-06	5,073
MEDOF, M EDWARD	DETECT ANTIGEN-ANTIBODY COMPLEXES IN BREAST CANCER	3N01 CB84224-02	66,858
MOOSSA, A R.	IMAGING IN DETECTION OF EARLY PANCREATIC CANCER	5N01 CB84232-01	223,413
WIED, GEORGE L.	DEVELOPMENT OF AUTOMATED CELL RECOGNITION SYSTEM	5N01 CB33873-12	278,250
ORGANIZATION TOTAL	10 1,229,871		
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
CHEN, EDWIN H.	STATISTICAL COORDINATING CENTER FOR SICKLE CELL DISEASE	5N01 HB72982-06	112,153
DAS GUPTA, TAPAS K.	CHEMOTHERAPY-INDUCED ENDOCRINE CHANGES ON BREAST CANCER	5N01 CB84221-02	125,900
DEVEKIS, AUDRA	PENICILLIN FOR STREPTOCOCCAL INFECTION IN THE NEWBORN	3N01 A92610-02	226,602
FARNSWORTH, NORMAN R.	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	3N01 CM67090-08	10,054
FARNSWORTH, NORMAN R.	COMPUTERIZED LITERATURE SURVEILLANCE OF NATURAL PRODUCTS	1N01 CM97259-00	99,837
FARNSWORTH, NORMAN R.	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	1N01 CM97295-00	142,275
HUAMONTE, FELIPE U.	STUDY OF DIABETIC RETINOPATHY	3N01 EY32125-08	9,536

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS—Continued			
HUAMONTE, FELIPE U.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72137-04	89,381
JONASSON, OLGA.....	HISTOCOMPATIBILITY-MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI22529-11	72,597
PEYMAN, GHOLAM A.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	2N01 EY62142-05	72,690
SCHLESINGER, DAVID H.....	PREPARE AND ANALYZE CELL SURFACE PROTEIN FRACTION	2N01 CB74214-02	34,325
SUBRAMANIAN, KIRANUR N.....	SITES OF PAPOVAVIRUS GENOMES IN TRANSFORMED CELLS.....	2N01 CP71061-02	96,790
ORGANIZATION TOTAL	12	1,092,140	
EVANSTON			
EVANSTON HOSPITAL ZIP CODE 60201			
SCANLON, EDWARD F.....	THERAPY OF STAGE II & STAGE III OF BREAST CARCINOMA.....	2N01 CB53917-05	79,000
WILNER, GARY N.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52935-04	65,085
WILNER, GARY N.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72955-03	80,902
ORGANIZATION TOTAL	3	224,987	
NORTHWESTERN UNIVERSITY ZIP CODE 60201			
EPSTEIN, MAX.....	INNOVATIVE TECHNIQUES FOR COLONOSCOPE PASSAGE INTO CECUM	5N01 CB74114-02	51,173
ORGANIZATION TOTAL	1	51,173	
JOLIET			
AMERICAN ASSOCIATION FOR ACCREDITATION OF LABORATORY ANIMAL CARE ZIP CODE 60435			
GARVEY, JOSEPH J	CONDUCT ACCREDITATION PROGRAM FOR LABORATORY ANIMAL CARE	1N01 RR92108-00	10,000
ORGANIZATION TOTAL	1	10,000	
MAYWOOD			
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153			
GOLDBERG, JULIUS.....	SIDS RISK FACTOR COOPERATIVE STUDY	3N01 HD72843-02	104,028
ORGANIZATION TOTAL	1	104,028	
PARK RIDGE			
AMERICAN COLLEGE OF CHEST PHYSICIANS ZIP CODE 60068			
SOFTER, ALFRED	COURSE ON ASBESTOS-RELATED PULMONARY DISEASE.....	1N01 CN95455-00	115,352
ORGANIZATION TOTAL	1	115,352	
ROCKFORD			
UNIVERSITY OF ILLINOIS ROCKFORD SCHOOL OF MEDICINE ZIP CODE 61101			
YU, FU LI.....	INHIBITION OF RNA POLYMERASE II ACTIVITY	1N01 CP95631-00	40,316
ORGANIZATION TOTAL	1	40,316	
URBANA			
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801			
VISEK, WILLARD J	EFFECT OF DIETARY PROTEIN ON CARCINOGENESIS.....	5N01 CP75899-02	482,000
ORGANIZATION TOTAL	1	482,000	
STATE TOTAL	76	14,407,573	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
INDIANA			
CUMBERLAND			
HARLAN INDUSTRIES ZIP CODE 46229			
HARLAN, HAL P.....	BARRIER-REARED AND MAINTAINED, AGED SPRAGUE-DAWLEY RATS	5N01 AG62136-04	33,348
HARLAN, HAL P.....	PRIMARY GENETIC CENTER FOR GERM-FREE RODENTS.....	5N01 CM77168-02	327,970
HARLAN, HAL P.....	ESTABLISH RODENT PRODUCTION CENTER.....	1N01 CM97242-00	109,820
HARLAN, HAL P.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	1N01 CM97243-00	227,320
HARLAN, HAL P.....	PRODUCTION OF AGED RATS.....	2N01 CP55647-10	524,182
HARLAN, HAL P.....	ESTABLISHMENT OF A RODENT PRODUCTION COLONY	3N01 CP65737-10	235,118
HARLAN, HAL P.....	RODENT PRODUCTION COLONIES FOR NCI.....	1N01 CP95642-00	198,382
HARLAN, HAL P.....	ESTABLISH SPECIFIC PATHOGEN FREE RODENT STOCKS	5N01 ES82152-02	447,430
ORGANIZATION TOTAL	8	2,103,570	
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202			
CHRISTIAN, JOE C.....	TWIN STUDY FOLLOW-UP EXAMINATION.....	1N01 HV92928-00	92,186
CONNELLY, P MICHAEL.....	RESEARCH ROSTER FOR HUNTINGTON'S DISEASE	5N01 NS92320-02	294,384
MEALEY, JOHN, JR.....	EXPERIMENTAL CHEMOTHERAPY OF SELECTED BRAIN TUMORS	3N01 CM02028-10	2,635
ORGANIZATION TOTAL	3	389,205	
LABORATORY SUPPLY COMPANY ZIP CODE 46241			
COX, ELDON J.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	1N01 CM97244-00	206,810
ORGANIZATION TOTAL	1	206,810	
METHODIST HOSPITAL OF INDIANA ZIP CODE 46202			
DUGAN, WILLIAM M, JR.....	CLINICAL ONCOLOGY PROGRAM.....	2N01 CN75393-03	318,195
ORGANIZATION TOTAL	1	318,195	
NEW CASTLE			
INDIANA STATE DEPARTMENT OF MENTAL HEALTH—NEW CASTLE STATE HOSPITAL ZIP CODE 47362			
BROCK, JOSEPH T.....	STUDY OF CARBAMAZEPINE AS AN ANTICONVULSANT AGENT	2N01 NS81310-18	15,000
ORGANIZATION TOTAL	1	15,000	
WEST LAFAYETTE			
PURDUE UNIVERSITY ZIP CODE 47907			
CASSADY, JOHN M.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	1N01 CM97296-00	160,409
ORGANIZATION TOTAL	1	160,409	
STATE TOTAL	15	3,193,189	
IOWA			
AMES			
IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY ZIP CODE 50010			
BALINSKY, DORIS.....	ISOPROTEINS IN NORMAL AND MALIGNANT BREAST TISSUES.....	5N01 CB84222-01	66,400
ORGANIZATION TOTAL	1	66,400	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
IOWA—Continued			
DES MOINES			
IOWA LUTHERAN HOSPITAL ZIP CODE 50316			
YOUNG, DONALD C.....	SCREENING FOR EARLY DETECTION OF CANCER.....	2N01 CN45067-08	335,067
ORGANIZATION TOTAL	1 335,067		
IOWA CITY			
UNIVERSITY OF IOWA ZIP CODE 52242			
ABBOUD, FRANCOIS M.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	5N01 HV22913-12	2,761,380
CLAMON, GERALD.....	PARENTERAL NUTRITION AND CHEMOTHERAPY IN LUNG CANCER.....	1N01 CM97319-00	121,280
CULP, DAVID A.....	STUDY ROLE OF SACCHARIN IN BLADDER CANCER.....	3N01 CP81011-02	20,460
ISACSON, PETER.....	POPULATION-BASED CANCER EPIDEMIOLOGY RESEARCH CENTER.....	3N01 CP43200-16	1,166,594
ROSAZZA, JOHN P.....	PRODUCTION OF NOVEL ANTINEOPLASTIC COMPOUNDS.....	5N01 CM77176-03	110,002
STRAUSS, RONALD G.....	COLLECTION, FUNCTION AND TRANSFUSION OF GRANULOCYTES.....	2N01 HB62973-08	63,957
THOMPSON, JOHN S.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	5N01 AI82554-03	34,225
WATZKE, ROBERT C.....	STUDY OF DIABETIC RETINOPATHY.....	3N01 EY32123-09	9,336
WATZKE, ROBERT C.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72135-03	39,141
WURSTER, DALE E.....	DEVELOP AND PRODUCE PARENTERAL DOSAGE FORMS.....	5N01 CM43743-07	235,532
ORGANIZATION TOTAL	10 4,561,907		
STATE TOTAL	12 4,963,374		
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS ZIP CODE 66103			
BAKER, LARRY.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55303-07	104,718
BRACKETT, CHARLES E, JR.....	POST-TRAUMATIC EPILEPSY PROPHYLAXIS.....	5N01 NS22313-10	33,000
DIEDERICH, DENNIS A.....	HEMOGLOBIN CARBAMYLATON IN SICKLE CELL ANEMIA TREATMENT.....	2N01 HB22919-13	74,046
HOOGSTRAATEN, BARTH.....	PHASE I STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM43802-09	18,042
HOOGSTRAATEN, BARTH.....	STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97272-00	86,003
HOOGSTRAATEN, BARTH.....	CANCER CONTROL PROGRAM—SOUTHWEST ONCOLOGY GROUP.....	3N01 CN65285-03	499,289
MAKLAD, NABIL F.....	DEVELOP CONTRAST AGENTS FOR ULTRASONIC DIAGNOSIS.....	5N01 CB84236-01	293,116
ORGANIZATION TOTAL	7 1,108,214		
LAWRENCE			
UNIVERSITY OF KANSAS ZIP CODE 66045			
HIGUCHI, TAKERU.....	DEVELOPMENT OF PARENTERAL DOSAGE FORMS.....	5N01 CM23217-11	62,265
ORGANIZATION TOTAL	1 62,265		
STATE TOTAL	8 1,170,479		
KENTUCKY			
LEXINGTON			
UNIVERSITY OF KENTUCKY ZIP CODE 40506			
COLEMAN, MARY S.....	TERMINAL TRANSFERASE LEVEL IN ACUTE LYMPHOCYTIC LEUKEMIA.....	2N01 CM67038-04	48,330
GOLD, DAVID V.....	PURIFICATION OF HUMAN TUMOR ASSOCIATED ANTIGENS.....	5N01 CB84259-01	94,491
GOLDENBERG, DAVID M.....	SPECIFIC LABELLED IMMUNOGLOBULINS FOR TUMOR DETECTION.....	3N01 CB64011-06	36,500
HUSSAIN, ANWAR A.....	DEVELOPMENT OF SUSTAINED RELEASE ORAL DOSAGE FORMS.....	3N01 HD72830-03	25,500
PRIMUS, F JAMES.....	IMMUNOHISTOCHEMISTRY OF TUMOR ASSOCIATED ANTIGENS.....	2N01 CB84257-01	70,056

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
KENTUCKY—Continued			
YOUNG, BYRON.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	5N01 CM67058-07	16,990
ORGANIZATION TOTAL	6 291,867		
LOUISVILLE			
UNIVERSITY OF LOUISVILLE	ZIP CODE 40208		
POLK, HIRAM C, JR.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN55307-09	78,286
SPATOLA, ARNO F.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS	5N01 HD82822-01	100,391
ORGANIZATION TOTAL	2 178,677		
STATE TOTAL	8 470,544		
LOUISIANA			
BATON ROUGE			
GULF SOUTH RESEARCH INSTITUTE	ZIP CODE 70808		
EHRLICH, KENNETH C.....	TOXIC POLYPEPTIDES AND UREMIA	3N01 AM82205-02	11,030
GREER, WILLIAM E.....	SUPPORTING SERVICES ON VIRAL RESEARCH PROJECT	5N01 NS80993-29	1,199,807
GREER, WILLIAM E.....	MAINTAINING BREEDING COLONY OF RHESUS MONKEYS	2N01 RS42181-08	149,000
GREER, WILLIAM E.....	PROCURE TIMED PREGNANT RHESUS AND CYNOMOLGOS MONKEYS	1N01 RS92111-00	79,124
KLEIN, ELIAS.....	EVALUATION OF MEMBRANES AND MATERIALS.....	2N01 AM22221-14	125,597
MONTALVO, JOSEPH G.....	SIMPLIFIED UREA SENSOR FOR MONITORING DIALYSIS	3N01 AM82211-01	1,434
ORGANIZATION TOTAL	6 1,565,992		
COVINGTON			
TULANE UNIVERSITY	ZIP CODE 70433		
SOIKE, KENNETH F.....	STUDY OF HEPATITIS IN CHIMPANZEES.....	3N01 AI12197-12	1,272
SOIKE, KENNETH F.....	EVALUATION OF ANTIVIRAL SUBSTANCES IN ANIMALS	5N01 AI52525-07	277,362
ORGANIZATION TOTAL	2 278,634		
NEW ORLEANS			
ALTON OCHSNER MEDICAL FOUNDATION	ZIP CODE 70121		
SEGALOFF, ALBERT.....	INFLUENCE OF IRRADIATION ON CARCINOGENESIS.....	2N01 CP65764-03	64,782
ORGANIZATION TOTAL	1 64,782		
GULF SOUTH RESEARCH INSTITUTE	ZIP CODE 70146		
KLEIN, ELIAS.....	SORBENTS FOR TREATMENT OF ESRD PATIENTS	1N01 AM92217-00	140,527
KLEIN, ELIAS.....	DEVELOP A SOPHISTICATED FEEDBACK CONTROL SYSTEM.....	1N01 AM92218-00	53,300
ORGANIZATION TOTAL	2 193,827		
LOUISIANA HEALTH AND HUMAN RESOURCES ADMINISTRATION—CHARITY HOSPITAL OF LOUISIANA	ZIP CODE 70140		
DE JONGH, DAVID S.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	5N01 AI82556-05	55,324
KREMENTZ, EDWARD T.....	SUPPORT FOR LOUISIANA TUMOR REGISTRY	2N01 CP43262-11	489,449
ORGANIZATION TOTAL	2 544,773		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS	ZIP CODE 70112		
CORREA, PELAYO.....	EPIDEMIOLOGY AND GEOGRAPHIC PATHOLOGY OF CANCER.....	2N01 CP53521-09	164,238
CORREA, PELAYO.....	CASE STUDY OF CANCER IN SOUTHERN LOUISIANA.....	1N01 CP91023-00	184,440
GONZALEZ, FRANCISCO M.....	MECHANISMS OF VASCULAR ACCESS PROBLEMS IN HEMODIALYSIS	2N01 AM72226-02	147,895
SULLIVAN, J W.....	STUDY ROLE OF SACCHARIN IN BLADDER CANCER.....	2N01 CP81013-02	65,233
ORGANIZATION TOTAL	4 561,806		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
LOUISIANA—Continued			
TULANE UNIVERSITY ZIP CODE 70118			
KADOWITZ, PHILIP J.....	EVALUATE PROSTAGLANDIN ANTAGONISTS.....	5N01 HV82932-01	74,543
SCHALLY, ANDREW V.....	SYNTHESIS OF LH-RH ANALOGS AS OVULATION INHIBITORS	3N01 HD82819-03	155,880
ORGANIZATION TOTAL	2 230,423		
RUSTON			
LOUISIANA TECHNOLOGICAL UNIVERSITY ZIP CODE 71272			
CRUMP, KENNY S.....	STATISTICAL DEVELOPMENT OF CARCINOGENESIS MODELS	5N01 ES82123-02	41,782
ORGANIZATION TOTAL	1 41,782		
STATE TOTAL	20 3,482,019		
MAINE			
AUGUSTA			
MAINE DEPARTMENT OF HUMAN SERVICES ZIP CODE 04333			
CHATTERJEE, MANU.....	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL.....	1N01 HV92913-00	323,561
ORGANIZATION TOTAL	1 323,561		
BAR HARBOR			
JACKSON LABORATORY ZIP CODE 04609			
MEIER, HANS.....	NATURAL OCCURRENCE OF RNA TUMOR VIRUSES	2N01 CP33255-08	458,383
ORGANIZATION TOTAL	1 458,383		
STATE TOTAL	2 781,944		
MARYLAND			
BALTIMORE			
BECTON, DICKINSON AND COMPANY—HUNTINGDON RESEARCH CENTER ZIP CODE 21209			
WILSNACK, ROGER E.....	PREPARE ANTISERA TO ONCOGENIC VIRUSES	3N01 CP91004-02	575,918
ORGANIZATION TOTAL	1 575,918		
IPCO HOSPITAL SUPPLY CORPORATION—COMMUNITY BLOOD AND PLASMA SERVICES DIVISION ZIP CODE 21205			
WELCOME, GAIL R.....	PLATELETHESIS SERVICE—DIVISION OF CANCER TREATMENT.....	1N01 CM97196-00	564,737
ORGANIZATION TOTAL	1 564,737		
JOHN F. KENNEDY INSTITUTE ZIP CODE 21205			
SEITZ, RACHEL E.....	SENSORY & PERCEPTUAL FUNCTIONS IN LANGUAGE DEVELOPMENT	5N01 NS52323-06	47,653
ORGANIZATION TOTAL	1 47,653		
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218			
AUGUST, J THOMAS.....	MOLECULAR BIOLOGY OF ONCORNAVIRAL PROTEINS.....	2N01 CP81053-02	280,560
AURELIAN, LAURE.....	IMMUNOLOGICAL MARKERS APPLICABLE TO CYTOLOGY AUTOMATION.....	2N01 CB74170-03	90,658
BECKER, LEWIS C.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	1N01 HV92925-00	109,990
BIAS, WILMA B.....	INFLUENCE OF HLA ON IMMUNE RESPONSE TO VIRAL VACCINES.....	1N01 AI92626-00	182,948
COHEN, BERNICE H.....	PULMONARY DISEASE RISK—INDIVIDUALS WITH MZ PHENOTYPES.....	3N01 HR72910-02	9,140
EWING, LARRY L.....	CONTRACEPTIVE EFFICACY OF ANDROGEN-ESTROGEN IMPLANTS.....	5N01 HD82805-01	163,604
FISCHMAN, HARVEY R.....	EPIDEMIOLOGY OF ROCKY MOUNTAIN SPOTTED FEVER.....	5N01 AI92622-01	484,241
FROST, JOHN K.....	STUDY OF EARLY DETECTION OF CANCER OF THE LUNGS.....	3N01 CN45037-09	865,888

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
GORDIS, LEON.....	AMENORRHEA, ADENOMA, AND ORAL CONTRACEPTIVES.....	2N01 HD72834-05	306,832
GREEN, LAWRENCE W.....	DESIGN AND EVALUATE CANCER EDUCATION PROGRAMS.....	1N01 CN95439-00	473,856
HAYWARD, GARY S.....	STUDIES OF CELLULAR TRANSFORMATION BY HSV-2.....	5N01 CP71022-03	115,630
KAIZER, HERBERT.....	PEDIATRIC TUMOR RESOURCE.....	2N01 CP33245-06	22,971
KAUFMAN, JOYCE J.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS.....	2N01 CP75929-02	114,836
KING, THEODORE M.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES.....	1N01 HD92811-00	147,509
KWITEROVICH, PETER O.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	2N01 HV12158-15	1,024,960
LAMBERG, STANFORD I.....	DEVELOP CHEMOTHERAPEUTIC AGENTS FOR MYCOSIS FUNGOIDES.....	2N01 CB63927-06	66,791
MATANOSKI, GENEVIEVE M.....	EPIDEMIOLOGY OF INFANT MORTALITY IN A HIGH RISK AREA.....	3N01 HD72845-02	30,114
MC DONALD, DANIEL F.....	COMPREHENSIVE STUDY OF DISEASED SKELETAL SYSTEMS.....	5N01 AM82202-02	303,865
MC KUSICK, VICTOR A.....	DEVELOP HUMAN GENETIC DATA BASE.....	1N01 LM94704-00	123,999
MICHELS, RONALD G.....	EVALUATION OF EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	2N01 EY52145-05	108,920
PATZ, ARNALL.....	STUDY OF DIABETIC RETINOPATHY.....	3N01 EY32127-09	12,065
PIERCE, NATHANIEL F.....	ANIMAL MODEL FOR CHOLERA.....	1N01 AY92601-00	111,274
PRICE, DONALD L.....	HEREDITARY SPINAL MUSCULAR ATROPHY.....	5N01 RR82145-01	39,305
RICE, THOMAS A.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72146-03	58,899
SHAPER, JOEL H.....	IMMUNE ASSAYS FOR ENZYMES AND ISOZYMES IN CANCER.....	2N01 CB84260-01	65,562
TEPPER, BYRON S.....	TRAINING COURSE IN CONTROL OF BIOHAZARDS.....	1N01 CO95456-00	95,765
TOCHMAN, MELVYN S.....	BALTIMORE LONGITUDINAL STUDY OF HUMAN AGING.....	2N01 AG82129-04	265,346
TS'O, PAUL O.....	SIGNIFICANCE OF MUTATION IN CARCINOGENESIS.....	5N01 CP55713-07	143,234
WALKES, T PHILLIP.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55241-09	243,397
WANG, VIRGINIA L.....	MODIFYING SMOKING BEHAVIOR IN SPECIAL POPULATIONS.....	1N01 CN95432-00	476,207
WEISFELD, MYRON L.....	NONINVASIVE ASSESSMENT OF CARDIAC FUNCTION IN AGING.....	5N01 AG72129-03	193,766
YOLKEN, ROBERT H.....	RAPID DIAGNOSIS OF VIRAL DISEASES.....	1N01 AY92616-00	78,186
ZELINK, MELVIN.....	FERTILITY BEHAVIOR AMONG U.S. FEMALES AGED 15-19.....	5N01 HD82848-01	116,951
ORGANIZATION TOTAL	33 6,927,269		
MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE ZIP CODE 21201			
SOUTHARD, JOHN W.....	STATE-WIDE COORDINATION OF HIGH BLOOD PRESSURE CONTROL.....	5N01 HV72986-03	1,017,770
ORGANIZATION TOTAL	1 1,017,770		
SINAI HOSPITAL OF BALTIMORE ZIP CODE 21215			
NAIR, P P.....	DIETARY PATTERNS AND CANCER OF AMERICAN VEGETARIANS.....	2N01 CP85602-04	200,000
ORGANIZATION TOTAL	1 200,000		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201			
ELIAS, E GEORGE.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA.....	5N01 CM87223-02	68,809
HINTON, DAVID E.....	BIOLOGY OF NEOPLASTIC LIVER LESIONS IN MICE.....	2N01 CP65752-10	97,240
JONES, RAYMOND T.....	CULTURE EPITHELIAL CELL TYPES OF EXPERIMENTAL ANIMALS.....	5N01 CP75947-04	51,686
KNATTERUD, GENELL L.....	STUDY OF RETINOPATHY.....	5N01 EY32129-11	848,089
KNATTERUD, GENELL L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72147-05	1,137,348
KROL, WILLIAM F.....	COORDINATING CENTER—ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52901-10	683,817
MC DILL, MARY S.....	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82912-01	152,324
PRICE, THOMAS R.....	DEVELOP A PILOT STROKE DATA BANK NETWORK CENTER.....	5N01 NS92302-05	361,676
RAITI, SALVATORE.....	PITUITARY GLAND STORAGE BANK.....	2N01 AM71153-22	456,957
RAITI, SALVATORE.....	STORE, PACKAGE, AND DISTRIBUTE HORMONES.....	3N01 HD72838-02	6,240
SHERWIN, ROGER W.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	5N01 HV22980-08	922,555
TRUMP, BENJAMIN F.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95476-00	276,033
TRUMP, BENJAMIN F.....	STUDY OF TRACHEOBRONCHIAL EPITHELIUM.....	3N01 CP43237-15	157,235
TRUMP, BENJAMIN F.....	STUDIES OF CARCINOGENESIS IN HUMAN TISSUES.....	5N01 CP75909-04	46,680
TRUMP, BENJAMIN F.....	STUDY MALIGNANT EPITHELIAL TISSUES OF THE HUMAN.....	1N01 CP95640-00	220,148
YOUNG, JOHN D, JR.....	COMBINATION DRUG & COMBINED MODALITIES CANCER TREATMENT.....	2N01 CM43748-23	3,679,798
ORGANIZATION TOTAL	16 9,166,635		
BELTSVILLE			
INFORMATION DEVELOPMENT AND APPLICATIONS ZIP CODE 20705			
MATHESON, RODERICK.....	TECHNICAL SERVICES FOR THE LEARNING RESOURCE CENTER.....	1N01 LM94723-00	95,159

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director		Purpose of contract	Contract No.	Dollars
MARYLAND—Continued				
NOT AVAILABLE.....		TECHNICAL SERVICES FOR THE LHNCBC RESOURCE.....	2N01 LM84707-03	65,067
ORGANIZATION TOTAL	2	160,226		
BETHESDA				
AMERICAN SOCIETY OF HOSPITAL PHARMACISTS ZIP CODE 20014				
TOUSIGNAUT, DWIGHT R.....		ASSIGN CHEMICAL ABSTRACT SERVICES REGISTRY NUMBERS.....	2N01 LM84705-01	25,132
ORGANIZATION TOTAL	1	25,132		
BOOZ, ALLEN AND HAMILTON ZIP CODE 20014				
BEAVERS, ALEX N.....		ANALYTICAL SUPPORT SERVICES-NLM.....	1N01 LM94703-00	247,517
ORGANIZATION TOTAL	1	247,517		
COMPUTER DATA SYSTEMS ZIP CODE 20014				
BAILY, JAMES T.....		ANALYSIS OF NINCDS PERINATAL PROJECT DATA.....	3N01 NS72374-05	9,000
ORGANIZATION TOTAL	1	9,000		
ELECTRO-NUCLEONICS LABORATORIES ZIP CODE 20014				
LEMP, JOHN F, JR.....		PRODUCTION OF ONCOGENIC VIRUSES.....	3N01 CP23249-12	162,499
LEMP, JOHN F, JR.....		VIRUS PROCESSING AND PRODUCTION FACILITY.....	2N01 CP43334-05	400,000
ORGANIZATION TOTAL	2	562,499		
FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY ZIP CODE 20014				
FISHER, KENNETH D.....		DEVELOPMENT AND REVIEW OF DATA STANDARDS.....	3N01 LM84736-01	15,150
ORGANIZATION TOTAL	1	15,150		
INFORMATION MANAGEMENT SERVICES ZIP CODE 20014				
BEACH, JANIS A.....		COMPUTING SERVICES—CLINICAL AND DIAGNOSTIC TRIALS.....	3N01 CP71010-06	458,631
ORGANIZATION TOTAL	1	458,631		
INTERNATIONAL BUSINESS MACHINES CORPORATION ZIP CODE 20034				
KIESEWITTER, WILLIAM.....		MAINTENANCE OF AN IBM 370/168 (MP) SYSTEM.....	3N01 CT82156-02	316,820
NOT AVAILABLE.....		CONVERSION OF AN IBM 370/168 (MP) SYSTEM.....	1N01 CT92105-00	2,942,829
NOT AVAILABLE.....		MAINTENANCE OF AN IBM 370/168 (MP) SYSTEM.....	1N01 CT92106-00	223,472
NOT AVAILABLE.....		PROVIDE SYSTEMS ENGINEERING SUPPORT.....	2N01 LM64751-04	12,375
ORGANIZATION TOTAL	4	3,495,496		
OPERATIONS RESEARCH ZIP CODE 20014				
SCHUSTERMAN, NORMAN.....		SCIENCE CONTENT ANALYSIS SYSTEM (SCANS) DEVELOPMENT.....	3N01 C095427-01	138,198
ORGANIZATION TOTAL	1	138,198		
SYSTEM SCIENCES, INC. ZIP CODE 20014				
GORDON, CHRISTOPHER.....		NATIONAL CANCER PROGRAM INFORMATION SYSTEM SERVICES.....	1N01 C095460-00	244,894
ORGANIZATION TOTAL	1	244,894		
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY ZIP CODE 20014				
SPRAKER, TERRY R.....		TISSUE EVALUATION OF CONTRACEPTIVE STEROIDS.....	2N01 HD22729-16	117,733
ORGANIZATION TOTAL	1	117,733		
WHITTAKER CORPORATION—MICROBIOLOGICAL ASSOCIATES ZIP CODE 20016				
ATHEY, WILBUR L.....		ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	1N01 CM97246-00	205,090
BERMAN, JAY.....		CANCER CHEMOTHERAPY CHEMICALS/DRUGS STORAGE/DISTRIBUTION.....	3N01 CM43793-21	52,670
CASTELLANO, GABRIEL A.....		PROVIDE VIRAL DIAGNOSTIC REAGENTS.....	3N01 NS62338-09	54,000
CASTELLANO, GABRIEL A.....		DELIVER VIRAL DIAGNOSTIC REAGENTS.....	5N01 NS92324-01	841,690
COLLINS, MICHAEL J, JR.....		OPERATION OF A VIROLOGICAL DIAGNOSTIC LABORATORY.....	1N01 CM97287-00	150,000

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
DINOWITZ, MARSHALL.....	IMMUNOPREVENTION OF SPONTANEOUSLY OCCURRING NEOPLASMS	3N01 CP33248-16	321,836
DINOWITZ, MARSHALL.....	SCREENING FOR DIABETOGENIC VIRUSES.....	1N01 DE92420-00	125,450
KOURI, RICHARD E.....	THE GENETICS OF CHEMICAL CARCINOGENESIS.....	1N01 HD92840-00	110,000
NIMS, ROBERT M.....	PROVIDE SERVICES IN SUPPORT OF CARCINOGENESIS BIOASSAYS	3N01 CP02199-27	929,850
PARKER, JOHN C.....	OPERATION OF AN ANIMAL VIROLOGICAL DIAGNOSTIC LABORATORY.....	3N01 CM67069-09	138,508
PARKER, JOHN C.....	VIRUS TYPING AND DIAGNOSTIC REAGENTS	3N01 CP33288-13	565,709
TRAPANI, ROBERT J.....	PREPARE STANDARD HISTOCOMPATIBILITY TYPING TRAYS.....	1N01 AI92614-00	130,500
TRAPANI, ROBERT J.....	HEMATOLOGY SUPPORT CARE	2N01 CM63810-07	111,882
TRAPANI, ROBERT J.....	OPERATE CENTER FOR BIOLOGICAL MATERIALS	3N01 CP91016-02	265,905
TRAPANI, ROBERT J.....	OPERATE REFRIGERATED REPOSITORY FOR BIOLOGICAL MATERIALS	1N01 CP91024-00	98,600
ORGANIZATION TOTAL	15	4,101,690	
BLADENSBURG			
CRYSTAL INDUSTRIES ZIP CODE 20710			
HOUWEN, CORNELIUS M.....	STORE AND DISTRIBUTE BIOASSAY TECHNICAL PUBLICATIONS	3N01 CP85678-01	557
ORGANIZATION TOTAL	1	557	
COLLEGE PARK			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742			
AHRENS, RICHARD A.....	DEVELOPMENT OF CANCER CACHEXIA HYPOPHAGIS.....	1N01 CB94327-00	34,983
ORGANIZATION TOTAL	1	34,983	
COLUMBIA			
WESTINGHOUSE ELECTRIC CORPORATION—HEALTH SYSTEMS DIVISION ZIP CODE 21044			
SMITH, LAWRENCE, JR.....	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82911-01	111,319
ORGANIZATION TOTAL	1	111,319	
GAITHERSBURG			
GEOMET, INC. ZIP CODE 20760			
BERGMAN, LEWIS.....	DESIGN AND IMPLEMENT COMPUTER PROGRAMS AND SYSTEMS	2N01 CP81019-02	885,154
ORGANIZATION TOTAL	1	885,154	
INFORMATION PLANNING ASSOCIATES ZIP CODE 20760			
HERNDON, LINDA M.....	PREPARE ANNUAL REPORTS FOR NIAMDD	2N01 AM92203-04	186,651
VIT, ROBERT F.....	SUPPORT SERVICES FOR INVESTIGATIONAL NEW DRUG REPORTS.....	2N01 CM77104-03	164,840
ORGANIZATION TOTAL	2	351,491	
OLD DOMINION SYSTEMS ZIP CODE 20760			
BROWN, ROBERT J.....	TECHNICAL SUPPORT FOR OPERATING SYSTEMS & SOFTWARE	2N01 LM84735-01	173,858
ORGANIZATION TOTAL	1	173,858	
OLD DONINION SYSTEMS—ONLINE COMPUTER SYSTEMS ZIP CODE 20760			
JOHNSON, KRISTIN.....	TECHNICAL SERVICES FOR MIIS/MUMPS PROGRAMS	1N01 LM94720-00	157,169
ORGANIZATION TOTAL	1	157,169	
KENSINGTON			
LITTON INDUSTRIES—LITTON BIONETICS ZIP CODE 20795			
BRUSICK, DAVID J.....	MICROBIAL MUTAGENESIS SYSTEM—CARCINOGENESIS SCREENING.....	2N01 CP65856-04	226,627
CANNON, GRACE B.....	MEASUREMENT OF IMMUNOLOGICAL REACTIVITY TO HUMAN CANCER.....	2N01 CB63975-10	293,609

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
CANNON, GRACE B.....	REACTIONS BETWEEN BREAST CANCER AND MAMMARY TUMOR VIRUS.....	5N01 CB74087-03	150,247
CICMANEC, JOHN L.....	ONCOGENIC ACTIVITY OF VIRUS PREPARATIONS IN PRIMATES.....	3N01 CP61006-09	215,883
CICMANEC, JOHN L.....	OPERATE FACILITY TO MAINTAIN NONHUMAN PRIMATES.....	3N01 CP91022-02	1,012,958
DEALY, D JEAN.....	STUDY PLASMA CELL TUMORS IN MICE.....	3N01 CB92142-26	33,146
DEALY, D JEAN.....	DEVELOP INBRED AND CONGENIC RESISTANT MOUSE STRAINS.....	3N01 CB94325-01	226,920
DEALY, D JEAN.....	INDUCE PLASMA CELL TUMORS IN MICE.....	1N01 CB94326-00	364,004
DEAN, JACK H.....	IMMUNOLOGIC ASSESSMENT OF HIGH RISK CANCER FAMILIES.....	5N01 CP61016-04	175,143
FUCCILLO, DAVID A.....	IMMUNOLOGICAL ASSAY FOR DNA AND RNA VIRUS.....	3N01 CP43333-16	262,560
GALLAWAY, SHELIA.....	IN VITRO CYTOGENETIC TESTING.....	1N01 ES90013-00	165,003
GARD, ELIZABETH A.....	SJOGREN'S SYNDROME, APHTHOUS ULCERS & BEHCET'S SYNDROME.....	2N01 DE72405-05	35,120
GARD, ELIZABETH A.....	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS/HYPERTENSION.....	2N01 HV53031-07	876,888
GOLWAY, PETER L.....	MAINTAIN TUMORED LABORATORY ANIMAL MODELS.....	5N01 CM87169-01	269,378
GOLWAY, PETER L.....	HOLDING FACILITY FOR SMALL LABORATORY ANIMALS.....	2N01 CP81025-02	151,796
GOLWAY, PETER L.....	FACILITY FOR SMALL LABORATORY ANIMALS.....	1N01 CP91050-00	172,817
HALL, ARTHUR S.....	BREEDING COLONY OF RHESUS MONKEYS MACACA MULATTA.....	3N01 RR52155-09	147,739
HALL, ARTHUR S.....	MAINTAIN A BREEDING COLONY OF RHESUS MONKEYS.....	5N01 RR62151-04	74,637
HANNA, MICHAEL G, JR.....	OPERATE THE FREDERICK CANCER RESEARCH CENTER (FCRC).....	5N01 C075380-20	29,148,015
LAUER, LLOYD D.....	MELANOMA CELL VACCINE—ASSAYS FOR CYTOTOXICITY.....	2N01 CB53916-11	183,885
MANUS, ALLAN G.....	HOLDING FACILITY FOR SMALL LABORATORY ANIMALS.....	3N01 CP61039-05	99,465
MYHR, BRIAN.....	IN VITRO MUTAGENESIS SYSTEM FOR CARCINOGENESIS SCREENING.....	5N01 CP65853-05	247,122
PADARATHSINGH, MARTIN L.....	CELL MEDIATED IMMUNITY TO RODENT TUMORS.....	2N01 CB74093-02	208,116
SARNGADHARAN, M G.....	PROVIDE FACILITIES FOR VIRAL CANCER RESEARCH.....	5N01 CM77134-07	817,075
SARNGADHARAN, M G.....	DEVELOP PROGNOSIS BASED ON CELL TRANSFORMATION.....	5N01 CM87187-01	178,171
TONDREAU, SUE C.....	MONITORING OF IMMUNOLOGIC COMPETENCE IN CANCER PATIENTS.....	2N01 CM67067-10	199,831
VALERIO, MARION G.....	STUDY OF CARCINOGENESIS IN HUMAN BRONCHIAL TISSUES.....	5N01 CP43274-22	386,570
ORGANIZATION TOTAL	27	36,872,725	
LAUREL			
PHARMACOPATHICS RESEARCH LABORATORIES ZIP CODE 20810			
TEGERIS, ANDREW S.....	MAINTAIN AN ANIMAL HOLDING FACILITY AND PROVIDE RES SERV.....	2N01 CB33887-13	205,455
ORGANIZATION TOTAL	1	205,455	
RIVERDALE			
INFORMATICS, INC. ZIP CODE 20840			
MYATT, CECIL A, JR.....	KEYBOARDING SERVICES.....	2N01 LM74711-06	306,279
ORGANIZATION TOTAL	1	306,279	
ROCKVILLE			
AMERICAN TYPE CULTURE COLLECTION ZIP CODE 20852			
ALDRICH, CHARLES D.....	MAINTAIN HUMAN TROPHOBLASTIC CELLS.....	1N01 HD92827-00	53,840
DONOVICK, RICHARD.....	PREPARE AND DISTRIBUTE VIRAL REFERENCE REAGENTS.....	5N01 A152526-10	149,823
DONOVICK, RICHARD.....	MAINTAIN STRAINS OF MICROORGANISMS AND CELL CULTURES.....	1N01 RR92104-00	550,000
GHERNA, ROBERT L.....	CHARACTERIZE AND IDENTIFY PLEOMORPHIC ORAL BACTERIA.....	1N01 DE92418-00	109,585
HAY, ROBERT J.....	PREPARE AND ANALYZE FRESH AND CULTURED MAMMALIAN CELLS.....	5N01 CM87158-02	180,847
ORGANIZATION TOTAL	5	1,044,095	
BIOSPHERICS, INC. ZIP CODE 20852			
LEVIN, M KAREN.....	INFORMATION SERVICES FOR CANCER-RELATED INQUIRIES.....	3N01 C065329-10	286,789
LEVIN, M KAREN.....	INFORMATION SERVICES FOR CANCER-RELATED INQUIRIES.....	1N01 C095441-00	1,520,703
ORGANIZATION TOTAL	2	1,807,492	
BIOTECH RESEARCH LABORATORIES ZIP CODE 20852			
GRANLUND, DAVID J.....	ESTABLISH TISSUE CULTURE LABORATORY AND ANIMAL FACILITY.....	1N01 A192612-00	233,268
STUEVER, ANTON F.....	PROVIDE SPECIAL TISSUE CULTURE CELLS TO NINDS.....	5N01 NS82388-01	98,200

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
TING, ROBERT C.....	ESTABLISH CLINICAL IMMUNOLOGY DIAGNOSTIC LABORATORY.....	1N01 AI92623-00	177,294
TING, ROBERT C.....	VIROLOGY, IMMUNOLOGY & TISSUE CULTURE SUPPORT SERVICE.....	5N01 CM43719-10	159,642
TSAI, SHIEN.....	CYTOGENETIC EVALUATION OF HIGH RISK CANCER FAMILIES.....	2N01 CP61011-08	84,339
ORGANIZATION TOTAL	5	752,743	
CAPITAL SYSTEMS GROUP ZIP CODE 20852			
SCHICK, RENEE.....	NATIONAL CLEARINGHOUSE FOR RHEUMATIC DISEASES.....	5N01 AM82215-01	154,086
SPARGUR, JON L.....	SUPPORT SERVICES FOR DCCR-NCI.....	3N01 CD85386-04	241,576
SPARGUR, JON L.....	SUPPORT TO THE DIET, NUTRITION AND CANCER PROGRAM.....	1N01 CP95603-00	763,701
ORGANIZATION TOTAL	3	1,159,363	
CDP ASSOCIATES ZIP CODE 20852			
BROWN, MICHAEL G.....	SUPPORT SERVICES FOR UPDATING THE NATIONAL NHLBI PLAN.....	5N01 HO82918-02	343,704
COLQUITT, LYNN.....	PLANNING AND ANALYTICAL SUPPORT SERVICES-NCI.....	1N01 CM97143-00	291,711
LEWIS, GREGORY W.....	DEVELOP NINCDS NATIONAL RESEARCH STRATEGY.....	3N01 NS82382-07	281,678
TAYLOR, RICHARD B.....	ANALYTICAL SERVICES FOR DCCR CANCER CENTERS PROGRAM.....	3N01 CO75350-09	274,395
ORGANIZATION TOTAL	4	1,191,488	
CONTROL DATA CORPORATION ZIP CODE 20852			
LEIBY, NANCY J.....	PROCESSING OF CLINICAL PATIENT RESEARCH DATA.....	2N01 CM67107-07	65,000
ORGANIZATION TOTAL	1	65,000	
COR BEL LABORATORIES ZIP CODE 20852			
HERNANDEZ, DIANA.....	MAINTAIN AN ANIMAL HOLDING FACILITY & RESEARCH SERVICES.....	2N01 CB64024-09	258,475
SCHULTZ, CATHY.....	LABORATORY MOUSE BREEDING FACILITY.....	1N01 AI92620-00	213,644
ORGANIZATION TOTAL	2	472,119	
E G & G, INC.—MASON RESEARCH INSTITUTE ZIP CODE 20852			
GLADSTONE, MARK B.....	COMPUTER SUPPORT EFFORT FOR RESOURCES MANAGEMENT.....	5N01 CP71001-03	325,335
KRAMER, ANNE W.....	DATA ANALYSES FOR BREAST CANCER TREATMENT PROGRAM.....	3N01 CB74140-08	124,523
PATEL, KANTILAL M.....	DATA-PROCESSING SERVICES FOR CANCER BIOASSAY SYSTEM.....	3N01 CP43257-38	702,899
STROEMER, GRETCHEN.....	PROCESSING VIABLE HUMAN SPECIMEN MATERIALS.....	5N01 CP71000-06	197,986
ORGANIZATION TOTAL	4	1,350,743	
ENVIRO CONTROL ZIP CODE 20852			
FENSTERSTOCK, JACK.....	SERVICES TO THE DIET, NUTRITION AND CANCER PROGRAM.....	2N01 CP65759-13	676,752
LEVETON, JEFF.....	HEALTH HAZARD APPRAISAL IN INDUSTRY.....	1N01 HO92934-00	150,000
LYNCH, NEIL.....	SMOKING AND HEALTH.....	5N01 CP55666-24	3,635,403
MC KINNEY, R W.....	MONITORING OF BIOHAZARD CONTAINMENT FACILITIES.....	5N01 CP61021-05	231,366
WILLIAMS, ELIZABETH.....	STUDY OF SCIENCE PROGRAM INFORMATION SYSTEMS.....	5N01 CO85414-01	102,136
ORGANIZATION TOTAL	5	4,795,657	
FLOW LABORATORIES—FLOW RESEARCH INSTITUTE ZIP CODE 20852			
POTASH, LOUIS.....	SUPPORT FOR VIRUS AND TISSUE-CULTURE LABORATORIES.....	3N01 AI32521-19	346,631
ORGANIZATION TOTAL	1	346,631	
HEWLETT-PACKARD COMPANY ZIP CODE 20850			
NOT AVAILABLE.....	MONITORING UNITS FOR MEDICAL & SURGICAL INTENSIVE CARE.....	3N01 CL82119-04	56,700
ORGANIZATION TOTAL	1	56,700	
INFORMATICS, INC. ZIP CODE 20852			
WOLFE, MOLLY A.....	REGISTRIES OF HUMAN CLINICAL PROTOCOLS IN CANCER THERAPY.....	2N01 CB53888-04	43,935
ORGANIZATION TOTAL	1	43,935	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
KING RESEARCH ZIP CODE 20852			
RODERER, NANCY K.....	EVALUATE INFORMATION TRANSFER SYSTEM	2N01 LM84733-01	67,530
ORGANIZATION TOTAL	1	67,530	
TRACOR, INC.—TRACOR JITCO ZIP CODE 20852			
ANGEL, CHARLES.....	BIOASSAY PRIME CONTRACT	3N01 CP43350-36	13,248,424
POST, EDWARD.....	OPERATION OF THE RESEARCH RESOURCES INFORMATION CENTER	1N01 RR92114-00	440,440
SCHILLER, DOROTHY.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	1N01 CP95648-00	127,837
ORGANIZATION TOTAL	3	13,816,701	
WESTAT RESEARCH, INC ZIP CODE 20852			
BERLIN, MARTHA.....	EPA/NCI SPECIAL SKIN CANCER EPIDEMIOLOGY STUDY	2N01 CP71044-07	52,395
ELDRED, CAROLYN.....	INCIDENCE, PREVALENCE & COSTS OF INTRACRANIAL NEOPLASMS.....	3N01 NS42336-11	54,134
MC KENNA, THOMAS W.....	ROLE OF SACCHARIN IN BLADDER CANCER.....	3N01 CP81017-02	53,680
MC KENNA, THOMAS W.....	NATIONAL CARIES PREVALENCE SURVEY	3N01 DE92421-04	1,257,142
MORAN, FRANCIS X.....	SUPPORT SERVICES FOR OCCUPATIONAL STUDIES.....	1N01 CP91034-00	337,036
ROBINS, MORTON.....	INCIDENCE, PREVALENCE, AND COSTS OF STROKE.....	3N01 NS62333-07	7,677
SCHROEDER, ANITA G.....	COMPREHENSIVE DISEASE STATISTICS SURVEY.....	3N01 NS72379-04	104,748
TOLEDO, ANN.....	SUPPORT SERVICES FOR FIELD STUDIES.....	3N01 CP61034-10	1,129,903
ORGANIZATION TOTAL	8	2,996,715	
SILVER SPRING			
APPLIED MANAGEMENT SCIENCES ZIP CODE 20910			
SKINNER, DOUGLAS E.....	COMPARISON OF FLUORIDES IN CARIES PREVENTION.....	3N01 DE72411-05	106,075
ORGANIZATION TOTAL	1	106,075	
EBON RESEARCH SYSTEMS ZIP CODE 20901			
RICHMAN, LEE.....	STATISTICAL SUPPORT FOR NCI SERUM PANEL.....	2N01 CB74210-03	85,602
ORGANIZATION TOTAL	1	85,602	
ELECTRO-NUCLEONICS LABORATORIES ZIP CODE 20904			
LEMP, JOHN F, JR.....	LARGE SCALE PRODUCTION OF POTENTIALLY ONCOGENIC VIRUSES	1N01 CP91001-00	693,886
ORGANIZATION TOTAL	1	693,886	
EXPAND ASSOCIATES ZIP CODE 20910			
GIGLIO, JAMES C.....	ASSEMBLY AND DISTRIBUTION OF COMMITTEE BOOKS	1N01 CO95459-00	147,187
ORGANIZATION TOTAL	1	147,187	
OPERATIONS RESEARCH ZIP CODE 20910			
SHUSTERMAN, NORMAN.....	DESIGN AND IMPLEMENT COMPUTER PROGRAMS AND SYSTEMS.....	2N01 CP81060-01	623,187
ORGANIZATION TOTAL	1	623,187	
SIGMA DATA COMPUTING CORPORATION—SIGMA DATA SERVICES CORPORATION ZIP CODE 20910			
DOUBROFF, DENNIS.....	PROGRAMMING SERVICES FOR NCI MANAGEMENT SYSTEM.....	1N01 CO95411-00	123,840
ORGANIZATION TOTAL	1	123,840	
TEMPLE HILLS			
ENVIRO CONTROL—BORRISTON RESEARCH LABORATORIES ZIP CODE 20031			
MULLIGAN, L T.....	ESTABLISH AND MAINTAIN A RABBIT HOLDING FACILITY	5N01 AI72526-05	113,648
ORGANIZATION TOTAL	1	113,648	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
TOWSON			
GREATER BALTIMORE MEDICAL CENTER ZIP CODE 21204			
PROUT, THADDEUS E.....	ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52932-04	62,767
PROUT, THADDEUS E.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82904-03	38,967
ORGANIZATION TOTAL 2	101,734		
WALKERSVILLE			
WHITTAKER CORPORATION—M. A. BIOPRODUCTS ZIP CODE 21793			
PARKER, NORMA	PREPARE SPECIAL TISSUE CULTURE CELLS	1N01 NS92318-00	99,500
ORGANIZATION TOTAL 1	99,500		
STATE TOTAL 178	99,236,709		
MASSACHUSETTS			
BEDFORD			
MITRE CORPORATION ZIP CODE 01730			
NOT AVAILABLE.....	CABLE COMMUNICATIONS FOR NLM AND LHNCBC	1N01 LM94714-00	244,086
SHARPE, EDWARD G.....	TECHNICAL SUPPORT FOR A SYSTEMS PLANNING BRANCH	3N01 CQ55421-15	1,297
ORGANIZATION TOTAL 2	245,383		
BOSTON			
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115			
ADAMS DOUGLASS F.....	DETECT LIVER METASTASES WITH X-RAY TOMOGRAPHY	5N01 CB84234-01	414,321
BRAUNWALD, EUGENE.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	1N01 HV92921-00	59,843
CARPENTER, CHARLES B.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION	5N01 AI42552-12	129,202
CARPENTER, CHARLES B.....	ANALYZE DATA FROM KIDNEY TRANSPLANT STUDY	1N01 AI92635-00	115,686
GATES, CHRISTOPHER C.....	PSYCHOLOGICAL ASPECTS OF BREAST CANCER.....	3N01 CN65311-11	70,590
SPEIZER, FRANK E.....	DEVELOP RISK INDEX FOR CHRONIC OBSTRUCTIVE LUNG DISEASE	3N01 HR82928-01	26,000
ORGANIZATION TOTAL 6	815,642		
BETH ISRAEL HOSPITAL ZIP CODE 02215			
FREEDBERG, IRWIN M.....	RESPONSE TO THERAPY OF CUTANEOUS HERPES SIMPLEX.....	5N01 AI52530-07	97,486
FRIEDMAN, EMANUEL A.....	STUDY LABOR AND DELIVERY EFFECTS ON OFFSPRING.....	5N01 NS82381-03	200,090
INGBAR, SIDNEY H.....	ANALYZE RESEARCH PRIORITIES IN ENDOCRINOLOGY	2N01 AM72236-10	149,615
ORGANIZATION TOTAL 3	447,191		
BOSTON HEALTH AND HOSPITALS DEPARTMENT ZIP CODE 02118			
ADAMS, WILLIAM H.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	2N01 HB73003-05	102,669
KLEIN, JEROME O.....	PNEUMOCOCCAL VACCINE TO PREVENT INFANT OTITIS MEDIA	5N01 AI52536-07	161,875
VOKONAS, PANTEL S.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52937-06	90,884
ORGANIZATION TOTAL 3	355,428		
BOSTON UNIVERSITY ZIP CODE 02215			
BLANCHARD, GORDON C.....	DEVELOP ANIMAL MODEL OF ASTHMA TO RAGWEED POLLEN.....	5N01 RR82148-02	31,179
DAWBBER, THOMAS R.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	5N01 HV33106-08	973,476
DAWBBER, THOMAS R.....	REEXAMINATION OF FRAMINGHAM HEART STUDY COHORT	3N01 HV52971-12	61,914
DAWBBER, THOMAS R.....	FRAMINGHAM COHORT SURVEILLANCE AND OFFSPRING STUDY	1N01 HV92922-00	463,615
GOULD, JEFFREY B.....	TWINS STUDY FOR NEUROPHYSIOLOGIC FACTORS IN SIDS.....	3N01 HD32789-12	25,852
SHAPIRO, SAMUEL.....	ESTROGEN REPLACEMENT AFTER PREMENOPAUSAL OOPHORECTOMY	5N01 CB74099-04	41,500
SHAPIRO, SAMUEL.....	CASE CONTROL STUDY OF CARCINOMA OF ENDOMETRIUM.....	3N01 CP71029-04	70,164

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
SLONE, DENNIS.....	MYOCARDIAL INFARCTION AND ROLE OF ORAL CONTRACEPTIVES.....	5N01 HD62849-07	394,228
VOKONAS, PANTEL S.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72951-04	113,318
WOLF, PHILIP A.....	DEVELOP PILOT STROKE DATA BANK NETWORK CENTER.....	5N01 NS82398-05	247,201
ORGANIZATION TOTAL	10	2,422,447	
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
BERNHARD, WILLIAM F.....	CLINICAL EVALUATION OF LEFT VENTRICULAR ASSIST DEVICE	3N01 HV53007-07	32,816
ORGANIZATION TOTAL	1	32,816	
HARVARD UNIVERSITY ZIP CODE 02115			
BARBER, FRANK E.....	DEVELOP SYSTEMS FOR DETECTION OF ATHEROSCLEROSIS.....	2N01 HV72927-02	165,210
BENFARI, ROBERT C.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE	5N01 HV22979-10	492,618
BRAUNWALD, EUGENE.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	3N01 HV72940-05	1,410,108
ESSEX, MYRON E.....	IMMUNOTHERAPY IN OUTBRED ANIMAL LYMPHOMA AND LEUKEMIAS	2N01 CB64001-03	53,330
ESSEX, MYRON E.....	BIOCHEMICAL CHARACTERIZATION OF FOCMA.....	5N01 CP81004-01	137,350
GEYER, ROBERT P.....	NEW FLUOROCARBON COMPOUNDS FOR BLOOD REPLACEMENT	5N01 HB92917-01	368,903
HERD, JAMES A.....	DEVELOP NONHUMAN PRIMATE MODELS OF HYPERTENSION	5N01 HV72980-03	249,587
HERRMANN, JOHN E.....	RAPID DIAGNOSIS OF RESPIRATORY VIRUSES.....	1N01 A92617-00	61,112
LESUEUR, C ROBIN.....	REGIONAL MEDICAL LIBRARY SERVICES FOR REGION I.....	2N01 LM84715-03	190,502
LOWRIE, EDMUND G.....	NATIONAL COOPERATIVE DIALYSIS STUDY	5N01 AM62207-07	1,581,773
MONSON, RICHARD R.....	FOLLOW-UP FLUOROSCOPICALLY EXAMINED TUBERCULOSIS PATIENT.....	2N01 CP81058-01	214,155
MULDER, CAREL.....	BIOMOLECULAR STUDIES OF HERPESVIRUS SAIMIRI	5N01 CP81005-02	203,170
ROTHMAN, KENNETH J.....	LARYNGEAL CARCINOMA—HIGH RISK FACTORS.....	5N01 NS82399-02	98,183
ORGANIZATION TOTAL	13	5,226,001	
JOSLIN DIABETES FOUNDATION ZIP CODE 02215			
AIELLO, LLOYD M.....	DIABETIC RETINOPATHY—CLINICAL CENTER.....	3N01 EY42170-07	9,765
AIELLO, LLOYD M.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY	3N01 EY72145-04	314,841
ORGANIZATION TOTAL	2	324,606	
LANEY CLINIC FOUNDATION ZIP CODE 02215			
COLLER, JOHN A.....	INNOVATIVE TECHNIQUES FOR COLONOSCOPE PASSAGE INTO CECUM	5N01 CB74212-02	143,480
ORGANIZATION TOTAL	1	143,480	
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114			
MC MEEL, J WALLACE.....	DIABETIC RETINOPATHY STUDY	3N01 EY42172-07	7,712
MC MEEL, J WALLACE.....	EVALUATION OF VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY52144-04	62,203
ORGANIZATION TOTAL	2	69,915	
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
AXELROD, LLOYD.....	FAT LOSS CONTRIBUTION TO WEIGHT LOSS IN CANCER PATIENTS.....	3N01 CP85657-04	183,987
BARNETT, G O.....	FIELD TEST AND EVALUATE THE ADVANCED TERMINAL SYSTEM	1N01 LM94712-00	95,445
BLACK, PAUL H.....	ACTIVATION OF C-PARTICLES & CANCER INDUCTION	5N01 CP43222-09	196,4451
DIENTSTAG, JULES L.....	DEVELOP SENSITIVE METHODS TO DETECT HEPATITIS TYPE C.....	1N01 HB92919-00	92,494
FITZPATRICK, THOMAS B.....	ORAL PSORALEN PHOTOCHEMOTHERAPY OF PSORIASIS.....	5N01 AM72200-04	288,1081
HARTHORNE, J WARREN.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32985-13	151,335
KAPLAN, EDWARD M.....	DATA COORDINATING CENTER FOR ANGINA PECTORIS STUDY	2N01 HV53027-06	159,788
MALOOF, FARAH E.....	RELATIONSHIP BETWEEN THYROID DISEASES AND BREAST CANCER.....	3N01 CB84230-02	186,300
ROBBY, STANLEY J.....	ESTROGENS & GENITAL ANOMALIES & CANCER IN OFFSPRING	5N01 CN45157-07	981,940
WITTENBERG, JACK.....	EFFICACY OF COMPUTED BODY TOMOGRAPHY.....	1N01 CB94331-00	19,925
ZAMECNIK, PAUL C.....	SEQUENCING OF RSV 35S RNA.....	5N01 CP71007-04	108,700
ORGANIZATION TOTAL	11	2,464,467	
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111			
GORBACH, SHERWOOD L.....	RELATION OF INTESTINAL FLORA TO BREAST CANCER IN HUMANS.....	5N01 CB74104-02	105,000
MARCHANT, DOUGLAS J.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45054-08	149,989
ORGANIZATION TOTAL	2	254,989	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
NEW ENGLAND NUCLEAR CORPORATION	ZIP CODE 02118		
AHERN, DAVID G.....	SYNTHESIS OF RADIOACTIVE RETINOIDS.....	5N01 CP75937-03	197,983
ORGANIZATION TOTAL	1 197,983		
NORTHEASTERN UNIVERSITY	ZIP CODE 02115		
GREENBERG, SUZANNE B.....	DEVELOP MODEL ONCOLOGY NURSING EDUCATION PROGRAM.....	1N01 CN95433-00	113,788
NEUMEYER, JOHN L.....	SYNTHESIS OF CNS ANTITUMOR AGENTS.....	3N01 CM53741-05	10,000
ORGANIZATION TOTAL	2 123,788		
PACIFIC CONSULTANTS	ZIP CODE 02116		
BOYD, RONALD.....	SERVICES FOR NATIONAL NONMELANOMA SKIN CANCER STUDY.....	3N01 CP81041-01	28,375
ORGANIZATION TOTAL	1 28,375		
SIDNEY FARBER CANCER INSTITUTE	ZIP CODE 02115		
BAST, ROBERT C.....	IMMUNOTHERAPY OF MOUSE OVARIAN CANCER.....	2N01 CB74194-02	126,143
CANELLOS, GEORGE P.....	STUDIES OF PATIENTS WITH DISSEMINATED SOLID TUMORS.....	5N01 CM67037-11	336,681
FREI, EMIL, III.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	3N01 CM43781-14	66,299
FREI, EMIL, III.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	5N01 CM57035-09	70,226
FREI, EMIL, III.....	PHASE I STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97276-00	129,891
GREENBERGER, JOEL S.....	BALB:1 VIRUS AND MYELOID CELL DIFFERENTIATION.....	5N01 CP71051-03	95,415
HASELTINE, WILLIAM A.....	INTEGRATION SITES OF ONCOGENIC VIRUSES.....	5N01 CP71057-02	100,560
PATTERSON, W BRADFORD.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55229-11	240,016
YUNIS, EDMOND J.....	REFERENCE HLA LABORATORIES.....	5N01 AI82548-03	25,537
YUNIS, EDMOND J.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	5N01 AI82557-03	57,008
ORGANIZATION TOTAL	10 1,247,776		
ST. ELIZABETH'S HOSPITAL OF BOSTON	ZIP CODE 02135		
DALY, BENEDICT D.....	DEVELOPMENT OF PERCUTANEOUS ENERGY TRANSMISSION SYSTEMS.....	5N01 HV82919-02	277,274
ORGANIZATION TOTAL	1 277,274		
TUFTS UNIVERSITY	ZIP CODE 02111		
LEVY, STUART B.....	TESTING OF VECTOR-HOST SYSTEMS IN MAMMALS.....	3N01 AI72529-02	43,123
STOLBACH, LEO L.....	IMMUNODIAGNOSIS FOR EARLY DETECTION OF OVARIAN CANCER.....	3N01 CB64028-03	46,659
WHITE, GEORGE E.....	DIAGNOSTIC SYSTEM FOR EARLY DETECTION OF DENTAL CARIES.....	3N01 DE52476-11	76,527
ORGANIZATION TOTAL	3 166,309		
UNIVERSITY HOSPITAL	ZIP CODE 02118		
BENNETT, MICHAEL.....	PAIN CONTROL IN CANCER.....	1N01 CN95486-00	226,838
RYAN, THOMAS J.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62923-06	190,338
ORGANIZATION TOTAL	2 417,176		
BURLINGTON			
RAYTHEON COMPANY—RAYTHEON SERVICE COMPANY	ZIP CODE 01803		
NOT AVAILABLE.....	INDEXING JOURNAL ARTICLES IN THE BIOMEDICAL SCIENCES.....	2N01 LM84702-02	126,400
ORGANIZATION TOTAL	1 126,400		
CAMBRIDGE			
ARTHUR D. LITTLE, INC.	ZIP CODE 02140		
BROOME, MILDRED G.....	CELL CULTURE SCREENING FOR CYTOTOXICITY.....	1N01 CM97288-00	95,453
JOHNSON, RANDALL K.....	EVALUATION OF COMBINED CHEMOTHERAPY AND MODALITY STUDIES.....	5N01 CM53765-10	750,000
JOHNSON, RANDALL K.....	MOLECULAR BIOLOGICAL CHARACTERIZATION OF ANTITUMOR DRUGS.....	5N01 CM87186-02	147,000
MILLER, IRWIN.....	COORDINATED PROGRAM IN CANCER CHEMOTHERAPY.....	5N01 CM33727-16	189,000
SIDMAN, KENNETH R.....	STUDY OF CONTRACEPTIVE DRUGS.....	2N01 HD42802-13	103,882

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
SIVAK, ANDREW	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS	5N01 CP55711-05	304,576
WODINSKY, I	PRIMARY IN VIVO SCREENING FOR ANTICANCER ACTIVITY	5N01 CM57006-08	653,898
YESAIR, DAVID W	PHARMACOLOGY AND RADIOAUTOGRAPHY OF ANTITUMOR AGENTS	5N01 CM87163-01	875,000
YESAIR, DAVID W	IMPROVE EFFICACY OF ORAL NATURAL STEROIDS	2N01 HD62847-06	200,879
ORGANIZATION TOTAL	9 3,319,688		
BIO-RAD LABORATORIES—BLOCK ENGINEERING ZIP CODE 02139			
SCHILDKRAUT, E ROBERT	DEVELOPMENT OF NEW METHODS OF SINGLE CELL SEPARATION	2N01 CB74095-03	152,043
ORGANIZATION TOTAL	1 152,043		
BOLT BERANEK AND NEWMAN ZIP CODE 02138			
CASTLEMAN, PAUL A	TECHNICAL ASSISTANCE FOR THE PROPHET SYSTEM	5N01 RR82118-06	1,626,603
CASTLEMAN, PAUL A	DEVELOP AND MODIFY PROTOTYPE CLINFO SYSTEM	2N01 RR82120-02	135,572
RINDONE, WAYNE	TECHNICAL SERVICES FOR MHS/MUMPS PROGRAMS	1N01 LM94718-00	223,661
RINDONE, WAYNE	TECHNICAL SERVICES FOR UNIX DEVELOPMENTAL PROGRAMS	1N01 LM94719-00	59,573
ROLLINS, ANN M	PROTOTYPE TEST OF DECODING SKILLS	2N01 HD72836-02	143,756
SWETS, JOHN A	EVALUATE IMAGING TECHNIQUES IN CANCER DIAGNOSIS	2N01 CB64010-06	73,715
ORGANIZATION TOTAL	6 2,262,880		
CAMBRIDGE COLLABORATIVE ZIP CODE 02142			
FREDBERG, JEFFREY J	MEASURE PULMONARY FUNCTION IN INFANTS AND CHILDREN	2N01 HR62901-05	161,860
ORGANIZATION TOTAL	1 161,860		
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139			
BALTIMORE, DAVID	STUDIES OF LEUKEMIA VIRUS DNA POLYMERASE	5N01 CP53562-06	205,470
TANNENBAUM, STEVEN R	STUDY OF ENVIRONMENTAL OCCURRENCE OF N-NITROSO COMPOUNDS	2N01 CP33315-11	50,605
ORGANIZATION TOTAL	2 256,075		
EVERETT			
AVCO CORPORATION—EVERETT RESEARCH LABORATORY ZIP CODE 02149			
CHIU, TIN-HO	PROCUREMENT OF PRIMARY REFERENCE MATERIALS	1N01 HV92932-00	202,510
HERZLINGER, GEORGE A	COMPLEMENT-BIOMATERIAL INTERACTION	1N01 HV92901-00	99,788
LEDERMAN, DAVID	DEVELOPMENT OF A LEFT HEART ASSIST BLOOD PUMP	2N01 HV72937-02	549,932
ORGANIZATION TOTAL	3 852,230		
LEXINGTON			
DATA RESOURCES ZIP CODE 02173			
OLSON, LAWRENCE	ECONOMIC DETERMINANTS OF FERTILITY	1N01 HD92825-00	84,371
ORGANIZATION TOTAL	1 84,371		
LOWELL			
UNIVERSITY OF LOWELL ZIP CODE 01854			
BRUCE, JOHN I	SUPPLY SCHISTOSOME INFECTED SNAILS AND MAMMALS	2N01 AI72524-03	140,000
ORGANIZATION TOTAL	1 140,000		
NEWTON			
EIC CORPORATION ZIP CODE 02158			
MC HARDY, JOHN	DEVELOP IMPROVED CAPACITOR STIMULATING ELECTRODES	2N01 NS82392-01	108,079
MC HARDY, JOHN	ELECTRODE MATERIALS AND THEIR ELECTROCHEMICAL REACTIONS	5N01 NS92315-01	244,375
ORGANIZATION TOTAL	2 352,454		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
WALTHAM			
AUTOMATIC DATA PROCESSING NETWORK SERVICES ZIP CODE 02154			
MC GEACHIE, JOHN.....	COMPUTER FACILITY FOR CHEMICAL/BIOLOGICAL INFORMATION.....	3N01 RR92107-02	397,629
ORGANIZATION TOTAL	1	397,629	
BRANDEIS UNIVERSITY ZIP CODE 02154			
VAN VUNAKIS, HELEN.....	PRODUCTION OF ANTIBODIES TO CHEMICAL CARCINOGENS.....	2N01 CP23243-07	138,000
ORGANIZATION TOTAL	1	138,000	
COLLABORATIVE RESEARCH, INC. ZIP CODE 02154			
FRIEDMAN, ORRIE M.....	SYNTHESIS OF VARIOUS PHOSPHORAMIDES.....	5N01 CM77071-04	90,000
TAUNTON-RIGBY, ALISON.....	DEVELOPMENT OF ANTIVIRALS.....	1N01 AI92608-00	169,530
ORGANIZATION TOTAL	2	259,530	
GINER, INC. ZIP CODE 02154			
LERNER, HARRY.....	DEVELOP IMPROVED CAPACITOR STIMULATING ELECTRODES.....	2N01 NS82300-01	119,711
ORGANIZATION TOTAL	1	119,711	
THERMO ELECTRON CORPORATION ZIP CODE 02154			
FINE, DAVID.....	PRODUCTION AND DELIVERY OF THERMAL ENERGY ANALYZERS.....	1N01 CP95610-00	7,669
KEISER, JOHN M.....	LEFT VENTRICULAR ASSIST DEVICE: CLINICAL EVALUATION.....	3N01 HV53008-09	30,981
KEISER, JOHN M.....	DEVELOP ENERGY CONVERTERS TO CONTROL HEART ASSIST DEVICE.....	5N01 HV72976-03	501,520
POIRIER, VICTOR C.....	FABRICATION OF CARDIOVASCULAR DEVICES.....	1N01 HV92907-00	296,187
SZYCHER, MICHAEL S.....	MATERIALS DEVELOPMENT & TESTING OF FLOCKING MATERIALS.....	5N01 HV32915-12	219,863
WHALEN, ROBERT L.....	DEVELOPMENT OF A LEFT HEART ASSIST BLOOD PUMP.....	5N01 HV72934-02	399,635
ORGANIZATION TOTAL	6	1,455,855	
WELLESLEY			
E G & G, INC. ZIP CODE 02181			
BRYAN, NANCY.....	CLINICAL DATA RETRIEVAL SERVICES.....	5N01 CM67011-09	238,124
ORGANIZATION TOTAL	1	238,124	
WILMINGTON			
CHARLES RIVER BREEDING LABORATORIES ZIP CODE 01887			
FOSTER, HENRY L.....	SUPPORT FOR LONG-TERM RAT COLONY.....	3N01 AG32725-21	470,379
FOSTER, HENRY L.....	SUPPLY OF MICE.....	3N01 AG42811-22	42,000
FOSTER, SUMNER.....	INBRED STRAINS AND SELECTED HYBRID CROSSES IN RATS.....	5N01 AG62135-04	88,400
FOSTER, SUMNER.....	MAINTAIN COLONY OF AGED SPRAGUE-DAWLEY RATS.....	2N01 AG72127-04	99,331
FOSTER, SUMNER.....	GENETIC CENTER FOR RODENTS IN BIOCONTAINMENT ENVIRONMENT.....	3N01 CM77141-09	2,178,420
FOSTER, SUMNER.....	GNOTOBIOTE ORIGINATED RODENT PRODUCTION COLONY.....	3N01 CP55651-05	343,003
ORCUTT, ROGER P.....	MONITOR MICROORGANISMS IN ISOLATOR COLONIES.....	5N01 CM87212-01	63,060
OTIS, ALBERT P.....	DEVELOP COLONY OF MULTIGENOTYPIC AGED MOUSE STRAINS.....	3N01 AG72128-03	652,847
OTIS, ALBERT P.....	PRIMARY GENETIC CENTER.....	5N01 CM87199-01	58,025
OTIS, ALBERT P.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	1N01 CM97229-00	322,790
OTIS, ALBERT P.....	RODENT PRODUCTION COLONIES FOR NCI.....	1N01 CP95617-00	252,282
OTIS, ALBERT P.....	RODENT PRODUCTION COLONIES FOR NCI.....	1N01 CP95641-00	242,863
ORGANIZATION TOTAL	12	4,813,400	
KOCH INDUSTRIES-ABCOR, INC. ZIP CODE 01887			
NUWAYSER, ELIE S.....	STUDY OF DELIVERY OF DRUGS TO THE CERVIX.....	3N01 HD32738-10	23,615
ORGANIZATION TOTAL	1	23,615	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
WORCESTER			
E G & G, INC.—MASON RESEARCH INSTITUTE ZIP CODE 01608			
BOGDEN, ARTHUR E.....	BIOLOGICAL CHARACTERIZATION STUDIES OF MAMMARY TUMORS.....	2N01 CB74175-03	169,870
BOGDEN, ARTHUR E.....	DEVELOPMENT OF NEW IN VIVO TUMOR SYSTEMS.....	5N01 CM57030-10	175,000
BOGDEN, ARTHUR E.....	FROZEN TUMOR BANK.....	5N01 CM87164-03	128,731
BOGDEN, ARTHUR E.....	ROLE OF HORMONAL FACTORS ON MAMMARY TUMORS.....	2N01 CP61052-08	141,592
COBB, WILLIAM R.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY.....	3N01 CM57003-13	903,308
COBB, WILLIAM R.....	IN VIVO SCREENING PROGRAM.....	1N01 CM97317-00	1,317,590
HAWORTH, STEPHEN R.....	MICROBIAL MUTAGENESIS TESTING.....	5N01 ES92137-02	206,907
NAQVI, REHAN H.....	FACILITY TO EVALUATE NEW ANTIFERTILITY DRUGS & DEVICES.....	3N01 HD82813-04	845,501
ROSENKRANTZ, HARRIS.....	EVALUATE ACTIVITY OF ANTIFERTILITY DRUGS & DEVICES.....	3N01 HD22746-27	15,753
ORGANIZATION TOTAL	9	3,904,252	
MEMORIAL HOSPITAL ZIP CODE 01605			
LEVINE, PETER H.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY.....	3N01 HB53019-07	14,290
ORGANIZATION TOTAL	1	14,290	
STATE TOTAL	138	34,333,453	
MICHIGAN			
ANN ARBOR			
UNIVERSITY OF MICHIGAN ZIP CODE 48109			
BURKEL, WILLIAM E.....	DEVELOP INTIMAL LININGS.....	3N01 HV12054-15	27,607
ERFURT, JOHN C.....	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82913-01	256,383
FRIEDMAN, BRUCE A.....	STUDY NATIONAL TRENDS IN TRANSFUSION PRACTICES.....	1N01 HB92920-00	50,340
HIGGINS, MILICENT W.....	DEVELOP RISK INDEX FOR CHRONIC OBSTRUCTIVE LUNG DISEASE.....	3N01 HR82927-01	26,000
KRAUSE, CHARLES.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA.....	5N01 CM87225-02	138,131
MAASSAB, H F.....	STUDY OF LIVE INFLUENZA VIRUS VACCINE CANDIDATES.....	2N01 AI72521-05	167,918
MC NAMARA, JAMES A, JR.....	MUSCLE REATTACHMENT/MIGRATION—WITH/WITHOUT SURGERY.....	3N01 DE52478-05	113,179
MONTO, ARNOLD S.....	EVALUATION OF OCCURRENCE OF INFLUENZA & VACCINE EFFICACY.....	3N01 AI62514-06	251,069
MONTO, ARNOLD S.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER.....	5N01 AI72536-05	298,684
SCHOCH, HENRY K.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52913-05	88,062
THREATT, BARBARA.....	EARLY DETECTION OF CANCER OF THE BREAST.....	2N01 CN45049-07	336,841
ORGANIZATION TOTAL	11	1,754,214	
DETROIT			
ASH STEVENS, INC. ZIP CODE 48202			
ASH, ARTHUR B.....	RESYNTHESIS OF BULK CHEMICALS AND DRUGS.....	5N01 CM57012-07	170,865
MARKOVAC, A.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	5N01 CM87204-02	196,805
ORGANIZATION TOTAL	2	367,670	
CHILD RESEARCH CENTER OF MICHIGAN ZIP CODE 48201			
PETERSON, WARD D.....	IDENTIFICATION OF CELL CULTURES.....	1N01 CP91003-00	143,259
ORGANIZATION TOTAL	1	143,259	
HENRY FORD HOSPITAL ZIP CODE 48202			
BRENEMAN, GERALD M.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72957-05	147,029
GOLDSTEIN, SIDNEY.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52925-04	84,778
KVALE, PAUL A.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	3N01 HR62944-10	389,439
NIELSEN, DONALD.....	SQUIRREL MONKEY MODEL FOR EFFECTS OF NOISE ON HEARING.....	5N01 RR82140-01	34,343
ORGANIZATION TOTAL	4	655,589	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MICHIGAN—Continued			
MICHIGAN CANCER FOUNDATION ZIP CODE 48201			
BRENNAN, MICHAEL J.....	A COMMUNITY BASED CANCER CONTROL PROGRAM.....	5N01 CN65252-09	661,000
BRENNAN, MICHAEL J.....	DETROIT SSMA POPULATION-BASED CANCER REGISTRY.....	3N01 CP61028-09	1,561,592
MC GRATH, CHARLES M.....	EFFECT OF ENVIRONMENTAL FACTORS ON MMTV EXPRESSION	3N01 CP81001-02	139,374
ORGANIZATION TOTAL 3	2,361,966		
SINAI HOSPITAL OF DETROIT ZIP CODE 48235			
KANTROWITZ, ADRIAN.....	DEVELOPMENT OF PERCUTANEOUS ENERGY TRANSMISSION SYSTEMS	5N01 HV82921-01	136,643
ORGANIZATION TOTAL 1	136,643		
WARNER-LAMBERT COMPANY--PARKE, DAVIS AND COMPANY ZIP CODE 48232			
DION, HENRY W.....	NEW ANTINEOPLASTIC DRUG SCREENING.....	5N01 CM77146-04	670,000
MC MILLAN, F.....	PRODUCTION OF BULK CHEMICALS & DRUGS	5N01 CM87124-04	339,905
ORGANIZATION TOTAL 2	1,009,905		
WAYNE STATE UNIVERSITY ZIP CODE 48202			
BAKER, LAURENCE H.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97279-00	112,591
BLISS, LYNN S.....	PRESCHOOL SCREENING FOR IMPAIRED LANGUAGE DEVELOPMENT.....	5N01 NS62353-07	43,000
FRANK, ROBERT N.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY82104-03	142,678
GALLAGHER, RICHARD E.....	DEVELOP A COURSE ON CANCER PREVENTION.....	1N01 CN95474-00	402,865
LEIBY, NANCY J.....	STUDY PATIENTS WITH DISSEMINATED SOLID TUMORS.....	5N01 CM67105-09	337,106
LUSHER, JEANNE M.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS--COOPERATIVE STUDY	3N01 HB53025-06	28,443
MARGHERIO, RAYMOND R.....	DIABETIC RETINOPATHY STUDY--CLINICAL CENTER	3N01 EY42171-07	11,309
MARGHERIO, RAYMOND R.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY62143-05	84,224
NOT AVAILABLE.....	REGIONAL MEDICAL LIBRARY PROGRAM SERVICES.....	5N01 LM54715-05	584,683
ORGANIZATION TOTAL 9	1,746,899		
EAST LANSING			
MICHIGAN STATE UNIVERSITY ZIP CODE 48823			
JONES, JOHN W.....	HYPERTENSION DETECTION & FOLLOW-UP PROGRAM CENTER	5N01 HV22939-14	190,000
KOHRMAN, ARTHUR F.....	DEVELOP COURSE ON CANCER PREVENTION FOR MEDICAL STUDENTS	1N01 CN95472-00	155,831
MAYOR, GILBERT H.....	STUDY OF DIALYSIS ENCEPHALOPATHY	3N01 AM82206-02	75,517
WELSCH, CLIFFORD W.....	PREVENTION OF MAMMARY PRENEOPLASTIC LESIONS	5N01 CB74090-02	80,200
ORGANIZATION TOTAL 4	501,548		
GRAND RAPIDS			
BUTTERWORTH HOSPITAL ZIP CODE 49503			
BOWMAN, HAROLD E.....	SERUM FROM PATIENTS WITH BREAST LESIONS.....	5N01 CB74213-02	28,500
MOORHEAD, EDWARD L, II.....	CLINICAL ONCOLOGY PROGRAM	2N01 CN75347-06	329,510
ORGANIZATION TOTAL 2	358,010		
KALAMAZOO			
UPJOHN COMPANY ZIP CODE 49002			
NEIL, GARY L.....	NEW ANTINEOPLASTIC DRUG SCREENING.....	5N01 CM77100-05	855,000
ORGANIZATION TOTAL 1	855,000		
LANSING			
MICHIGAN DEPARTMENT OF PUBLIC HEALTH ZIP CODE 48906			
HOLMES, RUSSELL E.....	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL.....	1N01 HV92914-00	556,002

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract		Contract No.	Dollars
MICHIGAN—Continued				
SCHUURMANS, DAVID M.....	TISSUE-CULTURE ASSAYS		2N01 CM33702-09	32,000
ORGANIZATION TOTAL	2	588,002		
STATE TOTAL	42	10,478,705		
MINNESOTA				
DULUTH				
UNIVERSITY OF MINNESOTA AT DULUTH ZIP CODE 55812				
HAMILTON, THOMAS R	STUDY OF EFFECT OF ASBESTOS FIBERS ON TISSUES.....		2N01 ES42149-13	10,495
ORGANIZATION TOTAL	1	10,495		
MINNEAPOLIS				
HENNEPIN COUNTY MEDICAL CENTER ZIP CODE 55415				
RUBENS, ALAN B	LANGUAGE RECOVERY PROCESS IN ADULTS WITH APHASIA		5N01 NS72378-05	520,144
ORGANIZATION TOTAL	1	520,144		
MOUNT SINAI HOSPITAL ZIP CODE 55404				
BERMAN, REUBEN	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....		5N01 HV22937-08	250,891
RANHEIM, PHILLIP J	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL		5N01 HV72961-04	93,720
SEGAL, MARVIN S.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY		5N01 HV52926-04	81,948
ORGANIZATION TOTAL	3	426,559		
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS SAINT PAUL ZIP CODE 55455				
BANTLI, HEINRICH	ELECTRICAL STIMULATION OF THE CEREBELLUM.....		2N01 NS42332-05	89,290
BARBOSA, JOSE J.....	GENETIC LINKAGE ANALYSIS OF JUVENILE DIABETES MELLITUS.....		2N01 HD82846-01	263,698
BARTSCH, GLENN.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY		2N01 EY52147-05	176,650
BLACKBURN, HENRY W.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE		5N01 HV22976-09	136,536
BUCHWALD, HENRY.....	OPEN LOOP INSULIN DELIVERY DEVICE		5N01 AM82217-01	561,990
CROW, RICHARD S.....	ECG CENTER FOR PROPRANOLOL HEART TRIAL		2N01 HV72949-04	120,213
CROW, RICHARD S.....	ONE-HOUR AMBULATORY ECG ANALYSIS CENTER FOR BHAT.....		1N01 HV92900-00	146,321
EDSON, J ROGER.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY		3N01 HB53022-07	9,900
GILBERTSON, VICTOR A.....	SCREENING TECHNIQUE FOR DETECTING EARLY CANCER OF BOWEL		5N01 CB53862-05	699,183
GUMNIT, ROBERT J.....	A COMPREHENSIVE EPILEPSY PROGRAM		3N01 NS52327-15	1,996,280
HALBERG, FRANZ.....	RHYTHMOMETRY ON FEMALE VOLUNTEERS OF DIFFERENT AGES		3N01 CP55702-10	120,201
HARRIS, JOHN E.....	STUDY OF DIABETIC RETINOPATHY.....		3N01 EY32126-10	12,444
KERSEY, JOHN H.....	IMMUNODIAGNOSIS OF LEUKEMIAS AND LYMPHOMAS		2N01 CB84261-01	66,022
KERSEY, JOHN H.....	IMMUNODEFICIENCY-CANCER REGISTRY.....		2N01 CP43384-09	57,366
KJELSBORG, MARCUS O.....	STUDY OF PREVENTION OF CORONARY HEART DISEASE		2N01 HV22971-10	1,196,581
MAXWELL, ROBERT E.....	COMPREHENSIVE CENTRAL NERVOUS SYSTEM TRAUMA CENTERS		3N01 NS72369-04	21,517
MC CULLOUGH, JEFFREY.....	COLLECTION, FUNCTION AND TRANSFUSION OF GRANULOCYTES		2N01 HB62972-07	250,900
MITTELMARK, MAURICE B.....	CHILDHOOD ANTECEDENTS OF CIGARETTE SMOKING.....		1N01 HD92831-00	373,731
MUSCOPLAT, CHARLES C.....	IMMUNOLOGIC MECHANISMS OF CATTLE		2N01 CB84244-01	84,000
NAJARIAN, JOHN S.....	HISTOCOMPATIBILITY-MATCHING IN RENAL TRANSPLANTATION.....		2N01 AI22530-10	75,000
QUIE, PAUL G.....	PNEUMOCOCCAL OTITIS MEDIA IN ANIMAL MODEL.....		5N01 AI52533-09	104,450
SCHOENER, WALTER.....	PREPARE INDEX OF DIABETES-RELATED LITERATURE		5N01 AM70663-20	133,875
SCHUMAN, LEONARD M.....	LONG-TERM MORTALITY STUDY OF MINNESOTA IRON-ORE MINERS		1N01 CP91014-00	46,793
SCHUMAN, LEONARD M.....	CANCER MORTALITY STUDIES		1N01 CP91021-00	105,201
SCHUMAN, LEONARD M.....	HEALTH STATUS OF AMERICAN MEN.....		2N01 HD72803-04	414,049
SINGER, LEON.....	MAINTAIN SPECIAL MOUSE COLONY FOR FLUORIDE RESEARCH.....		1N01 DE92423-00	19,800
VESLEY, DONALD.....	COURSES ON PRINCIPLES OF BIOHAZARD AND INJURY CONTROL.....		2N01 CP61033-03	99,323
WATTENBERG, LEE W.....	STUDY OF POLYCYCLIC HYDROCARBON METABOLISM		5N01 CP33364-11	145,120
WATTENBERG, LEE W.....	STUDY OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS.....		5N01 CP85613-01	220,338
ORGANIZATION TOTAL	29	7,746,772		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MINNESOTA—Continued			
ROCHESTER			
MAYO FOUNDATION	ZIP CODE 55901		
AHMANN, DAVID L.....	CHEMOTHERAPY UTILIZING 5-FU, CYTOXAN AND PREDNISONE	2N01 CB33899-06	75,000
BAKER, HILLIER L, JR.....	CLINICAL EVAL. OF COMPUTERIZED TRANSAXIAL TOMOGRAPHY.....	2N01 CB43982-06	12,400
CARR, D T.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NEWTORK.....	5N01 CN55242-08	262,728
DAVID, CHELLA S.....	PROCESS AND PREPARE SPECIFIC ALLOANTISERA	5N01 A182564-02	69,800
DECKER, DAVID G.....	STUDY OF GENITAL TRACT ANOMALIES	5N01 CN45124-10	1,369,600
DIDISHEIM, PAUL	BLOOD COMPATIBILITY OF CIRCULATORY ASSIST DEVICES	5N01 HV92915-01	323,890
DYCK, PETER J.....	ORAL-FACIAL EVALUATION OF UNTREATED TRIGEMINAL NEURALGIA.....	2N01 DE62497-04	56,685
EAGAN, ROBERT.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	5N01 CM77150-03	110,000
EDMONSON, JOHN H.....	STUDIES OF PATIENTS WITH SOLID DISSEMINATED TUMORS	5N01 CM57044-16	709,355
EVANS, TITUS C.....	DEVELOP HIGH RESOLUTION ULTRASONIC IMAGING TECHNIQUES.....	5N01 HV72928-08	524,383
FONTANA, R S.....	DETECTION AND LOCALIZATION OF BRONCHOGENIC CARCINOMA.....	5N01 CB53886-06	768,090
FRYE, ROBERT L.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32984-11	109,370
GO, VAY L.....	CARCINOEMBRYONIC ANTIGEN IN DIAGNOSIS OF BOWEL CARCINOMA.....	2N01 CB23854-08	49,915
KOVACH, JOHN S.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97273-00	225,512
MOERTEL, CHARLES G.....	NEW DRUGS FOR TREATMENT OF GASTROINTESTINAL CANCER.....	2N01 CM02066-20	105,000
MOERTEL, CHARLES G.....	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	5N01 CM43796-10	147,925
MOERTEL, CHARLES G.....	PHASE I STUDIES OF NEW ANTICANCER AGENTS	3N01 CM53838-14	20,000
MOERTEL, CHARLES G.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM57033-08	167,287
MOERTEL, CHARLES G.....	PHASE II STUDIES IN GASTROINTESTINAL CANCER	1N01 CM97268-00	203,017
O'FALLON, WILLIAM W.....	HEALTH STATUS OF AMERICAN MEN.....	2N01 HD72801-03	207,000
PEARSON, GARY R.....	EPSTEIN-BARR VIRUS MARKERS IN NASOPHARYNGEAL TUMORS.....	5N01 CP91006-01	458,585
ROBB, RICHARD A.....	DOSE REDUCTION X-RAY COMPUTED TOMOGRAPHY.....	5N01 CB84235-01	113,577
ROGERS, ROY S.....	RECURRENT APHTHOUS STOMATITIS AND BEHCET'S SYNDROME.....	3N01 DE82414-02	103,825
SCHUTT, ALLAN J.....	NCI SERA BANK FACILITY FOR BREAST CANCER TASK FORCE.....	5N01 CB84296-01	97,950
SCHUTT, ALLAN J.....	THERAPY OF PATIENTS WITH GASTRIC CANCER	3N01 CM43783-10	140,430
SERVICE, F JOHN.....	DEVICES FOR IMPROVED MANAGEMENT OF DIABETES.....	5N01 AM82218-02	196,649
SIEKERT, ROBERT G.....	BIBLIOGRAPHIC SERVICE ON CEREBROVASCULAR DISEASES.....	5N01 NS72363-03	56,750
ORGANIZATION TOTAL	27	6,684,723	
STATE TOTAL	61	15,388,693	
MISSISSIPPI			
JACKSON			
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER	ZIP CODE 39216		
HAERER, ARMIN F.....	SURVEY NEUROLOGICAL DISORDERS IN COPIAH COUNTY, MISS.....	5N01 NS72357-06	28,650
HUTCHINSON, RICHARD G.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52912-05	123,129
STEINBERG, MARTIN H.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	2N01 HB73005-04	135,255
ORGANIZATION TOTAL	3	287,034	
STATE TOTAL	3	287,034	
MISSOURI			
COLUMBIA			
CANCER RESEARCH CENTER	ZIP CODE 65201		
RODES, NED D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECTS.....	5N01 CB74138-04	105,150
RODES, NED D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN45095-09	405,666
ORGANIZATION TOTAL	2	510,816	
UNIVERSITY OF MISSOURI-COLUMBIA	ZIP CODE 65201		
HAHN, ALLEN W.....	DEVELOP BIOMATERIALS FOR NEURAL PROSTHESES.....	2N01 NS82393-01	167,892

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
MISSOURI—Continued			
LOEPKY, RICHARD N	RETROALDOL TYPE FRAGMENTATION OF B-HYDROXYNITROSAMINES	2N01 CP75946-02	36,256
MILLER, FREDERICK N	EFFECTS OF PERITONEAL DIALYSIS ON MICROCIRCULATION	3N01 AM72217-02	28,743
NOLPH, KARL D	EFFECTS OF INTRA-PERITONEAL VASODILATORS	2N01 AM52216-03	53,225
NOLPH, KARL D	EVALUATE CONTINUOUS AMBULATORY PERITONEAL DIALYSIS	5N01 AM92208-01	337,264
RIDDLE, DONALD L	CAENORHABDITIS GENETICS CENTER	1N01 AG92113-00	53,173
WAGNER, JOSEPH E	OPERATION OF ANIMAL DISEASE DIAGNOSTIC LABORATORY	5N01 CM87157-01	80,959
WAGNER, JOSEPH E	OPERATION OF SALMONELLA DIAGNOSTIC LABORATORY	1N01 CM97211-00	62,855
ORGANIZATION TOTAL	8 820,367		
KANSAS CITY			
MIDWEST ORGAN BANK ZIP CODE 64111			
CROSS, DONALD	REFERENCE HLA LABORATORIES	5N01 A182546-03	21,525
ORGANIZATION TOTAL	1 21,525		
MIDWEST RESEARCH INSTITUTE ZIP CODE 64110			
EL HAWARI, MONAEM	METABOLISM OF PAH IN THE INDUCTION OF MAMMARY TUMORS	5N01 CB84227-02	155,500
ENGEL, JAMES F	SYNTHESIS OF POLYCYCLIC HYDROCARBON DERIVATIVES	2N01 CP33387-15	542,000
FOTOPOULOS, SOPHIA S	PSYCHOLOGICAL ASPECTS OF BREAST CANCER	3N01 CN55312-10	48,838
HELTON, DANIEL O	ANALYSIS OF CHEMICAL AND PHARMACEUTICAL FORMULATIONS	5N01 CM87234-03	200,410
HEYS, J RICHARD	PREPARATION OF 28 CHEMICAL COMPOUNDS	3N01 CP85666-02	17,376
KAEGI, HANS H	SYNTHESIS OF RADIOACTIVE RETINIDS	3N01 CP75911-05	203,042
LAWLESS, EDWARD W	PUBLIC HEALTH STRATEGICS IN CANCER PREVENTION	1N01 CN85419-00	499,160
WOODHOUSE, E J	CHEMICAL SERVICES SUPPORT FOR CARCINOGENESIS TESTING	1N01 CP95615-00	1,011,446
ORGANIZATION TOTAL	8 2,677,766		
SAINT LOUIS			
ST. LOUIS REGIONAL MATERNAL AND CHILD HEALTH COUNCIL ZIP CODE 63103			
HILLMAN, LAURA S	SIDS RISK FACTOR COOPERATIVE STUDY	3N01 HD72844-02	64,537
ORGANIZATION TOTAL	1 64,537		
ST. LOUIS UNIVERSITY ZIP CODE 63103			
BLAIR, OLGA	PROFESSIONAL EDUCATION IN CYTOLOGY RELATED TO CANCER	1N01 CN95485-00	110,883
GREEN, MAURICE	STUDY OF ONCOGENESIS	3N01 CP43359-11	549,995
GREEN, MAURICE	STUDY OF ONCOGENESIS	3N01 CP61049-04	38,707
KAISER, GEORGE C	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY	5N01 HV32980-08	239,182
SMITH, KENNETH R, JR	THERAPY OF PATIENTS WITH BRAIN TUMORS	5N01 CM57020-05	55,000
VAL-MEJIAS, JESUS E	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM	1N01 HV92924-00	53,876
ORGANIZATION TOTAL	6 1,047,643		
WASHINGTON UNIVERSITY ZIP CODE 63130			
COMMONER, BARRY	EFFECT OF DIET ON CARCINOGENIC POTENTIAL OF SECRETIONS	5N01 CP85662-01	117,023
GOLDBERG, ANDREW P	EFFECTS OF EXERCISE ON LIPID AND CARBOHYDRATE METABOLISM	3N01 AM82208-03	12,406
GOLDBERG, ANDREW P	EFFECTS OF EXERCISE TRAINING ON HEMODIALYSIS PATIENTS	1N01 AM92221-00	156,444
HERZIG, GEOFFREY P	COLLECTION, FUNCTION AND TRANSFUSION OF GRANULOCYTES	2N01 HB62970-05	119,754
KARDOS, JOHN L	TEST POLYMERS FOR CIRCULATORY ASSIST DEVICES	5N01 HV72919-02	125,655
NEEDLEMAN, PHILIP	DEVELOP PROSTAGLANDIN SYNTHESIS AND RECEPTOR ANTAGONISTS	5N01 HV72945-05	80,146
ROBERTS, ROBERT	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM/CLINICAL TESTS	5N01 HV72941-04	841,421
SHREFFLER, DONALD C	DEVELOPMENT OF H-2 RECOMBINANT AND MUTANT STRAINS	2N01 CB74154-02	83,455
ZARKOWSKY, HAROLD S	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	2N01 HB73001-04	133,376
ORGANIZATION TOTAL	9 1,669,671		
STATE TOTAL	35 6,812,325		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MONTANA			
HAMILTON			
HAMILTON BIOCHEMICAL RESEARCH LABORATORY ZIP CODE 59840			
PARKER, RENO.....	PRODUCTION OF LIPOPOLYSACCHARIDES (ENDOTOXINS)	3N01 A172525-04	60,571
ORGANIZATION TOTAL	1 60,571		
STATE TOTAL	1 60,571		
NEBRASKA			
LINCOLN			
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN ZIP CODE 68598			
JONES, GARY.....	DEVELOPMENT OF CLINICAL CASE SIMULATION IN DENTISTRY.....	1N01 LM94710-00	86,516
ORGANIZATION TOTAL	1 86,516		
OMAHA			
CREIGHTON UNIVERSITY ZIP CODE 68178			
HILGERS, THOMAS W.....	CORRELATE CERVICAL MUCUS CHANGE WITH SERUM HORMONE LEVEL	2N01 HD82825-02	22,466
LYNCH, HENRY T.....	STUDY FAMILIAL ASPECTS OF COLON/RECTAL CANCER.....	3N01 CP71041-03	6,237
ORGANIZATION TOTAL	2 28,703		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105			
BRAUDE, ROBERT M.....	REGIONAL MEDICAL LIBRARY PROGRAM.....	2N01 LM54717-05	207,513
CLAYSON, DAVID B.....	BIOASSAYS OF ENVIRONMENTAL CARCINOGENESIS.....	3N01 CP33278-16	2,170,022
FRIEDLANDER, WALTER J.....	SUPPORT FOR CLINICAL NEUROLOGY INFORMATION CENTER.....	3N01 NS22300-08	150,293
POUR, PARVIZ M.....	PREVENT PANCREATIC CANCER BY RETINOLDS.....	5N01 CP85674-02	135,250
ORGANIZATION TOTAL	4 2,663,078		
STATE TOTAL	7 2,778,297		
NEW HAMPSHIRE			
HANOVER			
DARTMOUTH COLLEGE ZIP CODE 03755			
GREENBERG, ROBERT E.....	NONMELANOMA SKIN CANCER STUDY IN NEW HAMPSHIRE-VERMONT	1N01 CP91030-00	127,601
LONGNECKER, DANIEL S.....	PREVENTION OF PANCREATIC CANCER IN ANIMALS BY RETINOLDS.....	5N01 CP85675-02	197,402
MAURER, L HERBERT.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45146-06	83,297
SMITH, KENDALL A.....	CULTURE TUMOR-SPECIFIC CYTOTOXIC LYMPHOCYTES	2N01 CB74141-03	104,100
ORGANIZATION TOTAL	4 512,400		
STATE TOTAL	4 512,400		
NEW JERSEY			
BOONTON			
RIVERSIDE HOSPITAL ZIP CODE 07005			
EDWARDS, CHARLES H.....	HOSPICE CONCEPT FOR THE CARE OF TERMINAL CANCER PATIENTS.....	5N01 CN75391-02	450,000
ORGANIZATION TOTAL	1 450,000		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW JERSEY—Continued			
CAMDEN			
INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 08103			
CORIELL, LEWIS L.....	OPERATE A HUMAN GENETIC MUTANT CELL REPOSITORY	1N01 GM92101-00	527,446
DION, ARNOLD S.....	STUDY OF COMMON ANTIGENS.....	2N01 CP81003-01	45,000
MC GARRITY, GERARD J.....	MYCOPLASMA CONTAMINATION TESTING SERVICE.....	5N01 AG82117-02	47,598
NICHOLS, WARREN W.....	GENETICALLY MARKED CELLS FOR AGING RESEARCH.....	5N01 AG42865-14	162,005
ORGANIZATION TOTAL	4 782,049		
RCA CORPORATION ZIP CODE 08102			
CUMMINGS, MARTIN M.....	MAINTAIN PHS-CTS COMMUNICATIONS GROUND TERMINALS.....	3N01 LM74704-07	172,054
ORGANIZATION TOTAL	1 172,054		
CHERRY HILL			
COMPUTER HORIZONS ZIP CODE 08034			
NARIN, FRANCIS.....	EVALUATE PROGRESS IN PULMONARY AND HYPERTENSION RESEARCH.....	3N01 H082938-01	43,054
NARIN, FRANCIS.....	EVALUATE RESEARCH PUBLICATION & NIH FUNDING LINKAGE.....	3N01 OD32109-18	160,336
ORGANIZATION TOTAL	2 203,390		
RCA CORPORATION—RCA SERVICE COMPANY ZIP CODE 08358			
MC GLYNN, C V.....	OPERATE AND MAINTAIN AUDIOVISUAL EQUIPMENT	3N01 LM94709-01	331,045
ORGANIZATION TOTAL	1 331,045		
HADDONFIELD			
ANTHROPOMETRICS—ANTHROPOMETRICS HEART CLINIC ZIP CODE 08033			
MORGANROTH, JOEL.....	TWENTY-FOUR HOUR AMBULATORY ECG ANALYSIS CENTER FOR BHAT.....	1N01 HV92902-00	189,020
ORGANIZATION TOTAL	1 189,020		
HIGHLAND PARK			
UNIVERSITY LABORATORIES ZIP CODE 08904			
BERNSTEIN, EUGENE H.....	PRODUCTION OF ONCOGENIC VIRUSES AND ANTISERA	3N01 CP33222-12	360,108
ORGANIZATION TOTAL	1 360,108		
MAYWOOD			
PFIZER, INC. ZIP CODE 07607			
HAREWOOD, KEN.....	PREPARATION AND PURIFICATION OF VIRAL COMPONENTS.....	5N01 CM53805-10	249,000
MAYYASI, SAMI.....	LARGE SCALE TISSUE CULTURE VIRUS PRODUCTION.....	1N01 CP91018-00	1,750,000
WOLFF, JOHN S, III.....	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS.....	5N01 CP55703-07	176,240
ORGANIZATION TOTAL	3 2,175,240		
NEWARK			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103			
LASSER, NORMAN L.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE.....	5N01 HV33104-12	643,650
RUSH, BENJAMIN F, JR.....	PROGRAM FOR EARLY DETECTION OF BREAST CANCER.....	2N01 CN35006-11	322,050
ORGANIZATION TOTAL	2 965,700		
NEWARK BETH ISRAEL MEDICAL CENTER ZIP CODE 07112			
KIRSCHNER, MARVIN A.....	DIET, STEROID HORMONE METABOLISM AND BREAST CANCER.....	5N01 CB84229-01	132,900
ORGANIZATION TOTAL	1 132,900		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW JERSEY—Continued			
NEW BRUNSWICK			
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903			
GORDON, RUTH E.....	PRESERVATION AND SERVICES OF TWO CULTURE COLLECTIONS.....	1N01 AI92604-00	66,176
ORGANIZATION TOTAL	1	66,176	
PISCATAWAY			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL ZIP CODE 08854			
KUO, PETER T.....	CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52924-05	101,292
KUO, PETER T.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72968-05	70,248
ORGANIZATION TOTAL	2	171,540	
PRINCETON			
EDUCATIONAL TESTING SERVICE ZIP CODE 08540			
LEWIS, MICHAEL.....	SOCIAL-COGNITIVE DEVELOPMENT OF ONLY CHILDREN.....	5N01 HD82849-01	95,844
ORGANIZATION TOTAL	1	95,844	
EXCERPTA MEDICA FOUNDATION ZIP CODE 08540			
VINKEN, PIERRE J.....	SUPPORT FOR PUBLICATION OF EPILEPSY ABSTRACTS.....	3N01 NS32303-09	50,000
ORGANIZATION TOTAL	1	50,000	
MATHEMATICA, INC. ZIP CODE 08540			
DEVANEY, BARBARA.....	DETERMINANTS OF U S FERTILITY TREND VARIATION--1940-45.....	5N01 HD82835-01	42,356
DEVANEY, BARBARA.....	DETERMINANTS OF ADOLESCENT PREGNANCY AND CHILDBEARING.....	5N01 HD82841-01	49,120
SMITH, CRAIG.....	CLINICAL TRIALS MONITORING SERVICE.....	1N01 CM97195-00	567,066
WISE, DONALD E.....	ESTIMATING CHILD-REARING EXPENDITURES.....	1N01 HD92823-00	94,802
ORGANIZATION TOTAL	4	753,344	
OPINION RESEARCH CORPORATION ZIP CODE 08540			
ZDEP, STANLEY.....	SURVEY OF PUBLIC ATTITUDES, RELATED TO BREAST CANCER.....	2N01 C085407-01	38,394
ORGANIZATION TOTAL	1	38,394	
PRINCETON UNIVERSITY ZIP CODE 08540			
COALE, ANSLEY J.....	SUPPORT FOR PUBLICATION OF POPULATION INDEX.....	5N01 HD12138-11	116,123
WESTOFF, CHARLES F.....	LONGITUDINAL STUDY OF FERTILITY.....	2N01 HD52819-07	215,990
ORGANIZATION TOTAL	2	332,113	
RAHWAY			
MERCK AND COMPANY ZIP CODE 07065			
HILLEMAN, MAURICE R.....	ONCOGENIC VIRUS RESEARCH AND VACCINE DEVELOPMENT.....	3N01 CP12059-23	132,000
HILLEMAN, MAURICE R.....	HSV-2 VACCINE DEVELOPMENT AND CLINICAL TESTING.....	1N01 CP91005-00	629,290
ORGANIZATION TOTAL	2	761,290	
SUMMIT			
OVERLOOK HOSPITAL ZIP CODE 07901			
GREGORY, JOHN J.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72964-05	109,616
ORGANIZATION TOTAL	1	109,616	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW JERSEY—Continued			
TRENTON			
NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION ZIP CODE 08625			
BURKE, THOMAS	ENVIRONMENTAL HEALTH DATA BASE FOR NEW JERSEY	1N01 CP91048-00	152,081
ORGANIZATION TOTAL	1 152,081		
NEW JERSEY STATE DEPARTMENT OF HEALTH ZIP CODE 08625			
ALTMAN, RONALD	ETIOLOGIC STUDIES OF CANCER IN NEW JERSEY	2N01 CP61031-10	499,900
ORGANIZATION TOTAL	1 499,900		
WESTMONT			
KESSLER COMMUNICATIONS ZIP CODE 08108			
KESSLER, S SIM	INDEXING JOURNAL ARTICLES OF THE BIOMEDICAL SCIENCES	2N01 LM84703-04	115,600
ORGANIZATION TOTAL	1 115,600		
STATE TOTAL	35 8,907,404		
NEW MEXICO			
ALBUQUERQUE			
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131			
BARTOW, SUE A	BENIGN BREAST LESIONS IN RISK FOR BREAST CANCER	5N01 CB84231-02	90,200
KEY, CHARLES R	SUPPORT FOR TUMOR REGISTRY	5N01 CP33344-17	1,280,795
KLIGERMAN, MORTON M	A COMMUNITY-BASED CANCER CONTROL PROGRAM	5N01 CN65173-09	819,337
TUNG, KENNETH S	IMMUNOPATHOLOGIC CONSEQUENCES OF VASECTOMY	3N01 HD32717-11	126,174
WARNER, NOEL L	REAGENTS TO CHARACTERIZE HUMAN CELL SUBPOPULATIONS	2N01 CB84288-01	88,398
YUHAS, JOHN M	STUDY METHODS TO PREDICT CHEMOTHERAPY SENSITIVITY	5N01 CB74203-02	110,000
ORGANIZATION TOTAL	6 2,514,904		
STATE TOTAL	6 2,514,904		
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH ZIP CODE 12237			
DOUGHERTY, THOMAS J	PHASE II STUDY OF PHOTORADIATION THERAPY	1N01 CM97311-00	50,000
DOUGLASS, HAROLD O, JR	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA	5N01 CM43794-11	86,112
HOLYOKE, EDWARD D	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA	5N01 CM43782-11	39,353
JANERICH, DWIGHT T	SUDDEN INFANT DEATH SYNDROME RISK FACTOR (COOPERATIVE)	3N01 HD72841-02	89,150
ORGANIZATION TOTAL	4 264,615		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE ZIP CODE 12229			
RICHARDSON, ELLIS	PROTOTYPE TEST OF DECODING SKILLS	2N01 HD72837-01	161,324
ORGANIZATION TOTAL	1 161,324		
STATE UNIVERSITY OF NEW YORK ZIP CODE 12210			
HAPEMAN, KENNETH	OPERATION OF MEDLINE BACKUP COMPUTER SYSTEM	3N01 LM64712-09	15,720
ORGANIZATION TOTAL	1 15,720		
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208			
COULSTON, FREDERICK	MAINTENANCE OF CHIMPANZEES FOR CANCER RESEARCH	2N01 CP81027-01	170,576

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
HOBSON, WILLIAM C.....	PHYSIOLOGY OF ADRENARCHE USING THE CHIMPANZEE AS A MODEL.....	1N01 HD92815-00	94,150
HOOK, ERNEST B.....	DIETARY CRAVINGS AND AVERSIONS DURING PREGNANCY.....	1N01 HD92837-00	173,490
HORTON, JOHN.....	DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45140-07	149,395
KASSOFF, AARON.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72138-05	74,659
LEMPERT, NEIL.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI52510-07	14,023
SOSA, JULIO.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62921-08	122,336
VAN HEUVEN, WICHARD A.....	STUDY OF DIABETIC RETINOPATHY.....	3N01 EY32124-09	22,121
VAN HEUVEN, WICHARD A.....	EVALUATION OF EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	2N01 EY52146-04	176,329
ORGANIZATION TOTAL	9	997,079	
AMHERST			
FRONTIER SCIENCE AND TECHNOLOGY RESEARCH FOUNDATION ZIP CODE 14226			
ZELIN, MARVIN.....	CANCER CONTROL PROGRAM FOR CLINICAL COOPERATIVE GROUPS.....	5N01 CN75348-04	876,250
ORGANIZATION TOTAL	1	876,250	
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
CHU, TSANN M.....	CANCER DIAGNOSIS & CANCER PATIENT MANAGEMENT.....	2N01 CB33858-05	71,156
DAO, THOMAS L.....	STEROID SULFATION & ESTROGEN-BINDING IN BREAST CANCER.....	2N01 CB43900-05	10,000
EVANS, JAMES T.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM57034-13	79,563
GUTAI, MARY W.....	BIOCHEMICAL MAPPING OF THE INTEGRATION SITE OF SV-40.....	5N01 CP71062-02	80,620
HELMSTETTER, CHARLES E.....	ISO-ANTIGENIC TYPING OF MOUSE STRAINS AND TUMORS.....	5N01 CM77101-02	94,779
MIHICH, ENRICO.....	IMMUNOCHEMOTHERAPY RESEARCH.....	3N01 CM57039-04	40,381
MURPHY, GERALD P.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55174-10	227,012
PAPAHADJOPOULOS, P D.....	LIPOSOMAL ENCAPSULATION OF ANTITUMOR AGENTS.....	5N01 CM77118-03	156,159
SHEDD, DONALD P.....	DEMONSTRATION PROJECT IN HEAD AND NECK CANCER.....	2N01 CN55257-07	135,514
SINHA, DILIP K.....	CHANGING SENSITIVITY TO CARCINOGENESIS OF MAMMARY GLAND.....	5N01 CB74105-02	59,700
TAKITA, HIROSHI.....	IMMUNOTHERAPY OF SQUAMOUS CELL CARCINOMA.....	2N01 CB64007-04	93,121
ORGANIZATION TOTAL	11	1,048,005	
STARKS ASSOCIATES ZIP CODE 14213			
PARSON, JACK.....	PRODUCTION OF BULK CHEMICALS AND DRUGS.....	5N01 CM87203-03	435,248
SCHULTZ, ROBERT J.....	RESYNTHESIS OF BULK CHEMICALS AND DRUGS.....	5N01 CM53769-07	130,823
STARKS, FRED W.....	ACQUIRE CHEMICALS & DRUGS FOR CANCER CHEMOTHERAPY.....	5N01 CM87206-03	381,777
ORGANIZATION TOTAL	3	947,848	
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
ALBINO, JUDITH E.....	METHODOLOGIES TO MEASURE SOCIAL & PSYCHOLOGICAL FACTORS.....	3N01 DE72499-05	144,243
COSTA, GIOVANNI G.....	ANOREXIA IN ADULT AND PEDIATRIC CANCER PATIENTS.....	3N01 CP65834-04	50,000
KANO, KYOICHI.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI52514-06	12,547
KOHN, ROBERT M.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72952-03	83,494
NISENGARD, RUSSELL J.....	IMMUNOLOGIC CROSS-REACTIVITY OF ORAL STREPTOCOCCI.....	3N01 DE62488-06	15,717
SCHIMPFHAUSER, FRANK.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95475-00	81,123
STINSON, MURRAY W.....	CROSS-REACTING ANTIGENS/ORAL FLORA ACIDOGENIC BACTERIA.....	2N01 DE72408-03	98,231
ORGANIZATION TOTAL	7	485,355	
CHEEKTOWAGA			
CALSPAN CORPORATION ZIP CODE 14225			
BAIER, ROBERT E.....	DEVELOP MATERIALS COMPATIBLE WITH BLOOD.....	2N01 HV32953-12	58,925
ORGANIZATION TOTAL	1	58,925	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
FARMINGDALE			
ARTEK SYSTEMS CORPORATION	ZIP CODE 11735		
KITCHENER, WILLIAM R.....	T V CELL SCANNING AND DISPLAY SYSTEMS.....	3N01 CM77128-03	8,000
ORGANIZATION TOTAL	1	8,000	
ITHACA			
CORNELL UNIVERSITY	ZIP CODE 14850		
COCKERELL, GARY L.....	STUDY OF COLON TUMORS.....	2N01 CP65744-07	249,741
DE NORONHA, FERNANDO.....	IMMUNOPREVENTION OF CANCER.....	1N01 CP91007-00	169,088
GEORGI, JAY R.....	RADIOLABELLING OF SCHISTOSOME AND FILARIAE.....	1N01 AI92619-00	75,948
HAAS, JERE D.....	ULTRASONIC ASSESSMENT OF NUTRITIONAL STATUS.....	5N01 CP85652-02	60,220
HOLMES, DOROTHY F.....	DEVELOP ANIMAL MODEL FOR THE GUILLAIN-BARRE SYNDROME.....	1N01 RR92102-00	48,327
ORGANIZATION TOTAL	5	603,324	
LAKE PLACID			
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER	ZIP CODE 12946		
MC KEENHA, WALLACE L.....	DIPLOID CHIMPANZEE AND HUMAN HEPATOCYTE CELL STRAINS.....	3N01 AI72500-05	4,000
SMITH, JAMES R.....	IN VITRO ASSESSMENT OF HUMAN CELLULAR AGING.....	2N01 AG72117-02	150,233
ORGANIZATION TOTAL	2	154,233	
MELVILLE			
LONG ISLAND CANCER COUNCIL	ZIP CODE 11746		
CRAMPTON, RAY.....	A COMMUNITY-BASED CANCER CONTROL PROGRAM.....	5N01 CN75389-10	1,682,344
ORGANIZATION TOTAL	1	1,682,344	
NEW YORK			
AMERICAN HEALTH FOUNDATION	ZIP CODE 10017		
FIALA, EMERICH.....	STUDIES OF METABOLIC CAPACITY IN INTESTINAL MUCOSA.....	5N01 CP75948-03	108,833
REDDY, BANDARU S.....	STUDIES OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS.....	5N01 CP85659-01	158,008
WEISBURGER, JOHN H.....	COLON CARCINOGENESIS.....	1N01 CP95604-00	81,217
WILLIAMS, GARY M.....	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS.....	5N01 CP55705-11	173,786
WILLIAMS, GARY M.....	STUDIES OF COLON CARCINOGENESIS.....	5N01 CP75952-03	98,743
ORGANIZATION TOTAL	5	620,587	
CANCER RESEARCH INSTITUTE	ZIP CODE 10022		
KLEIN, EDMUND.....	HUMAN CANCER SKIN TESTS WITH VIRUS-AUGMENTED ANTIGENS.....	1N01 CP91017-00	259,313
ORGANIZATION TOTAL	1	259,313	
CAROLYN HORTON AND ASSOCIATES	ZIP CODE 10011		
NOT AVAILABLE.....	REPAIR, RESTORE AND REBIND RARE BOOKS.....	2N01 LM84708-02	15,000
ORGANIZATION TOTAL	1	15,000	
CATHOLIC MEDICAL CENTER OF BROOKLYN AND QUEENS	ZIP CODE 11432		
MARTIN, DANIEL S.....	SCREEN AGENTS AGAINST SPONTANEOUS MURINE MAMMARY TUMORS.....	2N01 CM67081-09	229,999
ORGANIZATION TOTAL	1	229,999	
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE	ZIP CODE 10029		
ALEDORT, LOUIS M.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY.....	3N01 HB53020-05	47,890
AUFSES, ARTHUR H, JR.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM67096-05	96,501

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
BEKESI, J GEORGE	TOXICOLOGICAL EFFECTS OF POLYBROMINATED BIPHENYLS	1N01 ES90004-00	495,820
BOSCH, JUAN P	COMPARE HEMOFILTRATION TO CONVENTIONAL HEMODIALYSIS	2N01 AM72228-04	297,917
BRUCKNER, HOWARD W	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA	5N01 CM53841-10	129,378
HOLLAND, JAMES F	CHEMOIMMUNOTHERAPY OF ACUTE MYELOCYTIC LEUKEMIA	2N01 CB43879-08	209,910
HOLLAND, JAMES F	PHASE I STUDIES OF NEW ANTICANCER AGENTS	3N01 CM53837-11	19,996
HOLLAND, JAMES F	STUDY OF ETIOLOGY AND CONTROL OF LEUKEMIA	2N01 CP43225-12	279,893
NORTON, LARRY	NORTON-SIMON MODEL FOR PREDICTING TUMOR RESPONSE	5N01 CM87197-01	36,405
OHNUMA, TAKAO	PHASE I STUDIES OF NEW ANTICANCER AGENTS	1N01 CM97275-00	120,500
OHNUMA, TAKAO	IN-DEPTH CLINICAL PHARMACOLOGY STUDIES	1N01 CM97294-00	44,333
PAPATESTAS, ANGELOS E	DIET AND CHOLESTEROL METABOLISM IN BREAST CANCER	5N01 CB84318-01	212,000
ORGANIZATION TOTAL	12	1,990,543	
COLUMBIA UNIVERSITY ZIP CODE 10027			
BLOOM, ARTHUR D	IN VITRO CYTOGENETIC TESTING	1N01 ES90014-00	174,519
ELLISON, SOLOH A	DENTAL PLAQUE AND SALIVA FROM GASTRIC INTUBATED PATIENTS	1N01 DE92422-00	129,140
FELDMAN, CHARLES H	EVALUATE SELF-MANAGEMENT SYSTEMS FOR ASTHMATIC CHILDREN	5N01 HR72973-04	225,306
GUNTAKA, RAMAREDDY V	PHYSICAL/BIOCHEMICAL MAPPING OF AVIAN SARCOMA VIRUS	5N01 CP71055-02	108,000
HILAL, SADEK K	CLINICAL EVAL OF COMPUTERIZED TRANSAXIAL TOMOGRAPHY	2N01 CB43910-06	15,954
JAFFE, ISRAELI A	CLINICAL TRIAL OF PENICILLAMINE IN RHEMATOID ARTHRITIS	2N01 AM82216-01	98,166
MELLINS, ROBERT B	EVALUATION & FOLLOW-UP OF SELECTED PARAMETERS IN INFANTS	2N01 HD52856-09	411,604
NAKANISHI, KOJI	SYNTHESIS OF NEW RETINOLIDS	5N01 CP75897-04	83,572
SPIEGELMAN, SOL	ONCOGENIC RNA VIRUS REPLICATION/HUMAN CANCER RELATION	5N01 CP71016-02	1,410,930
SUCIU-FOCA, NICOLE	ACQUISITION OF HOMOZYGOUS TYPING CELLS	5N01 AI82552-03	100,727
WEINSTEIN, I BERNARD	DEVELOPMENT OF A TISSUE CULTURE TRANSFORMATION	1N01 CP95600-00	105,919
ORGANIZATION TOTAL	11	2,863,837	
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021			
KARLIN, DAVID B	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY62140-05	101,437
SCHIEDT, STEPHEN	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52931-07	102,043
SILVER, RICHARD T	SUPPORT FOR CLINICAL CANCER CHEMOTHERAPY PROGRAM	5N01 CN35025-10	80,187
SISKIND, GREGORY W	SKIN TESTING PENICILLIN DERIVATIVES IN ADULTS	1N01 AI92629-00	40,500
ORGANIZATION TOTAL	4	324,167	
HEALTH INSURANCE PLAN OF GREATER NEW YORK ZIP CODE 10022			
VENET, WANDA	STUDY OF VALUE OF MAMMOGRAPHY	2N01 CP43278-10	265,000
ORGANIZATION TOTAL	1	265,000	
JAMES MACDONALD COMPANY ZIP CODE 10023			
NOT AVAILABLE	REPAIR, RESTORE AND REBIND RARE BOOKS	2N01 LM84709-02	21,000
ORGANIZATION TOTAL	1	21,000	
JEWISH HOSPITAL AND MEDICAL CENTER OF BROOKLYN ZIP CODE 11238			
DOSIK, HARVEY	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL G/S	5N01 HB73002-06	459,871
ORGANIZATION TOTAL	1	459,871	
LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER ZIP CODE 11040			
KRAMER, ROBERT J	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72959-05	77,994
LIPSITZ, PHILIP	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA	2N01 HD42821-10	8,750
SAMUEL, PAUL	ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52915-04	106,591
ORGANIZATION TOTAL	3	193,335	
MAIMONIDES MEDICAL CENTER ZIP CODE 11219			
LICHSTEIN, EDGAR	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72960-03	99,139
ORGANIZATION TOTAL	1	99,139	
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021			
BURCHENAL, JOSEPH H	STUDIES OF PATIENTS WITH SOLID DISSEMINATED TUMORS	5N01 CM57043-12	136,774

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
FEIT, CARL	COLLECTION OF SERIAL SERUM SAMPLES FROM CANCER PATIENTS	2N01 CB74124-02	93,919
LAUGHLIN, JOHN S.	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	2N01 CN45057-13	89,941
LIPKIN, MARTIN	ANALYSIS OF CELL PROLIFERATION IN FAMILIAL POLYPOSIS	5N01 CP43366-08	179,925
MELAMED, MYRON R.	STUDY OF EARLY DETECTION OF CANCER OF THE LUNGS	5N01 CN45007-09	850,000
REED-ASH, CAROL	DEVELOP A COURSE ON CANCER PREVENTION	1N01 CN95484-00	141,621
ROBBINS, GUY F.	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK	5N01 CN55224-09	432,834
SCHWARTZ, MORTON K.	BIOLOGIC MARKERS IN BREAST CANCER PATIENTS	5N01 CB74206-03	116,000
SHAPIRO, WILLIAM R.	THERAPY OF PATIENTS WITH BRAIN TUMORS	5N01 CM57019-05	131,986
STRONG, ELLIOT W.	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	5N01 CM87224-02	72,515
YOUNG, CHARLES W, JR.	PHASE I STUDIES OF NEW ANTICANCER AGENTS	3N01 CM43804-09	19,920
YOUNG, CHARLES W, JR.	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS	1N01 CM97274-00	170,051
ORGANIZATION TOTAL	12	2,435,486	
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467			
DUNCALF, DERYCK	PAIN CONTROL IN CANCER	1N01 CN95490-00	187,986
HOLLAND, JIMMIE C.	PSYCHOLOGICAL ASPECTS OF BREAST CANCER	3N01 CN55214-06	73,363
KOSS, LEOPOLD G.	SCREENING FOR EARLY ENDOMETRIAL CANCERS	5N01 CB84233-01	260,407
WEITZMAN, ELLIOT D.	EVALUATE & FOLLOW-UP SELECTED PARAMETERS IN INFANTS	3N01 HD52855-06	280,289
ORGANIZATION TOTAL	4	802,045	
NATIONAL NEPHROLOGY FOUNDATION ZIP CODE 10016			
DEANE, NORMAN	STUDY OF THE MULTIPLE USE OF DIALYZERS	1N01 AM92214-00	75,000
ORGANIZATION TOTAL	1	75,000	
NEW YORK ACADEMY OF MEDICINE ZIP CODE 10029			
BRANDON, ALFRED N.	REGIONAL MEDICAL LIBRARY SERVICES—REGION II	3N01 LM64722-11	446,466
ORGANIZATION TOTAL	1	446,466	
NEW YORK ACADEMY OF SCIENCES ZIP CODE 10021			
WILLIAMS, GARY M.	CONFERENCE ON CARCINOGENESIS IN LIVER CELL CULTURES	1N01 CP95609-00	22,759
ORGANIZATION TOTAL	1	22,759	
NEW YORK BLOOD CENTER ZIP CODE 10021			
PRINCE, ALFRED M.	EVALUATE POLYVALENT HEPATITIS B VACCINE IN CHIMPANZEES	3N01 AI62500-09	6,700
SZMUNESS, WOLF	EPIDEMIOLOGY OF VIRAL HEPATITIS IN HEMODIALYSIS UNITS	2N01 AI62512-12	582,974
SZMUNESS, WOLF	INTERRUPT MATERNAL-INFANT TRANSMISSION OF HEPATITIS B	5N01 AI82561-03	83,500
ORGANIZATION TOTAL	3	673,174	
NEW YORK CITY HEALTH SERVICES ADMINISTRATION ZIP CODE 10013			
PAKTER, JEAN	SIDS RISK FACTOR COOPERATIVE STUDY	3N01 HD72842-02	125,135
ORGANIZATION TOTAL	1	125,135	
NEW YORK CITY HEALTH SERVICES ADMINISTRATION—PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N Y ZIP CODE 10016			
HIRST, GEORGE K.	SLOW VIRUS INFECTIONS OF CENTRAL NERVOUS SYSTEM	2N01 NS70082-22	117,243
ORGANIZATION TOTAL	1	117,243	
NEW YORK STATE COMMISSION ON ALCOHOLISM AND SUBSTANCE ABUSE ZIP CODE 10047			
FORREST, JACQUELINE D.	FAMILY PLANNING EFFECT ON ADOLESCENT FERTILITY	5N01 HD82844-02	56,601
ORGANIZATION TOTAL	1	56,601	
NEW YORK UNIVERSITY ZIP CODE 10003			
BASCH, ROSS S.	ANIMAL MODELS FOR BONE MARROW TRANSPLANTATION	2N01 CB74176-02	66,340
BASILICO, CLAUDIO	ISOLATE, PROPAGATE & STORE MUTANT VERTEBRATE CELLS	3N01 CP33279-09	25,420
BLUM, RONALD	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	1N01 CM97321-00	99,710
GLASSMAN, EPHRAIM	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY	5N01 HV32976-10	79,066
GOLDBERG, BURTON D.	ISOLATE/CHARACTERIZE ANTIBODIES TO COLLAGEN/PROCOLLAGEN	5N01 CB84314-01	67,200

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
KUSCHNER, MARVIN.....	STUDY OF PULMONARY CARCINOGENESIS.....	3N01 CP33260-15	141,858
PASTERNAK, BERNARD S.....	BREAST CANCER IN INITIALLY ASYMPTOMATIC WOMEN	5N01 CB74103-03	107,400
VILCEK, JAN T.....	METHODS OF PRODUCING HUMAN INTERFERON.....	5N01 A02169-17	309,651
ORGANIZATION TOTAL	8 896,645		
PLANNED PARENTHOOD-WORLD POPULATION ZIP CODE 10019			
DRYFOOS, JOY G.....	BEHAVIORAL STATUS OF CHILDREN BORN TO ADOLESCENT MOTHERS	5N01 HD72805-02	40,277
ORGANIZATION TOTAL	1 40,277		
RCKEFELLER UNIVERSITY ZIP CODE 10021			
FISCHETTI, VINCENT A.....	MAINTAIN A STREPTOCOCCAL CULTURE COLLECTION	1N01 A192605-00	132,483
GRADY, ROBERT W.....	EVALUATION OF NEW IRON-CHELATING DRUGS.....	5N01 AM72233-03	78,141
ORGANIZATION TOTAL	2 210,624		
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021			
ANDERSON, LUCY M.....	STUDIES OF METABOLIC CAPACITY IN INTESTINAL MUCOSA.....	5N01 CP75951-04	98,744
BALIS, M EARL.....	STUDIES OF METABOLIC CAPACITY IN INTESTINAL MUCOSA.....	5N01 CP75950-02	96,748
BOYSE, EDWARD A.....	INFLUENCE OF VIRUS-RELATED GENES TO CANCER.....	5N01 CP71003-02	137,740
CUNNINGHAM-RUNDLES, SUSANNA...	IMMUNOLOGIC RESPONSE OF REGIONAL LYMPH NODE CELLS	5N01 CB84228-01	107,150
DUPONT, BO.....	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 A182550-03	96,987
FOGH, JORGEN.....	ISOLATE AND TISSUE CULTURE HUMAN TUMOR CELLS.....	2N01 CB43854-07	125,941
HIRSHAUT, YASHAR.....	CANCER IMMUNOTHERAPY.....	2N01 CB53970-05	95,895
LIVINGSTON, PHILIP.....	IN VITRO AUGMENTATION OF CELL MEDIATED CYTOTOXICITY	2N01 CB74130-02	100,683
LLOYD, KENNETH O.....	SEROLOGIC ASSAYS WITH MELANOMA ASSOCIATED ANTIGENS	2N01 CB74127-02	64,114
MOORE, MALCOLM A.....	STUDY MULV INFECTION AND MYELOID CELL DIFFERENTIATION.....	5N01 CP71053-02	163,100
OETTGEN, HERBERT F.....	IMMUNOTHERAPY WITH TUMOR PREPARATIONS IN MAN.....	2N01 CB64062-04	140,633
OETTGEN, HERBERT F.....	IMMUNIZATION WITH BCG AND ALLOGENEIC RENAL CANCER CELLS.....	2N01 CB74145-02	124,382
OLD, LLOYD J.....	STUDY LEUKEMOGENESIS IN THE AKR MOUSE.....	5N01 CP81054-01	242,870
PINSKY, CARL M.....	C. PARVUM AS A THERAPEUTIC ADJUNCT TO BREAST CARCINOMA.....	2N01 CB53873-05	66,247
PINSKY, CARL M.....	BCG IMMUNOTHERAPY—RECURRENT SUPERFICIAL BLADDER CANCER.....	2N01 CB74146-02	31,574
POLLACK, MARILYN.....	REFERENCE HLA LABORATORIES.....	5N01 A182545-03	20,427
PRENSKY, WOLF.....	STRUCTURE-DISTRIBUTION OF ONCORNAVIRUSES.....	5N01 CP71059-02	145,120
ROSEN, PAUL P.....	DISSEMINATED CANCER IN INVASIVE MAMMARY CARCINOMA.....	5N01 CB74097-03	77,467
SARKAR, NURUL H.....	VIRAL INVOLVEMENT OF MAMMARY CARCINOMA.....	3N01 CP61053-05	40,000
SCHWARTZ, MORTON K.....	BIOCHEMICAL ANALYSIS OF HUMAN BREAST CYST FLUID.....	5N01 CB53853-06	8,932
STRONG, ELLIOT W.....	LEVAM AS THERAPEUTIC ADJUNCT IN SQUAMOUS CARCINOMA.....	2N01 CB53875-04	82,120
ORGANIZATION TOTAL	21 2,066,874		
ST. LUKE'S HOSPITAL CENTER ZIP CODE 10025			
KEMP, HARVEY G, JR.....	COLLABORATIVE STUDIES ON CORONARY ARTERY SURGERY	5N01 HV32978-10	92,080
WETHERS, DORIS L.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	2N01 HB73006-04	374,832
ORGANIZATION TOTAL	2 466,912		
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
BROWN, AUDREY K.....	PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA	2N01 HD42819-10	24,031
CARTER, ANNE C.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45139-07	98,370
CRAIG, JOHN P.....	RABBIT SKIN AND MOUSE PROTECTION TESTS	1N01 A192602-00	77,780
FRIEDMAN, ELI A.....	DETERMINE CLINICAL EFFICACY OF OXIDIZED STARCH IN UREMIA.....	3N01 AM42206-07	500
HALPERN, MIMI N.....	MODEL OF NEURONAL DIFFERENTIATION DEVELOPMENT AND AGING.....	5N01 RR82139-01	39,165
PARSA, ISMAIL.....	HISTOCOMPATIBILITY-MATCHING IN RENAL TRANSPLANTATION.....	2N01 A142551-08	30,308
SCHIFFMAN, GERALD.....	OPERATION OF PNEUMOCOCCAL POLYSACCHARIDE REFERENCE LAB.....	3N01 A142541-09	163,184
ORGANIZATION TOTAL	7 433,338		
STELLA AND CHARLES GUTTMAN BREAST DIAGNOSTIC INSTITUTE ZIP CODE 10016			
STRAX, PHILIP.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN55306-10	43,180
ORGANIZATION TOTAL	1 43,180		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
YESHIVA UNIVERSITY ZIP CODE 10033			
BLAUFOX, MORTON D.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	5N01 HV22931-15	591,134
GARTNER, LAWRENCE M.....	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42822-14	38,026
JAFFE, ERNST R.....	EVALUATE RESEARCH NEED IN HEMATOLOGY.....	2N01 AM82219-01	75,000
LILLY, FRANK.....	GENETIC AND IMMUNOLOGIC FACTORS IN VIRAL LEUKEMOGENESIS.....	2N01 CP71017-02	68,575
ROMNEY, SEYMOUR L.....	CORRELATION OF EPIDEMIOLOGIC AND METABOLIC PARAMETERS.....	3N01 CP65788-11	99,863
SHULMAN, KENNETH M.....	ESTABLISH CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	1N01 NS92313-00	328,680
ORGANIZATION TOTAL	6	1,201,278	
ROCHESTER			
AMERICAN ASSOCIATION FOR CANCER EDUCATION ZIP CODE 14642			
BAKEMEIER, RICHARD F.....	EVALUATE EFFECTIVENESS OF CANCER EDUCATION.....	1N01 CO95464-00	100,000
ORGANIZATION TOTAL	1	100,000	
EASTMAN DENTAL CENTER ZIP CODE 14620			
CURZON, MARTIN E.....	STRONTIUM, LITHIUM, & FLUORINE EFFECT ON DENTAL PLAQUE.....	3N01 DE72409-05	106,220
LEVERETT, DENNIS H.....	EFFECT OF TOOTH-CLEANING ON SODIUM FLUORIDE RINSE.....	3N01 DE72407-02	54,098
ORGANIZATION TOTAL	2	160,318	
LITRON LABORATORIES, LTD. ZIP CODE 14620			
TOMETSKO, ANDREW M.....	PREPARE DESOCTAPEPTIDE INSULIN AND CHICKEN INSULIN.....	1N01 AM92205-00	92,983
ORGANIZATION TOTAL	1	92,983	
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
CONDEMI, JOHN J.....	SKIN TESTING WITH PENICILLIN DERIVATIVES IN ADULTS.....	1N01 AI92630-00	68,400
DOTY, ROBERT W.....	STUDY OF FEASIBILITY OF A SENSORY PROSTHESIS.....	2N01 NS02279-12	93,800
DOUGLAS, R GORDON, JR.....	EVALUATE RESPIRATORY VACCINES—CHILDREN & INFANTS.....	3N01 AI22503-16	453,727
FEIBEL, JOHN H.....	COMPREHENSIVE STROKE CENTER.....	5N01 NS82385-03	953,313
HILF, RUSSELL.....	STUDY METHODS TO PREDICT CHEMOTHERAPY SENSITIVITY.....	5N01 CB74204-03	83,700
MAY, ALLYN G.....	HISTOCOMPATIBILITY-MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI22539-14	9,397
WHEELLESS, LEON L, JR.....	STUDY A SLIT-SCAN TECHNIQUE FOR CANCER DETECTION.....	2N01 CB33862-10	450,398
YU, PAUL N.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72966-04	120,850
ORGANIZATION TOTAL	8	2,233,585	
SARANAC LAKE			
TRUDEAU INSTITUTE ZIP CODE 12983			
LEFFORD, MAURICE J.....	MAINTAIN A MYCOBACTERIAL CULTURE COLLECTION.....	3N01 AI52529-05	41,513
ORGANIZATION TOTAL	1	41,513	
STONY BROOK			
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794			
LERNER, RAYMOND C.....	OUTCOME OF PREGNANCY FOLLOWING PREVIOUS INDUCED ABORTION.....	5N01 HD62803-04	29,000
RIPA, LOUIS W.....	EFFICACY OF PRIOR TOOTH-CLEANING ON FLUORIDE TREATMENT.....	1N01 DE92419-00	65,547
ORGANIZATION TOTAL	2	94,547	
SYRACUSE			
BRISTOL-MYERS COMPANY—BRISTOL LABORATORIES ZIP CODE 13201			
BRADNER, WILLIAM T.....	NEW ANTINEOPLASTIC DRUG EVALUATION.....	5N01 CM77147-03	334,000
CLARIDGE, CHARLES A.....	PRODUCTION OF NOVEL ANTINEOPLASTIC COMPOUNDS.....	5N01 CM77138-04	259,986
DOYLE, TERENCE W.....	SYNTHESIS OF POTENTIAL ANTICANCER AGENTS.....	5N01 CM87180-01	226,000
ORGANIZATION TOTAL	3	819,986	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210			
HENRY, JOHN B.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION	2N01 A152513-07	13,780
HOLTZAPPLE, PHILIP G.....	DETERMINE NEOPLASTIC CELL BODY COMPOSITION BY ULTRASOUND.....	3N01 CP85653-04	197,062
SPRING-MILLS, ELINOR J.....	STUDY MORPHOLOGY OF NORMAL/ABNORMAL MAMMARY TISSUE	5N01 CB84239-01	76,000
ORGANIZATION TOTAL 3	286,842		
SYRACUSE UNIVERSITY ZIP CODE 13210			
HENNING, LOIS B.....	STUDY OF SLEEP APNEA: DEVELOPMENTAL CORRELATES.....	1N01 HD92808-00	89,844
ORGANIZATION TOTAL 1	89,844		
VALHALLA			
NEW YORK MEDICAL COLLEGE ZIP CODE 10595			
ROSENKRANZ, HERBERT S.....	MICROBIAL MUTAGENESIS SYSTEM--CARCINOGENESIS SCREENING.....	2N01 CP65855-07	167,816
ROSENKRANZ, HERBERT S.....	STUDIES OF METABOLIC CAPACITY IN INTESTINAL MUCOSA.....	5N01 CP75949-02	89,460
ORGANIZATION TOTAL 2	257,276		
STATE TOTAL 186	28,934,744		
NORTH CAROLINA			
CHAPEL HILL			
NORTH CAROLINA HEART ASSOCIATION ZIP CODE 27514			
HIRSCHAUER, PAUL E.....	COMPREHENSIVE STROKE CENTER.....	5N01 NS82386-01	535,207
ORGANIZATION TOTAL 1	535,207		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514			
COGSWELL, BETTY E.....	ADOLESCENTS' PERSPECTIVES ON THE HEALTH CARE SYSTEM.....	5N01 HD82837-01	108,120
GRISHAM, JOE W.....	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS	5N01 CP55707-05	113,382
HAUGHTON, GEOFFREY.....	GENETIC CONTROL OF SUSCEPTIBILITY TO CANCER	2N01 CB74182-02	82,731
HOLMES, DAVID W.....	COMMUNICATIVE SKILLS IN INFANTILE AUTISM	1N01 NS92305-00	107,615
KAUFMAN, DAVID G.....	STUDIES OF CARCINOGENESIS IN HUMAN TISSUE.....	5N01 CP75956-04	166,748
TURCHI, BOONE A.....	ESTIMATING CHILD-REARING COST IN THE UNITED STATES.....	1N01 HD92824-00	119,553
WALKER, DAVID H.....	ROCKY MOUNTAIN SPOTTED FEVER VACCINE TESTING.....	1N01 A192613-00	102,513
WILLIAMS, DALE.....	STUDY OF HYPERLIPOPROTEINEMIA.....	5N01 HV12243-16	9,336,500
ORGANIZATION TOTAL 8	10,737,162		
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
BOLOGNESI, DANI P.....	RNA TUMOR VIRUS GENOME EXPRESSION IN MALIGNANT CELLS.....	5N01 CP33308-09	595,230
COBB, FREDERICK R.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	1N01 HV92923-00	85,508
CRAPO, JAMES D.....	STUDY RAT LUNGS EXPOSED TO CHRYSOTILE ASBESTOS FIBERS.....	1N01 ES90007-00	75,094
DAWSON, JEFFREY R.....	MOLECULAR STUDIES OF T-CELL MEDIATED CYTOTOXICITY	2N01 CB74152-02	64,083
DEUBNER, DAVID C.....	EPIDEMIOLOGY OF PRE- AND POST-MENOPAUSAL BREAST CANCER.....	2N01 CB63996-04	110,000
GRANT, JOHN P.....	NUTRITIONAL PARAMETERS IN CANCER PATIENTS.....	3N01 CP85656-04	236,650
HEYMAN, ALBERT.....	DEVELOP PILOT STROKE DATA BANK NETWORK CENTER.....	5N01 NS82396-03	104,875
JOHNSON, ARMEAD H.....	NCI HISTOCOMPATIBILITY TESTING CENTER.....	2N01 CB53890-08	264,953
MC CARTY, KENNETH S.....	PREMALIGNANT HUMAN MAMMARY EPITHELIAL HYPERPLASIAS	5N01 CB84223-01	74,100
MC GRATH, DIANE.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55234-09	201,817
NEWELL, JOSEPHINE E.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN45064-06	306,500
REIMER, KEITH A.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	1N01 HV92926-00	58,695
ROSSE, WENDELL F.....	COOPERATIVE STUDY--CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72993-05	432,433
SNYDERMAN, RALPH.....	DIAGNOSTIC APPLICATION OF MONOCYTE FUNCTION IN CANCER.....	2N01 CB74121-02	83,302
SPOCK, ALEXANDER.....	PULMONARY CHANGES IN CYSTIC FIBROSIS.....	5N01 HR82929-01	153,930

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NORTH CAROLINA—Continued			
WELLS, SAMUEL A. JR.....	SCREENING RELATIVES OF PATIENTS WITH MEDULLARY CARCINOMA.....	5N01 CB63994-04	103,893
WILFERT, CATHERINE M.....	EPIDEMIOLOGY OF ROCKY MOUNTAIN SPOTTED FEVER.....	1N01 AI92621-00	102,209
ORGANIZATION TOTAL	17 3,053,272		
GREENSBORO			
AMERICAN TELEPHONE AND TELEGRAPH COMPANY—WESTERN ELECTRIC COMPANY ZIP CODE 27420			
ISLEY, LARRY	UNIX SOURCE LICENSE.....	1N01 LM94717-00	56,000
ORGANIZATION TOTAL	1 56,000		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT GREENSBORO ZIP CODE 27412			
SCANZONI, JOHN	STUDY CONSEQUENCES OF DECIDING TO REMAIN CHILDFREE.....	1N01 HD92805-00	71,425
ORGANIZATION TOTAL	1 71,425		
RESEARCH TRIANGLE PARK			
BECTON, DICKINSON AND COMPANY—RESEARCH CENTER ZIP CODE 27709			
STONE, CONNIE J.....	EFFECT OF EXPOSURE TO AIRBORNE ENVIRONMENTAL AGENTS	3N01 ES42164-14	42,229
ORGANIZATION TOTAL	1 42,229		
RESEARCH TRIANGLE INSTITUTE ZIP CODE 27709			
CARROLL, F I.....	SYNTHESIS OF NEW RETINOIDS	5N01 CP75932-05	125,510
COOK, CLARENCE E.....	PREPARE ANTIOVULATORY AND POSTOVULATORY AGENTS.....	3N01 HD82811-02	185,701
GRIFFITH, JANET D	CONSEQUENCES OF REMAINING CHILDLESS.....	1N01 HD92821-00	199,074
HOLT, M.....	INTERVIEW STUDY OF WOMEN WHO HAD SPONTANEOUS ABORTION	1N01 ES90011-00	26,580
KEPLER, JOHN A	PREPARATION OF RADIOLABELED MATERIALS.....	1N01 CM97313-00	212,570
MARKS, T.....	TERATOGENIC POTENTIAL OF ENVIRONMENTAL AGENTS.....	2N01 ES62127-13	473,422
MOROSOFF, NICHOLAS.....	STUDY ELECTRODELESS GLOW DISCHARGE & POLYMER SURFACES	2N01 HV32913-13	113,141
PITT, COLIN G.....	SYNTHESIS OF IRON CHELATING AGENTS FOR COOLEY'S ANEMIA.....	5N01 AM72231-03	51,116
PITT, COLIN G.....	BIODEGRADABLE POLYMERS AND CONTRACEPTIVE DRUGS	2N01 HD32741-12	306,740
POOLE, KENNETH W.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	2N01 HR62948-06	173,213
POOLE, KENNETH W.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM—DATA CENTER	5N01 HV72979-02	185,670
SCHINDLER, ANTON	DEVELOP AND TEST A PH BARRIER CONTRACEPTIVE DEVICE.....	1N01 HD92845-00	79,828
TAYLOR, HAROLD	PREPARATION OF AQUEOUS PLANT EXTRACTS	1N01 CM97261-00	150,000
WALL, MONROE E.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	3N01 CM67089-07	80,167
WILSON, BLAKE	RECEPTORS MEDIATING EFFECTS OF MICROWAVE RADIATION	1N01 ES90008-00	39,995
ORGANIZATION TOTAL	15 2,402,727		
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—NIEHS ENVIRONMENTAL HEALTH SCIENCES CENTER ZIP CODE 27709			
ADKINS, B.....	TOXICOLOGY OF ENVIRONMENTAL CHEMICALS.....	1N01 ES90009-00	723,759
ORGANIZATION TOTAL	1 723,759		
WINSTON-SALEM			
WAKE FOREST UNIVERSITY ZIP CODE 27109			
BARNES, RALPH W.....	NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	5N01 HV72925-08	231,035
CLARKSON, THOMAS B.....	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS.....	2N01 HV53029-06	395,935
CLARKSON, THOMAS B.....	PRIMATE MODELS OF ATHEROSCLEROSIS AND HYPERTENSION	5N01 HV72978-03	289,583
CLARKSON, THOMAS B.....	DOMESTIC SQUIRREL MONKEY PRODUCTION	5N01 RR52149-06	90,000
HOBAN, JOHN D.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95482-00	104,808
ORGANIZATION TOTAL	5 1,111,361		
STATE TOTAL	50 18,733,142		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OHIO			
BEDFORD			
BEN VENUE LABORATORIES	ZIP CODE 44146		
WICKES, GLENN F.....	DEVELOP AND PRODUCE CLINICAL DOSES OF ANTITUMOR AGENTS	1N01 CM97298-00	1,049,955
ORGANIZATION TOTAL	1 1,049,955		
BOWLING GREEN			
BOWLING GREEN STATE UNIVERSITY	ZIP CODE 43404		
GROAT, THEODORE H	CONSEQUENCES IN EARLY LIFE—ONLY CHILD VS SIBLING CHILD.....	1N01 HD92806-00	68,803
WOODRUFF, RONNY C	DROSOPHILA MUTAGENESIS TESTING.....	1N01 ES90016-00	108,148
ORGANIZATION TOTAL	2 176,951		
CINCINNATI			
CHRIST HOSPITAL	ZIP CODE 45219		
PONS, MARCEL W.....	A STUDY OF CELL SUBSTRATES FOR INFLUENZA VIRUSES.....	1N01 AI92627-00	50,597
ORGANIZATION TOTAL	1 50,597		
UNIVERSITY OF CINCINNATI	ZIP CODE 45221		
BUNCHER, CHARLES R.....	STATISTICAL SURVEILLANCE OF LUNG CANCER PROJECTS.....	5N01 CB43868-08	199,878
FOWLER, NOBLE.....	CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52930-05	88,334
GLUECK, CHARLES J.....	SUPPORT FOR LIPID RESEARCH CLINIC	2N01 HV22914-10	1,134,000
MOSKOWITZ, MYRON.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN55310-10	110,937
OLINGER, CHARLES P.....	NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	3N01 HV72924-08	3,276
SHUMRICK, DONALD A	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	3N01 CM87222-01	51,893
SUTHERLAND, JAMES M.....	PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA	2N01 HD42818-12	10,799
ORGANIZATION TOTAL	7 1,599,117		
CLEVELAND			
CASE WESTERN RESERVE UNIVERSITY	ZIP CODE 44106		
CAPLAN, ARNOLD I.....	PREPARE CULTURES OF EMBRYONIC CHICK LIMB CHONDROCYTES.....	3N01 DE72403-02	28,193
DEARBORN, DORR G	CYSTIC FIBROSIS FACTOR IDENTIFICATION & QUANTIFICATION.....	5N01 HR72920-02	94,235
HOPFINGER, ANTON J.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS	5N01 CP75927-02	119,185
HUBAY, CHARLES A	THERAPY OF CARCINOMA OF BREAST	3N01 CB43990-12	209,500
MORTIMER, J THOMAS.....	INTRAMUSCULAR ELECTRICAL STIMULATION OF SKELETAL MUSCLE.....	2N01 NS22314-08	265,380
SPECK, WILLIAM T.....	MICROBIAL MUTAGENESIS TESTING	5N01 ES92136-02	193,871
ORGANIZATION TOTAL	6 910,364		
CLEVELAND CLINIC HOSPITAL	ZIP CODE 44106		
BRAUN, WILLIAM E.....	HISTOCOMPATIBILITY-MATCHING IN RENAL TRANSPLANTATION.....	2N01 AI22536-09	18,420
BRAUN, WILLIAM E.....	REFERENCE HLA LABORATORIES	5N01 AI82544-03	12,309
BRAUN, WILLIAM E.....	PROCURE HLA-A, B AND C LOC1 AND B CELL ANTISERA.....	5N01 AI82555-04	49,173
NOSE, YUKIHIKO.....	DEVELOPMENT AND EVALUATION OF CARDIAC PROSTHESES	5N01 HV42960-08	321,636
ORGANIZATION TOTAL	4 401,538		
COLUMBUS			
AMERICAN CHEMICAL SOCIETY—CHEMICAL ABSTRACTS SERVICE	ZIP CODE 43202		
ALLERTON, JACK.....	CHEMICAL ABSTRACTS SERVICE	1N01 LM94721-00	13,952
TATE, FRED A	DRUG RES. DEVELOPMENT OF CHEMICAL INFORMATION SYST.....	2N01 CM43722-10	449,750
ORGANIZATION TOTAL	2 463,702		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OHIO—Continued			
BATTELLE MEMORIAL INSTITUTE ZIP CODE 43201			
FOLK, ROGER M.....	PROTOCOL TOXICOLOGY STUDIES—PRIME CONTRACTOR.....	5N01 CM43746-36	4,667,744
HOUCHENS, DAVID P.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY.....	5N01 CM57005-08	841,000
OVEJERA, ARTEMIO.....	SCREENING COMPOUNDS USING HUMAN TUMORS IN ATHYMIC MICE.....	2N01 CM67099-06	472,320
PETERS, ARTHUR C.....	CARCINOGENICITY AND TOXICITY OF ENVIRONMENTAL CHEMICALS.....	5N01 ES82151-01	918,716
SIMON, RICHARD.....	DEVELOP AND IMPLEMENT THE LABORATORY ANIMAL DATA BANK.....	2N01 LM54747-20	299,450
SIMON, RICHARD.....	DEVELOPMENT OF THE LABORATORY ANIMAL DATA BANK.....	1N01 LM94705-00	630,530
ORGANIZATION TOTAL	6	7,829,760	
NORTH AMERICAN PHILIPS CORPORATION—PHILIPS ROXANE LABORATORIES ZIP CODE 43215			
LA ROWE, LOUIS.....	DEVELOPMENT AND PRODUCTION OF SOLID ORAL DOSE FORMS.....	2N01 CM67053-06	99,480
ORGANIZATION TOTAL	1	99,480	
OHIO STATE UNIVERSITY ZIP CODE 43210			
BALCERZAK, STANLEY P.....	DEVELOP EFFECTIVE THERAPY FOR SICKLE CELL DISEASE.....	2N01 HB22922-12	67,013
GLASER, RONALD.....	EPSTEIN-BARR VIRUS AND NASOPHARYNGEAL CARCINOMA.....	3N01 CP81021-02	162,110
HART, RONALD W.....	ASSAY FOR GENETIC DAMAGE TO MAMMARY GLAND CELLS.....	5N01 CB84226-02	127,800
HUNT, WILLIAM E.....	THERAPY OF PATIENTS WITH BRAIN TUMORS.....	5N01 CM67060-05	54,257
MALSPEIS, LOUIS.....	CLINICAL PHARMACOLOGY OF POTENTIAL ANTICANCER AGENTS.....	2N01 CM53828-05	30,000
MALSPEIS, LOUIS.....	STUDY OF PHARMACOKINETICS OF ANTICANCER DRUGS.....	5N01 CM87161-01	102,158
MALSPEIS, LOUIS.....	DISPOSITION AND METABOLISM OF ANTINEOPLASTIC AGENTS.....	1N01 CM97264-00	99,678
OLSEN, RICHARD G.....	ANTIGENICITY OF PRECANCEROUS LESIONS IN ANIMAL MODELS.....	2N01 CB74159-03	78,925
OLSEN, RICHARD G.....	IMMUNOPREVENTION OF CANCER.....	1N01 CP91008-00	192,716
SPRECHER, HOWARD W.....	DEVELOPMENT OF PROSTAGLANDIN SYSTEM ANTAGONISTS.....	5N01 HV82930-01	70,025
YOHN, DAVID S.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN85398-02	194,855
ORGANIZATION TOTAL	11	1,179,537	
DAYTON			
MONSANTO COMPANY—DAYTON LABORATORY ZIP CODE 45407			
ELLARD, JAMES A.....	PRODUCTION OF BULK CHEMICALS AND DRUGS.....	3N01 CM67046-08	176,134
ELLARD, JAMES A.....	PREPARATION OF BULK CHEMICAL AND DRUGS.....	1N01 CM97255-00	705,790
MC MILLIN, CARL R.....	TEST POLYMERS FOR CIRCULATORY ASSIST DEVICES.....	5N01 HV72918-02	126,441
ORGANIZATION TOTAL	3	1,008,365	
WRIGHT STATE UNIVERSITY ZIP CODE 45431			
KEZDI, PAUL.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE.....	5N01 HV33108-07	493,999
ORGANIZATION TOTAL	1	493,999	
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43614			
SOLOFF, MELVYN S.....	IDENTIFICATION OF MAMMARY TISSUE.....	2N01 CB63983-03	78,600
ORGANIZATION TOTAL	1	78,600	
STATE TOTAL	46	15,341,965	
OKLAHOMA			
ADA			
VALLEY VIEW HOSPITAL ZIP CODE 74820			
MORGAN, JERRY S.....	CLINICAL ONCOLOGY PROGRAM.....	5N01 CN85413-03	313,210
ORGANIZATION TOTAL	1	313,210	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OKLAHOMA—Continued			
OKLAHOMA CITY			
OKLAHOMA MEDICAL RESEARCH FOUNDATION ZIP CODE 73104			
ANDERSON, PAUL S. JR.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45137-07	165,498
BRADFORD, REAGAN H.....	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV22932-11	894,400
ORGANIZATION TOTAL 2	1,059,898		
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190			
HABERMAN, JO ANN D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN55309-06	133,218
LEVIN, DAVID C.....	STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING	5N01 HR72903-07	287,427
OLEINICK, SAMUEL R.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION	2N01 AI52512-08	1,000
RENNERT, OWEN M.....	CYSTIC FIBROSIS FACTOR IDENTIFICATION & QUANTIFICATION	5N01 HR72923-02	83,700
ORGANIZATION TOTAL 4	505,345		
STILLWATER			
OKLAHOMA STATE UNIVERSITY AT STILLWATER ZIP CODE 74074			
EISENBRAUN, EDMUND J.....	SYNTHESIS OF ANTIFERTILITY COMPOUNDS	2N01 HD42846-09	33,420
ORGANIZATION TOTAL 1	33,420		
STATE TOTAL 8	1,911,873		
OREGON			
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY ZIP CODE 97331			
SINNHUBER, RUSSELL O.....	STUDIES OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS	5N01 CP85660-01	43,151
ORGANIZATION TOTAL 1	43,151		
PORTLAND			
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER ZIP CODE 97210			
CHENOWETH, R G.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY62141-05	75,406
GOODMAN, MORTON J.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN45088-09	236,925
KLEIN, MICHAEL L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72144-03	28,374
SCHIMSCHOCK, JAMES R.....	A COMPREHENSIVE EPILEPSY PROGRAM	3N01 NS52328-10	866,000
ORGANIZATION TOTAL 4	1,206,705		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 97215			
GLASS, ANDREW G.....	STUDY ENVIRONMENTAL CANCER—PREPAID HEALTH PLAN.....	2N01 CP81046-01	196,298
ORGANIZATION TOTAL 1	196,298		
MEDICAL RESEARCH FOUNDATION OF OREGON ZIP CODE 97225			
ALEXANDER, NANCY J.....	LONG-TERM EFFECTS OF VASECTOMY	2N01 HD42866-10	27,758
ALEXANDER, NANCY J.....	EFFECT OF BILATERAL VASECTOMY ON ATHEROSCLEROSIS	5N01 HD82827-01	115,529
ORGANIZATION TOTAL 2	143,287		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201			
GOODNIGHT, SCOTT H.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY	3N01 HB53024-06	27,245
LYNN, ROBERT K.....	ANALYZE PCB'S AND DDE IN HUMAN FLUIDS AND TISSUE	5N01 ES72126-03	176,280
PRESCOTT, GERALD H.....	COORDINATION OF REGIONAL CYTOGENETIC REGISTRIES.....	2N01 HD32713-14	242,853
YATSU, FRANK M.....	COMPREHENSIVE STROKE CENTER	5N01 NS82387-01	752,387
ORGANIZATION TOTAL 4	1,198,765		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OREGON—Continued			
PROVIDENCE MEDICAL CENTER	ZIP CODE 97213		
MAURICE, GORDON L	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72965-05	188,642
ORGANIZATION TOTAL	1 188,642		
STATE TOTAL	13 2,976,848		
PENNSYLVANIA			
ALLENTOWN			
ALLENTOWN HOSPITAL ASSOCIATION	ZIP CODE 18102		
PRAGER, DAVID	CLINICAL ONCOLOGY PROGRAM	2N01 CN75394-04	260,762
ORGANIZATION TOTAL	1 260,762		
DANVILLE			
INSTITUTE FOR MEDICAL EDUCATION AND RESEARCH	ZIP CODE 17021		
LAUBACH, CHARLES A	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52920-05	82,722
LAUBACH, CHARLES A	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82903-03	68,955
ORGANIZATION TOTAL	2 151,677		
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER	ZIP CODE 17033		
BARDIN, C WAYNE	COMPARATIVE STUDY OF PROGESTIN METABOLISM	3N01 HD22730-16	30,463
BARTLETT, GERALD L	STUDY OF CANCER IMMUNOTHERAPY	2N01 CB33891-07	231,492
BARTLETT, GERALD L	IMMUNOGENICITY OF 'SPONTANEOUS' ANIMAL TUMORS	2N01 CB64039-03	81,649
EYSTER, M ELAINE	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY	3N01 HB53021-07	20,000
KREIDER, JOHN W	IMMUNOPREVENTION OF TUMORS IN RABBITS	2N01 CB74158-03	110,822
NAEYE, RICHARD L	ANALYSIS OF GENERAL AND PLACENTAL PATHOLOGY DATA	3N01 NS72376-02	17,000
RAPP, FRED	ONCOGENIC POTENTIAL OF DEFECTIVE HUMAN VIRUSES	2N01 CP53516-07	499,790
RAPP, FRED	IN VITRO MALIGNANT TRANSFORMATION	2N01 CP61063-03	40,000
SANTEN, RICHARD J	SUPPRESSION OF ENDOCRINE FUNCTION IN HUMAN BREAST CANCER	2N01 CB53851-06	180,000
ORGANIZATION TOTAL	9 1,211,216		
PHILADELPHIA			
ALBERT EINSTEIN MEDICAL CENTER	ZIP CODE 19141		
ISARD, HAROLD J	PROGRAM FOR DETECTING CANCER OF THE BREAST	2N01 CN45058-06	189,663
ORGANIZATION TOTAL	1 189,663		
AMERICAN COLLEGE OF RADIOLOGY—RADIATION ONCOLOGY STUDY CENTER	ZIP CODE 19107		
DAVIS, LAWRENCE W	REGISTRY OF RADIATION THERAPY COMPLICATIONS	5N01 CM87175-01	127,409
KRAMER, SIMON	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	3N01 CM87219-02	223,406
KRAMER, SIMON	CANCER CONTROL PROGRAM—RADIATION THERAPY GROUP	3N01 CN75355-03	277,905
ORGANIZATION TOTAL	3 628,720		
BIOLOGICAL ABSTRACTS	ZIP CODE 19103		
SCHULTZ, LOUISE	TOXLINE COMPONENT	1N01 LM94700-00	31,340
ORGANIZATION TOTAL	1 31,340		
BOOZ, ALLEN AND HAMILTON—NATIONAL ANALYSTS	ZIP CODE 19106		
ROTHSCHILD, BETH B	INCIDENCE, PREVALENCE AND COSTS OF MULTIPLE SCLEROSIS	3N01 NS42335-09	95,961
ORGANIZATION TOTAL	1 95,961		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
CENTER FOR RESEARCH ON THE ACTS OF MAN ZIP CODE 19104			
FURSTENBERG, FRANK F. JR.....	STUDY OF EARLY CHILDBEARING AND KINSHIP RELATIONS	2N01 HD72822-02	5,758
ORGANIZATION TOTAL	1	5,758	
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104			
GILL, FRANCES M.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72997-07	268,784
HENLE, GERTRUDE.....	PROPAGATION AND SEROEPIDEMIOLOGY OF EB VIRUS.....	2N01 CP33272-09	207,400
MEADOWS, ANNA T.....	STUDY ONCOGENESIS AND LATE EFFECTS OF CANCER THERAPY	1N01 CP91049-00	230,014
ORGANIZATION TOTAL	3	706,198	
COLLEGE OF PHYSICIANS OF PHILADELPHIA ZIP CODE 19103			
FULTON, JUNE.....	REGIONAL MEDICAL LIBRARY SERVICES—REGION III.....	3N01 LM64723-09	313,580
ORGANIZATION TOTAL	1	313,580	
FOX CHASE CANCER CENTER ZIP CODE 19111			
GOODMAN, ROBERT.....	CLINICAL NEUTRON THERAPY PROGRAM.....	1N01 CM97314-00	415,903
ORGANIZATION TOTAL	1	415,903	
FRANKLIN INSTITUTE OF THE STATE OF PENNSYLVANIA ZIP CODE 19103			
CAMPBELL, GRAHAM L.....	REFERENCE SUPPORT SERVICE	1N01 CP95620-00	22,600
CRAIG, PAUL N.....	ESTIMATING TOXICOLOGIC ENDPOINTS OF CHEMICALS	3N01 CP85632-04	24,009
EPSTEIN, BERNIE.....	OPERATIONS SUPPORT FOR EXTERNAL PROGRAMS.....	1N01 CP95613-00	2,000
KLEINSTEIN, BRUCE H.....	INDEXING OF CANCER-RELATED LITERATURE	3N01 C075387-09	1,794,252
KLEINSTEIN, BRUCE H.....	SURVEY COMPOUNDS TESTED FOR CARCINOGENICITY.....	3N01 CP85644-02	10,864
NOT AVAILABLE.....	INDEX JOURNAL ARTICLES OF THE BIOMEDICAL SCIENCES.....	2N01 LM84700-02	115,000
VILLAUME, JON E.....	LITERATURE SURVEY—TOLERATED DOSE/CARCINOGEN BIOASSAYS	1N01 CP95614-00	4,305
ORGANIZATION TOTAL	7	1,973,030	
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102			
ANGELAKOS, EVANGELOS T.....	NONHUMAN PRIMATE MODELS OF ARTERIOSCLEROSIS.....	2N01 HV62905-05	299,386
BRADY, LUTHER W.....	NETWORK DEMONSTRATION PROJECT IN HEAD AND NECK CANCER	5N01 CN55255-06	200,431
MOORE, DAN H.....	MAMMARY TUMOR VIRUSES STUDIES	2N01 CP81007-01	58,290
ORGANIZATION TOTAL	3	558,107	
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111			
DONALDSON, MILTON H.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55237-08	238,760
ENGSTROM, PAUL F.....	PROTOTYPE NETWORK DEMONSTRATION PROJECT IN BREAST CANCER.....	2N01 CN45055-06	71,385
ORGANIZATION TOTAL	2	310,145	
INSTITUTE FOR SCIENTIFIC INFORMATION ZIP CODE 19106			
SMALL, HENRY G.....	BIBLIOMETRIC ANALYSIS OF SCIENTIFIC DISCOVERIES.....	3N01 GM82126-01	5,377
ORGANIZATION TOTAL	1	5,377	
LANKENAU HOSPITAL ZIP CODE 19151			
DREIFUS, LEONARD S.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52938-04	80,630
HOLMES, WILLIAM L.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	5N01 HV33110-06	74,939
HOLMES, WILLIAM L.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72958-03	107,645
ORGANIZATION TOTAL	3	263,214	
PHILADELPHIA GERIATRIC CENTER ZIP CODE 19141			
ALTSCHULER, HENRY.....	COLLECTION OF SERA FROM HIGH-CANCER-RISK POPULATIONS.....	2N01 CB33914-05	62,789
ORGANIZATION TOTAL	1	62,789	
PHILADELPHIA HEALTH MANAGEMENT CORPORATION ZIP CODE 19106			
FLAHERTY, EUGENIE W.....	PSYCHOLOGICAL FACTORS IN FERTILITY REGULATION	5N01 HD82833-01	115,055
ORGANIZATION TOTAL	1	115,055	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
TEMPLE UNIVERSITY ZIP CODE 19122			
FORBES, PAUL D.....	HAIRLESS MICE FOR UV CARCINOGENESIS STUDIES.....	5N01 CP85603-03	298,872
ORGANIZATION TOTAL	1	298,872	
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107			
GOLDBERG, BARRY B.....	USE OF ULTRASOUND IN DIAGNOSIS OF BREAST CANCER.....	3N01 CB84273-02	247,000
LEWIS, GEORGE C, JR.....	CANCER CONTROL PROGRAM—GYNECOLOGIC ONCOLOGY GROUP	3N01 CN75338-04	148,142
MARGOLIS, CLORINDA	PAIN CONTROL IN CANCER	1N01 CN95488-00	239,117
SHAPIRO, SANDOR S.....	FACTOR VIII INHIBITOR IN HEMOPHILIACS—COOPERATIVE STUDY	3N01 HB53018-05	31,159
SHAPIRO, SANDOR S.....	FACTOR VIII INHIBITORS IN HEMOPHILIA	2N01 HB53035-05	183,000
ORGANIZATION TOTAL	5	848,418	
UNIVERSITY CITY SCIENCE CENTER ZIP CODE 19104			
FORADORI, GEORGE T.....	DATA MANAGEMENT CENTER FOR BREAST CANCER DETECTION	3N01 CN65376-11	38,260
FORADORI, GEORGE T.....	DATA ANALYSIS FOR BREAST CANCER DETECTION PROJECT	1N01 CN95444-00	844,281
ORGANIZATION TOTAL	2	882,541	
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19174			
CLARK, WALLACE H, JR.....	SPECIAL PROJECTS IN HEREDITARY CUTANEOUS MELANOMA	1N01 CP91047-00	98,000
KENYON, SIMON J.....	IMMUNOPROPHYLAXIS OF BOVINE LYMPHOSARCOMA	2N01 CB84243-01	151,988
LEBOY, PHOEBE S.....	METHYLATION OF tRNA IN NORMAL NEOPLASTIC MAMMARY TISSUE	5N01 CB74108-02	99,800
MULLEN, JAMES L.....	WHOLE BODY IMPEDENCE TO PREDICT TOTAL BODY WATER.....	5N01 CP85654-02	71,629
MULLEN, JAMES L.....	CHANGES IN BODY COMPOSITION IN CANCER PATIENTS.....	5N01 CP85658-02	293,266
NICOLAOU, KYRIACOS C.....	DEVELOPMENT OF PROSTAGLANDIN SYSTEM ANTAGONIST.....	5N01 HV82931-01	119,682
SCHWARTZMAN, ROBERT M.....	ANIMAL COLONY FOR ALLERGY STUDIES.....	5N01 AI72537-05	151,478
TSOU, KWAN C.....	5'-NUCLEOTIDE PHOSPHODIESTERASE SERUM ISOZYME TEST	3N01 CB64029-05	80,613
YANKELL, SAMUEL L.....	ANTIPLAQUES/FOOD ADDITIVES/OTHER AGENTS—ANTICARIES.....	3N01 DE52484-04	2,494
ORGANIZATION TOTAL	9	1,068,950	
WILLS EYE HOSPITAL ZIP CODE 19130			
FEDERMAN, JAY L.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY62144-05	64,795
FEDERMAN, JAY L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72150-05	56,103
TASMAN, WILLIAM S.....	STUDY OF DIABETIC RETINOPATHY.....	3N01 EY32119-09	10,102
ORGANIZATION TOTAL	3	131,000	
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION—ALLEGHENY-SINGER RESEARCH CORPORATION ZIP CODE 15212			
SCHIFFER, LEWIS M.....	STUDY METHODS TO PREDICT CHEMOTHERAPY SENSITIVITY	5N01 CB74083-03	115,000
SHRIVASTAVA, P N.....	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	2N01 CN45148-09	132,258
ORGANIZATION TOTAL	2	247,258	
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
BERRY, GUY C.....	MODIFICATION OF SILICONE ELASTOMERS FOR MEDICAL DEVICES.....	2N01 HV32949-12	62,118
OLSON, KENNETH B.....	EFFECT OF REGULATION ON CANCER TREATMENT RESEARCH	5N01 CM87173-02	100,000
ORGANIZATION TOTAL	2	162,118	
CHILDREN'S HOSPITAL OF PITTSBURGH ZIP CODE 15213			
BLUESTONE, CHARLES D.....	EVALUATE DECONGESTANT THERAPY—EFFUSED OTITIS MEDIA	5N01 NS82384-03	221,294
ORGANIZATION TOTAL	1	221,294	
MONTEFIORE HOSPITAL ZIP CODE 15213			
YAO, SHANG J.....	OXOLATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT.....	1N01 AM92211-00	53,999
ORGANIZATION TOTAL	1	53,999	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
DETRE, KATHERINE M.....	COORDINATING CENTER—CORONARY INTERVENTION STUDY.....	3N01 H172947-05	101,209
FISHER, BERNARD	PRIMARY BREAST CANCER THERAPY GROUP.....	3N01 CB23876-12	1,052,000
FISHER, BERNARD	THERAPY OF PATIENTS WITH COLORECTAL CANCER.....	3N01 CM77177-07	595,000
FISHER, BERNARD	SCREENING FOR EARLY DETECTION OF CANCER OF THE BREAST.....	2N01 CN45065-08	384,179
FISHER, BERNARD	NATIONAL SURGICAL ADJUVANT BREAST PROJECT.....	5N01 CN85335-01	631,555
GRIECO, PAUL A.....	LUTEOLYTIC AGENTS—C-12 SUBSTITUTED ANALOGS PGF2ALPHA.....	3N01 HD62852-04	3,290
GRIECO, PAUL A.....	SYNTHESIS AND BIOLOGICAL EVALUATION OF LUTEOLYTIC AGENTS.....	5N01 HD82809-02	71,812
KULLER, LEWIS H.....	SUPPORT FOR CLINICAL CENTER FOR CORONARY HEART DISEASE.....	3N01 HV33109-08	64,452
OLSON, RICHARD K.....	DEVELOP PORTABLE OPEN-LOOP DEVICES FOR DIABETES.....	1N01 AM92202-00	98,786
PECKHAM, WILLIAM D.....	DEVELOPMENT OF RADIOIMMUNOASSAY FOR RHESUS MONKEY LH.....	2N01 HD72829-03	91,664
ORGANIZATION TOTAL	10	3,093,947	
UNIVERSITY PARK			
PENNSYLVANIA STATE UNIVERSITY ZIP CODE 16802			
DE JONG, GORDON F.....	CHILDLESSNESS AND THE ONE-CHILD FAMILY.....	1N01 HD92807-00	59,812
JURS, PETER C.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS.....	5N01 CP75926-02	61,628
ORGANIZATION TOTAL	2	121,440	
WARMINSTER			
PINKERTON COMPUTER CONSULTANTS ZIP CODE 18974			
CLAGUE, DENNIS.....	NINCD5 PROGRAM INFORMATION SYSTEM.....	1N01 NS92317-00	114,561
ORGANIZATION TOTAL	1	114,561	
WARRINGTON			
POLYSCIENCES, INC. ZIP CODE 18976			
BOETTNER, FRED.....	LARGE SCALE EXTRACTION AND ISOLATION OF PLANT PRODUCTS.....	5N01 CM77070-03	270,096
ORGANIZATION TOTAL	1	270,096	
STATE TOTAL	82	14,812,989	
RHODE ISLAND			
PROVIDENCE			
BROWN UNIVERSITY ZIP CODE 02912			
ZIMMER, BASIL G.....	ANALYZE THE IMPACT OF CHILD-BEARING AND SPACING PATTERNS.....	2N01 HD52835-03	12,535
ZIMMERING, STANLEY.....	DROSOPHILA MUTAGENESIS TESTING.....	1N01 ES90015-00	110,860
ORGANIZATION TOTAL	2	123,395	
RHODE ISLAND HOSPITAL ZIP CODE 02902			
CAPONE, ROBERT J.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV82908-05	163,496
CONSTANTINE, HERBERT P.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN45096-09	208,876
ORGANIZATION TOTAL	2	372,372	
STATE TOTAL	4	495,767	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
SOUTH CAROLINA			
CHARLESTON			
MEDICAL UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29401			
GAZES, PETER C.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82909-03	109,281
KNAPP, DANIEL R.....	GAS CHROMATOGRAPH-MASS SPECTROMETRY RESOURCE.....	3N01 RR82112-01	7,276
REIGART, J R.....	LEAD INDUCED PROTOPORHYRINEMIA.....	1N01 ES90010-00	86,750
ORGANIZATION TOTAL	3 203,307		
COLUMBIA			
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL ZIP CODE 29201			
MC CALLUM, DAVID B.....	STATE-WIDE COORDINATION OF HIGH BLOOD PRESSURE CONTROL.....	5N01 HV72987-03	792,560
ORGANIZATION TOTAL	1 792,560		
UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29208			
GIESE, WARREN K.....	CORONARY HEART DISEASE RISK FACTOR INTERVENTION	5N01 HV42932-06	446,068
ORGANIZATION TOTAL	1 446,068		
STATE TOTAL	5 1,441,935		
TENNESSEE			
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101			
HINSHAW, VIRGINIA.....	SURVEILLANCE AND ECOLOGY OF ANIMAL INFLUENZA	5N01 AI52524-08	178,530
WELCH, ARNOLD D.....	SYNTHESIZE POTENTIAL INHIBITORS OF PYRIMIDINES.....	3N01 CM77127-03	40,000
ORGANIZATION TOTAL	2 218,530		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163			
KORONES, SHELDON B.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62953-09	483,316
KRAUS, ALFRED P.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72995-05	373,098
ROBERTSON, JAMES T.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	5N01 CM57021-08	120,038
ROBERTSON, JAMES T.....	NUTRITIONAL REQUIREMENTS OF HOST AND TUMOR	3N01 CP65786-07	31,806
ORGANIZATION TOTAL	4 1,008,258		
NASHVILLE			
VANDERBILT UNIVERSITY ZIP CODE 37240			
INGRAM, M DEE, JR.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55099-06	253,413
KARZON, DAVID T.....	RESPIRATORY VACCINES IN CHILDREN AND INFANTS.....	5N01 AI22507-21	392,067
OLDHAM, ROBERT K.....	PURIFICATION OF BREAST TUMOR ASSOCIATED ANTIGENS.....	2N01 CB74162-02	110,746
OLDHAM, ROBERT K.....	NORMAL CELL MEDIATED REACTIVITY TO HUMAN TUMOR ANTIGENS.....	2N01 CB74166-02	77,331
OLDHAM, ROBERT K.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER	5N01 CM77122-04	148,263
PAGE, DAVID L.....	RISK IN DIAGNOSIS OF NONINVASIVE MAMMARY CARCINOMA.....	5N01 CB74098-02	109,200
RABIN, DAVID.....	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS	1N01 HD92843-00	152,975
ORGANIZATION TOTAL	7 1,243,995		
STATE TOTAL	13 2,470,783		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
TEXAS			
AUSTIN			
RADIAN CORPORATION	ZIP CODE 78758		
KEITH, LAURENCE H.....	CHEMICAL SERVICES SUPPORT FOR CARCINOGENESIS TESTING.....	1N01 CP95649-00	88,295
KEITH, LAURENCE H.....	CHEMICAL REPOSITORY FOR MUTAGENICITY SCREENING	5N01 ES82144-04	183,352
ORGANIZATION TOTAL	2 271,647		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN	ZIP CODE 78712		
FALBO, TONI.....	STUDY CONSEQUENCES OF BEING & HAVING AN ONLY CHILD.....	1N01 HD92830-00	134,575
FOLKERS, KARL.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	5N01 HD82820-03	212,122
GROTEVANT, HAROLD D.....	SKILLS AND EGO IDENTITY IN ADOLESCENTS.....	1N01 HD92819-00	79,380
POPOVICH, ROBERT P.....	DEVELOPMENT OF LOW DIALYSIS CLEARANCE HYPOTHESIS	3N01 AM62211-05	70,199
POSTON, DUDLEY L, JR.....	CHILDLESSNESS AND STATUS ATTAINMENT.....	1N01 HD92804-00	40,974
ORGANIZATION TOTAL	5 537,250		
COLLEGE STATION			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS AGRICULTURAL AND MECHANICAL UNIV	ZIP CODE 77843		
MARTELL, ARTHUR E.....	DEVELOPMENT OF IRON CHELATORS FOR COOLEY'S ANEMIA.....	5N01 AM72232-02	50,775
WOMACK, JAMES E.....	MAPPING OF THE AH LOCUS IN THE MOUSE.....	1N01 HD92839-00	19,840
ORGANIZATION TOTAL	2 70,615		
DALLAS			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS	ZIP CODE 75235		
MILLER, JEAN.....	REGIONAL MEDICAL LIBRARY PROGRAM.....	3N01 LM54705-12	332,909
ROSENBERG, ROGER N.....	BIOLOGICAL SYSTEMS FOR EVALUATION OF ANTITUMOR AGENTS.....	5N01 CM53767-06	80,140
STASTNY, PETER.....	EVALUATION OF HISTOCOMPATIBILITY-MATCHING.....	2N01 AI22531-10	25,456
UNGER, ROGER H.....	HUMAN DIABETES PROGRAM	2N01 AM62219-08	1,065,460
WILLERSON, JAMES T.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM/CLINICAL TESTS.....	5N01 HV72942-03	375,899
WILSON, JAMES E.....	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM	1N01 HR92903-00	124,485
ORGANIZATION TOTAL	6 2,004,349		
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON	ZIP CODE 77550		
BAILEY, BYRON J.....	CHEMOTHERAPY TRIAL IN HEAD AND NECK SQUAMOUS CARCINOMA.....	3N01 CM87221-02	82,779
BOWMAN, BARBARA H.....	CYSTIC FIBROSIS FACTOR IDENTIFICATION & QUANTIFICATION.....	5N01 HR72922-02	13,500
GROSSMAN, ROBERT G.....	COMPREHENSIVE CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	3N01 NS72372-03	16,310
GROSSMAN, ROBERT G.....	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92308-01	228,501
GROSSMAN, ROBERT G.....	CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	3N01 NS92314-01	547,359
PETERSON, JOHNNY W.....	STUDY OF CHOLERA TOXOIDS IN HUMAN VOLUNTEERS.....	2N01 AI02101-11	13,536
POWELL, GERALDINE K.....	DEVELOPMENT OF FOOD ALLERGY IN CHILDREN	1N01 HD92834-00	282,564
ORGANIZATION TOTAL	7 1,184,549		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE	ZIP CODE 77025		
BUTEL, JANET S.....	EFFECT OF ENVIRONMENTAL FACTORS ON MMTV EXPRESSION	5N01 CP81006-01	143,000
BUTEL, JANET S.....	MUMTV EXPRESSION IN MOUSE MAMMARY PRENEOPLASTIC TISSUES	1N01 CP91020-00	160,261
COUCH, ROBERT B.....	INFLUENZA RESEARCH CENTER	1N01 AI92611-00	950,000
HOLLINGER, F BLAINE.....	STUDIES WITH HEPATITIS B VACCINE	1N01 AI92609-00	157,845
HOLLINGER, F BLAINE.....	DEVELOP SENSITIVE METHODS TO DETECT HEPATITIS TYPE C.....	1N01 HB92918-00	173,422
INGERSOLL, RALPH.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95477-00	148,722
INSULL, WILLIAM, JR.....	SUPPORT FOR LIPID RESEARCH CLINIC	2N01 HV12156-11	1,009,550

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director		Purpose of contract	Contract No.	Dollars
TEXAS—Continued				
KAUFMAN, RAYMOND H.....		ESTROGENS & GENITAL ANOMALIES & CANCER IN OFFSPRING.....	5N01 CN45092-09	600,556
KIT, SAUL.....		HERPES SIMPLEX VIRUS THYMIDINE KINASE GENE.....	5N01 CP71058-02	91,940
MELNICK, JOSEPH L.....		STUDY THE POSSIBLE VIRAL ETIOLOGY OF HUMAN MALIGNANCIES.....	2N01 CP53526-07	185,790
MILLER, RICHARD R.....		CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV82900-05	126,119
NELSON, THOMAS E.....		CYSTIC FIBROSIS FACTOR IDENTIFICATION & QUANTIFICATION.....	5N01 HR72921-02	77,320
NICHOLS, BUFORD L.....		HUMAN MILK BANK RESEARCH AND DISTRIBUTION CENTER.....	2N01 HD82828-04	299,662
PEAVY, DUANE L.....		APHTHOUS STOMATITIS AND BEHCET'S SYNDROME.....	3N01 DE72400-02	69,412
ROSEN, JEFFREY M.....		ESTROGEN/PROGESTIN EFFECTS ON BREAST IN NEONATAL PERIOD.....	2N01 CB74189-02	74,200
ROUSH, ROBERT E, JR.....		DEVELOP COURSE ON CANCER PREVENTION.....	1N01 CN95479-00	199,257
SOCHER, SUSAN H.....		REGULATION OF GENE EXPRESSION IN MOUSE MAMMARY CANCER.....	5N01 CP43385-06	125,054
STEVENS, PAUL M.....		STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING.....	5N01 HR72905-05	282,337
ORGANIZATION TOTAL	18	4,874,447		
METHODIST HOSPITAL ZIP CODE 77030				
KELLAWAY, PETER A.....		CLINICAL QUANTIFICATIONS & TREATMENT OF INFANTILE SPASMS.....	3N01 NS62342-07	5,400
KELLAWAY, PETER A.....		IDENTIFY AND QUANTIFY INFANTILE SPASMS.....	1N01 NS92321-00	295,645
ORGANIZATION TOTAL	2	301,045		
ST. JOSEPH HOSPITAL ZIP CODE 77002				
MOORE, DUNCAN L.....		BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55100-06	321,300
ORGANIZATION TOTAL	1	321,300		
STEHLIN FOUNDATION FOR CANCER RESEARCH ZIP CODE 77002				
GIOVANELLA, BEPPINO C.....		MODEL SYSTEMS FOR CHEMOTHERAPY OF HUMAN TUMORS.....	2N01 CM67073-03	242,989
ORGANIZATION TOTAL	1	242,989		
TEXAS HEART INSTITUTE ZIP CODE 77025				
NORMAN, JOHN C.....		EVALUATION OF MODEL VII LEFT VENTRICULAR ASSIST DEVICE.....	3N01 HV53006-09	13,831
NORMAN, JOHN C.....		LEFT HEART ASSIST DEVICE DEVELOPMENT.....	2N01 HV72936-02	552,126
ORGANIZATION TOTAL	2	565,957		
TEXAS INSTITUTE FOR REHABILITATION AND RESEARCH ZIP CODE 77030				
HERRON, R E.....		BIOSTEREOMETRIC ASSESSMENT OF NUTRITIONAL STATUS.....	5N01 CP85618-02	90,733
ORGANIZATION TOTAL	1	90,733		
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON ZIP CODE 77004				
EVANS, RICHARD I.....		DEVELOP METHODS FOR MODIFYING SMOKING BEHAVIOR.....	1N01 CN95469-00	358,276
WEINHEIMER, ALFRED J.....		ISOLATE ANTINEOPLASTIC AGENTS.....	3N01 CM87209-02	74,000
WELCH, STEVEN C.....		SYNTHESIS OF NEW RETINOIDS.....	5N01 CP75935-04	65,531
ORGANIZATION TOTAL	3	497,807		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025				
BUFFLER, PATRICIA A.....		ETIOLOGIC STUDY OF RESPIRATORY CANCER IN COASTAL TEXAS.....	1N01 CP91025-00	219,189
BUFFLER, PATRICIA A.....		EPIDEMIOLOGY OF LIVER CANCER IN TEXAS.....	1N01 CP91037-00	171,662
DUPONT, HERBERT L.....		ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER.....	3N01 AI72534-06	16,125
HAWKINS, C MORTON.....		COORDINATING CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72948-05	2,089,706
ORGANIZATION TOTAL	4	2,496,682		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025				
ARLINGHAUS, RALPH B.....		BIOSYNTHESIS OF ONCO-RNA PROTEINS IN MAMMALIAN CELLS.....	3N01 CP61017-07	92,680
BECKER, FREDERICK F.....		BIOLOGY OF NEOPLASTIC LIVER LESIONS IN MICE.....	3N01 CP65846-07	38,945
BENJAMIN, ROBERT.....		PHARMACOKINETICS OF ANTICANCER DRUGS.....	5N01 CM87233-02	110,000
BODEY, GERALD P.....		PHASE I STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM43801-11	31,275
BODEY, GERALD P.....		QUANTITATIVE EVALUATION OF PROTECTED ENVIRONMENT.....	5N01 CM53832-08	684,209
BODEY, GERALD P.....		STUDIES OF PATIENTS WITH SOLID DISSEMINATED TUMORS.....	3N01 CM57042-16	254,808
BODEY, GERALD P.....		PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97277-00	246,517
GRAHAM, JAMES.....		COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	5N01 CN55244-10	244,454

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
TEXAS—Continued			
GRANATEK, CHRISTINE H	DIAGNOSTIC USE OF CROSS-REACTING MICROBIAL ANTIGENS.....	2N01 CB74122-02	88,005
HERSH, EVAN M.....	STUDY OF CANCER IMMUNOTHERAPY	2N01 CB33888-11	258,500
KEELING, MICHAEL E.....	MAINTENANCE AND BREEDING OF CHIMPANZEES.....	5N01 RS72142-03	167,460
LOO, TI L.....	PHARMACOLOGIC STUDIES OF ANTITUMOR AGENTS.....	5N01 CM87185-01	380,030
MOUNTAIN, CLIFTON F.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER	3N01 CM77149-06	59,859
MOUNTAIN, CLIFTON F.....	PATHOLOGY SUPPORT FOR NON-OAT CELL LUNG CANCER	3N01 CM77153-02	89,993
SHALEK, ROBERT J	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	2N01 CN45150-09	89,724
VAN EYS, JAN.....	ULTRASONIC ASSESSMENT OF NUTRITIONAL STATUS	3N01 CP85655-04	265,765
WHARTON, J TAYLOR	STUDY OF CHEMOTHERAPY OF OVARIAN CARCINOMA	3N01 CM33710-13	200,939
ORGANIZATION TOTAL	17	3,303,163	
SAN ANTONIO			
SANTA ROSA MEDICAL CENTER	ZIP CODE 78207		
COOPER, ELMER E.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52921-04	70,448
ORGANIZATION TOTAL	1	70,448	
SOUTHWEST FOUNDATION FOR RESEARCH AND EDUCATION	ZIP CODE 78284		
CUMMINS, L B.....	MAINTAIN CHIMPANZEES FOR HEPATITIS RESEARCH.....	1N01 HB92910-00	167,672
KALTER, SEYMOUR S.....	SUPPORT FOR CHIMPANZEE BREEDING COLONY	3N01 CP33340-13	40,000
MC GILL, HENRY C, JR.....	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS/HYPERTENSION.....	5N01 HV53030-07	649,294
MELTZ, MARTIN L.....	CELL CULTURE SCREENING OF NEW MATERIALS FOR CYTOTOXICITY	3N01 CM67075-03	17,500
RAO, PEMMARAJU N.....	SYNTHETIC CHEMICAL FACILITY	5N01 HD82823-01	156,620
SHAIKH, ABUBAKAR A.....	PRIMATE TESTING FACILITY.....	3N01 HD52810-06	10,668
ORGANIZATION TOTAL	6	1,041,754	
SOUTHWEST RESEARCH INSTITUTE	ZIP CODE 78228		
MANGOLD, DONALD J.....	RETINOLIDS FOR LABORATORY DIETS.....	5N01 CP85601-02	128,974
MANGOLD, DONALD J.....	DEVELOPMENT OF ORALLY-ACTIVE DOSAGE FORMS FOR STEROIDS.....	2N01 HD72831-04	323,500
ORGANIZATION TOTAL	2	452,474	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT SAN ANTONIO	ZIP CODE 78285		
SAGIK, BERNARD P.....	TEST SURVIVAL IN SEWAGE TREATMENT PLANT MODEL.....	5N01 AI82566-01	171,711
ORGANIZATION TOTAL	1	171,711	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO	ZIP CODE 78284		
BANOWSKY, LYNN.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION	2N01 AI52505-09	21,300
HARRIS, STEVEN C.....	BREAST CARCINOMA INTRALESIONAL IMMUNOTHERAPY TREATMENT	5N01 CB84248-01	81,920
LAMM, DONALD L.....	BCG IMMUNOTHERAPY OF RECURRENT BLADDER CANCER.....	2N01 CB74192-02	53,124
LIVINGSTON, ROBERT B.....	STUDY METHODS TO PREDICT CHEMOTHERAPY SENSITIVITY	5N01 CB74205-02	54,100
MC GUIRE, WILLIAM L.....	BIOCHEMICAL MECH OF ENDOCRINE INDUCED CANCER REGRESSION	2N01 CB23862-09	120,000
ORGANIZATION TOTAL	5	330,444	
TYLER			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH CENTER AT TYLER	ZIP CODE 75710		
SPIVEY, CHARLES G.....	TYLER ASBESTOS WORKERS STUDY.....	3N01 CN45066-17	210,000
ORGANIZATION TOTAL	1	210,000	
STATE TOTAL	87	19,039,364	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
UTAH			
LOGAN			
UTAH STATE HIGHER EDUCATION SYSTEM—UTAH STATE UNIVERSITY ZIP CODE 84322			
KLEINSCHUSTER, STEPHEN J.....	IMMUNOPROPHYLAXIS OF 'CANCER EYE' IN CATTLE	2N01 CB74155-04	304,260
ORGANIZATION TOTAL	1	304,260	
OGDEN			
OGDEN RESEARCH FOUNDATION ZIP CODE 84403			
WILLIAMS, C BASIL.....	ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52918-05	89,946
ORGANIZATION TOTAL	1	89,946	
PROVO			
BRIGHAM YOUNG UNIVERSITY ZIP CODE 84602			
BRADSHAW, WILLIAM S.....	IDENTIFY BIOCHEMICAL INDICATORS FOR TOXICITY	5N01 ES72119-03	122,289
ORGANIZATION TOTAL	1	122,289	
SALT LAKE CITY			
SALT LAKE CLINIC RESEARCH FOUNDATION ZIP CODE 84102			
BARKER, ALLAN H.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY	5N01 HV52923-04	75,091
BARKER, ALLAN H.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72969-04	173,896
ORGANIZATION TOTAL	2	248,987	
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112			
CASLE, CHARLES H.....	STUDY OF HYPERTENSION IN THERAPY.....	5N01 HV12435-17	110,000
DE WITT, CHARLES W.....	HISTOCOMPATIBILITY MATCHING IN RENAL TRANSPLANTATION	2N01 A142507-08	5,491
GLASGOW, LOWELL A.....	STUDY OF ANTIVIRAL SUBSTANCES & ANIMAL SYSTEMS.....	5N01 A142524-09	432,162
JARVIK, ROBERT K.....	ENERGY CONVERTER FOR LEFT VENTRICLE ASSIST DEVICES.....	2N01 HV72975-03	544,768
KOLFF, WILLEM J.....	SYSTEM TO REMOVE UREA FROM DIALYZING FLUID	3N01 AM72210-04	19,989
LYON, JOSEPH L.....	EPIDEMIOLOGICAL INVESTIGATION OF CANCER IN UTAH	5N01 CP43382-09	163,215
MORTENSEN, J D.....	ACUTE PUMP-DEPENDENT LEFT VENTRICULAR FAILURE—MODEL.....	5N01 RR82146-02	57,019
OVERALL, JAMES C, JR.....	RECURRENT HERPES VIRUS HOMINIS INFECTION.....	5N01 A152532-09	138,090
PETERSEN, ROBERT V.....	DEVELOP AND TEST NEW BIODEGRADABLE DRUG DELIVERY SYSTEM	5N01 HD72824-03	199,223
RIEKHOFF, F TEMPEL.....	STUDY OF DIABETIC RETINOPATHY.....	3N01 EY32122-09	9,908
SWINYARD, EWART A.....	PHARMACOLOGICAL EVALUATION OF ANTICONVULSANTS	3N01 NS52302-07	131,519
THOR, ELISABET A.....	ACUITY AND ZINC TISSUE LEVELS IN HEMODIALYSIS.....	2N01 AM72211-04	25,603
WARD, J R.....	COOPERATIVE SYSTEMATIC STUDIES OF RHEUMATIC DISEASES.....	5N01 AM62218-05	1,732,200
ORGANIZATION TOTAL	13	3,569,187	
STATE TOTAL	18	4,334,669	
VERMONT			
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05401			
CRAIGHEAD, JOHN E.....	STUDY OF CARCINOGENESIS IN ORGAN CULTURE.....	2N01 CP33360-08	16,887
FOSTER, ROGER S, JR.....	NETWORK DEMONSTRATION PROJECT IN BREAST CANCER	2N01 CN65322-05	108,705
KRAKOFF, IRWIN H.....	PHASE I STUDIES OF NEW ANTICANCER AGENTS	1N01 CM97278-00	107,722
PHILLIPS, CHARLES A.....	EVALUATION OF H1N1 INFLUENZA VACCINE.....	2N01 A182563-01	40,314
WEED, LAWRENCE L.....	COMPUTERIZED PROBLEM-ORIENTED MEDICAL INFORMATION SYSTEM.....	5N01 CM33716-07	44,100
ORGANIZATION TOTAL	5	317,728	
STATE TOTAL	5	317,728	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
VIRGINIA			
ALEXANDRIA			
HALIFAX ENGINEERING, INC. ZIP CODE 22312			
NOT AVAILABLE.....	MAINTENANCE ELECTRONICS AT NMAC ATLANTA, GEORGIA.....	2N01 LM64730-08	37,537
ORGANIZATION TOTAL	1 37,537		
VALUE ENGINEERING COMPANY ZIP CODE 22303			
DEAN, CHARLES	DRUG DISTRIBUTION AND PROTOCOL MONITORING SYSTEM.....	5N01 CM87192-01	112,630
SANFACON, THOMAS J.....	DRUG RESEARCH & DEVELOPMENT OF DATA PROCESSING SYSTEM.....	2N01 CM67086-06	409,946
ORGANIZATION TOTAL	2 522,576		
ARLINGTON			
AMERICAN BLOOD COMMISSION ZIP CODE 22209			
SWITALSKI, RICHARD W.....	ESTABLISH A NATIONAL BLOOD DATA CENTER	5N01 HB92916-01	884,620
ORGANIZATION TOTAL	1 884,620		
CONTROL SYSTEMS RESEARCH ZIP CODE 22209			
PYKE, HAROLD.....	NATIONAL DIABETES INFORMATION CLEARINGHOUSE	5N01 AM82221-04	339,723
ORGANIZATION TOTAL	1 339,723		
EVALUATION TECHNOLOGIES ZIP CODE 22201			
PETERSON, RALPH.....	CERVICAL CANCER SCREENING PROGRAM DATA SUPPORT PROJECT.....	1N01 CN95437-00	237,557
ORGANIZATION TOTAL	1 237,557		
KAPPA SYSTEMS ZIP CODE 22209			
KELLEY, ROBERT M.....	NATIONAL CANCER PROGRAM INFORMATION CLEARINGHOUSE.....	3N01 CO75351-08	158,043
LERNER, CHARLES S.....	NATIONAL HIGH BLOOD PRESSURE EDUCATION PROGRAM.....	3N01 HV82923-04	2,106,591
ORGANIZATION TOTAL	2 2,264,634		
REHAB GROUP ZIP CODE 22204			
GLASS, LAWRENCE I.....	DATA MANAGEMENT FOR TREATMENT AND REHABILITATION.....	3N01 CN85415-01	32,955
ORGANIZATION TOTAL	1 32,955		
ROBERT SLYE ELECTRONICS ZIP CODE 22201			
CONLEY, JAMES	DESIGN, INSTALL AUDIOVISUAL SYSTEMS FOR LHCA	1N01 LM94722-00	89,950
ORGANIZATION TOTAL	1 89,950		
BLACKSBURG			
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY ZIP CODE 24061			
WILKINS, TRACY D.....	RELATION OF FECAL NEUTRAL STEROLS TO LARGE BOWEL CANCER	5N01 CP55685-09	162,828
ORGANIZATION TOTAL	1 162,828		
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA ZIP CODE 22903			
ANDREWS, BRIAN S.....	CHARACTERIZE SOLUBLE ANTIGEN-ANTIBODY COMPLEXES.....	2N01 CB84262-02	90,841
DREIFUSS, FRITZ E.....	A COMPREHENSIVE EPILEPSY PROGRAM	3N01 NS52329-07	1,045,486
GWALTNEY, JACK M, JR.....	INFLUENZA VIRUS AND MYCOPLASMA PNEUMONIAE VACCINES	3N01 AI22508-16	18,500
HOWARDS, STUART S.....	EFFECTS OF VASECTOMY ON TESTES, EPIDIDYMIS, AND VAS.....	5N01 HD22770-17	73,333
JANE, JOHN A.....	COMPREHENSIVE CENTRAL NERVOUS SYSTEM TRAUMA CENTERS	3N01 NS72373-03	25,508
JANE, JOHN A.....	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92307-01	197,261
ORGANIZATION TOTAL	6 1,450,929		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued			
FALLS CHURCH			
INFODATA SYSTEMS ZIP CODE 22041			
SCHREIER, ROBERT B.....	INQUIRE/TEXT DBMS SOFTWARE UPGRADE.....	1N01 LM94707-00	62,000
ORGANIZATION TOTAL	1	62,000	
HERNDON			
EXPERIMENTAL PATHOLOGY LABORATORIES ZIP CODE 22070			
ACKERMAN, LARRY J.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	1N01 CP95647-00	331,436
COCKRELL, BEVERLY.....	IMPROVE ORGAN CULTURE EPITHELIAL CELL SYSTEMS.....	3N01 CP85630-01	17,160
FERRELL, JOHN F.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	1N01 CP95618-00	289,647
ORGANIZATION TOTAL	3	638,243	
LURAY			
DOUBLE J. FARMS ZIP CODE 22835			
JUDY, JESSE N.....	MAINTENANCE OF SHEEP COLONY.....	5N01 HI72900-02	201,301
ORGANIZATION TOTAL	1	201,301	
MC LEAN			
EMMES CORPORATION ZIP CODE 22101			
NOVAK, JOEL W.....	SUPPORT THE GASTROINTESTINAL TUMOR STUDY GROUP.....	3N01 CM87193-02	347,925
ORGANIZATION TOTAL	1	347,925	
FLOW LABORATORIES ZIP CODE 22101			
ADKINS, HARRY F.....	STORAGE AND DISTRIBUTION OF CLINICAL DRUGS.....	5N01 CM67088-06	231,000
COTE, PAUL J.....	PROVIDE ANIMAL HOLDING FACILITY.....	3N01 CP53566-07	107,635
DORIAN, CHARLES L.....	DISTRIBUTE DRUGS FOR CANCER CHEMOTHERAPY.....	3N01 CM97254-01	454,909
MILLER, RODNEY T.....	REPOSITORY CENTER FOR RESEARCH REAGENTS.....	5N01 AI82542-03	461,264
MILLER, RODNEY T.....	LOW TEMPERATURE REPOSITORY OF HUMAN TUMOR CELLS.....	3N01 CP61000-09	52,200
SULLIVAN, RUDOLPH R.....	MAINTENANCE AND BREEDING OF RABBITS.....	5N01 AI82565-01	158,700
ORGANIZATION TOTAL	6	1,465,708	
JRB ASSOCIATES ZIP CODE 22101			
CUMMING, PAUL D.....	SUPPORT SERVICES FOR THE DIVISION OF CANCER CONTROL.....	3N01 CN55200-11	103,111
CUMMING, PAUL D.....	EVALUATE IMPACT OF ADENINE ON BLOOD BANKING.....	1N01 HB92911-00	172,540
DANZEISEN, RICHARD N.....	RESOURCES ANALYSIS & PLANNING FOR NCP BUDGETING.....	3N01 CO45425-18	98,536
HILDRETH, RICHARD F.....	TECHNICAL SUPPORT SERVICES FOR THE ICRDB PROGRAM.....	5N01 CO85383-01	459,458
HILDRETH, RICHARD F.....	MODIFICATION OF DIVISIONAL INFORMATION SYSTEM.....	1N01 CP95634-00	6,189
NOVOTNEY, LAURENCE C.....	DESIGN NINCDS PROGRAM INFORMATION SYSTEM.....	3N01 NS62345-11	32,956
SCHETTMAN, STEVEN B.....	EVALUATION STUDY OF PRIMATE RESEARCH CENTERS.....	3N01 RR72143-05	44,572
WELLS, FRANK M.....	SYSTEMS PLANNING SUPPORT SERVICES-NCI.....	5N01 CO75390-08	1,175,000
ORGANIZATION TOTAL	8	2,092,362	
MITRE CORPORATION ZIP CODE 22101			
JOYCE, CHARLES C, JR.....	COMPUTER SYSTEMS TECHNICAL SUPPORT.....	2N01 LM84720-02	199,972
ORGANIZATION TOTAL	1	199,972	
RICHMOND			
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
FREER, RICHARD J.....	EVALUATE PEPTIDES AS CHEMOATTRACTANTS FOR LEUCOCYTES.....	5N01 DE62494-05	140,191
FREER, RICHARD J.....	PROSTAGLANDIN AND KALLIKREIN-KININ SYSTEM ANTAGONISTS.....	5N01 HV72943-03	77,379

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director		Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued				
GUZELIAN, PHILIP S, JR.....	STUDY PHARMACOKINETICS AND TOXICITY OF KEPONE	5N01 ES62117-06	36,753	
MAURER, HAROLD M.....	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42820-16	84,569	
MILLER, J DOUGLAS.....	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92306-01	264,094	
RICHARDSON, DAVID W.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52914-06	93,428	
RICHARDSON, DAVID W.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82906-03	97,160	
SAGAR, KIRAN B.....	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM	1N01 HR92905-00	96,639	
ORGANIZATION TOTAL	8 890,213			
SPRINGFIELD				
REVLON, INC.—MELOY LABORATORIES ZIP CODE 22151				
BLACKMAN, KENNETH E.....	GROWTH OF NORMAL AND TUMOR VIRUS CELLS	3N01 CB74139-04	339,884	
BLACKMAN, KENNETH E.....	SPONTANEOUS & VIRUS-INDUCED NEOPLASTIC TRANSFORMATION	3N01 CP43236-21	1,038,763	
HARNES, JAMES R.....	NCI IMMUNODIAGNOSTIC REFERENCE CENTER	2N01 CB63976-07	319,738	
INNERARITY, THOMAS L.....	PREPARATION AND ANALYSIS OF LIPOPROTEINS.....	5N01 H132926-12	292,365	
KORTRIGHT, KENNETH H.....	RADIOIMMUNOASSAY OF IMMUNOGLOBULIN MOLECULES	2N01 CB63932-07	140,287	
LUBINECKI, ANTHONY S.....	STORAGE OF HUMAN TROPHOBLASTIC AND RAT LEYDIG CELLS.....	3N01 HD62821-11	6,700	
SLY, LEWIS D.....	SUPPORT FOR ANIMAL-CARE FACILITY	2N01 AI32504-16	336,170	
SLY, LEWIS D.....	TRANSPLACENTAL CARCINOGENESIS IN ERYTHROCEBUS PATAS	3N01 CP55613-10	90,342	
SLY, LEWIS D.....	STUDY TRANSPLACENTAL CARCINOGENESIS IN PRIMATES.....	1N01 CP95622-00	273,762	
SLY, LEWIS D.....	ANIMAL CARE & ISOLATION FOR INFECTIOUS DISEASE STUDIES.....	3N01 NS72375-09	492,034	
VERNA, JOHN E.....	SPONTANEOUS AND VIRUS-INDUCED NEOPLASTIC TRANSFORMATION.....	2N01 CP43207-22	995,367	
VERNA, JOHN E.....	MOLECULAR STUDY OF CARCINOMA OF THE BREAST	2N01 CP43223-17	685,729	
ORGANIZATION TOTAL	12 5,011,141			
VIENNA				
HAZLETON LABORATORIES CORPORATION—HAZLETON LABORATORIES AMERICA ZIP CODE 22180				
BOWLES, CHARLES A.....	PRECLINICAL ANIMAL BONE MARROW TRANSPLANTATION	5N01 CM87156-02	279,611	
BOYD, DALE D.....	STUDY OF IMMUNIZATION TO CARIES.....	2N01 DE42434-16	177,478	
BOYD, DALE D.....	MAINTAIN A BREEDING COLONY OF RHESUS MONKEYS.....	5N01 RR62150-02	136,000	
DALGARD, DANIEL W.....	INDUCED TUMORS IN NONHUMAN PRIMATES	3N01 CM97217-02	498,259	
DALGARD, DANIEL W.....	PRIMATE TESTING FACILITY.....	1N01 HD92838-00	906,286	
GARGUS, JAMES L.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	5N01 CM57007-08	631,571	
PIPER, CHARLES.....	PREPARATION OF GONADAL CELLS AND CELL FRACTIONS.....	1N01 HD92836-00	113,800	
RUTTER, HENRY A, JR.....	BIOLOGICAL EFFECTS OF INGESTED ASBESTOS IN RATS	3N01 ES52158-10	317,000	
VALERIO, DAVID A.....	VIRUSES & EXPERIMENTAL ONCOGENESIS OF HUMAN CANCER.....	2N01 CP61024-09	959,526	
ORGANIZATION TOTAL	9 4,019,531			
STATE TOTAL	67 20,951,705			
WASHINGTON				
BELLINGHAM				
WESTERN WASHINGTON UNIVERSITY ZIP CODE 98225				
CVETKOVICH, GEORGE T.....	PSYCHOSOCIAL ANTECEDENTS OF ADOLESCENT PREGNANCY.....	1N01 HD92800-00	122,509	
ORGANIZATION TOTAL	1 122,509			
PULLMAN				
WASHINGTON STATE UNIVERSITY ZIP CODE 99163				
HOSICK, HOWARD L.....	DIFFERENTIATION OF MAMMARY EPITHELIAL CELLS.....	2N01 CB63986-04	47,600	
ORGANIZATION TOTAL	1 47,600			

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
WASHINGTON—Continued			
RICHLAND			
BATTELLE MEMORIAL INSTITUTE—PACIFIC NORTHWEST LABORATORIES ZIP CODE 99352			
WILDING, RAYMOND E.....	HEAVY METALS & THEIR COMPLEXES FATE IN SOILS & PLANTS.....	5N01 ES82150-02	101,982
ORGANIZATION TOTAL 1	101,982		
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
BRESLOW, NORMAN E.....	CENTRALIZED CANCER PATIENT DATA SYSTEM.....	3N01 C075325-06	362,790
HELLSTROM, KARL E.....	MICROCYTOXICITY ASSAY.....	3N01 CP53570-09	33,140
HILL, LUCIUS D.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	3N01 CM77148-06	169,768
HUTCHINSON, WILLIAM B.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55233-08	219,197
LEE, JOHN A.....	MODELS OF MALIGNANT & PREMALIGNANT BREAST DISEASE.....	2N01 CB74100-02	8,700
NOWINSKI, ROBERT C.....	IMMUNOGENETIC ANALYSIS OF MOUSE LEUKEMIA VIRUSES.....	3N01 CP61009-05	36,420
PRENTICE, ROSS L.....	STATISTICAL DEVELOPMENT OF CARCINOGENESIS MODELS.....	5N01 ES82124-02	65,766
THOMPSON, DONOVAN J.....	SUPPORT FOR A CANCER SURVEILLANCE SYSTEM.....	2N01 CP61059-05	639,200
ORGANIZATION TOTAL 8	1,534,981		
INSTITUTE OF APPLIED PHYSIOLOGY AND MEDICINE ZIP CODE 98122			
REID, JOHN M.....	ULTRASONIC IMAGING DEVELOPMENT.....	5N01 HV72926-07	67,728
ORGANIZATION TOTAL 1	67,728		
PACIFIC NORTHWEST RESEARCH FOUNDATION ZIP CODE 98104			
SCRIBNER, JOHN D.....	PHYSICOCHEMICAL PARAMETERS IN STRUCTURE-ACTIVITY.....	5N01 CP85628-01	68,206
ORGANIZATION TOTAL 1	68,206		
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
ANDERSEN, NIELS H.....	PREPARE POSTOVULATORY PROSTANOID ANTIFERTILITY AGENTS.....	5N01 HD82808-01	51,887
ANDERSEN, NIELS H.....	ARACHIDONATE ANTAGONISTS.....	5N01 HV82933-01	76,619
BARKER, EDWARD A.....	PROFESSIONAL EDUCATION IN CYTOLOGY.....	1N01 CN95435-00	193,602
BEASLEY, R PALMER.....	EPIDEMIOLOGY OF HEPATOMA.....	1N01 CP91026-00	63,170
BONICA, JOHN J.....	PAIN CONTROL IN CANCER.....	1N01 CN95489-00	170,675
BUCHANAN, THOMAS M.....	SEROTYPING SYSTEM FOR NEISSERIA GONORRHOEA.....	5N01 AI52535-03	286,738
BUCHANAN, THOMAS M.....	DEVELOP A VACCINE FOR GONORRHEA.....	1N01 AI92618-00	121,059
BUCHANAN, THOMAS M.....	PURIFY/CHARACTERIZE MYCOBACTERIUM LEPRAE ANTIGENS.....	5N01 AI92624-01	221,318
CHRISTOPHER, T GRAHAM.....	CLINICAL RESEARCH DATA MANAGEMENT AND ANALYSIS SYSTEM.....	3N01 RS52117-07	4,749
CUTLER, RALPH E.....	PHARMACOKINETIC—CHRONIC RENAL DIS. HEMODIALYSIS.....	2N01 AM22219-06	125,236
ENWONWU, CYRIL.....	NUTRITION ON THE EPITHELIUM OF ORAL MUCOUS MEMBRANES.....	3N01 DE42442-09	68,020
FEFER, ALEXANDER.....	CELLULAR IMMUNOTHERAPY OF MURINE TUMORS.....	5N01 CB84247-01	143,124
FELTON, SAMUEL P.....	PETROLEUM HYDROCARBONS CARCINOGENIC EFFECT—MARINE LIFE.....	2N01 ES72101-04	99,420
FINCH, CLEMENT A.....	RED CELL DISTRIBUTIONS IN CYANATE-TREATED BLOOD.....	2N01 HB62962-06	106,983
FISHER, LLOYD D.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32973-13	92,199
FOY, HJORDIS M.....	INFLUENZA SURVEILLANCE AND VACCINE EVALUATION.....	2N01 AI62511-07	214,000
GRIFFIN, THOMAS W.....	CLINICAL NEUTRON THERAPY PROGRAM.....	1N01 CM97282-00	3,700,501
HARMON, ROBERT G.....	DEVELOPMENT OF A COURSE ON CANCER PREVENTION.....	1N01 CN95483-00	138,215
HOOVER, J JOANNE.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52922-04	79,310
JOHNSTON, RICHARD P.....	THERMAL ENGINE SYSTEM DEVELOPMENT.....	1N01 HV92908-00	795,296
KINYOUN, JAMES L.....	CLINICAL STUDY OF DIABETIC RETINOPATHY.....	2N01 EY42128-09	3,912
KINYOUN, JAMES L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72134-04	72,862
LOCKARD, JOAN S.....	STUDY EXPERIMENTAL ANTIEPILEPTIC DRUGS.....	5N01 NS12282-18	494,305
MINIFIE, FRED D.....	RELATION OF HEARING IMPAIRMENT & LANGUAGE DISABILITY.....	3N01 HD32793-07	27,392
OPPENHEIMER, GERALD.....	REGIONAL MEDICAL LIBRARY PROGRAM SERVICES.....	2N01 LM54729-05	146,159
PETERSON, DONALD R.....	SIDS RISK FACTOR COOPERATIVE STUDY.....	3N01 HD72839-03	201,110
SILVERSTEIN, FRED E.....	ENDOSCOPIC CONTROL OF GI BLEEDING—PATIENTS/ANIMALS.....	2N01 AM52211-06	317,013
STAMATOYANNPOULOS, GEORGE.....	DEVELOPMENT OF SOMATIC CELL MUTATION SYSTEMS IN HUMANS.....	1N01 ES90002-00	192,554
VAN ARSDEL, PAUL P, JR.....	SKIN TEST PENICILLIN DERIVATIVES IN HOSPITALIZED ADULTS.....	1N01 AI92633-00	17,070
WARD, ARTHUR A, JR.....	COMPREHENSIVE EPILEPSY PROGRAM.....	3N01 NS62341-06	1,055,974

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
WASHINGTON—Continued			
WOOTTON, PETER B.....	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	2N01 CN45158-12	64,774
ORGANIZATION TOTAL	31 9,345,246		
VIRGINIA MASON RESEARCH CENTER ZIP CODE 98101			
CARLILE, THOMAS.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	2N01 CN55304-07	76,127
ORGANIZATION TOTAL	1 76,127		
STATE TOTAL	45 11,364,379		
WEST VIRGINIA			
AUGUSTA			
MOUNT PLEASANT BOOKBINDER ZIP CODE 26704			
NOT AVAILABLE.....	REPAIR, RESTORATION, AND REBINDING OF RARE BOOKS	2N01 LM84710-02	29,000
ORGANIZATION TOTAL	1 29,000		
STATE TOTAL	1 29,000		
WISCONSIN			
MADISON			
DEXTER CORPORATION-ARS/SPRAGUE DAWLEY ZIP CODE 53711			
FORTNEY, ROGER D	MAINTENANCE OF RODENT PRODUCTION CENTER	3N01 CM53846-10	216,660
FORTNEY, ROGER D	PRIMARY GENETIC CENTER FOR RODENTS	5N01 CM87232-01	874,660
ORGANIZATION TOTAL	2 1,091,320		
RALSTON PURINA COMPANY-RALTECH SCIENTIFIC SERVICES ZIP CODE 53704			
DAVIS, JAMES.....	EFFECT OF CERTAIN AGENTS ON REPRODUCTIVE TRACT FUNCTIONS	5N01 ES62111-05	130,838
STATZ, DU WAYNE.....	PREPARATION OF PLANT EXTRACTS	5N01 CM87182-01	131,407
ORGANIZATION TOTAL	2 262,245		
UNIVERSITY OF WISCONSIN SYSTEM-UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
BRANDENBURG, JAMES H	DEMONSTRATION PROJECT FOR HEAD AND NECK CANCER	2N01 CN45130-06	46,590
CAMERON, JOHN R	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	2N01 CN45152-09	76,327
CROFT, WILLIAM.....	PREVENTION OF EPITHELIAL CANCER BY RETINOIDS	5N01 CP75905-05	146,000
DAVIS, HUGH L.....	STUDIES OF NEW ANTICANCER AGENTS.....	1N01 CM97280-00	99,752
DAVIS, MATTHEW D.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY52148-06	125,577
DAVIS, MATTHEW D.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72148-04	205,052
EASTERDAY, BERNARD C	INTERFERON, INTERFERON INDUCERS & ANTIVIRAL SUBSTANCES.....	5N01 A02132-13	181,975
JOHNSON, ROBERT O	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	5N01 CN55228-09	248,177
LARSON, FRANK C.....	SIGNIFICANCE OF ALKALINE PHOSPHATASE IN CANCER PATIENTS	2N01 CB74173-04	58,000
LOVE, RICHARD R.....	DEVELOP A COURSE ON CANCER PREVENTION.....	1N01 CN95434-00	84,866
MYERS, FRANK L.....	STUDY OF DIABETIC RETINOPATHY	3N01 EY32121-08	9,725
MYERS, FRANK L.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY52140-05	65,833
PERLMAN, DAVID.....	SCREENING OF NEW MATERIALS FOR CYTOTOXICITY	3N01 CM97289-01	85,788
PITOT, HENRY C.....	DNA REPAIR STUDIES IN CULTURED HEPATOCYTES	5N01 CP85609-03	54,888
ROWND, ROBERT H.....	CONSTRUCTION OF MODEL CLONED DNA SEGMENT	1N01 A192606-00	24,150
SCHWETTMANN, RICK S.....	PAIN CONTROL IN CANCER	1N01 CN95491-00	216,447
VALENCIA, RUBY.....	DROSOPHILA MUTAGENESIS TESTING.....	1N01 ES90012-00	90,746
ZACHMAN, RICHARD D.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	2N01 HR62952-06	86,005
ORGANIZATION TOTAL	18 1,905,898		
WISCONSIN ALUMNI RESEARCH FOUNDATION ZIP CODE 53705			
DE DENNIS, SUSANA R.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	5N01 CM53770-05	779,966

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
WISCONSIN—Continued			
HUGHES, DONALD L.....	ANALYZE PCB'S AND DDE IN HUMAN FLUIDS AND TISSUE.....	5N01 ES72141-04	90,942
ORGANIZATION TOTAL	2 870,908		
MARSHFIELD			
MARSHFIELD MEDICAL FOUNDATION ZIP CODE 54449			
MEYERS, WILLIAM O.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32981-12	102,916
ORGANIZATION TOTAL	1 102,916		
MILWAUKEE			
ALDRICH CHEMICAL COMPANY ZIP CODE 53233			
SZABO, WILLIAM.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	5N01 CM87202-02	276,685
ORGANIZATION TOTAL	1 276,685		
BLOOD CENTER OF SOUTHEASTERN WISCONSIN ZIP CODE 53233			
DUQUESNOY, RENE J.....	REFERENCE HLA LABORATORIES.....	5N01 AJ82543-03	27,069
ORGANIZATION TOTAL	1 27,069		
MEDICAL COLLEGE OF WISCONSIN ZIP CODE 53233			
AABERG, THOMAS M.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	2N01 EY52143-04	71,573
BROOKS, HAROLD.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32982-08	34,769
CURTIS, ROBIN L.....	SPECIAL ANIMAL COLONY (MOUSE NEUROLOGICAL MUTANTS).....	5N01 RR82134-01	29,538
GROSSBERG, SIDNEY E.....	STABILIZATION STUDIES OF HUMAN INTERFERON.....	3N01 AJ42520-07	24,000
MILBRATH, JOHN R.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55308-08	139,991
REESER, FREDERICK.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72136-04	58,153
SANCES, ANTHONY, JR.....	NMR CONCEPTS AND DEVELOPMENT OF BIOLOGICAL FLOW.....	5N01 HI02216-11	177,785
ORGANIZATION TOTAL	7 535,809		
STATE TOTAL	34 5,072,850		
PUERTO RICO			
SAN JUAN			
PUERTO RICO DEPARTMENT OF HEALTH ZIP CODE 00908			
MARTINEZ, ISIDRO.....	CANCER SURVEY IN THE PUERTO RICO AREA.....	2N01 CP43386-11	93,125
ORGANIZATION TOTAL	1 93,125		
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS ZIP CODE 00936			
BERROCAL, JOSE.....	CLINICAL STUDY OF DIABETIC RETINOPATHY.....	3N01 EY42142-09	3,005
BERROCAL, JOSE.....	EVALUATE EARLY TREATMENT IN DIABETIC RETINOPATHY.....	5N01 EY82103-03	99,147
GARCIA-PALMIERI, MARIO R.....	EPIDEMIOLOGICAL STUDIES OF CORONARY HEART DISEASE.....	5N01 HV42902-09	210,662
GARCIA-PALMIERI, MARIO R.....	CLINICAL CENTER FOR ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52910-04	94,785
KERBER, WILLIAM T.....	DOMESTIC SQUIRREL MONKEY PRODUCTION.....	5N01 RR52133-06	66,000

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
PUERTO RICO—Continued			
MEIER, GILBERT W.....	BEHAVIOR, ECOLOGY AND REPRODUCTION OF NONHUMAN PRIMATES	2N01 RR72115-05	474,180
ORGANIZATION TOTAL	6 947,779		
STATE TOTAL	7 1,040,904		
OTHER COUNTRIES			
AUSTRALIA			
SYDNEY			
ROYAL NORTH SHORE HOSPITAL			
NELSON, D S.....	INHIBIT MACROPHAGE FUNCTION OR INFLAMMATORY RESPONSES.....	2N01 CB84251-01	57,409
ORGANIZATION TOTAL	1 57,409		
SYDNEY HOSPITAL			
HERSEY, PETER.....	DIAGNOSTIC APPLICATIONS OF ANTIBODIES TO MELANOMA	2N01 CB74120-03	49,381
ORGANIZATION TOTAL	1 49,381		
UNIVERSITY OF SYDNEY			
BERAL, VALERIE.....	MALIGNANT MELANOMA AMONG WOMEN ON CONTRACEPTIVE STEROIDS	5N01 HD82804-01	30,566
ORGANIZATION TOTAL	1 30,566		
COUNTRY TOTAL	3 137,356		
AUSTRIA			
SALZBURG			
AUSTRIAN ACADEMY OF SCIENCES—INSTITUTE FOR MOLECULAR BIOLOGY			
KRATOCHWIL, KLAUS.....	RESPONSE OF EMBRYO MAMMARY GLAND TO ANDROGENIC HORMONES.....	2N01 CB33883-08	60,600
WIRL, GERHARD.....	STUDIES OF INFLUENCE OF MAMMARY CARCINOMA ON COLLAGEN	2N01 CB74109-02	48,500
ORGANIZATION TOTAL	2 109,100		
COUNTRY TOTAL	2 109,100		
BELGIUM			
BRUSSELS			
EUROPEAN ORGANIZATION FOR RESEARCH ON TREATMENT OF CANCER			
ATTASI, GHANEM.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	5N01 CM57040-05	239,000
TAGNON, HENRI J.....	CANCER CHEMOTHERAPY RESEARCH COLLABORATIVE OFFICE.....	3N01 CM53840-07	73,300
ORGANIZATION TOTAL	2 312,300		
COUNTRY TOTAL	2 312,300		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CANADA			
CHALK RIVER			
ATOMIC ENERGY OF CANADA, LTD.—CHALK RIVER NUCLEAR LABORATORIES			
PATERSON, MALCOLM C	DNA REPAIR IN GENETIC SYNDROMES AND HIGH CANCER RISK	2N01 CP81002-01	98,047
ORGANIZATION TOTAL	1	98,047	
GUELPH			
UNIVERSITY OF GUELPH			
HEROLD, EDWARD S	CONTRACEPTIVE ATTITUDES OF UNMARRIED ADOLESCENT FEMALES.....	1N01 HD92809-00	26,354
ORGANIZATION TOTAL	1	26,354	
HALIFAX			
DALHOUSIE UNIVERSITY			
RAUTAHARJU, P. M.	ECG CENTER FOR PREVENTION OF HEART DISEASE.....	2N01 HV42911-08	215,943
ORGANIZATION TOTAL	1	215,943	
LONDON			
UNIVERSITY OF WESTERN ONTARIO			
ELLESTAD-SAYED, J. J.	LACTOSE INTOLERANCE IN CANADIAN AND UNUIT CHILDREN	1N01 HD92844-00	183,770
ORGANIZATION TOTAL	1	183,770	
MONTREAL			
MONTREAL GENERAL HOSPITAL			
SKAMENE, EMIL	MACROPHAGE ACTIVATION STUDIES.....	2N01 CB84269-01	96,400
ORGANIZATION TOTAL	1	96,400	
MONTREAL HEART INSTITUTE			
BOURASSA, MARTIAL G	COLLABORATIVE STUDY OF SURGERY ON CORONARY ARTERIES.....	5N01 HV32983-12	100,623
THEROUX, PIERRE A	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82910-01	80,913
ORGANIZATION TOTAL	2	181,536	
QUEBEC			
LAVAL UNIVERSITY			
ENGEL, CHARLES R	SYNTHESIZE PROGESTERONE ANALOGUES OF NOVEL STRUCTURES	5N01 HD82812-01	64,784
ENGEL, CHARLES R	SYNTHESIS OF POTENTIAL MALE CONTRACEPTIVES.....	5N01 HD82815-01	37,178
ORGANIZATION TOTAL	2	101,962	
TORONTO			
HOSPITAL FOR SICK CHILDREN			
ALBISSER, ANTHONY M	PORTABLE INSULIN DELIVERY SYSTEMS FOR DIABETES	1N01 AM92201-00	603,774
MC CLURE, PETER D	COLLECT BLOOD SPECIMENS AND SOLID TUMOR MATERIALS	5N01 CP61040-04	18,600
ORGANIZATION TOTAL	2	622,374	
ONTARIO CANCER INSTITUTE			
FELD, RONALD	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	3N01 CM77152-03	217,198
FELD, RONALD	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	1N01 CM97267-00	552,925

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CANADA—Continued			
SIMINOVITCH, LOUIS	SUPPLY OF MUTANT VERTEBRATE CELLS.....	5N01 CP43331-10	224,172
ORGANIZATION TOTAL	3 994,295		
TORONTO WESTERN HOSPITAL			
OREOPOULOS, DIMITRIOS G.....	CONTINUOUS AMBULATORY PERITONEAL DIALYSIS (CAPD)	5N01 AM82213-01	188,230
ORGANIZATION TOTAL	1 188,230		
UNIVERSITY OF TORONTO			
FARBER, EMMANUEL.....	BIOCHEMISTRY AND MORPHOLOGY OF HEPATIC CARCINOGENESIS	3N01 CP75879-02	22,000
YIP, CECIL C.....	INSULINS, INSULIN ANALOGUES AND GROWTH FACTORS.....	1N01 AM92204-00	43,541
ORGANIZATION TOTAL	2 65,541		
VANCOUVER			
UNIVERSITY OF BRITISH COLUMBIA			
KUTNEY, JAMES P	SYNTHESIS OF VINBLASTINE AND VINCRISTINE.....	5N01 CM23223-10	100,000
KUTNEY, JAMES P	PLANT AND CELL CULTURE SOURCE FOR ANTINEOPLASTIC AGENTS.....	5N01 CM87236-01	89,000
ORGANIZATION TOTAL	2 189,000		
WINNIPEG			
UNIVERSITY OF MANITOBA			
ANTHONISEN, NICHOLAS R	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	3N01 HR62943-08	232,915
CHERNIACK, REUBEN M.....	STUDY TO STANDARDIZE THE MEASUREMENT OF CLOSING VOLUME.....	3N01 HR32903-12	45,100
RIGATTO, HENRIQUE.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62949-09	212,850
ORGANIZATION TOTAL	3 490,865		
COUNTRY TOTAL	22 3,454,317		
FINLAND			
HELSINKI			
CENTRAL PUBLIC HEALTH LABORATORY			
MAKELA, P HELENA	CONDUCTING A FIELD TRIAL OF MENINGOCOCCUS VACCINE	5N01 AI52502-10	124,000
ORGANIZATION TOTAL	1 124,000		
TURKU			
UNIVERSITY OF TURKU			
HAKKINEN, ILKKA P	SCREENING FOR GASTRIC CANCER.....	2N01 CB64070-04	19,580
TOIVANEN, PAAVO	ANIMAL MODELS FOR BONE MARROW TRANSPLANTATION.....	2N01 CB74177-02	43,500
ORGANIZATION TOTAL	2 63,080		
COUNTRY TOTAL	3 187,080		
FRANCE			
LYON			
WORLD HEALTH ORGANIZATION—INTERNATIONAL AGENCY FOR RESEARCH ON CANCER			
AGTHE, C.....	THE EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN.....	5N01 CP45608-16	532,232
BARTSCH, H	SIGNIFICANCE OF EXPERIMENTAL CARCINOGENESIS DATA.....	2N01 CP55630-10	174,540
DAY, N E.....	ETIOLOGY OF ESOPHAGEAL CANCER IN IRAN.....	3N01 CP71048-04	14,154

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
FRANCE—Continued			
HIGGINSON, JOHN.....	SEROEPIDEMIOLOGICAL STUDY OF CARCINOMA AND LYMPHOMA.....	3N01 CP43296-17	136,250
HIGGINSON, JOHN.....	NASOPHARYNGEAL CARCINOMA & BURKITT'S LYMPHOMA.....	1N01 CP91009-00	298,750
LOGAN, W P.....	CANCER MORTALITY RELATED TO OCCUPATION AND SOCIAL CLASS.....	2N01 CP71015-02	19,300
MUIR, C S.....	CLEARINGHOUSE FOR ON-GOING WORK IN CANCER EPIDEMIOLOGY.....	5N01 C055195-06	127,129
ORGANIZATION TOTAL	7	1,302,355	
PARIS			
NATIONAL CENTER FOR SCIENTIFIC RESEARCH			
DE THE, G BLAUDIN.....	STUDY NASOPHARYNGEAL CARCINOMA & ASSOCIATED TUMORS.....	1N01 CP91035-00	183,720
ORGANIZATION TOTAL	1	183,720	
COUNTRY TOTAL	8	1,486,075	
GERMANY BERLIN			
BERLIN			
SCHERING, INC.			
HOROWSKI, REINHARD.....	LONG-ACTING INJECTABLE CONTRACEPTIVE AGENT.....	3N01 HD52817-07	142,477
ORGANIZATION TOTAL	1	142,477	
COUNTRY TOTAL	1	142,477	
GERMANY FEDERAL			
FRANKFURT			
JOHANN WOLFGANG GOETHE UNIVERSITY OF FRANKFURT			
BALDAMUS, C A.....	HEMODIALYSIS/HEMOFILTRATION, COMPARISON OF COST FACTORS.....	2N01 AM82227-02	140,846
ORGANIZATION TOTAL	1	140,846	
GOTTINGEN			
GEORG AUGUST UNIVERSITY OF GOTTINGEN			
KRAMER, P.....	GASTROINTESTINAL DETOXIFICATION OF HEMOFILTRATE.....	2N01 AM72235-03	21,980
ORGANIZATION TOTAL	1	21,980	
HANOVER			
NEPHROLOGY CENTER OF LOWER SAXONY			
QUELLHORST, E.....	HEMODIALYSIS AND HEMOFILTRATION IN CHRONIC RENAL FAILURE.....	2N01 AM82229-01	77,957
ORGANIZATION TOTAL	1	77,957	
HEIDELBERG			
GERMAN CANCER RESEARCH CENTER			
KRAMMER, P H.....	CHARACTERIZATION OF ANTIGEN-BINDING T-CELL RECEPTORS.....	2N01 CB74179-04	74,100
ORGANIZATION TOTAL	1	74,100	
COUNTRY TOTAL	4	314,883	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
GHANA			
LEGON			
UNIVERSITY OF GHANA			
NKRUMAH, F K	EVALUATE VIRAL ETIOLOGY OF BURKITT'S LYMPHOMA	1N01 CP91002-00	58,365
ORGANIZATION TOTAL	1 58,365		
COUNTRY TOTAL	1 58,365		
ISRAEL			
BET-DAGAN			
ISRAELI MINISTRY OF AGRICULTURE—VOLCANI CENTER			
HURWITZ, SHMUEL	PARATHYROID FUNCTION IN RELATION TO BONE DISORDERS	5N01 AM72214-02	25,000
ORGANIZATION TOTAL	1 25,000		
JERUSALEM			
HADASSAH UNIVERSITY HOSPITAL			
STEIN, YEchezkiel	ESTABLISHMENT OF A LIPID RESEARCH CLINIC	2N01 HV53015-14	503,660
ORGANIZATION TOTAL	1 503,660		
HEBREW UNIVERSITY OF JERUSALEM			
MENCZEL, JACOB	OSTEOPOROSIS AND FRACTURE RESEARCH	3N01 AM32204-15	175,242
STEIN, W D	STUDIES OF MAMMALIAN CELL TRANSPORT SYSTEMS	1N01 CP95625-00	62,225
ORGANIZATION TOTAL	2 237,467		
ISRAELI MINISTRY OF HEALTH—CENTER OF REGISTRATION OF CANCER AND ALLIED DISEASES			
KATZ, LEAH H.	CANCER INCIDENCE STUDY & REGISTRY ASSESSMENT	2N01 CP33351-08	105,000
ORGANIZATION TOTAL	1 105,000		
REHOVOT			
WEIZMANN INSTITUTE OF SCIENCE			
BERKE, GIDEON	MOLECULAR STUDIES OF SPECIFIC CELL MEDIATED CYTOTOXICITY	2N01 CB74183-02	112,605
HAAS, MARTIN	INDUCTION OF FUNCTIONAL DIFFERENTIATION OF T-CELLS	2N01 CB74180-02	99,000
SACHS, LEO	ENZYME INDUCTION IN CARCINOGENESIS OF LUNG CANCER	1N01 CP95624-00	125,175
SEGAL, SHRAGA	IMMUNOBIOLOGY OF METASTASES	2N01 CB74185-02	56,100
SHAPIRO, DAVID	PRODUCE 3 RADIOLABELED GLYCOLIPID SUBSTANCES	2N01 NS52300-06	41,825
SHARON, NATHAN	ISOLATION AND CHARACTERIZATION OF HUMAN PBL'S	2N01 CB74163-02	98,300
WINOCOUR, E	STUDY OF ALTERATION IN TRANSLATION OF GENETIC MESSAGES	2N01 CP33220-14	239,368
ORGANIZATION TOTAL	7 772,373		
TEL AVIV			
TEL AVIV UNIVERSITY			
FRENSDORFF, ASHER	INFLUENCE OF CARCINOGENS ON VIRAL GENE EXPRESSION	5N01 CB74118-02	123,040
FRENSDORFF, ASHER	IMMUNIZATION OF MICE WITH PURIFIED MMTV POLYPEPTIDES	5N01 CP71011-02	112,784
WITZ, ISAAC P	EARLY DETECTION OF ANTIBODIES TO SYNGENEIC MOUSE TUMORS	2N01 CB74134-02	100,300
ORGANIZATION TOTAL	3 336,124		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ISRAEL—Continued			
TEL HASHOMER			
CHIAM SHEBA MEDICAL CENTER			
MODAN, BARUCH	EPIDEMIOLOGY OF BENIGN BREAST DISEASE.....	5N01 CB74102-03	90,995
ORGANIZATION TOTAL	1	90,995	
COUNTRY TOTAL	16	2,070,619	
ITALY			
MILAN			
MARIO NEGRI INSTITUTE FOR PHARMACOLOGICAL RESEARCH			
GARATTINI, SILVIO	SCREENING ANTICANCER AGENTS IN EUROPE.....	1N01 CM97250-00	333,500
GARATTINI, SILVIO	EVALUATE AGENTS FOR TREATING ANOREXIA IN CANCER	3N01 CP85604-02	107,646
SPREAFICO, FEDERICO	STUDIES IN IMMUNOCHEMOTHERAPY RESEARCH	3N01 CM53826-05	16,135
ORGANIZATION TOTAL	3	457,281	
NATIONAL INSTITUTE FOR THE STUDY AND CARE OF TUMORS			
VERONESI, UMBERTO	STUDY OF CANCER AND BRAIN TUMORS.....	2N01 CM33714-14	167,780
VERONESI, UMBERTO	COORDINATING CENTER FOR THE CLINICAL STUDY OF MELANOMA.....	2N01 CM43726-09	109,108
ORGANIZATION TOTAL	2	276,888	
NAPLES			
UNIVERSITY OF NAPLES			
GIORDANO, CARMELO	STUDY OF AMINO ACID AND UREMIA.....	3N01 AM90066-15	23,515
GIORDANO, CARMELO	STUDY OF OXYSTARCH AND UREMIA	2N01 AM90070-11	25,000
ORGANIZATION TOTAL	2	48,515	
PAVIA			
UNIVERSITY OF PAVIA			
PAOLETTI, PIETRO.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	5N01 CM67056-05	38,714
ORGANIZATION TOTAL	1	38,714	
PISA			
UNIVERSITY OF PISA			
BIANCHI, ROMANO.....	ALBUMIN & HORMONE METABOLISM IN UREMIA & HEMODIALYSIS.....	2N01 AM80707-17	22,575
ORGANIZATION TOTAL	1	22,575	
COUNTRY TOTAL	9	843,973	
JAPAN			
NAGOYA			
AICHI CANCER CENTER			
NISHIZUKA, YASUAKI.....	PERINATAL ALTERATIONS INFLUENCE ON CARCINOGENESIS.....	5N01 CP55650-09	73,610
ORGANIZATION TOTAL	1	73,610	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
JAPAN—Continued			
OSAKA			
OSAKA CITY UNIVERSITY			
TOKUYAMA, TAKASHI	STUDY OF STRUCTURE OF ALKALOIDS.....	3N01 AM42203-06	3,333
ORGANIZATION TOTAL	1	3,333	
TOKYO			
INSTITUTE OF MICROBIAL CHEMISTRY			
UMEGAWA, HARNO	POTENTIAL ANTITUMOR AGENTS FROM MICROBIAL ORIGIN.....	5N01 CM57009-06	180,000
ORGANIZATION TOTAL	1	180,000	
INTERNATIONAL MEDICAL INFORMATION CENTER			
FUJIKAWA, MASANOBU.....	INTERNATIONAL MEDICAL INFORMATION CENTER SUPPORT.....	2N01 C075362-03	157,855
ORGANIZATION TOTAL	1	157,855	
JAPANESE FOUNDATION FOR CANCER RESEARCH			
IKAWA, YOJI.....	SUPPLY ASIATIC RODENT AND PRIMATE MATERIALS.....	3N01 CP71032-02	19,500
SAKURAI, YOSHIO.....	CANCER LIAISON OFFICE IN JAPAN.....	5N01 CM22054-11	51,000
ORGANIZATION TOTAL	2	70,500	
KYOWA, HAKKO, KOGYO, CO. LTD.			
MASANARA, MISAWA	PLANT AND CELL CULTURE SOURCE FOR ANTINEOPLASTIC AGENTS.....	5N01 CM87190-01	100,000
ORGANIZATION TOTAL	1	100,000	
YAMANOUCHI PHARMACEUTICAL COMPANY			
KAWATA, HIRITSU.....	DEVELOPMENT AND PRODUCTION OF PARENTERAL DOSAGE FORMS.....	1N01 CM97307-00	200,000
ORGANIZATION TOTAL	1	200,000	
COUNTRY TOTAL	8	785,298	
NETHERLANDS			
AMSTERDAM			
NETHERLANDS CANCER INSTITUTE			
BOOT, LOURENS M.....	IMMUNOGENETIC STUDY OF BREAST CANCER AND LEUKEMIA.....	2N01 CP33368-06	101,385
ORGANIZATION TOTAL	1	101,385	
NETHERLANDS RED CROSS			
LOOS, J A.....	CRYOPRESERVATION OF HUMAN MONOCYTES.....	2N01 CB74164-02	54,300
ORGANIZATION TOTAL	1	54,300	
LEIDEN			
STATE UNIVERSITY OF LEIDEN			
VAN ROOD, JON J.....	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 AI82549-03	58,050
VAN ROOD, JON J.....	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 AI82553-03	26,230
ORGANIZATION TOTAL	2	84,280	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1979—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NETHERLANDS—Continued			
RIJSWIJK			
NETHERLANDS' CENTRAL ORGANIZATION TNO			
BENTVELZEN, PETER A	RELEASE OF RNA TUMOR VIRUS & ITS GENETIC CONTROL	2N01 CP43328-07	105,000
BROERSE, JOHANNES J	HORMONES/NEUTRON RADIATION—MAMMARY GLAND CARCINOGENESIS	3N01 CP33330-07	46,000
ORGANIZATION TOTAL	2 151,000		
COUNTRY TOTAL	6 390,965		
NORWAY			
BERGEN			
UNIVERSITY OF BERGEN			
BJELKE, ERIK	ANALYSIS OF NORWEGIAN DIETARY SURVEY DATA	1N01 CP91043-00	82,186
ORGANIZATION TOTAL	1 82,186		
TRONDHEIM			
UNIVERSITY OF TRONDHEIM			
BAKKETEIG, LEIV S	OUTCOME OF SUCCESSIVE PREGNANCIES FOR NORWEGIAN WOMEN	5N01 HD82826-01	20,463
ORGANIZATION TOTAL	1 20,463		
COUNTRY TOTAL	2 102,649		
SWEDEN			
GOTHENBURG			
GOTHENBURG UNIVERSITY			
LINDAHL, TOMAS	BIOMOLECULAR RELATIONSHIP OF HERPES VIRUS AND CANCER	2N01 CP81020-01	106,880
ORGANIZATION TOTAL	1 106,880		
STOCKHOLM			
CAROLINE INSTITUTE			
BERGSTROM, JONAS	STUDY OF UREMIC TOXICOLOGY	2N01 AM22215-13	110,064
KLEIN, EVA	IN VITRO IMMUNIZATION WITH AUTOCHTHONOUS HUMAN TUMOR	2N01 CB74144-02	75,173
KLEIN, GEORGE	ETIOLOGY OF SOME HUMAN CANCERS	5N01 CP33316-08	216,700
ORGANIZATION TOTAL	3 401,937		
UNIVERSITY OF STOCKHOLM			
ERNSTER, LARS	POLYCYCLIC HYDROCARBON METABOLISM IN RESPIRATORY TRACT	5N01 CP33363-09	200,000
ORGANIZATION TOTAL	1 200,000		
UPPSALA			
UNIVERSITY OF UPPSALA			
STENKVIST, BJORN	MORPHOLOGIC AND EPIDEMIOLOGIC ASPECTS OF BREAST CANCER	3N01 CB53968-06	54,670
WIGZELL, HANS L	OBTAIN UNIQUE MARKERS FOR MONONUCLEAR CELLS	2N01 CB74129-02	55,000
ORGANIZATION TOTAL	2 109,670		
COUNTRY TOTAL	7 818,487		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
SWITZERLAND			
GENEVA			
INTERNATIONAL UNION AGAINST CANCER			
DELAFRESNAYE, J F.....	SUPPORT OF THE NCI INTERNATIONAL PROGRAMS.....	5N01 C075377-05	274,126
GRASSI, GUY E.....	INTERNATIONAL SCIENTIST INFORMATION EXCHANGE PROGRAM.....	5N01 C065341-09	528,656
ORGANIZATION TOTAL	2 802,782		
UNIVERSITY OF GENEVA			
ORCI, LELIO.....	CONDUCTING MORPHOLOGICAL STUDIES OF DIABETES.....	2N01 AM72213-05	53,400
ORGANIZATION TOTAL	1 53,400		
WORLD HEALTH ORGANIZATION			
KUPKA, KAREL.....	PREPARATION OF AN INTERNATIONAL NOMENCLATURE OF DISEASES.....	5N01 RG62129-04	60,000
TARIZZO, MARIO L.....	WHO PROGRAM FOR THE PREVENTION OF BLINDNESS.....	1N01 EY92103-00	450,000
TORRIGIANI, G.....	PRODUCE & EVALUATE HRP LABELED ANTIHUMAN GLOBULIN.....	1N01 AI92603-00	29,600
ZAHARA, A.....	DEVELOP INTERNATIONAL GUIDELINES FOR LABORATORY SAFETY.....	1N01 RS92116-00	82,000
ORGANIZATION TOTAL	4 621,600		
COUNTRY TOTAL	7 1,477,782		
UGANDA			
KAMPALA			
MAKERERE UNIVERSITY			
OLWENY, CHARLES M.....	SUPPORT FOR CANCER TREATMENT CENTER.....	3N01 CM71343-21	9,975
ORGANIZATION TOTAL	1 9,975		
COUNTRY TOTAL	1 9,975		
UNITED KINGDOM			
EDINBURGH			
INVERESK RESEARCH INTERNATIONAL			
MC GREGOR, DOUGLAS.....	MICROBIAL SYSTEMS AS PREScreens FOR CHEMICAL CARCINOGENS.....	2N01 CP75858-05	187,749
ORGANIZATION TOTAL	1 187,749		
WESTERN GENERAL HOSPITAL			
PETTIGREW, ROBERT T.....	HYPERTHERMIA AND RADIOTHERAPY IN BRONCHIAL CANCER.....	1N01 CM97231-00	25,000
ORGANIZATION TOTAL	1 25,000		
GLASGOW			
UNIVERSITY OF GLASGOW			
JARRETT, WILLIAM F.....	CARCINOGENS AND PAPILLOMA VIRUSES IN CATTLE CANCER.....	5N01 CP81022-01	55,788
ORGANIZATION TOTAL	1 55,788		
LEATHERHEAD			
BRITISH FOOD MANUFACTURING INDUSTRIES RESEARCH ASSOCIATION			
WALTERS, CLIFFORD L.....	N-NITROSO COMPOUNDS AND PRECURSORS IN THE ENVIRONMENT.....	2N01 CP43337-10	45,558
ORGANIZATION TOTAL	1 45,558		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1979—Continued

Project director	Purpose of contract	Contract No.	Dollars
LONDON			
CITY UNIVERSITY			
WAKE, W C.....	DEVELOP BIOMATERIALS FOR NEURAL PROSTHESES.....	2N01 NS82394-01	52,052
ORGANIZATION TOTAL	1 52,052		
MEDICAL RESEARCH COUNCIL			
GREGORIADIS, GREGORY.....	LIPOSOMAL ENCAPSULATION OF ANTITUMOR AGENTS.....	5N01 CM87171-01	71,831
KIRK, DAVID N.....	STERIOD COLLECTION FOR MEDICAL RESEARCH.....	2N01 AM50032-18	40,320
PARSONS, JOHN A.....	DEVICES FOR IMPROVED MANAGEMENT OF DIABETES.....	1N01 AM92200-00	258,838
ORGANIZATION TOTAL	3 370,989		
UNIVERSITY OF LONDON			
ADAMS, GERALD E.....	SYNTHESIS OF RADIOSENSITIZING AGENTS.....	3N01 CM77139-04	201,437
HARRAP, KENNETH R.....	MODEL SYSTEM DEVELOPMENT & ANTICANCER AGENT COLLECTION.....	2N01 CM43736-11	105,000
HICKS, R MARIAN.....	PREVENTION OF EPITHELIAL CANCER BY RETINOIDS.....	5N01 CP75938-03	86,710
HICKS, R MARIAN.....	STUDIES OF CARCINOGENESIS IN HUMAN TISSUES.....	3N01 CP75955-07	164,119
ORGANIZATION TOTAL	4 557,266		
NOTTINGHAM			
UNIVERSITY OF NOTTINGHAM			
BALDWIN, ROBERT W.....	DETECTION OF TUMOR SPECIFIC ANTIGENS IN THE CIRCULATION.....	2N01 CB74167-02	58,780
ORGANIZATION TOTAL	1 58,780		
COUNTRY TOTAL	13 1,353,182		

APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetic sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization.

United States

American Association for Accreditation of Laboratory Animal Care (formerly shown as American Association for Laboratory Animal Science)--Joliet, Ill.

Battelle Memorial Institute--Columbus, Ohio; Richland, Wash.

Becton, Dickinson and Company--Baltimore, Md.; Research Triangle Park, N.C.

Blood Center of Southeastern Wisconsin (formerly shown as Milwaukee Blood Center)--Milwaukee, Wisc.

Booz, Allen and Hamilton--Bethesda, Md.; Philadelphia, Pa.

Boston Health and Hospitals Department (may include awards to Mallory Institute of Pathology Foundation)--Boston, Mass.

CDP Associates--La Jolla, Calif.; Rockville, Md.

College of Medicine and Dentistry of New Jersey--Newark, Piscataway, N.J.

Cornell University--Ithaca, New York, N.Y.

E G & G, Inc.--Rockville, Md.; Wellesley, Worcester, Mass.

Electro-Nucleonics Laboratories--Bethesda, Silver Spring, Md.

Enviro Control--Rockville, Temple Hills, Md.

Flow Laboratories--Rockville, Md.; Mc Lean, Va.

General Tire and Rubber Company--Folsom (2 units), Calif.

Indiana State Department of Mental Health (may include awards to Association for Advancement of Mental Health Research and Education, Inc.)--New Castle, Ind.

Kaiser Foundation Hospitals--Los Angeles, Oakland, Calif.; Portland, Oreg.

Los Angeles County Health Services Department--Los Angeles, Torrance, Calif.

Mitre Corporation--Bedford, Mass.; Mc Lean, Va.

New York City Health Services Administration (may include awards to Medical and Health Research Association of New York City)--New York (2 units), N.Y.

New York State Commission on Alcoholism and Substance Abuse (formerly shown as New York State Office of Drug Abuse Services)--New York, N.Y.

New York State Department of Health (may include awards to Health Research, Inc.)--Albany, Buffalo, N.Y.

New York State Department of Mental Hygiene (may include awards to New York State Research Foundation for Mental Hygiene, Inc.)--Albany, N.Y.

Northwestern University--Chicago, Evanston, Ill.
 Old Dominion Systems--Gaithersburg (2 units), Md.
 Operations Research--Bethesda, Silver Spring, Md.
 Oregon State Higher Education System--Corvallis, Portland, Oreg.
 Pennsylvania State University--Hershey, University Park, Pa.
 RCA Corporation--Camden, Cherry Hill, N.J.
 State University of New York--Albany, Buffalo, New York, Stony Brook,
 Syracuse, N.Y.
 State University System of Florida--Gainesville, Tallahassee, Tampa,
 Fla.
 Tulane University--Covington, New Orleans, La.
 U.S. Smithsonian Institution--Washington (2 units), D.C.
 University of California--Berkeley, Davis, Irvine, La Jolla, Los
 Angeles, San Francisco, Santa Cruz, Calif. The unit in La Jolla
 may include awards to Friends of Psychiatric Research of San Diego.
 University of Connecticut--Farmington, Storrs, Conn.
 University of Illinois--Chicago, Rockford, Urbana, Ill.
 University of Kansas--Kansas City, Lawrence, Ks.
 University of Maryland System--Baltimore, College Park, Md.
 University of Minnesota--Duluth, Minneapolis, Minn.
 University of Nebraska System--Lincoln, Omaha, Nebr.
 University of North Carolina System--Chapel Hill, Greensboro, N.C.
 University of Texas System--Austin, Dallas, Galveston, Houston (2 units)
 San Antonio (2 units), Tyler, Tex.
 University System of Georgia--Athens, Atlanta, Augusta, Ga.
 Utah State Higher Education System--Logan, Salt Lake City, Utah
 Whittaker Corporation--Bethesda, Walkersville, Md.
 Zweng Memorial Retinal Research Foundation (formerly shown as Palo
 Alto Retinal Research Foundation in Palo Alto, Calif.)--Menlo Park,
 Calif.

Other Countries

World Health Organization--Lyon, France; Geneva, Switzerland



NIH Publication No. 80 - 1044

NATIONAL INSTITUTES OF HEALTH

Research Grants

Year Fiscal Year 1980 Funds



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service National Institutes of Health

DISCRIMINATION PROHIBITED: Under provisions of applicable public laws enacted by Congress since 1964, no person in the United States shall, on the ground of race, color, national origin, sex, or handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. In addition, Executive order 11141 prohibits discrimination on the basis of age by contractors and subcontractors in the performance of Federal contracts. Therefore, the National Institutes of Health grants and awards program, like every program or activity receiving financial assistance from the Department of Health and Human Services must be operated in compliance with these laws and executive order.

NATIONAL INSTITUTES OF HEALTH

Research Grants

Fiscal Year 1980 Funds

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service National Institutes of Health

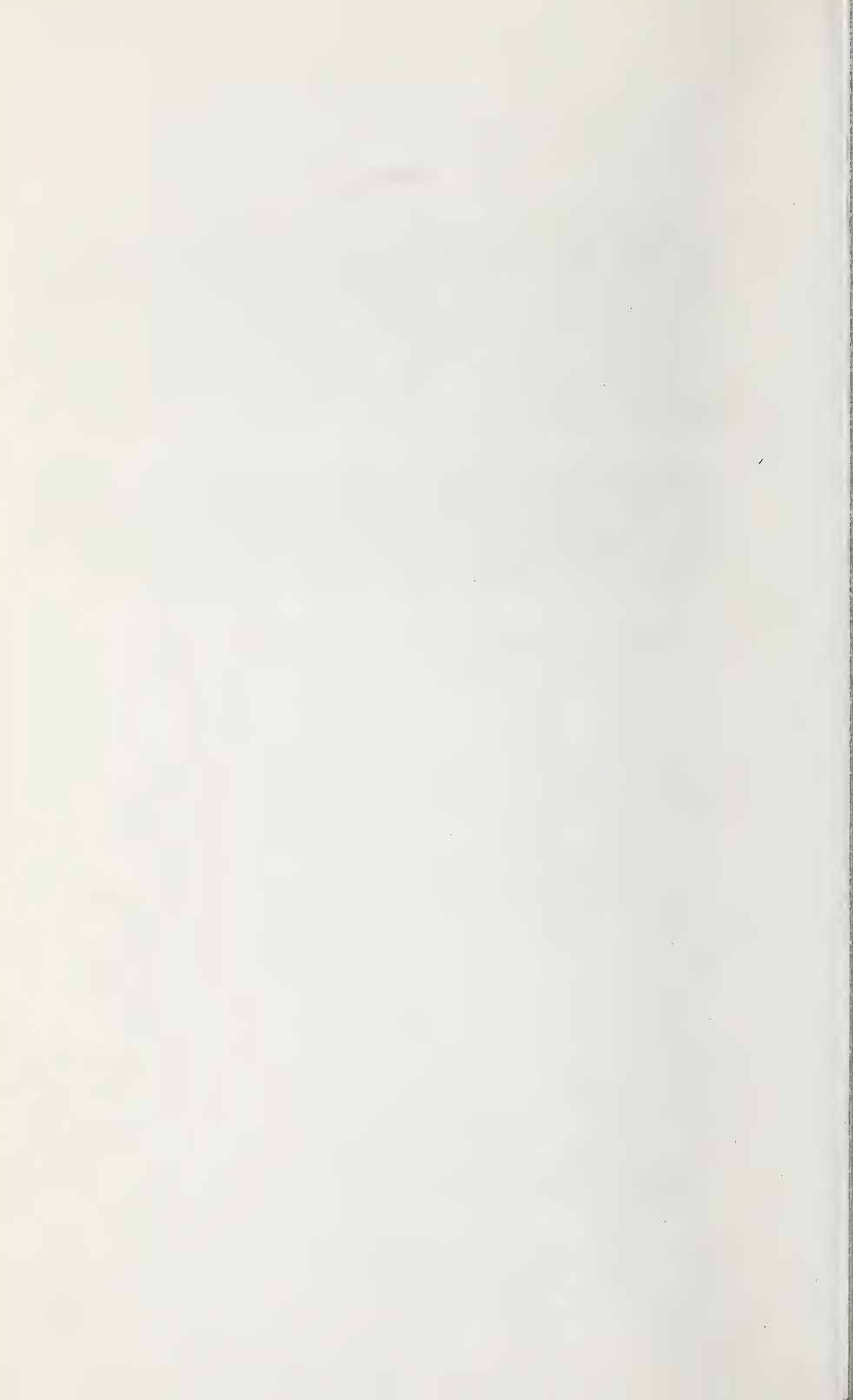
NIH Publication No. 81-1042

Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the research contract mechanism is used under appropriate circumstances.

Listings of NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents a listing of the research grants (including the research career development awards) awarded by NIH from fiscal year 1980 funds. Research grants awarded by other constituent agencies of the Public Health Service are not included in this volume.



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TECHNICAL NOTE

Cancer Control Grants

The research demonstration and dissemination projects of the National Cancer Institute are no longer being included in this volume for the sake of conformity with their treatment in the budgetary process. These grants, commonly referred to as cancer control grants, are shown separately from research grants in the budget, and their exclusion from this volume reflects their treatment generally in analytical studies. Accordingly, the cancer control grants will be shown as a separate table in another volume of this series.

Organization Identification

In the presentation of grants made from fiscal year 1980 funds, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the principal investigator lies. Study of the structure of grantee organizations in the United States (primarily universities and colleges, and State Departments of Mental Health or their equivalents) has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education is comprised of two or more campuses reporting directly to the central administration, each campus is listed separately.
2. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and the organization is listed as many times within a given city as there are components of the organization receiving grants.
3. If a foundation has been established for the purpose of receiving and administering funds for grants, the name and location of the organization having professional responsibility for the grant are shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
4. If an association receiving a grant has a fixed national headquarters, the grants are listed at the headquarters location. If however, the association does not have a fixed headquarters, the grants are listed in the city shown for this organization in either the Encyclopedia of Associations (1) or the Research Centers Directory (2).

These qualifications do not apply to foreign institutions or to some domestic organizations, because a systematic study of their organizational structure has not been made. Organizations which require a clarifying comment, or which appear in more than one geographical location are listed alphabetically in the Appendix.

Supplemental Awards

In this publication, supplemental awards are combined with the parent grant, or with other supplements, when both awards are made from the same fiscal year funds. Supplemental grants awarded in fiscal year 1980 to parent grants awarded in a previous fiscal year are shown separately; if two or more such supplements were made during fiscal year 1980, these supplements are combined.

-
- (1) Fiske, M. (Ed.): Encyclopedia of Associations. Gale Research Co., Detroit, Mich., 13 ed., Vol. 1 and supplements, 1979.
 - (2) Palmer, A.M. (Ed.): Research Centers Directory. Gale Research Co., Detroit, Mich., 6 ed. and supplements, 1978.

ABBREVIATIONS

The NIH component supporting a grant is indicated by the code letters in the left-hand column. These code letters form part of the identification of the grant number.

<i>Code for supporting component</i>		<i>Abbreviation of supporting component</i>
	Institutes and Research Divisions.....	IRD
AG	National Institute on Aging.....	NIA
AI	National Institute of Allergy and Infectious Diseases.....	NIAID
AM	National Institute of Arthritis, Metabolism, and Digestive Diseases.....	NIAMDD
CA	National Cancer Institute.....	NCI
DE	National Institute of Dental Research.....	NIDR
ES	National Institute of Environmental Health Sciences.....	NIEHS
EY	National Eye Institute.....	NEI
GM	National Institute of General Medical Sciences.....	NIGMS
HD	National Institute of Child Health and Human Development.....	NICHD
HL	National Heart, Lung, and Blood Institute.....	NHLBI
NS	National Institute of Neurological and Communicative Disorders and Stroke.....	NINCDS
RR	Division of Research Resources.....	DRR
TW	Fogarty International Center.....	FIC
LM	National Library of Medicine.....	NLM
	National Institutes of Health.....	NIH

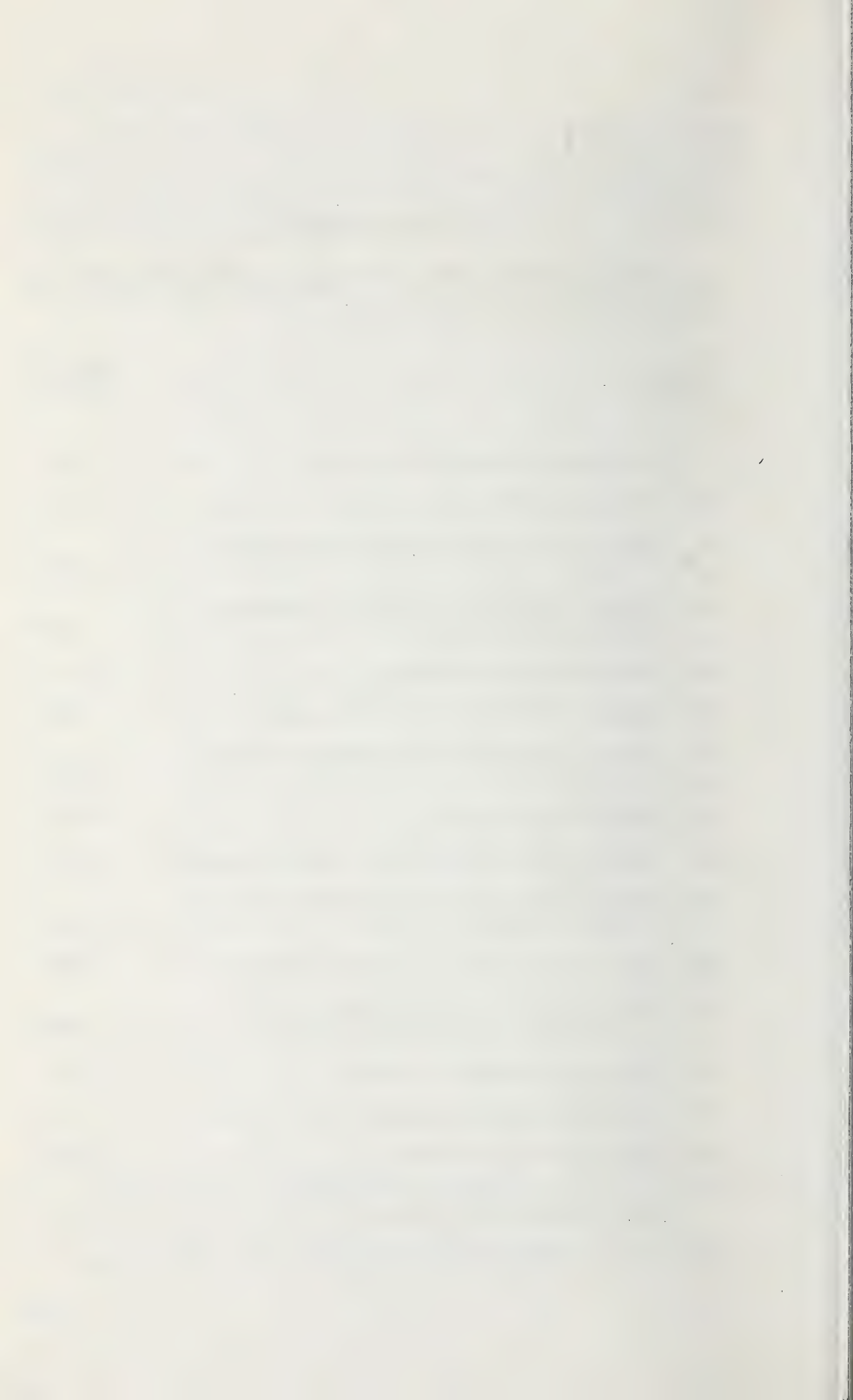


TABLE 1.--SUMMARY OF NIH RESEARCH GRANTS AND AWARDS BY SUPPORTING COMPONENT, FISCAL YEAR 1980

SUPPORTING COMPONENT	ALL RESEARCH GRANTS				RESEARCH PROJECTS, PROGRAM PROJECTS, AND CENTERS, AND GENERAL SUPPORT				RESEARCH CAREER AWARDS			
	NUMBER		DOLLARS		NUMBER		DOLLARS		NUMBER		DOLLARS	
	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS
TOTAL NATIONAL INSTITUTES OF HEALTH.....	19,941	2,137,377,977	18,587	2,086,298,618	1,354	51,079,359						
INSTITUTES AND RESEARCH DIVISIONS.....	19,865	2,132,735,474	18,520	2,081,911,702	1,345	50,823,772						
DIVISION OF RESEARCH RESOURCES.....	818	165,909,277	817	165,870,596	1	38,681						
NATIONAL CANCER INSTITUTE.....	3,445	462,908,266	3,318	458,188,305	127	4,719,961						
NATIONAL EYE INSTITUTE.....	1,076	85,260,232	1,005	82,827,649	71	2,432,583						
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE.....	2,789	345,234,064	2,495	334,153,376	294	11,080,688						
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES.....	1,592	140,642,577	1,482	136,669,510	110	3,973,067						
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES.....	2,778	252,051,072	2,489	240,364,788	289	11,686,284						
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT.....	1,377	138,483,584	1,290	135,369,325	87	3,114,259						
NATIONAL INSTITUTE OF DENTAL RESEARCH.....	417	38,822,407	382	37,525,607	35	1,296,800						
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES.....	334	39,977,663	314	39,328,083	20	649,580						
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.....	2,965	253,323,333	2,877	250,408,235	88	2,915,098						
NATIONAL INSTITUTE ON AGING.....	479	42,441,190	444	40,704,871	35	1,736,319						
NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE.....	1,795	167,681,809	1,607	160,501,357	188	7,180,452						
NATIONAL LIBRARY OF MEDICINE.....	76	4,642,503	67	4,386,916	9	255,587						

NOTE:--For information as to how this table was prepared, see Technical Note, p. vii.

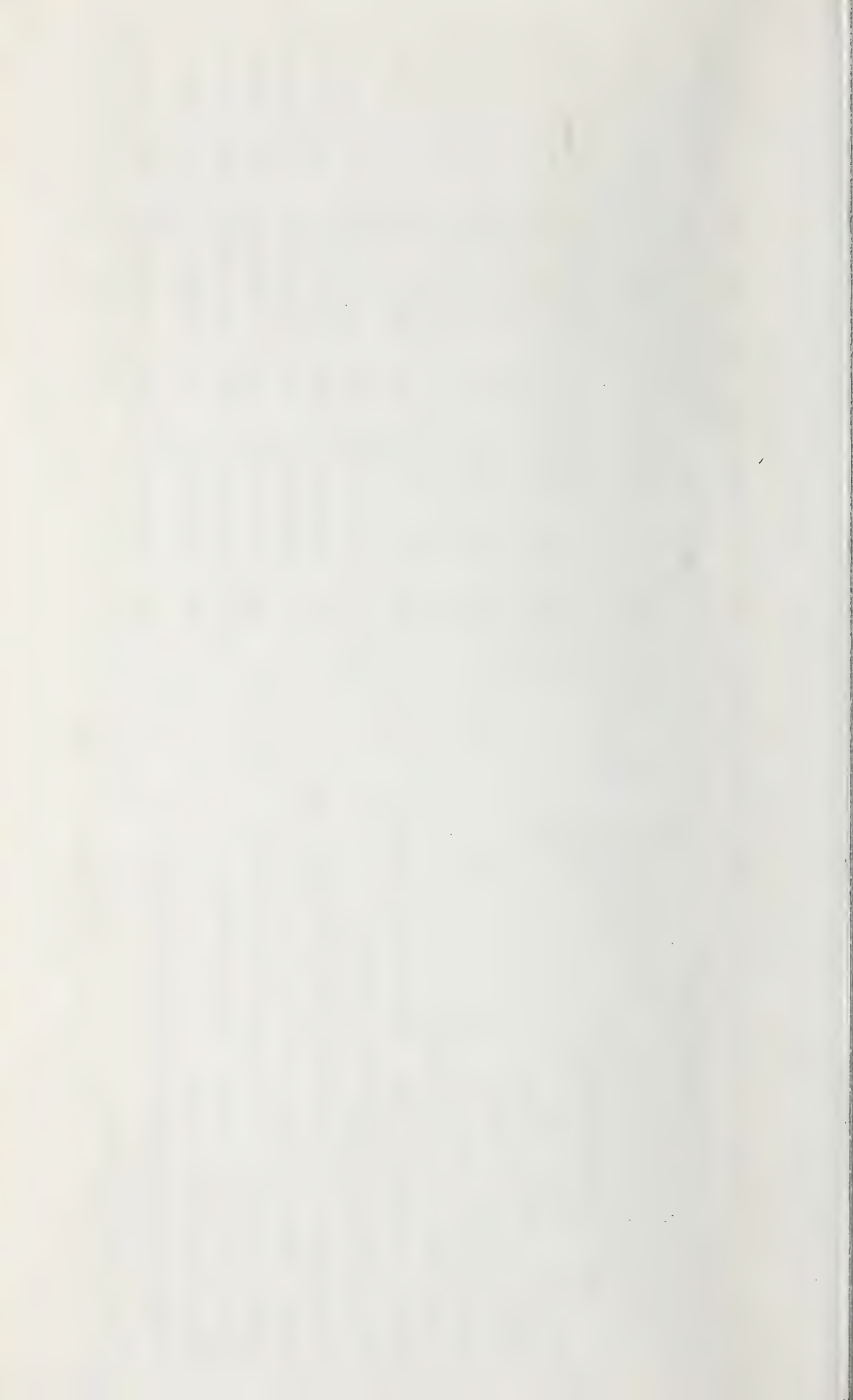


Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980

Principal investigator	Project title	Grant number	Dollars
GRAND TOTAL, 18,587 GRANTS.....			2,086,298,618
UNITED STATES,* 18,381 GRANTS.....			2,075,159,181
OTHER COUNTRIES, 206 GRANTS.....			11,139,437

UNITED STATES

ALABAMA

AUBURN

AUBURN UNIVERSITY AT AUBURN ZIP CODE 36830			
AULL, JOHN L.....	ISOLATION AND CHARACTERIZATION OF DEUTERATED ENZYMES.....	5R01 GM27013-02	59,472
LATIMER, PAUL H.....	OPTICAL PROPERTIES OF PLATELETS AND ERYTHROCYTES.....	3R01 HL18256-02S1	2,098
ORGANIZATION TOTAL	2	61,570	

BIRMINGHAM

EYE FOUNDATION HOSPITAL ZIP CODE 35233			
PRISTER, ROSWELL R.....	ASCORBIC ACID THERAPY IN ALKALI BURNS OF THE EYE.....	5R01 EY03186-02	147,110
ORGANIZATION TOTAL	1	147,110	

MILES COLLEGE ZIP CODE 35208

BROWN, GRACE L.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08160-03	74,861
ORGANIZATION TOTAL	1	74,861	

SOUTHERN RESEARCH INSTITUTE ZIP CODE 35205

BENNETT, L LEE, JR.....	MECHANISM OF ACTION OF NEW ANTICANCER DRUGS.....	3R01 CA23155-02S1	45,313
BENNETT, L LEE, JR.....	DEOXYNUCLEOSIDE ANALOGS: METABOLISM AND LOCI OF ACTION.....	2R01 CA23155-03	167,716
BENNETT, L LEE, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05676-04	106,667
BROCKMAN, ROBERT W.....	BIOCHEMICAL STUDY OF COLON TUMOR ANTICANCER AGENTS.....	5R26 CA20070-05	99,494
COWSAR, DONALD R.....	A MINIATURIZED CARBON-FIBER HEMOPERFUSION DEVICE.....	5R01 HL23395-02	81,759
GRISWOLD, DANIEL P, JR.....	BIOLOGY AND TREATMENT OF MURINE COLON CARCINOMA.....	5R26 CA17303-06	255,202
HILL, DONALD L.....	METABOLIC ACTIVATION OF LABELED INDICINE N-OXIDE.....	5R01 CA24595-02	63,238
HILL, DONALD L.....	METABOLISM AND ANTITUMOR ACTIVITY OF AMINOTHIAZAZOLES.....	5R01 CA26383-02	81,565
LEWIS, DANNY H.....	DEVELOPMENT OF A SOFT DENTURE LINER FOR PROLONGED USE.....	5R01 DE04794-03	48,315
MONTGOMERY, JOHN A.....	ENZYME INHIBITORS AS NEW TYPES OF ANTICANCER AGENTS.....	5R01 CA23173-03	186,971
MONTGOMERY, JOHN A.....	NUCLEOSIDE ANALOG METABOLISM AND ANTICANCER ACTIVITY.....	5R01 CA24975-02	123,380
PIPER, JAMES R.....	DEVELOPMENTAL ANTIFOLATE THERAPY OF CANCER.....	5R01 CA25236-02	95,388

*Includes Puerto Rico

NOTE: Grants are listed according to the State or Country and City of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
SCHABEL, FRANK M. JR.	RADIO/CHEMOTHERAPY OF TUMORS IN EXPERIMENTAL ANIMALS.	5R01 CA26485-02	234,962
SHEALY, Y. FULMER.	CHEMICALLY REACTIVE COMPOUNDS FOR CANCER CHEMOTHERAPY.	5R01 CA23127-03	163,941
SHEALY, Y. FULMER.	PYRIMIDINES FOR ANTICANCER AND ANTIVIRAL CHEMOTHERAPY.	5R01 CA25701-02	176,269
SIMPSON-HERREN, LINDA K.	RELATIONSHIP OF LIGHTLY LABELED CELLS TO DRUG EFFECT.	5R01 CA25313-02	86,844
TEMPLE, CARROLL G. JR.	MULTISUBSTRATE, PSEUDOCOFACTOR ENZYME INHIBITORS.	5R01 CA23141-03	160,938
TEMPLE, CARROLL G. JR.	NEW ANTICANCER AGENTS: 1-DEAZADIHYDROPTERIDINES.	1R01 CA25311-01A1	138,587
WANG, CHIH-CHENG.	BIOTRANSFORMATION OF RETINOLIDS IN VITRO.	1R01 CA26815-01	64,545
ORGANIZATION TOTAL	19	2,381,094	
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294			
ALFORD, CHARLES A. JR.	PERINATAL INFECTIONS, IMMUNITY AND MALDEVELOPMENT.	5P01 HD10699-04	381,285
BAKER, HENRY J. JR.	AN ANIMAL MODEL OF HUMAN GANGLIOSIDOSIS.	5R01 NS10967-08	112,168
BAKER, HENRY J. JR.	LABORATORY ANIMAL RESOURCE FOR BIOMEDICAL RESEARCH.	5P40 RR00463-12	153,563
BALCH, CHARLES M.	ROLE OF SUPPRESSOR CELLS IN MELANOMA PATIENTS.	1R01 CA27197-01	106,651
BARGER, BRUCE O.	MODEL FOR SPONTANEOUS DIABETES.	5R01 AM25478-02	41,424
BARGER, BRUCE O.	LINKAGE OF THE RHEUMATOID ARTHRITIS GENES TO HLA.	1R01 AM27522-01	54,519
BARNES, STEPHEN.	BASIS OF SEX-DIFFERENCES IN BILE ACID SULFATION.	1R01 AM25511-01A1	60,631
BARTOLUCCI, ALFRED A.	SOUTHEASTERN GROUP STATISTICAL SERVICES.	2R10 CA24456-03A1	806,966
BENNETT, J. CLAUDE.	GAMMA GLOBULIN STRUCTURE.	5R01 AI09153-15	93,006
BENNETT, J. CLAUDE.	COORDINATED STUDIES IN RHEUMATIC DISEASES.	5P01 AM03555-21	303,630
BENNETT, J. CLAUDE.	MULTIPURPOSE ARTHRITIS CENTER.	2P60 AM20614-04	396,845
BISHOP, DAVID H.	GENETIC AND MOLECULAR STUDIES OF ARENAVIRUSES.	5R01 AI14183-03	68,869
BISHOP, DAVID H.	GENETIC AND MOLECULAR STUDIES OF BUNYAVIRUSES.	5R22 AI15400-02	112,118
BISHOP, SANFORD P.	QUANTITATIVE PATHOLOGY OF CARDIAC HYPERTROPHY.	5R01 HL23255-02	91,214
BOOTS, LARRY R.	MODEL FOR THE STUDY OF TROPHOBLASTIC NEOPLASIA.	5R01 CA25974-02	47,617
BRASCHIO, DONN J.	CANCER EDUCATION GRANT.	5R25 CA17965-06	144,312
BRATTAIN, MICHAEL G.	TISSUE CULTURE OF PURIFIED COLONIC CARCINOMA CELLS.	5R26 CA21520-03	55,273
BRIDGERS, WILLIAM F.	BIOMEDICAL RESEARCH SUPPORT.	1S07 RR05829-01	18,330
BRILES, DAVID E.	IMMUNODEFICIENCY AND SALMONELLA SUSCEPTIBILITY.	5R01 AI15986-02	90,331
BRILES, EVE B.	SELECTION AND CHARACTERIZATION OF ADHESION VARIANTS.	5R01 AM25822-02	57,454
BROWN, GEORGE B.	CHARACTERIZATION OF 3H-BATRACHOTOXIN-BENZOATE BINDING.	5R01 NS15617-02	20,961
BUGG, CHARLES E.	CRYSTAL STRUCTURES OF PURINE AND PYRIMIDINE ANALOGS.	5R01 CA12159-09	45,449
BUGG, CHARLES E.	CRYSTAL STRUCTURES OF TOXINS.	1R01 ES02467-01	78,818
BUTLER, WILLIAM T.	STUDIES OF PROTEINS INVOLVED IN DENTINOGENESIS.	5R01 DE05092-02	81,932
BUTTERWORTH, C. E. JR.	CORE CLINICAL NUTRITION RESEARCH CENTER.	5P01 CA28103-02	203,518
CAIN, STEPHEN M.	SURVIVAL VALUE OF PHYSIOLOGIC RESPONSES TO HYPOXIA.	5R01 HL14693-09	77,145
CASSELL, GAIL H.	MYOPLASMAS AND INFERTILITY: PATHOGENIC MECHANISMS.	5R01 HD11447-03	102,290
CASSELL, GAIL H.	MURINE CRD: A MODEL OF CHRONIC PULMONARY INFLAMMATION.	5R01 HL19741-05	129,264
CASSELL, GAIL H.	CONTROL OF RESPIRATORY MYOPLASMOSIS.	5R24 RR00959-05	55,336
CATERSON, BRUCE.	DEGENERATIVE JOINT DISEASE IN DIABETES.	1R23 AM26584-01	35,280
CHEUNG, HERBERT C.	RAPID KINETIC STUDY OF MYOSIN ADENOSINETRIPHOSPHATASE.	5R01 AM17483-04	71,427
CHEUNG, HERBERT C.	FLUORESCENCE STUDIES OF MUSCLE REGULATORY SYSTEM.	5R01 AM25193-02	53,237
CHRISTIAN, SAMUEL T.	MOLECULAR STUDIES OF DOWN'S SYNDROME.	5R01 HD11893-02	60,431
CHRISTNER, JAMES E.	THE CNBR CLEAVAGE OF CHONDROSARCOMA PROTEOGLYCAN.	1R01 AM27308-01	51,141
CLEMENTS, REX S. JR.	PHOSPHATIDYLINOSITOL METABOLISM AND INSULIN SECRETION.	5R01 AM21065-04	46,528
COMPANS, RICHARD W.	INFLUENZA VIRUS STRUCTURE, BIOSYNTHESIS, AND ASSEMBLY.	5R01 AI12680-06	84,606
COMPANS, RICHARD W.	MOLECULAR STUDIES OF ONCORNA AND ARENAVIRUSES.	5R01 CA18611-06	79,623
CONRAD, MARCEL E.	IRON—INTESTINAL MUCOSAL METAL BINDING PROTEINS.	5R01 AM21416-03	94,083
COOK, WILLIAM J.	THE MOLECULAR STRUCTURE OF UBIQUITIN.	1R01 GM27144-01	39,916
COOPER, MAX D.	CELL DIFFERENTIATION STUDIES IN CANCER IMMUNOBIOLOGY.	2P01 CA16673-06	560,999
CRIST, WILLIAM M.	SOUTHWEST ONCOLOGY STUDY GROUP.	2R10 CA25408-02	128,853
CURTISS, ROY, III.	EXTRACHROMOSOMAL ELEMENTS IN GRAM NEGATIVE BACTERIA.	5R01 AI11456-08	66,825
DI BONA, DONALD R.	DIRECT VISUALIZATION OF ADH-INDUCED WATER FLOW.	5R01 AM25788-02	69,880
DILLON, HUGH C. JR.	DIPLOCOCCUS PNEUMONIAE: INFECTION AND IMMUNITY.	5R01 HD09732-05	74,029
DILLON, HUGH C. JR.	GROUP B STREPTOCOCCAL INFECTIONS.	1R01 HD13920-01	104,990
DURANT, JOHN R.	CANCER CENTER CORE SUPPORT GRANT (COMPREHENSIVE).	5P30 CA13148-09	2,051,292
DURANT, JOHN R.	SOUTHEASTERN CANCER STUDY GROUP.	2R10 CA19657-05	700,245
DURANT, JOHN R.	DEVELOPMENT OF CENTRALIZED CANCER PATIENT DATA SYSTEM.	2R10 CA21182-04	103,417
DUSTAN, HARRIET P.	MECHANISMS OF HYPERTENSION.	5R01 HL23201-03	132,926
DUSTAN, HARRIET P.	HYPERTENSION SPECIALIZED CENTER OF RESEARCH.	1P50 HL25451-01	786,918
FRANGAKIS, CRIST J.	CALMODULIN AND CALCIUM, REGULATORS OF INSULIN ACTION.	1R23 AM26791-01	45,515

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
FULLMER, HAROLD M.	INSTITUTE OF DENTAL RESEARCH	5P50 DE02670-14	2,005,587
GALLA, JOHN H.	STERIOD-INDUCED HYPERLIPIDEMIA AND HYPERTENSION	7R01 HL26870-01	27,234
GAMS, RICHARD A.	CELLULAR INCORPORATION OF VITAMIN B-12	5R01 CA20709-03	45,207
GHANTA, VITHAL K.	STUDY OF MICROMETASTASIZED STABLE MURINE TUMOR CLONES	5R01 CA25965-02	58,294
GLAZE, ROBERT P.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07178-03	25,126
GLICKSON, JERRY D.	THE SOLUTION CONFORMATION OF ANGIOTENSIN II	5R01 AM21980-03	30,758
GLICKSON, JERRY D.	STUDIES OF BLEOMYCIN BINDING TO NUCLEIC ACIDS	5R01 CA24411-02	53,644
GLICKSON, JERRY D.	NMR TECHNIQUES FOR DELINEATING PEPTIDE CONFORMATIONS	5R01 GM24852-02	50,858
GOODMAN, ARNOLD L.	REGULATION OF THE PRIMATE OVARIAN CYCLE	1R01 HD14573-01	44,301
HALSEY, JAMES H., JR.	CEREBROVASCULAR DISEASE RESEARCH CENTER	3P50 NS08802-10S2	46,993
HALSEY, JAMES H., JR.	CEREBROVASCULAR DISEASE RESEARCH CENTER	2P50 NS08802-11	878,317
HEMSTREET, GEORGE P., III	IMMUNE RECOGNITION OF AUTOLOGOUS RENAL CELL CARCINOMA	5R23 CA24875-03	31,955
HICKEY, TERRY L.	DEVELOPMENT OF THE HUMAN LATERAL GENICULATE NUCLEUS	2R01 EY02159-03	36,134
HICKEY, TERRY L.	VISION RESEARCH CENTER (CORE)	5P30 EY03039-02	143,351
HIRAMOTO, RAYMOND N.	A MODEL FOR MULTIPLE MODALITY THERAPY OF OSTEOSARCOMA	5R01 CA16699-02	69,215
HIRSCHOWITZ, BASIL I.	CONTROL OF GASTRIC SECRETION	5R01 AM09260-14	84,705
HOOK, MAGNUS	STRUCTURE AND FUNCTION OF THE EXTRACELLULAR MATRIX	1R01 AM27807-01	82,236
HSIEH, H. STEVE	BIOCHEMICAL ROLE OF ZINC IN TEETH AND BONES	5R23 DE05037-02	27,151
HUNTER, ERIC	GENETICS OF PRIMATE 'D' TYPE RETROVIRUSES	1R01 CA27834-01	69,086
HURST, ROBERT E.	HEPARIN: RELATION OF ANTICOAGULATION TO STRUCTURE	5R01 HL24509-02	90,946
JAMES, THOMAS N.	MECHANISMS OF CARDIOVASCULAR DISEASE	5P01 HL11310-14	1,626,473
KATHOLI, RICHARD E.	SYMPATHETIC CONTROL OF THE KIDNEY	5R01 HL24420-02	88,530
KEARNEY, JOHN F.	REGULATION OF B CELL CLONAL DIVERSITY	5R01 AI14782-03	47,810
KEMP, GEORGE E.	PURIFICATION OF ACETYLCHOLINE RECEPTOR FROM MUSCLE	5R01 NS14262-03	25,733
KIM, HYUN D.	MEMBRANE-LIMITED METABOLISM IN MAMMALIAN RED CELLS	5R01 AM27570-02	54,514
KOOPMAN, WILLIAM J.	REGULATION OF HUMAN IMMUNOGLOBULIN SYNTHESIS IN VITRO	5R01 AI14807-02	58,102
KRISHNA, N. RAMA	NMR STUDIES OF T AND B CELL DIFFERENTIATING PEPTIDES	5R01 GM25219-02	57,829
KRUMDIECK, CARLOS L.	BIOCHEMISTRY OF PTEROYL-POLYGLUTAMATES	5R01 GM23453-03	62,883
KU, DAVID D.	FUNCTION OF SODIUM PUMP IN MYOCARDIAL ISCHEMIA	5R23 HL24485-02	39,539
LAMON, EDDIE W.	THE IMMUNE RESPONSE TO VIRALLY DETERMINED TUMOR ANTIGENS	5R01 CA17273-06	112,644
LAVEN, GEORGE T.	MATERNAL MALNUTRITION	5R23 DE05006-02	31,411
LEBOWITZ, JACOB	CIRCULAR DNA—IMPLICATIONS FOR CANCER & DRUG RESISTANCE	5R01 CA17077-06	78,687
LEBOWITZ, JACOB	THE ANALYSIS OF SPECIFIC PROTEIN-DNA ASSOCIATIONS	5R01 GM26468-02	67,816
LOOP, MICHAEL S.	PSYCHOPHYSICAL EFFECTS OF VISUAL DEPRIVATION	5R01 EY03303-03	40,910
LORDEN, JOAN F.	CENTRAL MONAMINE SYSTEMS AND BODY WEIGHT REGULATION	2R01 NS14755-03	55,995
MARTINEZ, MARIO G.	CLINICAL CANCER EDUCATION PROGRAM (DENTAL)	5R25 CA17934-06	69,558
MAYNE, RICHARD	COLLAGEN POLYMORPHISM AND ARTERIAL STRUCTURE	5R01 HL21665-03	25,315
MAYS, LAWRENCE E.	NEURAL MECHANISMS OF VERGENCE EYE MOVEMENTS	1R01 EY03463-01	69,257
MC CANN, WILLIAM P.	ARABINOSYLADENINE PHARMACOKINETICS IN HUMAN DISEASE	1R01 AI16444-01	85,345
MC GHEE, JERRY R.	EFFECTIVE IMMUNITY TO DENTAL CARIES: CELLULAR BASIS	5R01 DE04217-06	108,799
MESTECKY, JIRI F.	SECRETORY IGA SYSTEM: MOLECULAR-CELLULAR INTERACTIONS	5R01 AI10854-09	92,688
MILLER, MORGAN L.	ROLE OF FIBRINOGEN AND ENDOTOXIN IN 6-SAI ARTHRITIS	1R01 AM26215-01	38,000
MOLE, JOHN E.	STRUCTURAL ROLE OF FACTOR B IN IMMUNE REGULATION	5R01 AI15417-02	62,243
NAVAR, LUIS G.	REGULATION OF RENAL HEMODYNAMICS	5R01 HL18426-06	100,938
NAVAR, LUIS G.	RENAL MICROCIRCULATORY DYNAMICS IN HYPERTENSION	1R01 HL26371-01	85,290
NAVIA, JUAN M.	VITAMIN A NUTRITION ROLE IN BONE & TEETH CALCIFICATION	5R01 DE04862-03	40,968
NEILL, JIMMY D.	THE PHYSIOLOGIC CONTROL OF PROLACTIN SECRETION	5R01 HD13914-03	80,938
NEILL, JIMMY D.	GONADOTROPIN SECRETION DURING LACTATION IN THE MONKEY	5R01 HD13915-02	121,294
NORTON, THOMAS T.	NEURAL MECHANISMS OF EXTRASTRIATE AND STRIATE VISION	5R01 EY02909-03	60,759
OMURA, GEORGE A.	SOUTHEASTERN CANCER STUDY GROUP	2R10 CA03013-24	305,951
OPARIL, SUZANNE	MECHANISMS OF ANGIOTENSIN GENERATION AND METABOLISM	5R01 HL22544-03	88,893
OVERBECK, HENRY W.	HEMODYNAMICS AND VASOACTIVITY IN RENAL HYPERTENSION	5R01 HL23312-03	57,311
OVERBECK, HENRY W.	IONS, WATER, AND HYPERTENSION	2R01 HL23600-03	91,415
OYSTER, CLYDE W.	NEURAL INTERACTION IN THE VERTEBRATE RETINA	5R01 EY02207-03	29,058
PACE, CAROLINE S.	ELECTROPHYSIOLOGICAL STUDIES OF CULTURED ISLET CELLS	5R01 AM21973-03	61,014
PARMLEY, RICHARD T.	PATHOPHYSIOLOGY OF PLACENTAL IRON METABOLISM	1R01 HD14132-01	51,457
PILLION, DENNIS J.	INSULIN-LIKE ACTION OF ANTI-MEMBRANE ANTIBODIES	1R23 AM27453-01	46,663
PITTMAN, JAMES A., JR.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00032-20	620,843
PITTMAN, JAMES A., JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05349-19	207,787
PRCHAL, JOSEF T.	CATARACT THERAPY RBC ABNORMALITIES—DIABETICS & NORMALS	5R01 EY02432-03	74,756
PRETLOW, THOMAS G., II	BREAST CANCER	5R01 CA23922-03	97,700

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
RACKLEY, CHARLES E.....	SCOR FOR ISCHEMIC HEART DISEASE.....	2P50 HL17667-06	1,804,895
RHODES, R KENT.....	PHYSIOLOGICAL SIGNIFICANCE OF A & B CHAIN COLLAGEN.....	1R01 GM27993-01	76,933
ROBINSON, LEONARD.....	BIOLOGICAL RESEARCH SUPPORT.....	2S07 RR05300-19	120,905
RODEN, LENNART.....	COMPLEMENT CHEMISTRY AND BIOLOGY.....	5R01 CA24446-03	52,523
ROY, POLLY.....	MOLECULAR STUDIES OF FISH RHABDOVIRUSES.....	5R01 AI13686-03	59,945
RUSSELL, CHARLES D.....	METABOLISM OF BONE SCANNING RADIOPHARMACEUTICALS.....	1R01 CA27252-01	63,244
SACHS, GEORGE.....	ENZYMIC BASIS OF ACID SECRETION.....	5R01 AM15878-08	165,250
SACHS, GEORGE.....	GASTRIC TUBULES STUDIES.....	5R01 AM21588-03	88,009
SACHS, GEORGE.....	STUDIES OF COLLECTING DUCT MEMBRANES.....	5R01 AM25520-02	56,584
SACHS, GEORGE.....	GASTRIC H ⁺ /IONS SECRETION IN A MAMMALIAN MODEL.....	1R01 AM27606-01	98,210
SAKAI, TED T.....	SYNTHESIS AND PROPERTIES OF BLEOMYCIN ANALOGS.....	1R01 GM27900-01	63,083
SARRIF, AWNI M.....	ASSESSMENT OF ENVIRONMENTAL RISK FACTORS IN CANCER.....	5R23 ES02074-02	38,186
SCHAFER, JAMES A.....	NONELECTROLYTE TRANSPORT IN RENAL TUBULES.....	5R01 AM25519-02	156,123
SCHNAPER, HAROLD W.....	SYSTOLIC HYPERTENSION IN THE ELDERLY.....	1R01 HL23914-01A1	226,639
SCHNEYER, CHARLOTTE A.....	STUDY OF SALIVARY GLAND STRUCTURE AND FUNCTION.....	5R01 DE02110-16	60,577
SCHUTZBACH, JOHN S.....	PROCESSING REACTIONS IN GLYCOPROTEIN BIOSYNTHESIS.....	5R01 GM25949-02	30,378
SEGREST, JERE P.....	LIPOSOMES AS CARRIERS FOR CHEMOTHERAPEUTIC DRUGS.....	5R01 CA22868-02	71,348
SEGREST, JERE P.....	APOLIPOPROTEINS: STUDIES OF AMPHIPATHIC HELICES.....	5R01 HL19551-02	58,901
SHEETZ, JAMES H, JR.....	CONTROL MECHANISMS IN SALIVARY GLAND DEVELOPMENT.....	5R23 DE05142-02	20,341
SHINGLETON, HUGH M.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA12484-10	111,118
SPANGLER, STANLEY G.....	DIABETES: SUGAR FLUXES IN INTERNALLY PERFUSED MUSCLE.....	5R01 AM24098-03	46,847
SPARKS, DAVID L.....	EYE MOVEMENT CONTROL: ROLE OF BRAIN STEM NEURONS.....	5R01 EY01189-08	69,487
SPARKS, DAVID L.....	EFFECTS OF DEPRIVATION ON THE OCULOMOTOR SYSTEM.....	5R01 EY02293-03	65,986
SUDDATH, FRED L.....	THE MOLECULAR STRUCTURE OF HUMAN SERUM TRANSFERRIN.....	5R01 HL21170-03	44,871
TOMANA, MILAN.....	BIOCHEMISTRY OF MAMMARY TUMOR ANTIGENS.....	5R01 CA19918-05	67,457
URRY, DAN W.....	CHANNEL MECHANISMS FOR PERMEATION OF BIOMEMBRANES.....	5R01 GM26898-02	66,677
VOLANAKIS, JOHN E.....	C-REACTIVE PROTEIN-PHOSPHOLIPID INTERACTIONS.....	5R01 AI15607-02	78,972
WEST, SEYMOUR S.....	HEPARIN—BIOPHYSICAL, CHEMICAL, AND BIOLOGICAL ASPECTS.....	5R01 HL22402-03	133,025
WHIKEHART, DAVID R.....	METABOLIC CONTROL OF CORNEAL DETURGESCENCE.....	5R01 EY02949-02	27,203
WILLIAMS, ROBERT H.....	PATHOPHYSIOLOGY OF DIABETIC NEPHROLOGY.....	5R01 AM26722-02	59,994
WILSON, GRAEME S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05807-02	22,764
WIRTSCHAFTER, DAVID D.....	CLINICAL PROTOCOL INFORMATION SYSTEM.....	5R01 CA24646-02	91,620
YU, JIA-HUEY.....	THE MODULATING ROLE OF PROSTAGLANDINS IN SALIVARY GLAND.....	1R23 DE05633-01	44,295
ORGANIZATION TOTAL	145 22,799,684		

MOBILE

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ABEE, CHRISTIAN R.....	A DOMESTIC BOLIVIAN SQUIRREL MONKEY BREEDING RESOURCE.....	1P40 RR01254-01	182,522
BAUGH, CHARLES M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05774-06	81,009
BHATNAGAR, YOGENDRA M.....	BIOCHEMISTRY OF MAMMALIAN SPERMATOGENESIS.....	1R01 HD14151-01	80,364
CHANG, FREDERIC C.....	SYNTHESIS OF POTENTIAL BILE ACID METABOLITES.....	2R26 CA21656-04	70,103
COGGIN, JOSEPH H, JR.....	CHARACTERIZATION OF FETAL ANTIGENS IN TUMORS.....	3R01 CA22674-03S2	42,738
COGGIN, JOSEPH H, JR.....	CHARACTERIZATION OF FETAL ANTIGENS IN TUMORS.....	2R01 CA22674-04	65,517
COGGIN, JOSEPH H, JR.....	ETIOLOGY OF A LYMPHOMA EPIZOOTIC IN HAMSTERS.....	5R01 CA23491-03	93,120
DOWNNEY, JAMES M.....	PHYSICAL FACTORS AND CORONARY FLOW.....	5R01 HL20648-03	48,523
HOFF, CHARLES J.....	THE DAUGHTERS AND GRANDCHILDREN OF TEENAGE MOTHERS.....	5R01 HD11637-02	61,057
HUANG, ROSA H.....	ESR STUDY OF AGING: MONOAMINE OXIDASE AND MEMBRANES.....	5R01 NS14434-03	37,992
HUGHES, EDWIN R.....	LUNG DEVELOPMENT AND DIFFERENTIATION IN ORGAN CULTURE.....	5R01 HD10314-05	77,779
LANE, ROGER S.....	PROTEIN TURNOVER AND AGING.....	5R01 AG01002-03	43,411
LAUSCH, ROBERT N.....	STUDY OF SERUM FACTORS MODIFYING TUMOR IMMUNITY.....	3R01 CA23777-03S1	23,503
LONGENECKER, GESINA L.....	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS.....	1R01 HL24548-01A1	38,575
MC CORD, JOE M.....	SUPEROXIDE AND SUPEROXIDE DISMUTASE IN HUMAN DISEASE.....	5R01 AM20527-03	60,089
MORTILLARO, NICHOLAS A.....	BLOOD FLOW AND TRANSCAPILLARY FLUID BALANCE.....	5R01 HL22392-02	51,368
NAIR, MADHAVAN G.....	CANCER CHEMOTHERAPY: NEW FOLATE ANALOGS.....	5R01 CA27101-02	29,516
OAKES, JOHN E.....	DNA HOMOLOGIES AMONG HERPESVIRUSES.....	5R01 AI15143-03	27,784
OAKES, JOHN E.....	ANTIBODY DEPENDENT IMMUNITY TO HERPESVIRUS INFECTION.....	5R01 AI15491-02	45,991
PARKER, JAMES C.....	FLUID PRESSURE AND EXCLUDED VOLUME IN THE LUNG.....	5R01 HL24571-02	37,352
ROHRER, JAMES W.....	IMMUNOREGULATION OF MYELOMA CELL DIFFERENTIATION.....	1R01 CA28708-01	76,426
SCARANTINO, CHARLES W.....	RADIOPROTECTIVE EFFECT OF MAMMARY TUMOR CELL GRAFTS.....	1R01 CA28646-01	76,604

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ALABAMA—Continued			
TAYLOR, AUBREY E.....	TRANSPORT ACROSS ALVEOLAR CAPILLARY MEMBRANE.....	5R01 HL22549-04	52,267
TAYLOR, AUBREY E.....	INTESTINAL SECRETION: CAPILLARY AND TISSUE FORCES.....	5R01 HL22569-04	80,931
WINKLER, HERBERT H.....	PERMEABILITY OF THE EPIDEMIC TYPHUS RICKETTSIA.....	5R01 AI15035-03	83,725
YIELDING, K LEMONE.....	TRYPANOSOMES: PHOTOAFFINITY LABELING OF ETHIDIUM SITES.....	7R01 AI17700-01	54,128
YIELDING, K LEMONE.....	DNA REPAIR AND COLON CANCER.....	7R26 CA29562-01	67,990
YIELDING, LERENA W.....	PHOTOAFFINITY LABEL OF DRUG-DNA INTERACTIONS.....	7R01 AI17683-01	48,934
ORGANIZATION TOTAL	28	1,739,318	
NORMAL			
ALABAMA AGRICULTURAL AND MECHANICAL UNIVERSITY ZIP CODE 35762			
GRAYSON, GEORGE W.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08149-04A1	330,642
ORGANIZATION TOTAL	1	330,642	
SELMA			
SELMA UNIVERSITY ZIP CODE 36701			
RAJANNA, BETTAIYA.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08169-02	144,103
ORGANIZATION TOTAL	1	144,103	
TALLADEGA			
TALLADEGA COLLEGE ZIP CODE 35160			
BACON, ARTHUR L.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08105-08	178,273
ORGANIZATION TOTAL	1	178,273	
TUSCALOOSA			
STILLMAN COLLEGE ZIP CODE 35401			
SINGH, JARNAIL.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08021-08A1	128,214
ORGANIZATION TOTAL	1	128,214	
TUSKEGEE INSTITUTE			
TUSKEGEE INSTITUTE ZIP CODE 36088			
BOWIE, WALTER C.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09198-01	188,016
HENDERSON, JAMES H.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08091-09	433,931
ORGANIZATION TOTAL	2	621,947	
UNIVERSITY			
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN UNIVERSITY ZIP CODE 35486			
BAKER, DAVID C.....	TIGHT-BINDING INHIBITORS OF ADENOSINE DEAMINASE.....	1R01 CA26465-01A1	52,801
LINDAHL, RONALD G.....	GENE-ENZYME RELATIONSHIP OF LIVER ALDEHYDE DEHYDROGENASE.....	5R01 CA21103-02	42,522
MACMILLAN, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07151-03	19,229
MIYAGAWA, ICHIRO.....	ENDOR STUDY OF X-RAY IRRADIATED ORGANIC CRYSTALS.....	5R01 GM23412-02	56,765
ORGANIZATION TOTAL	4	171,317	
STATE TOTAL	206	28,778,133	
ALASKA			
ANCHORAGE			
UNIVERSITY OF ALASKA SYSTEM—UNIVERSITY OF ALASKA ANCHORAGE CAMPUS ZIP CODE 99504			
MANN, KRISTINE E.....	SV40 TUMOR ANTIGEN IN SV40 NUCLEOPROTEIN COMPLEXES.....	1R01 CA26048-01A1	106,868
ORGANIZATION TOTAL	1	106,868	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ALASKA—Continued			
COLLEGE			
UNIVERSITY OF ALASKA SYSTEM—UNIVERSITY OF ALASKA AT COLLEGE ZIP CODE 99701			
BLIGH, JOHN.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09219-01	99,800
ELSNER, ROBERT W.....	COMPARATIVE PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	5R01 HL23950-02	85,155
FEIST, DALE D.....	REGULATION OF HORMONAL RECEPTORS FOR THERMOGENESIS.....	1R01 AM26864-01	54,547
ORGANIZATION TOTAL	3 239,502		
STATE TOTAL	4 346,370		
ARIZONA			
FLAGSTAFF			
NORTHERN ARIZONA UNIVERSITY ZIP CODE 86001			
OWEN, THOMAS L.....	AGING EFFECTS ON SMALL VESSEL REACTIVITY.....	5R23 AG01112-03	34,863
ORGANIZATION TOTAL	1 34,863		
PHOENIX			
ST. JOSEPH'S HOSPITAL AND MEDICAL CENTER ZIP CODE 85013			
CROWELL, ROBERT M.....	REVERSIBILITY OF FOCAL CEREBRAL ISCHEMIA.....	7R01 NS17319-01	73,246
POLLEN, DANIEL A.....	SPATIAL SELECTIVITY IN VISUAL CORTICES.....	2R01 EY03290-02	87,904
SCHWARTZ, ARTHUR S.....	SENSORY EXTINCTION.....	1R01 NS16274-01	56,959
ORGANIZATION TOTAL	3 218,109		
TEMPE			
ARIZONA STATE UNIVERSITY ZIP CODE 85281			
BIEBER, ALLAN L.....	RATTLESNAKE TOXINS: STRUCTURE AND BIOCHEMICAL EFFECTS.....	5R01 GM24566-02	47,503
BURKE, WILLIAM F, JR.....	NUCLEASES IN BACILLUS SUBTILIS TRANSFORMATION.....	5R01 GM25343-03	37,849
CRONIN, JOHN R.....	NMR OF CHEMICALLY MODIFIED HEART MUSCLE CYTOCHROME C.....	1R01 GM27200-01	25,862
DOANE, WINIFRED W.....	GENETIC REGULATORY MECHANISMS—CELLULAR DIFFERENTIATION.....	5R01 GM25255-03	140,224
GOLDSTEIN, ELLIOTT S.....	CONTROL OF MRNA USAGE DURING DROSOPHILA DEVELOPMENT.....	5R01 HD09157-04	58,155
LOHR, DENNIS E.....	PHASING AND REPEATS IN ACTIVELY TRANSCRIBED CHROMATIN.....	5R01 GM27623-02	52,273
MARKOW, THERESE A.....	LARVAL PHOTOTACTIC BEHAVIOR OF DROSOPHILA SPECIES.....	5R01 GM25424-02	29,494
MARKOW, THERESE A.....	MODIFICATION OF MATING PREFERENCES.....	5R01 NS15263-02	18,225
MC GAUGHEY, ROBERT W.....	INFLUENCE OF STEROIDS ON MAMMALIAN OOCYTE MATURATION.....	5R01 HD06532-06	53,017
MUNK, MORTON E.....	COMPUTER-ASSISTED STRUCTURE ELUCIDATION.....	2R01 GM21703-04A1	83,318
PARKINSON, STANLEY R.....	AGING: AN INFORMATION PROCESSING ANALYSIS.....	5R01 AG02130-04	55,942
PETTIT, GEORGE R.....	NATURALLY OCCURRING ANTINEOPLASTIC AGENTS.....	5R01 CA16049-07	90,333
ROSE, SETH D.....	HUMAN CHROMOSOME BANDING FOR ELECTRON MICROSCOPY.....	1R01 GM27886-01	48,236
WOOLF, CHARLES M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07112-13	50,450
ORGANIZATION TOTAL	14 790,881		
SOUTHWEST BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 85281			
HECHT, FREDERICK.....	CYTOGENETICS OF CLONAL NEOPLASIAS.....	2R01 CA25055-03	242,731
ORGANIZATION TOTAL	1 242,731		
TSAILE			
NAVAJO COMMUNITY COLLEGE ZIP CODE 86556			
MC NELEY, JAMES K.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08163-03	53,301
ORGANIZATION TOTAL	1 53,301		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ARIZONA—Continued			
TUCSON			
UNIVERSITY OF ARIZONA	ZIP CODE 85721		
ALEXANDER, E. RUSSELL	NEONATAL CHLAMYDIA INFECTION: INCIDENCE AND TREATMENT	3R01 AI17326-01S1	74,875
ARORA, SATISH K.	STRUCTURAL INVESTIGATIONS OF MODE OF ACTION OF DRUGS	2R01 GM25150-03	43,000
BARTELS, PETER H.	BIOLOGIC TEST OF AUTOMATED CELL ELECTROPHORESIS	5R01 GM26724-02	160,477
BENSON, BRYANT	STRUCTURE AND ACTION OF PINEAL ANTIGONADOTROPIN	5R01 HD08759-06	63,683
BERNSTEIN, HARRIS	DNA REPLICATION AND REPAIR IN PHAGE T4	1R01 GM27219-01	78,051
BLANCHARD, JAMES	EFFECT OF VITAMIN C ON PHARMACOKINETICS IN THE ELDERLY	5R01 AG01210-02	68,260
BLANCK, THOMAS J.	ANESTHETIC DEPRESSION OF THE MYOCARDIUM	5R23 GM25180-03	38,210
BOONE, DANIEL R.	LANGUAGE AND SPEECH IN NORMAL SENESCENCE AND SENILITY	1R21 AG02154-01	63,847
BOURQUE, DON P.	MOLECULAR BIOLOGY OF CHLOROPLAST RIBOSOMES	5R01 GM26937-02	60,794
BOWDEN, GEORGE T.	POSTREPLICATION REPAIR IN CULTURED MAMMALIAN CELLS	1R01 CA26972-01	69,672
BOYER, JOHN T.	SOUTHWEST ARTHRITIS CENTER	3P60 AM20597-03S1	85,946
BRENDEL, KLAUS	BASEMENT MEMBRANES OF THE EYE IN DIABETIC RETINOPATHY	5R01 EY01868-04	86,232
BRESSLER, RUBIN	ROLE OF CARNITINE AND TAURINE IN CARDIAC PHYSIOLOGY	5R01 HL13636-10	63,009
BROWN, BURNELL R., JR.	STUDIES OF INHALATION ANESTHETIC HEPATOTOXICITY	5R01 AM16715-09	67,552
BURKS, THOMAS F.	PHARMACOLOGICAL PROBLEMS OF AGING	5R21 AG01289-02	68,407
BURKS, THOMAS F.	BEHAVIORAL AND NEUROCHEMICAL ACTIONS OF ENDORPHINS	5R01 NS15420-02	60,212
BURROWS, BENJAMIN	PULMONARY SCOR: AIRWAYS OBSTRUCTIVE DISEASES	5P50 HL14136-09	1,039,419
CHIU, WAH	ELECTRON MICROSCOPY ANALYSIS OF DNA-BINDING PROTEIN	5R01 GM27061-02	80,169
CHIU, WAH	STRUCTURE AND FUNCTION OF NEUROTOXIN AND RECEPTOR	1R01 NS16047-01	57,542
CHVAPIL, MILOS	PROTECTION AGAINST HEPATOTOXICITY BY ZINC	5R01 ES01570-03	57,221
CHVAPIL, MILOS	BIOMATERIAL APPLICATIONS OF COLLAGEN SPONGE	5R01 GM24380-03	78,804
CHVAPIL, MILOS	CHARACTERIZATION OF KELOIDS AND HYPERTROPHIC SCARS	5R01 GM25159-03	74,915
COLE, JACK R.	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	5R01 CA22336-03	76,309
COLE, JACK R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05605-02	39,203
COLE, JACK R.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09094-03	75,149
CORRIGAN, JAMES J., JR.	FACTOR II ANTIGEN AND COAGULANT ACTIVITY	3R01 HL21431-03S1	2,513
CROSS, HAROLD E.	VITREOUS REACTIONS TO INJURY	5R01 EY01633-05	90,967
CUSANOVICH, MICHAEL A.	REGENERATION OF THE VISUAL PIGMENT RHODOPSIN	5R01 EY01113-06	26,544
CUSANOVICH, MICHAEL A.	MECHANISM OF ACTION OF VERTEBRATE CYTOCHROME C	5R01 GM21277-06	38,086
DANTZLER, WILLIAM H.	REGULATION OF INDIVIDUAL NEPHRON FILTRATION RATES	5R01 AM16294-08	67,689
DOWNER, NANCY W.	DOMAINS OF STRUCTURE AND FUNCTION IN RHODOPSIN	5R01 EY03105-02	59,055
ENEMARK, JOHN H.	STRUCTURAL MODELS FOR MOLYBDO-ENZYMES	5R01 ES00966-06	61,155
GERNER, EUGENE W.	HEAT AND RADIATION IN CANCER THERAPY	5P01 CA17343-06	772,566
GERNER, EUGENE W.	RADIATION INDUCED DEFECTS IN CELL KINETICS	5R01 CA18273-06	79,103
GERVIN, CAROL A.	MYOCARDIAL ISCHEMIA AND CARDIAC LYMPH: AN INTERACTION	5R23 HL23846-02	42,398
GLASS, RICHARD S.	A MECHANISM FOR OXIDATIVE PHOSPHORYLATION	3R01 HL15104-08S1	4,573
GOLL, DARREL E.	CONTRACTILE PROTEINS	5R01 AM19864-05	72,232
GORE, ROBERT W.	PHYSICAL DETERMINANTS OF MICROVASCULAR FUNCTION	5R01 HL13437-11	56,013
GRIMES, WILLIAM J.	CELL SURFACE GLYCOPROTEINS	2R01 CA12753-09	83,439
GRUENER, RAPHAEL P.	ANESTHETIC ACTION ON NORMAL AND HYPERTHERMIA MUSCLES	1R01 GM27353-01	42,111
HALL, H. K., JR.	SYNTHETIC ANALOGS OF POLYSACCHARIDES	5R01 GM18595-07	38,404
HALL, JENNIFER D.	DNA REPAIR IN HUMAN FIBROBLASTS	5R01 AG01689-02	59,158
HALONEN, MARILYN J.	PULMONARY AND CIRCULATORY ALTERATIONS INDUCED BY IGE	5R01 HL22582-03	30,073
HARRISON, H. ROBERT	COMPLICATIONS OF CHLAMYDIAL INFECTION IN PREGNANCY	1R01 AI17688-01	105,685
HARTSHORNE, DAVID J.	BIOCHEMISTRY OF CONTRACTILE PROTEINS	5R01 HL23615-03	135,122
HAUSSLER, MARK R.	FUNCTION OF VITAMIN D METABOLITES AND BONE DISEASE	2R01 AM15781-09	93,675
HERMAN, TERENCE S.	HYPERTHERMIA AND CHEMOTHERAPEUTIC DRUG INTERACTIONS	5R01 CA26220-02	38,475
HERSCHLER, JONATHAN	AQUEOUS HUMOR AND CONJUNCTIVAL FIBROBLASTS	7R01 EY03655-01	52,801
HEWLETT, MARTINEZ J.	VIRUS-CELL INTERACTIONS AND POLIOVIRUS RNA STRUCTURE	2R01 AI13670-04	85,100
HRUBY, VICTOR J.	PEPTIDE HORMONE STRUCTURE AND FUNCTION	2R01 AM17420-07	85,964
HRUBY, VICTOR J.	GLUCAGON STRUCTURE-FUNCTION STUDIES	2R01 AM21085-04	65,516
HSIAO, SIGMUND S.	FOOD INTAKE REGULATION AND CHOLECYSTOKININ	1R01 AM25381-01A1	34,659
HUXTABLE, RYAN J.	BIOCHEMISTRY AND REGULATION OF TAURINE IN THE HEART	5R01 HL19394-05	32,375
HUXTABLE, RYAN J.	PHARMACOLOGY AND TOXICOLOGY OF PULMONARY ENDOTHELIUM	5R01 HL25258-02	47,262
ITO, JUNETSU	REPLICATION OF LINEAR DNA MOLECULES	7R01 GM28013-01	59,001
ITO, JUNETSU	STUDIES OF SPORULATION IN BACILLUS SUBTILIS	7R01 GM28362-01	88,658
JOHNSON, DAVID G.	THE REGULATION OF INSULIN SECRETION	5R01 AM25318-03	50,962

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ARIZONA—Continued			
JOHNSON, PAUL C.	REGULATION OF BLOOD FLOW IN THE MICROCIRCULATION	5R01 HL15390-14	108,498
JOHNSON, PAUL C.	REGULATION AND EXCHANGE IN THE MICROCIRCULATION	5P01 HL17421-07	410,498
JOHNSON, PETER C.	PERIPHERAL NERVE BASEMENT MEMBRANES IN HUMAN DIABETES	5R01 NS15204-02	71,773
JONES, STEPHEN E.	SOUTHWEST ONCOLOGY GROUP	5R10 CA13612-07	253,140
KASSANDER, A RICHARD, JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07002-15	99,950
KETTEL, LOUIS J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05675-12	193,787
KOLDOVSKY, OTAKAR	METABOLISM OF THE DEVELOPING SMALL INTESTINE	5R01 AM27624-02	122,374
LAIRD, HUGH E, II	TAURINE AND EPILEPSY	5R01 NS14405-03	29,419
LEI, K Y.	ORAL CONTRACEPTIVES: EFFECT ON VITAMIN C METABOLISM	7R01 HD14637-01	24,176
LEMEN, RICHARD J.	PROSTAGLANDIN EFFECTS ON PULMONARY EDEMA AND FUNCTION	5R01 HL23773-02	50,731
LINDELL, THOMAS J.	CHARACTERIZATION OF NUCLEAR ENZYMOLOGY IN SITU	2R01 GM22897-04A1	52,900
LITTLE, JOHN W.	BIOCHEMICAL ANALYSIS OF THE E. COLI LEXA GENE PRODUCT	2R01 GM24178-04	111,788
MAGUN, BRUCE E.	GROWTH REGULATORY MECHANISMS IN VIRAL TRANSFORMATION	5R01 CA20913-04	85,169
MALONE, JAMES M.	TUMOR FIBRINOLYSIS: A ROLE IN SURGICAL ONCOLOGY	1R01 CA27253-01	85,099
MARTIN, ARNOLD R.	TRICYCLIC ANTIDEPRESSANTS: CONFORMATIONAL STUDIES	1R01 NS14997-01A1	101,063
MARTIN, ARNOLD R.	NEW ANTICONVULSANTS: SYNTHETIC CANNABIDIOL ANALOGS	5R01 NS15441-02	59,185
MC REYNOLDS, LARRY A.	DEVELOPMENT OF VECTOR FOR EUKARYOTIC GENE TRANSFER	5R01 GM25692-02	73,953
MENDELSON, NEIL H.	CONTROL OF GROWTH AND DIVISION (BACTERIA)	5R01 GM18735-10	59,523
MEYSKENS, FRANK L.	VITAMIN A PROGRAM PROJECT	1P01 CA27502-01	612,882
MORKIN, EUGENE	CELLULAR MECHANISMS IN CARDIAC HYPERTROPHY	2P01 HL20984-04	576,387
MOUNT, DAVID W.	MECHANISM OF INDUCTION OF VIRAL AND CELLULAR FUNCTIONS	5R01 GM24496-03	56,765
PERRIER, DONALD G.	PHARMACOKINETIC STUDIES OF DIGITALIS GLYCOSIDES	1R01 HL24559-01A1	106,571
PINNAS, JACOB L.	MECHANISMS OF HUMAN SENSITIVITY TO TRIATOMA BITES	1R01 AI16514-01	47,108
POPEL, ALEKSANDER S.	OXYGEN TRANSPORT IN SKELETAL MUSCLE MICROCIRCULATION	5R01 HL23362-02	32,943
PRITCHETT, RANDALL F.	TRANSCRIPTION OF THE CYTOMEGALOVIRUS GENE	5R01 NS15441-03	43,418
REINERS, WILLIAM A.	ANTITUMOR AGENTS: SYNTHESIS OF MITOMYCIN ANALOGS	5R01 CA21430-05	58,410
REST, RICHARD F.	THE FATE OF INTRACELLULAR NEISSERIA GONORRHOEA	5R01 AI14934-03	35,228
REST, RICHARD F.	EFFECTS OF PHAGOLYSOSOMES ON NEISSERIA GONORRHOEA	5R01 AI15881-02	46,834
RUPLEY, JOHN A.	PROTEIN SOLVATION	5R01 GM24760-03	57,200
RUSSELL, DIANE H.	POLYAMINE METABOLISM IN CANCER & CANCER CHEMOTHERAPY	5R01 CA14783-08	129,768
SALEMME, FRANCIS R.	X-RAY STUDIES OF PROTEIN STRUCTURE	2R01 GM21534-07	76,542
SALEMME, FRANCIS R.	STUDIES OF PROTEIN CONFORMATION AND INTERACTION	5R01 GM25664-02	25,965
SALMON, SYDNEY E.	MEDICAL ONCOLOGY PROGRAM PROJECT	5P01 CA17094-06	961,656
SALMON, SYDNEY E.	BIOASSAY AND CHEMOTHERAPY OF HUMAN TUMOR STEM CELLS	3R01 CA21839-03S1	33,646
SALMON, SYDNEY E.	CANCER CENTER CORE SUPPORT GRANT	5P30 CA23074-03	475,620
SHACK, ROLAND V.	ULTRASTAFF SCANNER MICROSCOPE IN LABORATORY AUTOMATION	5R01 CA24466-03	215,231
SHELTON, RALPH L.	PREDICTING ARTICULATION FROM CINEFLUOROGRAPHIC MEASURES	5R01 DE03350-10	66,225
SHIMIZU, NOBUYOSHI	GENETIC CONTROL OF MAMMALIAN CELL SURFACE FUNCTIONS	2R01 GM24375-04	113,499
STANISIC, THOMAS H.	CLONAL ASSAY AND CHEMOTHERAPY OF UROTHELIAL CANCER	1R26 CA28303-01	76,558
STOFFER, RICHARD L.	GONADOTROPIN RECEPTORS OF THE PRIMATE CORPUS LUTEUM	1R01 HD12333-01A1	90,906
STUART, DOUGLAS G.	ANALYSIS OF MOTOR UNIT-MUSCLE RECEPTOR INTERACTIONS	5R01 NS07888-13	64,546
SWINDELL, WILLIAM	BREAST TUMOR DIAGNOSIS BY COMPUTED ULTRASOUND	5R01 CA24257-02	88,314
TOLLIN, GORDON	FLAVIN-PROTEIN INTERACTIONS IN FLAVOENZYME CATALYSIS	5R01 AM15057-10	57,010
VAN WYCK, DAVID B.	PARTIAL SPLENECTOMY FOR CERTAIN BLOOD DISEASES	1R23 AI16926-01	42,900
WEINSTEIN, PHILIP R.	REPAIR AND REGENERATION AFTER SPINAL CORD INJURY	1R01 NS16133-01	74,593
WELLS, MICHAEL A.	UTILIZATION OF ESSENTIAL FATTY ACIDS BY SUCKLING RATS	5R01 HD10954-04	75,700
WHITE, HOWARD D.	CALCIUM REGULATION OF ACTOMYOSIN ATP HYDROLYSIS	5R01 AM25113-02	50,394
WITTE, MARLYS H.	CIRCULATORY CONTROL OF SPLENIC FUNCTION	5R01 HL20086-04	109,174
ORGANIZATION TOTAL	105	11,827,311	
STATE TOTAL	125	13,167,196	

ARKANSAS

FAYETTEVILLE

UNIVERSITY OF ARKANSAS AT FAYETTEVILLE ZIP CODE 72701

GEREN, COLLIS R.	VENOM COMPONENTS: ISOLATION, CHARACTERIZATION AND USE	2R01 GM24173-04	68,645
KOEPPE, ROGER E, II	MECHANISM OF ION TRANSPORT THROUGH MEMBRANE CHANNELS	1R01 NS16449-01	69,244

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ARKANSAS—Continued			
MILLET, FRANCIS S.....	NMR STUDIES OF MEMBRANE BOUND PROTEINS.....	5R01 GM20488-08	66,346
ORGANIZATION TOTAL	3 204,235		
LITTLE ROCK			
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES AT LITTLE ROCK ZIP CODE 72201			
BARNETT, JOHN B.....	IMMUNOPOTENTIATING PROPERTIES OF RETINOIDS.....	1R01 AI16495-01	36,506
BARRON, ALMEN L.....	CHLAMYDIAL GENITAL INFECTION: AN ANIMAL MODEL SYSTEM.....	2R01 AI13069-06	57,491
BERRY, DAISILEE H.....	SOUTHWEST ONCOLOGY GROUP, PEDIATRIC DIVISION.....	2R10 CA15995-05A2	43,952
BRUCE, THOMAS A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05350-19	67,372
CARTER, WILLIAM J.....	MECHANISM OF THYROTOXIC MYOPATHY.....	5R01 AM20718-03	20,149
CHANG, LOUIS W.....	MODIFICATION OF METHYLMERCURY TOXICITY BY SELENIUM.....	5R01 ES02097-02	61,621
CHRIST, DARYL D.....	ACUTE AND CHRONIC EFFECTS OF D-AMPHETAMINE ON GANGLIA.....	5R01 NS15528-02	27,661
ELDERS, MINNIE J.....	INFLUENCE OF NUTRITIONAL FACTORS ON SOMATOMEDIN ACTIVITY.....	5R01 HD11862-02	62,679
GARCIA-RILL, EDGAR E.....	NEUROLOGICAL SUBSTRATES IN THE INITIATION OF MOVEMENT.....	5R01 NS15359-02	20,980
GARCIA-RILL, EDGAR E.....	SUBSTRATES IN THE INITIATION OF MOVEMENT.....	1R01 NS16143-01	46,069
GILMORE, SHIRLEY A.....	RADIATION-INDUCED CHANGES IN THE NEONATAL NERVOUS SYSTEM.....	2R01 NS04761-17	65,184
HARDIN, JAMES W.....	ESTROGEN RECEPTOR IN THE CONTROL OF VLDL SYNTHESIS.....	5R01 HL26328-02	58,818
HILLER, F CHARLES.....	INHALED AEROSOLS: CHARACTERISTICS AND RETENTION.....	5R01 HL20024-05	69,842
HOGUE, CAROL J.....	ESTIMATING SECONDARY ATTACK RATE FOR TEEN PREGNANCIES.....	1R01 HD13978-01	55,272
JONES, JOE M.....	GENETIC CONTROL OF NEOPLASMS IN RATS.....	5R01 CA23687-03	61,104
KOHLER, PETER O.....	HORMONE PRODUCTION IN CULTURED ENDOCRINE CELLS.....	2R01 AM21458-04	102,461
MANSOURI, ALI.....	STRUCTURE-FUNCTION RELATIONSHIP OF HEMOGLOBIN A.....	5R01 AM20181-04	23,017
MEYNA, JAY H.....	EFFECT OF INSECTICIDE CARRIER ON VIRAL INFECTION.....	5R23 ES01715-03	35,065
MORRIS, MANFORD D.....	A NEW HERITABLE FREE CHOLESTEROL STORAGE DISEASE.....	5R01 AM21376-03	125,416
NELSON, CARL L, JR.....	DISTRIBUTION AND PHARMACOKINETICS OF DRUGS IN BONE.....	1R01 AM23079-01A1	39,925
NORRIS, JAMES S.....	THE MECHANISM OF GLUCOCORTICOID RECEPTOR ACTIVATION.....	1R01 AM27450-01	57,315
SHERMAN, JEROME K.....	CRYOBANKING OF MOUSE SPERMATOZOIA.....	5R01 HD12146-03	70,289
SKINNER, ROBERT D.....	PROPRIOSPINAL CONNECTIONS.....	5R01 NS10304-05	13,073
SODERBERG, LEE S.....	IMMUNE COMPLEXES AND COMPLEMENT IN ANTIBODY INDUCTION.....	1R01 AI16685-01	42,884
WENNERSTROM, DAVID E.....	GROUP B STREPTOCOCCAL EFFECTS ON LUNG CELLS & LIPIDS.....	1R01 AI16674-01	40,149
WENBROOK, KENT C.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA21358-04	129,048
YEH, YUN-CHI.....	BIOCHEMICAL AND GENETIC STUDIES OF DNA SYNTHESIS.....	5R01 GM18012-08	54,918
ORGANIZATION TOTAL	27 1,488,260		
SILOAM SPRINGS			
JOHN BROWN UNIVERSITY ZIP CODE 72761			
GRIGGS, HENRY G.....	ULTRAVIOLET AND IONIZING RADIATION DAMAGE.....	5R01 CA18809-04	21,257
ORGANIZATION TOTAL	1 21,257		
STATE TOTAL	31 1,713,752		
CALIFORNIA			
BERKELEY			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY—DEPARTMENT OF HEALTH SERVICES ZIP CODE 94704			
BISSETT, MARJORIE L.....	DIAGNOSTIC METHODS FOR 'LEGIONNAIRES' DISEASE.....	1R01 AI16441-01	44,144
CHIN, JAMES.....	EPIDEMIOLOGY OF INFANT BOTULISM.....	1R01 AI16354-01	196,134
CHIN, JAMES.....	BOTULINAL TOXIN AS ONE CAUSE OF SUDDEN INFANT DEATH.....	5R01 HD12530-02	237,019
CREMER, NATALIE E.....	MOLECULAR AND IMMUNOLOGIC STUDY OF CYTOMEGALOVIRUS.....	5R01 AI15972-02	101,754
CREMER, NATALIE E.....	LYMPHOCYTE-ANTIBODY TRAFFIC IN CENTRAL NERVOUS SYSTEM.....	1R01 NS15801-01	90,012
SCHMIDT, NATHALIE J.....	CHARACTERIZATION AND DETECTION OF VIRUSES AND ANTIBODIES.....	1R01 AI15990-01A1	110,261
STROUD, FLORENCE M.....	ALAMEDA COUNTY HIGH BLOOD PRESSURE CONTROL PROGRAM.....	5R01 HL22212-03	195,598
ORGANIZATION TOTAL	7 974,922		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
INDIVIDUAL AWARD—FREEDMAN, ROBERT L. ZIP CODE 94708			
FREEDMAN, ROBERT L.	HUMAN FOOD HABITS: A BIBLIOGRAPHY	2R01 LM03082-02	9,299
ORGANIZATION TOTAL	1	9,299	
UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720			
ADAMS, ANTHONY J.	VISION AND BLOOD FLOW IN RETINAL VASCULAR DISEASE	5R01 EY02271-03	92,522
ALPEN, EDWARD L.	HEAVY ION RADIATION AND MULTICELLULAR SPEROIDS	5R01 CA24789-02	67,158
AMES, BRUCE N.	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT	5P30 ES01896-02	369,776
AMES, BRUCE N.	REGULATION OF GENE FUNCTION AND PROTEIN SYNTHESIS	5R01 GM19993-13	125,509
AMES, GIOVANNA F.	MEMBRANES AND ACTIVE TRANSPORT OF AMINO ACIDS	5R01 AM12121-13	113,695
BALLOU, CLINTON E.	COMPLEX POLYSACCHARIDES IN MYCOBACTERIUM SPECIES	2R22 AI12522-26	134,628
BARKER, HORACE A.	INTERMEDIARY METABOLISM OF BACTERIA	2R01 AI00563-33	36,646
BARTLETT, PAUL A.	SYNTHESIS OF MACROCYCLIC NATURAL PRODUCTS	5R01 CA16616-07	80,279
BARTLETT, PAUL A.	PHOSPHORUS-CONTAINING TRANSITION STATE ANALOGS	2R01 CA22747-03	64,163
BARTLETT, PAUL A.	PHOSPHATE-DERIVED PHOTOAFFINITY LABELS	5R01 GM21612-06	46,306
BARTLETT, PAUL A.	UPGRADING NMR CAPABILITY AT BERKELEY	5P41 GM27573-02	6,918
BECKENDORF, STEVEN K.	DEVELOPMENT OF DROSOPHILA SALIVARY GLAND PROTEINS	5R01 HD12866-02	56,112
BENNETT, EDWARD L.	UNIQUE ALPHA-TOXIN PROBES—N ACETYLCHOLINE RECEPTORS	1R01 NS16661-01	60,589
BENTFELD-BARKER, MARY E.	MEGAKARYOCYTE DIFFERENTIATION	5R01 HL24577-02	63,498
BENTLEY, DAVID R.	FUNCTIONAL DEVELOPMENT OF IDENTIFIED NEURAL NETWORKS	5R01 NS09074-11	41,050
BERGMAN, ROBERT G.	C-C AND C-N BOND FORMATION USING METAL-BASED REAGENTS	5R01 GM25459-03	67,183
BLACKBURN, ELIZABETH H.	SPECIFIC DNA-PROTEIN INTERACTION IN TETRAHYMENA	5R01 GM26259-03	62,406
BRECHER, GEORGE	KINETICS OF TRANSFUSED STEM CELLS IN NORMAL MICE	1R01 AM27454-01	78,190
BROOKS, GEORGE A.	TRACER STUDIES ON LACTATE METABOLISM DURING EXERCISE	5R01 AM19577-04	53,062
BUDINGER, THOMAS F.	MYOCARDIUM INFARCT SIZING BY 82RB EMISSION TOMOGRAPHY	2R01 HL21697-03	120,404
BUDINGER, THOMAS F.	CARDIOVASCULAR FLOW AND METABOLISM	1P01 HL25840-01	555,999
BURKI, HENRY J.	IN VITRO STUDY OF MAMMALIAN CELLS DAMAGED BY TRITIUM	5R01 CA14310-08	84,691
BURKI, HENRY J.	ALKYLATING-CARCINOGEN MUTAGENESIS IN MAMMALIAN CELLS	5R01 ES01916-03	63,062
BURLINGAME, A L.	MASS SPECTROMETRY—A FUNDAMENTAL REVIEW	1R01 LM03446-01	18,731
BURLINGAME, A L.	BIO-ORGANIC BIOMEDICAL MASS SPECTROMETRY RESOURCE	3P41 RR00719-05S1	47,248
BURLINGAME, A L.	BIO-ORGANIC BIOMEDICAL MASS SPECTROMETRY RESOURCE	5P41 RR00719-06	359,805
CALENDAR, RICHARD	MOLECULAR STUDIES ON PHAGE P2 AND ITS SATELLITE, P4	5R01 AI08722-12	83,224
CANDE, WILLIAM Z.	FUNCTIONAL MODEL FOR MITOSIS IN CELL LINES	5R01 GM23238-05	69,194
CARPENTER, FREDERICK H.	STRUCTURE AND ACTIVITY OF INSULIN	5R01 AM00608-27	68,808
CARPENTER, FREDERICK H.	MECHANISM OF LEUCINE AMINOPEPTIDASE	5R01 EY00813-10	67,721
CASIDA, JOHN E.	MODE OF ACTION AND METABOLISM OF ORGANIC TOXICANTS	5P01 ES00049-16	488,822
CASTRO, JOSEPH R.	TREATMENT OF CANCER WITH HEAVY CHARGED PARTICLES	5P01 CA19138-05	1,365,594
CHAMBERLIN, MICHAEL J.	SELECTIVITY OF BACTERIAL TRANSCRIPTION	5R01 GM12010-17	163,249
CLARK, ALVIN J.	PHYSIOLOGY OF BACTERIAL CONJUGATION AND RECOMBINATION	5R01 AI05371-18	171,751
COHN, THEODORE E.	PSYCHOPHYSICAL ANALYSIS OF VISUAL SENSORY DEFICIT	5R01 EY02830-02	39,239
COLE, R DAVID	HISTONE BIOCHEMISTRY AND THE INFLUENCE OF HORMONES	5R01 GM20338-13	131,788
CURTIS, STANLEY B.	RESPONSE OF A RAT RHABDOMYOSARCOMA TO HEAVY IONS	3R01 CA17411-05S1	22,564
CURTIS, STANLEY B.	THE RESPONSE OF A RAT RHABDOMYOSARCOMA TO HEAVY IONS	5R01 CA17411-06	227,156
D'ANNA, JOSEPH A.	MOLECULAR STRUCTURAL EFFECTS OF HISTONE MODIFICATIONS	5R01 GM24564-02	87,110
DAUBEN, WILLIAM G.	ULTRAVIOLET IRRADIATION OF NATURAL PRODUCTS	2R01 AM00709-27	84,691
DAUBEN, WILLIAM G.	MODIFIED STEROID AND POLYTERPENOID ANTITUMOR AGENTS	9R01 GM27320-21	69,913
DE VALOIS, RUSSELL L.	ELECTROPHYSIOLOGY OF COLOR VISION	5R01 EY00014-13	92,573
DEAN, PHILLIP N.	INDEXED CELL SORTING	1R01 CA28886-01	70,421
DEKKER, CHARLES A.	SERUM URINE AND CSF RNASES IN HEALTH AND DISEASE	5R01 CA19606-05	80,270
DOWNING, KENNETH H.	DNA STRUCTURE BY ELECTRON DIFFRACTION AND MICROSCOPY	1R01 GM27291-01	42,323
DUESBERG, PETER H.	MOLECULAR AND GENETIC ANALYSES OF RNA TUMOR VIRUSES	5R01 CA11426-12	301,995
DUSTER, TROY	SOCIAL AND POLITICAL ISSUES IN GENETIC SCREENING	1R01 HD13897-01	95,313
EAKIN, RICHARD M.	STUDIES IN FINE STRUCTURE	9R01 GM28778-19	58,523
EBBE, SHIRLEY N.	KINETICS OF MEGAKARYOCYTE AND PLATELET TURNOVER	2R01 AM21355-03A1	102,319
ECHOLS, G HARRISON, JR	GENETIC & CHEMICAL STUDIES OF PHAGE LAMBDA DEVELOPMENT	5R01 GM17078-12	155,871
EICHORN, DOROTHY H.	INTERGENERATIONAL STUDIES OF DEVELOPMENT AND AGING	5P01 AG00365-10	203,329
ENOCH, JAY M.	THE ETIOLOGY OF REDUCED VISUAL FUNCTION	7R01 EY03674-01	112,703
ESPOSITO, MICHAEL S.	COMPARATIVE ANALYSIS OF MITOTIC & MEIOTIC RECOMBINATION	1R01 GM29002-01	128,576
FOGEL, SEYMOUR	RECOMBINATION—DNA SYNTHESIS AND DEVELOPMENT IN YEAST	5R01 GM17317-11	75,703
FORTE, JOHN G.	MECHANISM OF H+ AND CL- TRANSPORT BY GASTRIC MUCOSA	5R01 AM10141-16	117,495

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FRAENKEL-CONRAT, BEATRICE	ALKYLATION OF POLYNUCLEOTIDES IN VITRO AND IN VIVO	5R01 CA12316-10	100,949
FREELING, MICHAEL	DEVELOPMENTAL GENETICS WITH AN INDUCIBLE GENE SYSTEM	5R01 GM21734-06	68,129
FREEMAN, RALPH D.	VISUAL DEVELOPMENT AND DEPRIVATION	5R01 EY01175-08	73,368
FRISTROM, JAMES W.	GENETIC-MOLECULAR BASIS OF DROSOPHILA LONGEVITY	5R01 AG02063-02	59,371
FRISTROM, JAMES W.	GENIC/MOLECULAR BASIS OF IMAGINAL DISC MORPHOGENESIS	5R01 GM19937-08	92,491
GARCIA, JOSEPH F.	RADIOASSAY OF ERYTHROPOIETIN	5R01 HL22469-03	58,409
GERHART, JOHN C.	STUDIES OF CELLULAR REGULATORY MECHANISMS	5R01 GM19363-17	105,920
GLAESER, ROBERT M.	BIOLOGICAL STRUCTURE ANALYSIS BY ELECTRON MICROSCOPY	5R01 GM23325-05	272,735
GOLDSMITH, WERNER	HEAD-NECK SYSTEM MOTION AND STRESS DUE TO IMPACT	5R01 AM18384-06	54,285
GOLDSTEIN, BYRON B.	ANTIGEN ACTIVATION AND DESENSITIZATION OF BASOPHILS	1R01 AI16465-01	38,720
HACKETT, ADELINE J.	MURINE VIRUS CROSS-REACTING ANTIGEN IN HUMAN TISSUE	1R01 CA25418-01A1	94,907
HAFTER, ERVIN R.	PSYCHOPHYSIOLOGICAL STUDIES OF BINAURAL INTERACTION	3R01 NS07787-12S1	9,589
HARRIS, MORGAN	CRYTOPLASMIC INHERITANCE IN NORMAL AND TUMOR CELLS	5R01 AI15027-03	91,847
HEARST, JOHN E.	STRUCTURE-FUNCTION RELATIONSHIPS OF NUCLEIC ACIDS	5R01 GM11180-17	153,306
HEARST, JOHN E.	NUCLEIC ACID INTERACTIONS WITH SYNTHETIC PSORALENS	5R01 GM25151-03	72,430
HEATHCOCK, CLAYTON H.	STEREOSELECTIVE SYNTHESIS OF MACROLIDE ANTIBIOTICS	5R01 AI15027-03	82,679
HEATHCOCK, CLAYTON H.	SYNTHESIS OF ISOPRENOID ANTITUMOR COMPOUNDS	5R01 CA12617-09	75,472
HOSODA, JUNKO	ROLE OF LIGASE AND OTHER ENZYMES IN DNA REPLICATION	5R01 GM16841-09	79,546
HUBBELL, WAYNE L.	MOLECULAR BASIS OF MEMBRANE EXCITATION	2R01 EY00729-09	110,753
JENSEN, FREDERICK R.	DEMETALLATION, ALKYLATION AND BIOCHEMICAL PROCESSES	2R01 GM15373-11	74,633
KELLY, LEONARD E.	MOLECULAR GENETICS OF NEUROLOGICAL MUTANTS	5R01 NS15124-02	36,634
KIM, SUNG-HOU	CRYSTALLINE COMPLEXES OF RNA WITH SMALL MOLECULES	3R01 CA27454-01S1	46,860
KIM, SUNG-HOU	CRYSTALLINE COMPLEXES OF RNA WITH SMALL MOLECULES	5R01 CA27454-02	99,521
KIM, SUNG-HOU	STRUCTURAL STUDIES OF TASTE-ACTIVE MOLECULES	5R01 NS15174-02	61,875
KING, MARY C.	GENETIC EPIDEMIOLOGY OF BREAST CANCER IN FAMILIES	1R01 CA27632-01	347,311
KLINMAN, JUDITH P.	ENZYME CATALYZED HYDROGEN ABSTRACTION REACTIONS	5R01 GM25765-03	83,127
KOSHLAND, DANIEL E., JR.	REGULATORY PROCESSES IN BIOLOGICAL SYSTEMS	5R01 AM09765-15	211,192
KOSHLAND, MARIAN E.	MECHANISM OF ANTIBODY SPECIFICITY AND BIOSYNTHESIS	5R01 AI07079-15	155,905
KRAUSS, RONALD M.	DIETARY EFFECTS ON SERUM HIGH DENSITY LIPOPROTEINS	5R01 HL24740-02	237,377
LAZARUS, RICHARD S.	STRESS AND COPING IN AGING	2R01 AG00799-03	98,297
LEE, RONALD D.	DESIGNED FAMILY SIZE, CONTRACEPTION & AGGREGATE RATES	7R01 HD14649-01	44,177
LEE, RONALD D.	AGE AND ECONOMIC GROWTH: SYNTHESIS AND EXTENSIONS	1R01 HD15020-01	27,866
LEWIS, EDWIN R.	MORPHOLOGY AND PHYSIOLOGY OF THE INNER EAR	5R01 NS12359-06	53,690
LEWIS, EDWIN R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07006-15	197,787
LINDGREN, FRANK T.	LIPOPROTEIN METHODOLOGY AND BIOMEDICAL APPLICATIONS	5P01 HL18574-05	714,985
LINN, STUART M.	FIDELITY OF NUCLEOTIDE POLYMERASES DURING AGING	5R01 AG00819-03	44,310
LINN, STUART M.	IN VITRO RESTRICTION AND MODIFICATION OF PHAGE DNA	5R01 GM19020-12	82,038
LOHER, WERNER J.	CIRCADIAN AND HORMONAL CONTROL OF SEXUAL BEHAVIOR	2R01 HD03619-12	64,867
MACEY, ROBERT J.	CALCIUM & MAGNESIUM IN MEMBRANE TRANSPORT MAINTENANCE	2R01 GM18819-07	70,047
MAESTRE, MARCOS F.	PHYSICAL STRUCTURE OF VIRUSES, CHROMOSOMES & CELL NUCLEI	5R01 AI08427-12	90,863
MAESTRE, MARCOS F.	T4 PHAGE GENE PRODUCT 32 PROTEIN-DNA COMPLEXES STUDY	5R01 GM25936-02	50,750
MALKIN, RICHARD	IRON-SULFUR PROTEINS AS BOUND ELECTRON CARRIERS	2R01 GM20571-07	56,513
MANDELL, ROBERT B.	OXYGEN REQUIREMENT FOR CONTINUOUS-WEAR CONTACT LENSES	1R01 EY03215-01	71,934
MANDELL, ROBERT B.	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05832-01	39,846
MARGEN, SHELDON	HUMAN NUTRITION	5P01 AM10202-14	662,625
MARTIN, G STEVEN	GENETICS OF RNA TUMOR VIRUSES	5R01 CA17542-05	92,277
MARTIN, G STEVEN	TRANSFORMATION OF DIFFERENTIATING CELLS	5R01 CA25464-02	61,417
MATHEIS, RICHARD A.	RAMAN INVESTIGATIONS OF THE MOLECULAR BASIS OF VISION	2R01 EY02051-04	91,603
MATWYIOFF, NICHOLAS A.	A NATIONAL STABLE-ISOTOPES RESOURCE AT LOS ALAMOS	2P41 RR00962-05	274,947
MAZIA, DANIEL	TRANSFORMATION, DIVISION, AND MOTION OF CELLS	5P01 GM13882-15	309,869
MEHLHORN, ROLF J.	ASYMMETRY OF THE INNER MITOCHONDRIAL MEMBRANE	5R01 GM24273-02	64,076
MEDELSON, MORTIMER L.	RADIOBIOLOGICAL TECHNIQUES IN HUMAN CANCER THERAPY	5R01 CA14533-08	292,567
MILLER, SHELDON S.	HOMEOSTATIC ABILITY OF THE RETINAL PIGMENT EPITHELIUM	5R01 EY02205-03	68,375
MISHELL, ROBERT I.	IMMUNOREGULATORY FUNCTIONS OF ACCESSORY CELLS	5R01 AI15482-02	62,059
MISHELL, ROBERT I.	IMMUNOREGULATORY EFFECTS OF BACTERIAL SUBSTANCES	5R01 CA25056-03	70,617
NANDI, SATYABRATA	BIOLOGY OF MAMMARY NEOPLASIA	2P01 CA05388-21	513,163
NEILANDS, JOHN B.	IRON METABOLISM OF MICROORGANISMS	2R01 AI04156-19	76,346
NEILANDS, JOHN B.	CHELATES FOR COOLEY'S ANEMIA AND IRON STORAGE DISEASE	5R01 AM17146-07	63,724
NEYMAN, JERZY	PROBABILITY/STATISTICAL STUDIES OF HEALTH PROBLEMS	5R01 ES01299-17	119,979
NIKAIDO, HIROSHI	BIOCHEMISTRY OF BACTERIAL CELL MEMBRANES	5R01 AI09644-11	102,578
OACE, SUSAN M.	DIETARY FIBER AND BIOAVAILABILITY OF MICRONUTRIENTS	2R01 AM19970-04	63,917

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PALLAVICINI, MARIA G.	NORMAL TISSUE CYTOKINETICS DURING DRUG TREATMENT	1R01 CA28752-01	173,979
PASK, JOSEPH A.	BONDING OF DENTAL PORCELAIN TO NON-PRECIOUS ALLOYS	1R01 DE05460-01	81,500
PENHOET, EDWARD E.	CONTROL OF RNA SYNTHESIS IN EUKARYOTIC CELLS	5R01 CA20357-05	58,832
PENHOET, EDWARD E.	STRUCTURE AND MODIFICATION OF MAMMALIAN TRANSFER RNA	3R01 CA21245-03S1	7,903
PENHOET, EDWARD E.	STRUCTURE AND MODIFICATION OF MAMMALIAN TRANSFER RNA	2R01 CA21245-04	61,090
PITELKA, DOROTHY R.	REGULATION OF MAMMARY OCCLUDING JUNCTIONS	5R01 GM26230-02	72,864
POLSE, KENNETH A.	CONTACT LENS EFFECTS ON REFRACTIVE ERROR	5R01 EY01755-04	189,090
RABINOWITZ, JESSE C.	PURINE AND PTERIDINE METABOLISM IN MICROORGANISMS	5R01 AM02109-23	147,383
RAJU, MUDUNDI R.	HEAVY PARTICLES IN RADIOTHERAPY: A COMPARATIVE STUDY	3R01 CA17290-04S1	111,753
RAJU, MUDUNDI R.	HEAVY PARTICLES IN RADIOTHERAPY: A COMPARATIVE STUDY	2R01 CA17290-05A1	264,216
RAJU, MUDUNDI R.	FLOW CYTOPHOTOMETRY IN RADIOBIOLOGY AND RADIOTHERAPY	5R01 CA22585-03	76,312
RAYBOURN, MICHAEL S.	IN VITRO ELECTROPHYSIOLOGY OF CNS TOXICITY	5R01 ES01907-03	71,625
RAYMOND, KENNETH N.	COORDINATION ISOMERS IN BIOLOGICAL IRON TRANSPORT	2R01 AI11744-07	116,525
RAYMOND, KENNETH N.	FERRIC ION SEQUESTERING AGENTS: IRON REMOVAL IN MAN	1R01 HL24775-01	79,538
REEVES, WILLIAM C.	ECOLOGY AND CONTROL OF ARBOVIRUSES	5R22 AI03028-22	346,104
ROSENBERG, LAWSON L.	THYROID THYROXINE-5'-DEIODINASE	1R01 AM27236-01	52,486
RUBIN, HARRY	PRIMARY EVENTS IN REGULATING CELL MULTIPLICATION	5R01 CA15744-07	118,543
SCHACHMAN, HOWARD K.	STRUCTURES AND INTERACTIONS OF BIOLOGICAL MACROMOLECULES	5R01 GM21159-17	150,254
SCHEKMAN, RANDY W.	BIOLOGICAL STUDIES OF EUKARYOTIC CELL SURFACE GROWTH	5R01 GM26755-02	66,187
SCHIMMERLING, WALTER	PHYSICAL CHARACTERISTICS OF HEAVY ION BEAMS	5R01 CA23247-03	182,805
SCHOR, CLIFTON M.	ABNORMAL EYE MOVEMENTS IN STRABISMUS AND AMBLYOPIA	3R01 EY02573-02S2	5,181
SHAPIRO, LEONA R.	CHILDHOOD OBESITY AND PAST ENVIRONMENTAL FACTORS	1R01 HD13888-01A1	50,660
SHORE, VIRGIE G.	HETEROGENEITY AND PROPERTIES OF PLASMA LIPOPROTEINS	5R01 HL23747-02	156,506
SMITH, HELENE S.	STUDIES OF MALIGNANT PROGRESSION USING HUMAN CELLS	5R01 CA25630-02	80,348
STAMPFER, MARTHA R.	CHARACTERIZATION OF HUMAN MAMMARY CELLS	5R01 CA24844-02	83,563
STENT, GUNTHER S.	CANCER RESEARCH PROGRAM: VIRUSES; CONTROL MECHANISMS	3P30 CA14097-07S1	113,540
STENT, GUNTHER S.	A NEW SOURCE OF HYALURONIDASE AND ANTI-COAGULANTS	5R01 HL22227-03	55,135
STENT, GUNTHER S.	BEHAVIOR AND DEVELOPMENT OF A SIMPLE NERVOUS SYSTEM	5R01 NS12818-27	68,136
STOKSTAD, E. L.	METABOLISM OF FOLIC ACID AND VITAMIN B12	5R01 AM08171-17	86,818
STRAUSS, HERBERT L.	VIBRATIONAL STUDIES OF LIPID STRUCTURE AND DYNAMICS	1R01 GM27690-01	73,852
STROHMAN, RICHARD C.	STUDY OF NUCLEI FROM MUSCLE CELLS DEVELOPING IN VITRO	5R01 AM231964-02	49,665
STROHMAN, RICHARD C.	CHRONIC MUSCLE FIBER INACTIVITY AND ATROPHY IN VITRO	1R01 NS15882-01	45,225
TARTER, MICHAEL E.	OPTIMIZATION OF HARMONIC DATA FORMS	5R01 GM25386-02	40,738
THOMSON, GLENYS J.	MODELS IN POPULATION GENETICS	5R01 HD12731-02	37,345
THORNER, JEREMY W.	CELL-CELL INTERACTIONS OF A SIMPLE EUKARYOTE	5R01 GM21841-06	74,238
TIMIRAS, PAOLA S.	EFFECT OF CHRONIC CNS-ENDOCRINE MODIFICATION ON AGING	5R01 AG00043-03	61,520
TIMIRAS, PAOLA S.	MEMBRANOGENESIS IN CRETINISM AND HYPERTHYROIDISM	5R01 HD07340-06	76,321
TINOCO, IGNACIO, JR.	STRUCTURE AND FUNCTION OF NUCLEIC ACIDS	2R01 GM10840-22	168,156
TJIAN, ROBERT	THE SV40 TUMOR ANTIGEN	5R01 CA25417-02	77,620
TOBIAS, CORNELIUS A.	HEAVY ION RADIOBIOLOGY RELATED TO ONCOLOGY	2P01 CA15184-07	969,237
TOBIAS, CORNELIUS A.	HEAVY-ION RADIOGRAPHY AND CANCER	1R01 CA27021-01	128,773
VAN DEN BERG, BARBARA J.	ANALGESIA AND ANESTHESIA IN LABOR AND DELIVERY	1R01 HD14213-01	45,444
VAN DEN BERG, BARBARA J.	PARENTAL OCCUPATION AND PREGNANCY OUTCOME	1R01 HD14522-01	60,134
VAN DILLA, MARVIN A.	CHROMOSOMAL FLOW CYTOMETRY: DNA AND CENTROMERES	2R01 GM25076-03	154,573
VAN SLUYTERS, RICHARD C.	NEUROPHYSIOLOGY OF VISUAL DEPRIVATION	5R01 EY02193-03	44,093
VOLLHARDT, K. PETER	ACTIVATED MUTAGENIC AND AROMATIC HYDROCARBONS	2R01 CA20713-04	101,326
VOLLHARDT, K. PETER	ROUTES TO PHYSIOLOGICALLY ACTIVE COMPOUNDS	5R01 GM22479-05	63,325
WATSON, JOHN S.	PERCEPTION OF CONTROL IN INFANCY	1R01 HD14393-01	76,401
WATSON, JOHN S.	CONTINGENCY STRUCTURE IN THE INFANT'S ENVIRONMENT	1R01 HD14436-01	30,285
WERBLIN, FRANK S.	MEMBRANE MECHANISMS MEDIATING RETINAL FUNCTION	2R01 EY00561-11	128,141
WESTHEIMER, GERALD	RETINAL AND CENTRAL VISUAL FUNCTIONS	5R01 EY00220-19	55,206
WESTHEIMER, GERALD	OCULOMOTOR CONTROL	5R01 EY00592-12	84,461
WILLIAMS, MARY A.	ESSENTIAL FATTY ACID INTAKE AND FATTY ACID SYNTHESIS	5R01 AM12024-13	87,413
WILLIAMS, MICHAEL C.	HEMOLYSIS INDUCED BY SHEAR FLOW	5R01 HL23274-02	69,371
WILSON, ALLAN C.	REGULATION AS A BASIS FOR ORGANISMAL DIFFERENCES	2R01 GM21509-06	151,463
WINKELSTEIN, WARREN, JR.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05441-19	64,808
WOFSEY, LEON	RECEPTOR FUNCTION IN LYMPHOCYTE DIFFERENTIATION	5R01 CA24436-16	149,805
YOUNG, IAN T.	CYTOLOGIC CHARACTERIZATION OF RAT UROTHELIUM	9R01 CA28833-02	137,584
YUND, MARY A.	HORMONAL REGULATION OF GENE ACTIVITY IN DROSOPHILA	2R01 GM23349-04	109,335
ZUCKER, IRVING	BEHAVIOR, HORMONES, AND BIOLOGICAL CLOCKS	5R01 HD02982-14	80,847
ZUCKER, IRVING	CIRCAANNUAL RHYTHMS, BEHAVIOR AND REPRODUCTION	1R01 HD14595-01	96,196

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
ZUCKER, ROBERT S.....	REGULATION OF SYNAPTIC TRANSMISSION.....	5R01 NS15114-02	58,865
ZUSMAN, DAVID R.....	BIOCHEMICAL STUDIES OF DEVELOPMENT IN BACTERIA.....	5R01 GM20509-08	67,996
ORGANIZATION TOTAL	179 22,243,956		
WRIGHT INSTITUTE ZIP CODE 94704			
CARP, FRANCES M.....	AGING AND PERCEPTION OF ENVIRONMENTAL QUALITY.....	1R01 AG01291-01A1	56,813
CARP, FRANCES M.....	AGING AND LIFE QUALITY.....	1R01 AG02433-01	179,461
ORGANIZATION TOTAL	2 236,274		
BEVERLY HILLS			
HEREDITARY DISEASE FOUNDATION ZIP CODE 90212			
TOBIN, ALLAN J.....	MULTIDISCIPLINARY WORKSHOPS ON HUNTINGTON'S DISEASE.....	1R13 NS15753-01	49,640
ORGANIZATION TOTAL	1 49,640		
CLAREMONT			
CLAREMONT UNIVERSITY CENTER SYSTEM—PITZER COLLEGE ZIP CODE 91711			
LIGHT, LEAH L.....	CONTEXTUAL AND SEMANTIC MEMORY PROCESSING IN OLD AGE.....	1R01 AG02452-01	72,162
ORGANIZATION TOTAL	1 72,162		
CLAREMONT UNIVERSITY CENTER SYSTEM—POMONA COLLEGE ZIP CODE 91711			
HANSCH, CORWIN H.....	CORRELATION OF BIOLOGICAL ACTIVITY AND STRUCTURE.....	5R01 CA11110-21	151,831
PECK, CAROL K.....	SENSORY REARRANGEMENT AND NEURAL PLASTICITY.....	5R01 NS14116-02	52,082
ORGANIZATION TOTAL	2 203,913		
CLAREMONT UNIVERSITY CENTER SYSTEM—SCRIPPS COLLEGE ZIP CODE 91711			
HARTLEY, ALAN A.....	ADULT AGE DIFFERENCES IN COGNITIVE PROCESSES.....	5R23 AG01073-03	27,664
ORGANIZATION TOTAL	1 27,664		
CULVER CITY			
MEMORIAL CANCER RESEARCH FOUNDATION OF SOUTHERN CALIFORNIA ZIP CODE 90230			
PLOTKIN, DAVID.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	3R10 CA20146-03S1	6,140
PLOTKIN, DAVID.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA20146-04	33,269
ORGANIZATION TOTAL	2 39,409		
DAVIS			
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616			
ARTZ, STANLEY W.....	GENE REGULATORY MECHANISMS IN AMINO ACID BIOSYNTHESIS.....	1R01 GM27307-01	74,651
BALCH, ALAN L.....	IRON PORPHYRIN ACTIVATION OF OXYGEN/SMALL MOLECULES.....	5R01 GM26226-02	55,953
BARRETT, ERICKA L.....	AEROBIC/ANAEROBIC SHIFTS IN SALMONELLA TYPHIMURIUM.....	5R01 AI15144-02	37,446
BAUMANN, PAUL.....	PROTEIN EVOLUTION AND GENETICS OF MARINE BACTERIA.....	5R01 AI15924-02	39,715
BEAMAN, BLAINE L.....	MECHANISMS CONTROLLING NOCARDIAL PATHOGENESIS.....	5R01 AI13167-06	77,884
BEAMAN, BLAINE L.....	PULMONARY CLEARANCE OF IMMUNOLOGICALLY COMPROMISED MICE.....	5R01 AI15114-03	108,531
BENISEK, WILLIAM F.....	STEROID BINDING SITES OF STEROID BINDING PROTEINS.....	2R01 AM14729-10	93,219
BENJAMINI, ELIEZER.....	SELECTIVE STIMULATION OF CELL MEDIATED IMMUNITY.....	5R01 CA25053-03	76,767
BERGSTROM, DONALD E.....	NUCLEOSIDE, NUCLEOTIDE AND POLYNUCLEOTIDE ANALOGS.....	2R01 CA21493-04	61,385
BOYD, JAMES B.....	DNA SYNTHESIS IN MUTAGEN-SENSITIVE DROSOPHILA STRAINS.....	5R01 GM25562-02	68,687
BRADBURY, EDWIN M.....	CHROMATIN, HISTONE MODIFICATIONS AND HMG PROTEINS.....	5R01 GM26901-02	209,494
BUYUKMIRCI, NED.....	EFFECTS OF SCRAPIE ON RETINA AND OPTIC NERVE.....	5R01 EY03299-02	37,407
CALA, PETER M.....	VOLUME REGULATION: THE ROLE OF THE MEMBRANE POTENTIAL.....	5R01 HL21179-03	44,666
CANOLTY, NANCY L.....	UTILIZATION OF PROTEIN AND ENERGY.....	5R22 AM20437-03	15,156
CARDIFF, ROBERT D.....	MUMTV GENE AMPLIFICATION AND EXPRESSION.....	2R01 CA21454-04	119,807
CARDIFF, ROBERT D.....	THE RADIOBIOLOGY OF MOUSE BREAST PRENEOPLASIA.....	5R01 CA25915-02	88,486
CARLSEN, RICHARD C.....	REFLEX DEVELOPMENT AND MOTOR UNIT DIFFERENTIATION.....	5R01 NS15002-02	49,598
CARLSEN, RICHARD C.....	PERIPHERAL REGULATION OF SPINAL MOTONEURONS.....	5R01 NS15065-02	42,296
CARLSON, EDWARD C.....	ISOLATED DIABETIC BASEMENT MEMBRANE CHARACTERIZATION.....	5R01 AM24000-02	76,659
CASE, DAVID A.....	ELECTRONIC STRUCTURES OF IRON-CONTAINING PROTEINS.....	5R01 GM26712-02	25,028

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
CHALUPA, LEO M.	TECTORECIPIENT ZONE OF LP-PULVINAR	1R01 EY03491-01	51,520
CHEN, LEE J.	BILE SALT SULFATION	5R01 AM25970-02	60,766
CLIFFORD, ANDREW J.	DIET AND PURINE METABOLISM IN GOUT AND MALNUTRITION	5R01 AM16726-08	60,814
CONN, ERIC E.	METABOLISM OF AROMATIC COMPOUNDS	5R01 GM05301-23	80,427
DAHMS, MICHAEL E.	BIOCHEMICAL ASPECTS OF GENE REGULATION	5R01 HD04899-08	67,558
DEMILING, ROBERT H.	PATHOPHYSIOLOGY OF LUNGS AFTER THERMAL INJURY	5R01 GM27619-02	29,357
DEMILING, ROBERT H.	LUNG FLUID PROTEIN EXCHANGE AFTER HEMORRHAGIC SHOCK	2R01 HL25403-02	98,563
DOI, ROY H.	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION	5R01 GM19673-09	62,399
DREYFUS, PIERRE M.	DEVELOPMENTAL NEUROBIOLOGY IN PRIMATES	5P01 HD08658-07	283,987
DUNGWORTH, DONALD L.	PULMONARY EFFECTS OF ENVIRONMENTAL OXIDANT POLLUTANTS	5P01 ES00628-10	400,079
EHRI, LINNEA C.	THE ROLE OF ORTHOGRAPHY IN PRINTED WORD LEARNING	5R01 HD12903-02	39,080
ENDERS, ALLEN C.	MECHANISMS OF IMPLANTATION OF THE BLASTOCYST	2R01 HD10342-05	107,680
ETCHISON, JAMES R.	PROCESSING AND ASSEMBLY OF VIRUS GLYCOPROTEINS	1R01 AI17267-01	78,649
ETZLER, MARILYNN E.	STRUCTURE, DEVELOPMENT, AND MODIFICATIONS OF LECTINS	5R01 GM21882-06	69,093
FEENEY, ROBERT E.	CHEMICAL IMPROVEMENT OF PROTEINS FOR FOOD USES	5R01 AM26031-07	61,016
FEENEY, ROBERT E.	COMPARATIVE BIOCHEMISTRY OF PROTEINS	5R01 GM23817-16	60,234
FEENEY, ROBERT E.	TRANSFERRIN IRON BINDING AND TRANSPORT PROPERTIES	5R01 HL18619-05	65,969
GABOR, ANDREW J.	NEURONAL INTERACTION OF EPILEPTOGENIC FOCUS	5R01 NS10332-07	46,352
GEOKAS, MICHAEL C.	EARLY DIAGNOSIS OF PANCREATIC CANCER	5R26 CA19188-04	47,743
GERSHWIN, M ERIC	THE PATHOGENESIS OF AUTOIMMUNITY IN NEW ZEALAND MICE	5R01 CA20816-05	81,194
GERSHWIN, M ERIC	LEUKEMOGENESIS IN GNOTOBIOTIC NUDE MICE	5R01 CA24362-03	69,217
GERSHWIN, M ERIC	MONOSPECIFIC ANTIBODIES TO NB RAT PROSTATIC NEOPLASIA	1R26 CA28674-01	47,186
GERSHWIN, M ERIC	ZINC DEPRIVATION AND TERATOGENESIS	1R01 HD14388-01	167,480
GOLD, ERNEST M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05684-12	160,110
GOLDSTEIN, ELLIOT	EFFECT OF ATMOSPHERIC POLLUTANTS ON PULMONARY DEFENSES	2R01 ES01327-04	49,279
GREEN, JERRY F.	INTRAVASCULAR REDISTRIBUTION OF BLOOD VOLUME	2R01 HL20371-04A1	88,104
GREEN, MELVIN M.	GENETIC AND EVOLUTIONARY STUDIES WITH DROSOPHILA	2P01 GM22221-06	445,126
GREENBERG, BERNARD R.	FIBROBLASTIC COLONIES IN MYELOPROLIFERATIVE DISORDERS	5R01 CA26234-02	60,453
GREENBERG, DEBORAH B.	COLLAGEN METABOLISM IN RAT LUNG EXPLANTS	5R23 ES01713-03	15,249
GULYASSY, PAUL F.	ABNORMAL PROTEIN BINDING IN UREMIA	2R01 AM19833-04	93,909
HALSTED, CHARLES H.	INTESTINAL AND HEPATIC FOLATE METABOLISM	5R01 AM18330-06	78,887
HAMILTON, WILLIAM J. III.	PRIMATE SOCIOECOLOGY: A NUTRITIONAL APPROACH	3R24 RR01078-03S1	26,933
HEDRICK, JERRY L.	A MOLECULAR APPROACH TO FERTILIZATION	2R01 HD04906-11	121,443
HENRY, KENNETH R.	AUDITORY DEFICITS IN THE AGING MOUSE	5R01 AG01018-03	31,345
HERSHEY, JOHN W.	MECHANISM OF INITIATION OF PROTEIN BIOSYNTHESIS	5R01 GM22135-06	112,653
HOEPRICH, PAUL D.	EXPERIMENTAL PRIMATE INFECTIVE FUNGAL ENDOCARDITIS	5R01 AI16141-02	88,825
HOLCROFT, JAMES W.	THE ROLE OF PROSTAGLANDIN IN CAUSING SHOCK LUNG	5R23 GM26562-02	35,529
HOLLINGER, MANFRED A.	SERUM ANGIOTENSIN CONVERTING ENZYME IN ACUTE LUNG DAMAGE	5R01 ES02093-02	70,872
HSIEH, DENNIS P.	COMPARATIVE TOXICOLOGY OF CARCINOGENIC MYCOTOXINS	3R01 CA27426-01S1	7,860
HSIEH, DENNIS P.	COMPARATIVE TOXICOLOGY OF CARCINOGENIC MYCOTOXINS	5R01 CA27426-02	143,125
HURLEY, LUCILLE S.	NUTRITIONAL FACTORS IN MAMMALIAN DEVELOPMENT	5R01 HD01743-16	91,061
HURLEY, LUCILLE S.	GENETIC AND NUTRITIONAL INTERACTIONS IN DEVELOPMENT	5R01 HD02355-15	92,042
HURLEY, LUCILLE S.	ZINC BINDING IN HUMAN MILK & ROLE IN NEONATAL NUTRITION	5R01 HD12547-02	60,623
INGRAHAM, JOHN L.	PHYSIOLOGY OF BACTERIA AT LOW TEMPERATURE	5R01 AI05526-18	92,392
INGRAHAM, LLOYD L.	FLAVINS IN HYDROXYLATION AND BIOLUMINESCENCE	1R01 GM27239-01	41,815
JACKSON, ANDREW C.	LUNG AIRWAY PROPERTIES BY ACOUSTIC IMPULSE REFLECTION	5R01 HL25631-02	73,343
KADO, CLARENCE I.	TUMOR-INDUCING SUBSTANCE OF AGROBACTERIUM TUMEFACIENS	5R01 CA11526-11	98,823
KATZ, DAVID F.	MECHANISMS IN SPERM TRANSPORT AND FERTILIZATION	5R01 HD12971-02	70,904
KELTNER, JOHN L.	PHOTOGRAMMETRIC QUANTIFICATION OF THE OPTIC CUP	2R01 EY01841-04	74,741
KENNEY, CRISTINA M.	DESCEMET'S MEMBRANE IN CORNEAL DISORDERS	1R01 EY03448-01	44,769
KIGER, JOHN A. JR.	GENETIC STUDIES OF CYCLIC NUCLEOTIDE METABOLISM	5R01 GM21137-06	54,901
KING, BARRY F.	FUNCTIONAL CYTOLOGY OF THE PLACENTA AND FETAL MEMBRANES	5R01 HD11658-04	70,614
KING, BARRY F.	CYTOLOGICAL STUDIES OF PRIMATE VAGINAL EPITHELIUM	1R01 HD13980-01	52,971
KRAUS, JESS F.	ANALYSIS OF IMPACT OF HYPERTENSION INFORMATION	2R01 HL20247-02	59,233
KUSTU, SYDNEY G.	GENETIC STUDIES OF GLUTAMINE SYNTHETASE IN BACTERIA	2R01 GM21307-07	92,339
LA MAR, GERD N.	STRUCTURAL AND DYNAMIC STUDY OF MODEL HEME COMPLEXES	2R01 HL16087-07	96,072
LARGMAN, COREY	PLASMA ACTIVATORS OF HUMAN PANCREATIC PROELASTASE 2	5R01 HL25408-02	36,495
LEWIS, JERRY P.	NORTHERN CALIFORNIA ONCOLOGY GROUP	5R10 CA25838-02	66,585
MACKENZIE, MALCOLM R.	STUDY OF HUMAN MULTIPLE MYELOMA CELL ANTIGENS	5R01 CA17192-06	79,222
MACMILLAN, ALAN D.	FAMILIAL DYSTROPHIC & DYSPLASTIC EYE DISEASES	5R23 EY02222-03	11,729
MARR, ALLEN G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07007-15	143,790

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MASON, DEAN T.....	REGULATORY ROLE OF MYOSIN IN CARDIAC HYPERTROPHY	5R01 HL21820-03	100,014
MASON, WILLIAM A.....	PSYCHOSOCIAL DEVELOPMENT.....	5R01 HD06367-09	107,240
MC NAMEE, MARK G.....	DYNAMIC INTERACTIONS OF THE ACETYLCHOLINE RECEPTOR.....	5R01 NS13050-05	61,810
MC QUARRIE, DONALD A.....	FORCE BALANCE IN POLYELECTROLYTE SYSTEMS.....	5R01 GM26864-02	42,299
MEARES, CLAUDE F.....	BIFUNCTIONAL CHELATING AGENTS IN TUMOR LOCALIZATION.....	5R01 CA16861-06	52,997
MEARES, CLAUDE F.....	PHOTOCHEMICAL & SPECTROSCOPIC PROBES OF RNA POLYMERASE.....	5R01 GM25909-02	44,019
MEIZEL, STANLEY.....	BIOCHEMICAL STUDIES OF IN VITRO SPERM CAPACITATION.....	2R01 HD06698-07	108,879
MULLONEY, BRIAN.....	PHYSIOLOGICAL MECHANISMS PRODUCING ORDERED MOVEMENT.....	5R01 NS12295-06	51,943
MUSKER, W KENNETH.....	INTRAMOLECULAR EFFECTS ON ELECTRON TRANSFER PROCESSES.....	1R01 GM28063-01	60,580
OVERSTREET, JAMES W.....	SPERM TRANSPORT IN THE FEMALE RABBIT.....	5R01 HD11186-03	45,749
PAPPAGIANIS, DEMOSTHENES.....	IMMUNOLOGICAL CONTROL OF COCCIDIOIDOMYCOSIS.....	5R01 AI15061-02	61,429
PHAFF, H J.....	GENOME COMPARISON AS A BASIS FOR YEAST SYSTEMATICS.....	2R01 GM16370-10	79,208
PLANT, RICHARD E.....	THEORETICAL STUDY OF MECHANISMS OF FOCAL SEIZURE.....	2R01 NS13777-03	15,577
PREISS, JACK.....	REGULATION OF POLYSACCHARIDE SYNTHESIS.....	5R01 AI05520-18	140,573
PRITCHARD, WILLIAM R.....	CALIFORNIA PRIMATE RESEARCH CENTER.....	2P51 RR00169-19	2,127,386
PRITCHARD, WILLIAM R.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05457-18	53,584
RENKIN, EUGENE M.....	REGULATORY MECHANISMS IN BLOOD CIRCULATION.....	5R01 HL17998-06	72,378
RENKIN, EUGENE M.....	CAPILLARY TRANSPORT OF LARGE MOLECULES.....	2R01 HL18010-06	114,953
RIGGINS, RICHARD S.....	CHARACTERIZATION OF COLLAGEN IN CHICKENS WITH SCOLIOSIS.....	1R01 AM26965-01	68,792
ROBBINS, DICK L.....	PATHOGENETIC ROLE OF RF COMPLEMENT IN ARTHRITIS.....	5R01 AM21425-03	51,444
ROGERS, QUINTON R.....	THE ROLE OF NUTRITION IN FOOD INTAKE REGULATION.....	5R01 AM13252-11	90,251
RUCKER, ROBERT B.....	EXPERIMENTAL ATHEROSCLEROSIS AND ELASTIN METABOLISM.....	5R01 HL15965-08	49,624
RUCKER, ROBERT B.....	CHARACTERIZATION OF LUNG ELASTINS.....	5R01 HL18918-05	51,043
SCHMID, CARL W, JR.....	REPETITIVE DNA SEQUENCES IN THE HUMAN GENOME.....	2R01 GM21346-07	54,723
SCHNEIDER, ROBERT.....	ANIMAL NEOPLASM REGISTRY.....	3R01 CA14916-06S1	8,122
SCHNEIDER, ROBERT.....	ANIMAL NEOPLASM REGISTRY.....	2R01 CA14916-07A1	134,608
SCHORE, NEIL E.....	SYNTHESIS OF BIOLOGICALLY ACTIVE CYCLOPENTENONES.....	5R01 GM26294-02	45,967
SEGEL, IRWIN H.....	ENZYMOLGY OF SULFATE ACTIVATION AND TRANSFER.....	5R01 GM26728-02	67,216
SMITH, KEVIN M.....	METABOLISM AND REACTIONS OF BILE PIGMENTS.....	5R01 AM25714-02	44,660
SMITH, KEVIN M.....	SYNTHESES OF LABELED HEMES FOR PROTEIN NMR STUDIES.....	5R01 HL22252-03	60,642
SMITH, ROBERT E.....	BREAST TEMPERATURE AS AN OVULATION PREDICTOR.....	5R01 HD11176-03	71,969
STARR, MORTIMER P.....	THE PHYTOPATHOGENIC BACTERIA.....	5R01 AI08426-24	83,279
STERN, JUDITH S.....	PHYSICAL ACTIVITY, PANCREATIC FUNCTION AND OBESITY.....	2R01 AM18899-06	97,399
STUMPF, PAUL K.....	MECHANISMS OF DESATURATION OF FATTY ACIDS.....	5R01 GM19213-09	53,073
TAPPEL, ALOYS L.....	NUTRITIONAL FUNCTION OF SELENIUM.....	5R01 AM06424-18	77,956
TAPPEL, ALOYS L.....	FREE RADICAL LIPID PEROXIDATION DAMAGE.....	5R01 AM09933-23	60,198
THEILLEN, GORDON H.....	ONCORNEA CELL MEMBRANE ANTIGENS & ITS THERAPEUTICS.....	2R01 CA16869-04A1	158,842
TRAUT, ROBERT R.....	RIBOSOME STRUCTURE AND FUNCTION.....	5R01 GM17924-10	131,703
TROY, FREDERIC A.....	CHEMISTRY AND BIOSYNTHESIS OF CELL-SURFACE POLYMERS.....	5R01 AI09352-11	66,482
TROY, FREDERIC A.....	MEMBRANE-BOUND ENZYME INTERACTIONS AND GROWTH CONTROL.....	5R01 CA17327-05	86,530
TURGEON, JUDITH L.....	GONADOTROPIN SECRETION IN VITRO.....	1R01 HD12137-01A1	63,465
VILLAREJO, MERNA R.....	ISOLATION AND CHARACTERIZATION OF THE LAC PERMEASE.....	5R01 GM23189-05	50,169
WALSH, DONAL A.....	REGULATION OF CELL FUNCTION BY PHOSPHORYLATION.....	5R01 AM13613-12	143,225
WALSH, DONAL A.....	A PROTEIN INHIBITOR OF PROTEIN KINASES.....	5R01 AM21019-03	77,149
WALTERS, RICHARD F.....	MUMPS GLOBAL FILE IMPLEMENTATION ON LARGE MAINFRAMES.....	1R01 LM03511-01	42,047
WENNBERG, RICHARD P.....	ASSESSMENT OF BILIRUBIN TRANSPORT AND TOXICITY.....	5R01 HD10491-03	67,392
WILSON, BARRY W.....	TOXICANTS AND AVIAN CELL GROWTH AND METABOLISM.....	5R01 ES00202-12	54,268
WILSON, LOWELL D.....	THE ADRENAL MITOCHONDRIAL HYDROXYLATING SYSTEM.....	5R01 AM16173-06	96,681
WOLFE, BRUCE.....	BRANCHED CHAIN AMINO ACID INFUSION IN TRAUMA.....	5R23 GM26943-02	39,300
WOOLLEY, DOROTHY E.....	LEAD NEUROTOXICITY DURING DEVELOPMENT.....	5R01 ES01503-03	98,017
WOOLLEY, DOROTHY E.....	DOPAMINE-ESTRADIOL INTERACTIONS IN RAT CNS.....	1R01 HD12385-01A1	40,850
YEH, YIN.....	LASER DIFFRACTION STUDIES OF MUSCLE SINGLE FIBERS.....	1R01 AM26817-01	44,717
ORGANIZATION TOTAL	133	12,465,885	

DOMINGUEZ HILLS

CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT DOMINGUEZ HILLS ZIP CODE 90747

CHI, LOIS W.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08156-04	321,262
ORGANIZATION TOTAL	1	321,262	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DOWNEY			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—RANCHO LOS AMIGOS HOSPITAL		ZIP CODE 90242	
PERRY, JACQUELIN.....	THE DYNAMICS OF EMG-FORCE-MOVEMENT RELATIONSHIPS.....	5R01 GM26395-02	94,510
SELVESTER, RONALD H.....	INFARCT SIZE: ECG, ANGIO, AND PATHOLOGY CORRELATIONS.....	5R01 HL17532-06	82,797
SPEARS, ROBERT L.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05542-17	14,231
ORGANIZATION TOTAL	3	191,538	
DUARTE			
CITY OF HOPE NATIONAL MEDICAL CENTER		ZIP CODE 91010	
BENFIELD, JOHN R.....	ESOPHAGEAL AND PANCREATIC CARCINOGENESIS.....	1R01 CA28045-01	85,997
BENFIELD, JOHN R.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA28603-01	28,940
BROWN, THOMAS H.....	QUANTAL SYNAPTIC ANALYSIS IN HIPPOCAMPAL NEURONS.....	1R01 NS16576-01	69,843
CLARK, BRIAN R.....	CHEMICAL CHARACTERIZATION OF THE H-Y ANTIGEN.....	1R01 HD13673-01	74,117
COMINGS, DAVID E.....	PHYSIOLOGY AND BIOCHEMISTRY OF HUMAN CHROMOSOMES.....	2R01 GM15886-14	136,465
COMINGS, DAVID E.....	DNA BINDING PROTEINS AND CHROMOSOME STRUCTURE.....	5R01 GM23199-05	85,160
COMINGS, DAVID E.....	GENETICS OF HUNTINGTON'S DISEASE AND SCHIZOPHRENIA.....	5R01 NS14861-02	46,429
DE FRANCESCO, LAURA.....	RECOMBINATION IN MITOCHONDRIAL GENOME OF ANIMAL CELLS.....	1R01 GM27881-01	51,850
FLANAGAN, STEVEN D.....	AFFINITY PARTITIONING OF SUBSYNAPTIC MEMBRANES.....	5R01 NS14281-03	30,510
IKEDA, KAZUO.....	PHYSIOLOGY OF SYNAPSES IN NORMALS AND MUTANTS.....	5R01 NS07442-13	29,382
ITAKURA, KEIICHI.....	ISOLATION OF NUCLEIC ACIDS USING SYNTHETIC DNA AS PROBE.....	5R01 GM25658-03	103,575
ITAKURA, KEIICHI.....	PEPTIDE HORMONE PRODUCTION IN E COLI.....	5R01 GM26408-02	92,281
KAPLAN, WILLIAM D.....	PHYSIOLOGICAL AND AGING STUDIES OF MUTANTS.....	3R01 NS08014-12S1	3,675
KAPLAN, WILLIAM D.....	PHYSIOLOGICAL AND AGING STUDIES OF MUTANTS.....	5R01 NS08014-13	119,074
KLEVECEZ, ROBERT R.....	TEMPORAL ORDER AND AGING IN CULTURED SOMATIC CELLS.....	2R01 AG00434-10	112,536
KLEVECEZ, ROBERT R.....	TIMING OF MAMMALIAN CELL CYCLE EVENTS.....	5R01 GM26015-02	55,147
LEVINE, RACHMIEL.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05471-18	59,100
LEVINE, RACHMIEL.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05841-01	100,247
MC CAMAN, RICHARD E.....	METABOLISM AND FUNCTION OF NEUROTRANSMITTERS IN NEURONS.....	5R01 NS09339-10	83,657
MC CAMAN, RICHARD E.....	PLASTICITY IN REDUNDANT & CONVERGENT NEURAL CIRCUITS.....	5R01 NS15583-02	41,146
MITTMAN, CHARLES.....	NONUNIFORM VENTILATION AND DIFFUSING CAPACITY.....	5R01 HL22976-03	52,723
OHNO, SUSUMU.....	H-2 OR HLA RESTRICTIONS IN CELL MEDIATED IMMUNITY.....	5R01 AI15620-02	85,008
PEARSON, DAVID B.....	NEUROBIOLOGY OF PEPTIDE HORMONES IN ORGAN CULTURE.....	5R01 NS13644-03	64,580
RAPPAPORT, HENRY.....	PATHOLOGY CENTER FOR LYMPHOMA CLINICAL STUDIES.....	5R10 CA18044-06	271,554
RAPPAPORT, HENRY.....	CLINICO-BIOLOGIC CORRELATION IN LYMPHOMA AND LEUKEMIA.....	1R01 CA26422-01A1	112,708
RIGGS, ARTHUR D.....	REGULATORY PROTEINS IN E COLI AND EUKARYOTIC CELLS.....	5R01 GM25825-11	172,665
ROBERTS, EUGENE.....	NITROGEN METABOLISM OF NERVOUS TISSUE.....	2R01 NS01615-23	95,389
ROBERTS, EUGENE.....	NEUROTRANSMISSION AND NEUROLOGICAL DISEASES.....	2P01 NS12116-06	498,156
SALVATERRA, PAUL M.....	SYNAPTIC MEMBRANE STUDIES.....	5R01 NS13813-03	45,538
SHIVELY, JOHN E.....	ROLE OF HLA-B27 AND SHIGELLA ANTIGENS IN DISEASE.....	5R01 AM21597-03	92,653
TAYLOR, JOSEPH C.....	BIOCHEMICAL PATHOGENESIS OF EMPHYSEMA.....	5R01 HL22860-02	54,876
TODD, CHARLES W.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA16434-06	447,713
TODD, CHARLES W.....	ASSAY AND STRUCTURE OF CARCINOEMBRYONIC ANTIGENS.....	5R26 CA19163-05	208,199
VAUGHN, JAMES E.....	SPINAL CORD DEVELOPMENT.....	2R01 NS09578-11	60,145
WALLACE, R BRUCE.....	MAJOR HISTOCOMPATIBILITY COMPLEX GENE SEQUENCES.....	5R01 GM26391-02	48,269
WALLACE, R BRUCE.....	ANALYSIS OF POINT MUTATIONS IN HUMAN GLOBIN GENES.....	5R01 HL24235-02	62,378
WIMER, RICHARD E.....	AMMON'S HORN: CONNECTIVITY AND BEHAVIOR.....	5R01 NS10284-08	84,617
WISHNER, KATHLEEN L.....	DIETARY FACTORS AFFECTING CHYLOMICRON METABOLISM.....	5R01 HL24378-02	54,583
YONEMOTO, ROBERT H.....	COLORRECTAL CANCER TRANSFER FACTOR FEASIBILITY STUDY.....	5R26 CA22374-03	61,470
YONEMOTO, ROBERT H.....	CELL-MEDIATED IMMUNITY AND ASSAY FOR BREAST CANCER.....	5R01 CA23047-03	50,291
YOSHIDA, AKIRA Y.....	STUDY OF METAL-BINDING PEPTIDES.....	5R01 ES01928-03	57,099
YOSHIDA, AKIRA Y.....	MOLECULAR PATHOLOGY OF GENETIC DISORDERS IN MAN.....	5R01 HL15125-09	199,656
YOSHIDA, AKIRA Y.....	GENETICS OF GLYCOSYLTRANSFERASES IN HUMAN BLOOD.....	2R01 HL20301-04	91,651
ORGANIZATION TOTAL	43	4,381,052	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
ENCINITAS			
A PSYCHOLOGICAL ARTS LYCEUM ZIP CODE 92024			
LOTECKA, LLYNN.....	DEVELOPING SELF-HELP COMMUNICATIONS.....	5R01 HD12669-02	24,600
ORGANIZATION TOTAL	1 24,600		
FRESNO			
AMERICAN MOSQUITO CONTROL ASSOCIATION ZIP CODE 93727			
SOLLERS-RIEDEL, HELEN.....	SYNTHESIS OF LITERATURE ON MOSQUITOES.....	3R01 AI15643-07S1	1,810
ORGANIZATION TOTAL	1 1,810		
FULLERTON			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT FULLERTON ZIP CODE 92634			
LINDER, MARIA C.....	COPPER ABSORPTION AND CERULOPLASMIN IN CANCER.....	5R01 CA22410-02	50,487
LINDER, MARIA C.....	ISOERRITINS AND IRON METABOLISM IN CARDIAC CELLS.....	5R01 HL24337-02	39,368
ORGANIZATION TOTAL	2 89,855		
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717			
ARFIN, STUART M.....	ASPARAGINE SYNTHETASE REGULATION IN MAMMALIAN CELLS.....	5R01 GM26014-02	63,255
ARQUILLA, EDWARD R.....	IMMUNOLOGY STRUCTURE SITE AND ACTION OF INSULIN.....	5R01 AM13441-12	137,326
BALDWIN, KENNETH M.....	ADAPTATION TO FUNCTIONAL OVERLOAD IN MUSCLE FIBER TYPES.....	5R01 AM21406-03	68,226
BALDWIN, KENNETH M.....	REGULATION OF CARDIAC ADAPTATION TO EXERCISE.....	5R01 HL22361-03	63,771
BARTLETT, ROBERT H.....	EXTRACORPOREAL MEMBRANE OXYGENATION—NEONATE RES FAILURE.....	5R01 HD11153-03	81,700
BELL, KARL A.....	FUNDAMENTAL BEHAVIOR OF MEDICINAL AEROSOLS IN THE LUNGS.....	5R01 HL19704-05	172,336
BERNS, MICHAEL W.....	CELL DIVISION STUDIED BY LASER.....	2R01 GM23445-04	113,041
BERNS, MICHAEL W.....	IN VITRO STUDIES ON HEART CELL FUNCTION.....	2R01 HL15740-08	169,940
BERNS, MICHAEL W.....	A LASER MICROBEAM BIOTECHNOLOGY RESOURCE.....	1P41 RR01192-01	410,368
BERTRAND, KEVIN P.....	TRANSCRIPTIONAL CONTROL OF GENE EXPRESSION.....	1R01 AI16735-01	76,674
BLANKS, ROBERT H.....	EYE MOVEMENT CONTROL.....	5R01 EY03018-03	40,519
BODE, HANS R.....	REGULATION OF MULTIPOTENT CELL DIFFERENTIATION.....	5R01 HD08086-07	45,737
BRADLEY, TIMOTHY J.....	CONTROL OF ION AND WATER TRANSPORT IN INSECT EPITHELIA.....	1R01 GM27919-01	77,510
BRYANT, PETER J.....	CELL DEATH AND DEVELOPMENT IN DROSOPHILA.....	1R01 AG01979-01	108,964
BRYANT, PETER J.....	METABOLISM AND HORMONES IN ARTHROPODS.....	5R01 AI10527-11	94,809
BRYANT, PETER J.....	GENETICALLY-CONTROLLED MALIGNANT NEOPLASMS.....	5R01 CA12643-10	61,620
BRYANT, PETER J.....	GENETIC ANALYSIS OF BASIC DEVELOPMENTAL MECHANISMS.....	2R01 HD06082-10	108,882
BRYANT, SUSAN V.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07008-15	121,503
BUCKPITT, ALAN R.....	LUNG CARCINOGEN METABOLISM AFTER O3 AND NO2 EXPOSURE.....	1R23 ES02475-01	38,321
CAHALAN, MICHAEL D.....	MOLECULAR MECHANISMS IN EXCITABLE MEMBRANES.....	5R01 NS14609-03	31,642
CAPURRO, NORINE L.....	PROSTACYCLIN AND ASPIRIN IN CORONARY PHARMACOLOGY.....	1R01 HL25499-01	76,258
CASERIO, MARJORIE C.....	ALKYLATION OF DISULFIDES - THIOSULFONIUM IONS.....	9R01 GM27319-04	42,258
CHARLES, MERL A.....	THYROGLOBULIN RADIOIMMUNOASSAY IN THYROID CARCINOMA.....	1R01 CA25338-01A1	28,905
COTMAN, CARL W.....	BEHAVIORAL AND NEURAL PLASTICITY IN THE AGED RAT.....	2P01 AG00538-04	412,156
COTMAN, CARL W.....	SYNAPTIC MEMBRANE STRUCTURE AND FUNCTION.....	5R01 NS08597-12	95,977
CUNNINGHAM, DENNIS D.....	ROLE OF CELL SURFACE IN INITIATION OF CELL DIVISION.....	5R01 CA12306-10	95,516
DAVIS, ROWLAND H.....	ARGININE METABOLISM AND CELL COMPARTMENTATION.....	5R01 AM20083-04	83,867
DELGADO-ESCUETA, ANTONIO V.....	AN INTERNATIONAL SYMPOSIUM ON STATUS EPILEPTICUS.....	1R13 NS16171-01	54,400
DI SAIA, PHILIP J.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA23765-03	130,363
FALLON, JAMES H.....	NEUROENDOCRINE REGULATION: CNS AND CIRCADIAN RHYTHMS.....	1R01 NS15321-01A1	65,243
FALLON, JAMES H.....	COLLATERALIZATION IN THE MONOAMINE SYSTEMS OF THE CNS.....	1R01 NS16017-01	47,145
FELSHER, BERTRAM F.....	PATHOGENESIS OF PORPHYRIA CUTANEA TARDA.....	1R01 AM26008-01	60,729
GALANT, STANLEY P.....	NEUTROPHIL (PMN) BETA ADRENERGIC RECEPTOR IN ASTHMA.....	7R01 AI17914-01	42,742
GOLDSMITH, MARIAN R.....	ORGANIZATION AND EXPRESSION OF A MULTIGENE FAMILY.....	1R01 GM27302-01	68,142
GRANGER, GALE A.....	LYMPHOCYTE RELEASED CELL-TOXIN.....	2R01 AI09460-11A1	125,678
GUTMAN, GEORGE A.....	SEROLOGICAL AND STRUCTURAL STUDIES ON KAPPA CHAINS.....	5R01 AI14774-03	88,380
HALL, JAMES E.....	VOLTAGE-DEPENDENT CONDUCTANCE IN MEMBRANES.....	5R01 HL23183-03	49,336
HAMKALO, BARBARA A.....	STRUCTURE AND FUNCTION OF EUKARYOTIC CHROMOSOMES.....	5R01 GM23241-05	86,605

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
HANRATTY, WILLIAM P.....	THE CONTROLLED INITIATION OF NEOPLASMS IN DROSOPHILA.....	5R01 CA24488-02	50,449
HATFIELD, G WESLEY.....	TRNA MODIFICATION AND GENE EXPRESSION IN MAMMALIAN CELLS.....	1R01 CA27235-01	57,293
HUXTABLE, ROBERT F.....	IMPROVED TRANSCUTANEOUS O2 AND CO2 MONITORING.....	5R01 HL23123-02	122,972
JOSEPHSON, ROBERT K.....	MECHANISMS OF NEUROMUSCULAR SPECIFICITY.....	5R01 NS14564-03	55,666
KITZES, LEONARD M.....	AUDITORY INFORMATION FLOW IN CORTEX AND THALAMUS.....	5R01 NS14479-03	42,838
KOPOWITZ, HAROLD.....	PHYSIOLOGY OF A PLEXIFORM NERVOUS SYSTEM.....	5R01 NS13713-03	37,351
KRASSNER, STUART M.....	STUDY OF TWO DEVELOPMENTAL SYSTEMS IN HEMOFLAGELLATES.....	5R01 AI14828-02	57,973
LENHOFF, HOWARD M.....	ULTRAMICRO ANALYSIS BY IMMOBILIZED ENZYMATIC CYCLING.....	5R01 GM25224-02	50,246
LEOPOLD, IRVING H.....	CHARACTERIZATION OF TEAR PROTEASE INHIBITORS.....	5R01 EY02843-02	47,368
LEVY, BEATRIZ W.....	NUCLEOSOME STRUCTURE AND FUNCTION.....	1R01 GM27736-01	75,037
MANNING, JERRY E.....	GENE SEQUENCE ORGANIZATION IN DROSOPHILA MELANOGASTER.....	5R01 GM22207-05	87,648
MC IVER, ROBERT T, JR.....	FOURIER TRANSFORM MASS SPECTROMETRY.....	1R01 GM27039-01	87,227
MC LAUGHLIN, CALVIN S.....	COMPARATIVE STRUCTURE AND FUNCTION OF RIBOSOMES.....	5R01 CA10628-13	115,194
MEYER, RONALD L.....	GROWTH OF RETINOTECTAL CONNECTIONS.....	1R01 NS16319-01	47,759
MOLDAVE, KIVIE.....	CELLULAR SENESCENCE AND REGULATION OF TRANSLATION.....	1R01 AG01911-01	14,130
MOLDAVE, KIVIE.....	MECHANISM OF PROTEIN BIOSYNTHESIS.....	5R01 AM15156-11	114,431
MOLDAVE, KIVIE.....	GENETIC REGULATION OF TRANSLATION IN YEAST.....	1R01 GM27999-01	101,103
MOORE, HAROLD W.....	SYNTHETIC & NATURAL BETA-LACTAMS—NEW SYNTHETIC APPROACH.....	5R01 AI15651-02	63,028
MOORE, HAROLD W.....	BIOREDUCTIVE ALKYLATING AGENTS.....	2R01 CA11890-10	61,872
MOSIER, H DAVID, JR.....	MECHANISMS CONTROLLING GROWTH RATE.....	5R01 HD07074-07	90,484
MOSIER, H DAVID, JR.....	CONTROL OF SOMATIC GROWTH IN THE FETUS AND NEONATE.....	5R01 HD12034-03	102,685
NICOLSON, GARTH L.....	CELL SURFACE STUDIES OF METASTATIC MELANOMA.....	3R01 CA15122-05S1	48,259
NOVEY, HAROLD S.....	THE ROLE OF FUNGAL HYPERSENSITIVITY IN CYSTIC FIBROSIS.....	5R01 AM25442-02	23,787
NUNN, WILLIAM D.....	CONTROL OF LIPID METABOLISM IN ESCHERICHIA COLI.....	5R01 GM22466-05	52,754
OVERMAN, LARRY E.....	SYNTHESIS OF NEW CARDIOTONIC AND MYOTONIC AGENTS.....	1R01 HL25854-01	88,943
OVERMAN, LARRY E.....	SYNTHESIS OF ACTIVE NEUROLOGICAL AGENTS.....	5R01 NS12389-06	76,913
PFEFFER, ROBERT I.....	DIAGNOSIS OF SENILE DEMENTIA IN A DEFINED POPULATION.....	5R01 NS15487-02	119,390
POO, MU-MING.....	ELECTROPHORESIS OF RECEPTORS ALONG NERVE MEMBRANE.....	5R01 NS14483-02	59,166
REDPATH, JOHN L.....	PHOTOREACTIVATION ON X-RAY INDUCED DAMAGE IN E. COLI.....	1R01 CA27561-01	32,620
RIBAK, CHARLES E.....	MORPHOLOGY OF RECORDED NEURONS IN CEREBRAL CORTEX.....	5R01 NS15669-02	48,102
ROBERTSON, RICHARD T.....	STRUCTURE AND FUNCTION OF ASCENDING RETICULAR SYSTEMS.....	5R01 NS14267-04	45,317
SHANK, RONALD C.....	QUANTITATIVE ALKYLATION OF NUCLEIC ACIDS BY CARCINOGENS.....	5R01 CA21955-03	45,568
SHARMA, BRAHMA S.....	IN VITRO IMMUNIZATION TO HUMAN TUMOR CELLS.....	5R01 CA27772-02	68,066
SHEA, KENNETH J.....	TEMPLATE SYNTHESIS OF MACROMOLECULES.....	2R01 GM22995-04	53,400
SKLANSKY, JACK.....	COMPUTER-AIDED IMAGE RECOGNITION.....	2R01 GM17632-09	238,335
STANBRIDGE, ERIC J.....	MYCOPLASMA AND LYMPHOCYTE INTERACTIONS.....	1R01 AI15702-01A1	59,271
STANBRIDGE, ERIC J.....	GENETIC ANALYSIS OF HUMAN MALIGNANCY.....	3R01 CA19401-04S1	2,151
STANBRIDGE, ERIC J.....	GENETIC ANALYSIS OF HUMAN MALIGNANCY.....	5R01 CA19401-05	101,237
STARR, ARNOLD.....	AUDITORY EVOKED BRAIN POTENTIALS IN NEUROLOGICAL DISEASE.....	2R01 NS11876-07	248,521
SWETT, JOHN E.....	SENSORY FUNCTIONS OF THE DORSAL COLUMNS.....	5R01 NS13751-03	58,008
SYSPHERD, PAUL S.....	GENETIC CONTROL OF RIBOSOME ASSEMBLY.....	5R01 GM18293-10	69,557
SYSPHERD, PAUL S.....	DEVELOPMENTAL CHANGES IN THE PROTEIN-SYNTHETIC APPARATUS.....	5R01 GM23999-04	71,369
SYSPHERD, PAUL S.....	POST-TRANSCRIPTIONAL REGULATION OF GENE EXPRESSION.....	5R01 GM26690-02	85,370
TAFT, ROBERT W.....	HYDROGEN BONDING AND IONIC SOLVATION BY NMR AND ICR.....	2R01 GM14078-14	57,975
TIEMEIER, DAVID C.....	CLONING AND ANALYSIS OF MURINE ENDOGENOUS VIROGENES.....	5R01 CA24748-02	44,189
VAN DEN NOORT, STANLEY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05351-19	151,438
VICKERY, LARRY E.....	MECHANISM AND REGULATION OF CYTOCHROME P450-SCC.....	5R01 AM21792-03	53,096
WAGNER, EDWARD K.....	VIRAL RNA SYNTHESIS CONTROL IN HERPES VIRUS INFECTION.....	5R01 CA11861-11	129,678
WARNER, ROBERT C.....	STUDIES OF POLYNUCLEOTIDES AND NUCLEIC ACIDS.....	5R01 CA12627-11	123,996
WASMUTH, JOHN J.....	GENE MAPPING OF REGULATORY LOCI IN ANIMAL CELLS.....	5R01 GM25339-03	44,541
WATSON, JAMES D.....	THE INDUCTION OF ANTIBODY SYNTHESIS.....	5R01 AI13383-06	61,608
WEINBERGER, NORMAN M.....	NEURONAL CLASSICAL CONDITIONING.....	5R01 NS16108-02	70,821
WEINSTEIN, GERALD D.....	PATHOPHYSIOLOGY & CHEMOTHERAPY IN PSORIASIS AND CANCER.....	2R01 AM27110-02	133,365
WHITE, STEPHEN H.....	STRUCTURAL STUDIES OF BILAYER SOLUTIONS.....	5R01 GM26346-02	33,290
WHITE, STEPHEN H.....	STUDIES OF PLANAR BILAYER MEMBRANE ORGANIZATION.....	5R01 GM26649-02	56,405
ORGANIZATION TOTAL.....	93.....	7,879,104	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
LA JOLLA			
INDIVIDUAL AWARD—HUMMASTI, P. GEORGE ZIP CODE 92093			
HUMMASTI, P. GEORGE.....	FINNISH FAMILY ADAPTATIONS IN INDUSTRIAL AMERICA.....	1R01 HD14296-01	23,250
ORGANIZATION TOTAL	1 23,250		
LA JOLLA CANCER RESEARCH FOUNDATION ZIP CODE 92037			
ADAMSON, EILEEN D.....	EGF AND ITS RECEPTORS IN EMBRYONIC DIFFERENTIATION.....	1R01 CA28427-01	115,159
BIRDWELL, CHARLES R.....	TUMOR CELL-VASCULAR ENDOTHELIAL CELL INTERACTIONS.....	7R01 CA28964-01	107,292
BIRDWELL, CHARLES R.....	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS.....	7R01 HL26838-01	70,773
ENGVAL, EVA S.....	ASSAY AND PROPERTIES OF COLLAGEN IN BIOLOGICAL FLUIDS.....	5R01 AM26693-02	61,866
ENGVAL, EVA S.....	THE PLACENTA SPECIFIC PROTEIN, SP1, IN CANCER.....	5R01 CA27464-02	71,449
FISHMAN, WILLIAM H.....	FUNDAMENTAL ENZYMOLOGIC STUDIES APPLIED TO ONCOLOGY.....	5R01 CA21967-04	166,174
FISHMAN, WILLIAM H.....	EXPLORATORY STUDIES IN CANCER RESEARCH.....	2P20 CA22384-03	220,995
FISHMAN, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05803-02	65,616
LINNEY, ELWOOD A.....	EMBRYONAL CARCINOMA GROWTH AND DIFFERENTIATION.....	5R01 CA24206-03	80,237
MANES, COLE.....	MAMMALIAN EMBRYOGENESIS.....	5R01 HD11654-04	99,229
RUOSLAHTI, ERKKI I.....	NUCLEAR PROTEINS IN HEPATOMA AND NORMAL LIVER.....	5R01 CA27446-02	59,806
RUOSLAHTI, ERKKI I.....	FIBRONECTIN: STRUCTURE AND MOLECULAR INTERACTIONS.....	2R01 CA27455-02	129,523
RUOSLAHTI, ERKKI I.....	ALPHA-FETOPROTEIN: STRUCTURE AND FUNCTION.....	5R01 CA27460-02	150,657
RUOSLAHTI, ERKKI I.....	GLYCOSAMINOGLYCANS IN NORMAL AND MALIGNANT CELLS.....	1R01 CA28101-01	74,855
ORGANIZATION TOTAL	14 1,473,631		
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
BACHELER, LEE T.....	ORGANIZATION OF INTEGRATED TUMOR VIRUS GENOMES.....	5R01 CA22829-03	19,478
BEEMON, KAREN L.....	EXPRESSION OF RNA TUMOR VIRUS GENES.....	5R01 CA23896-02	86,445
BELLUGI, URSULA.....	PSYCHOLINGUISTICS OF AMERICAN SIGN LANGUAGE MORPHOLOGY.....	5R01 HD13249-02	128,627
BELLUGI, URSULA.....	THE ACQUISITION OF MORPHOLOGICAL PROCESSES.....	5R01 NS15175-02	122,512
BLOOM, FLOYD E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05595-16	189,787
BOURGEIS-COHN, SUZANNE.....	STUDIES OF REGULATION IN E. COLI EXTENDED TO LYMPHOMAS.....	5R01 GM20686-07	196,762
BOURGEIS-COHN, SUZANNE.....	MECHANISMS OF PROTEIN-NUCLEIC ACID INTERACTIONS.....	5R01 GM25617-03	80,866
BROWN, MARVIN R.....	THERMOREGULATORY ACTIONS OF BRAIN PEPTIDES.....	5R01 NS14263-03	83,975
COHN, MELVIN.....	ANTIBODY SYNTHESIS.....	5R01 AI05875-16	250,531
COHN, MELVIN.....	IMMUNOSELECTION AND CANCER: A PROBLEM IN EVOLUTION.....	5R01 CA19754-05	336,046
COWAN, W MAXWELL.....	ANATOMICAL STUDIES OF VISUAL AND SENSORY DEPRIVATION.....	7R01 EY03653-01	71,867
COWAN, W MAXWELL.....	STUDIES OF NEURONAL SPECIFICITY IN THE HIPPOCAMPUS.....	7R01 NS16980-01	78,870
DENNERT, GUNTHER.....	IMMUNE RESPONSE TO TUMOR CELL SURFACE ANTIGENS.....	3R01 CA15581-05S1	14,920
DENNERT, GUNTHER.....	IMMUNE RESPONSE TO CELL SURFACE ANTIGENS.....	2R01 CA15581-06	68,454
DENNERT, GUNTHER.....	ANTIGEN RECEPTOR OF CONTINUOUS T KILLER CELL LINE.....	3R01 CA19334-04S1	3,078
DENNERT, GUNTHER.....	ANTIGEN RECEPTOR OF CONTINUOUS T KILLER CELL LINE.....	5R01 CA19334-05	81,599
DULBECCO, RENATO.....	NORMAL AND NEOPLASTIC DEVELOPMENT OF THE MAMMARY GLAND.....	5R01 CA21993-03	247,786
ECKHART, WALTER.....	VIRAL GENE FUNCTIONS AND REGULATION OF CELL GROWTH.....	2R01 CA13884-09	357,014
ECKHART, WALTER.....	CORE GRANT-REGULATION, THE CELL MEMBRANE AND CANCER.....	5P30 CA14195-07	591,715
EVANS, RONALD M.....	HORMONE REGULATION OF GENE EXPRESSION IN MAMMALIAN CELL.....	5R01 GM26444-02	82,705
FAN, HUNG Y.....	EXPRESSION AND LOCALIZATION OF C-TYPE VIRUS GENES.....	5R01 CA15747-07	135,569
FAN, HUNG Y.....	STUDIES OF MURINE LEUKEMIA VIRUS INTEGRATION.....	1R01 CA28617-01	104,973
FOOTE, STEPHEN L.....	BEHAVIORAL DETERMINANTS OF LOCUS COERULEUS ACTIVITY.....	1R01 NS16209-01	77,862
GILMORE-HEBERT, MAUREEN A.....	STRUCTURE & EXPRESSION OF ACTIN GENES DURING MYOGENESIS.....	1R01 AM26969-01	116,648
GIOTTA, GREGORY J.....	DERIVATION OF NERVE CELL LINES FROM THE BRAIN.....	5R23 CA24393-02	38,500
GUILLEMIN, ROGER C.....	BRAIN PEPTIDES, PITUITARY FUNCTIONS & DIABETES.....	3P01 AM18811-05S1	152,123
GUILLEMIN, ROGER C.....	NEUROENDOCRINOLOGY OF REPRODUCTION AND GROWTH.....	2P50 HD09690-06	866,052
HAAS, MARTIN.....	VIRAL MALIGNANT LYMPHOMAGENESIS IN X-IRRADIATED MICE.....	7R01 CA30146-01	131,469
HEINEMANN, STEPHEN F.....	SYNAPSE FORMATION AND NEUROMUSCULAR DISEASE.....	2R01 NS11549-07	157,524
HOLLEY, ROBERT W.....	FACTORS REQUIRED FOR MAMMALIAN CELL DIVISION.....	3R01 CA11176-10S2	14,450
HOLLEY, ROBERT W.....	FACTORS REQUIRED FOR MAMMALIAN CELL DIVISION.....	2R01 CA11176-11A1	75,484
HUNTER, ANTHONY R.....	MACROMOLECULAR SYNTHESIS AND CELL GROWTH CONTROL.....	5R01 CA17096-06	97,613
HUNTER, ANTHONY R.....	VIRAL TRANSFORMING PROTEINS.....	1R01 CA28458-01	106,475
HYMAN, ROBERT A.....	GENETIC BASIS OF ANTIGENIC VARIATION.....	5R01 CA13287-09	172,618
KIDOKORO, YOSHIKI.....	MUSCLE DIFFERENTIATION AND SYNAPTIC INTERACTION IN VITRO.....	5R01 NS11918-06	156,770
LEFFERT, HYAM L.....	EARLY EFFECTS OF AN AHEPATOCARCINOGEN IN VITRO.....	2R01 CA26851-02	23,807

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
LINDSTROM, JON M.	STUDIES USING PURIFIED ACETYLCHOLINE RECEPTOR	5R01 NS11323-08	204,356
NEVILLE, HELEN J.	THE DEVELOPMENT OF CEREBRAL SPECIALIZATION	5R01 NS14365-03	68,419
NILSEN-HAMILTON, MARIT	FIBROBLAST GROWTH FACTOR AND PHOSPHORYLATION	5R01 CA24395-03	106,006
ORGEL, LESLIE E.	EVOLUTION OF GENETIC SPECIFICITY	5R01 GM13435-14	93,752
PATRICK, JAMES W.	TROPIC INTERACTION OF NERVE AND MUSCLE	5R01 NS13546-05	101,244
PFAHL, MAGNUS	GENETIC ANALYSIS OF LAC REPRESSOR AND OPERATOR	2R01 GM23671-04	80,425
RASCHKE, WILLIAM C.	ANALYSIS OF TRANSFORMED CELLS OF THE LYMPHOID SYSTEM	2R01 CA21531-04	146,240
ROSE, JOHN K.	RIBOSOME RECOGNITION OF ANIMAL VIRUS MRNA	5R01 AI15481-02	78,038
ROTHENBERG, ELLEN	MOLECULAR ANALYSIS OF MOUSE THYMOCYTE DIFFERENTIATION	1R01 AI16769-01	91,389
SCHUBERT, DAVID R.	PHYSIOLOGY OF NERVE, GLIAL, AND MUSCLE CELL LINES	5R01 NS09658-10	138,661
SEFTON, BARTHOLOMEW M.	VIRAL MEMBRANES: STRUCTURE AND BIOSYNTHESIS	5R01 CA17289-05	94,046
STALLCUP, WILLIAM B.	SURFACE ANTIGENS OF NEURAL CELLS	9R01 NS16112-04	86,470
STEINBACH, JOSEPH H.	ACETYLCHOLINE RECEPTOR FUNCTION	5R01 NS13719-03	32,738
SWANSON, LARRY W.	CONNECTIONS OF THE LIMBIC SYSTEM AND HYPOTHALAMUS	1R01 NS16686-01	104,273
TROWBRIDGE, IAN S.	LYMPHOCYTE ANTIGENS: STRUCTURE, FUNCTION AND SYNTHESIS	5R01 CA17733-06	113,540
TROWBRIDGE, IAN S.	IDENTIFICATION OF HUMAN LYMPHOCYTE SURFACE ANTIGENS	3R01 CA20272-03S1	27,072
VALE, WYLIE W.	SOMATOSTATIN: PHYSIOLOGY AND APPLICATION TO DIABETES	5R01 AM20917-03	194,543
VALE, WYLIE W.	BIOLOGY OF NEUROGASTROINTESTINAL PEPTIDES	1P01 AM26741-01	1,009,921
VALE, WYLIE W.	PEPTIDES AND REPRODUCTION	1P01 HD13527-01A1	553,210
VERMA, INDER M.	REVERSE TRANSCRIPTASE FROM RNA TUMOR VIRUSES	5R01 CA16561-06	65,301
VERMA, INDER M.	GENETIC ORGANIZATION OF RNA TUMOR VIRUSES	5R01 CA21408-04	103,130
VOGT, MARGUERITE M.	VIRAL GENE FUNCTIONS INVOLVED IN TRANSFORMATION	5R01 CA13608-08	133,189
WAHL, GEOFFREY M.	DRUG RESISTANCE AND GENE AMPLIFICATION IN EUKARYOTES	1R01 GM27754-01	100,053
WESTALL, FREDERICK C.	INDUCED BIOMEDICAL PROPERTIES OF THE ENCEPHALITOGEN	5R01 NS12391-06	130,841
ORGANIZATION TOTAL	60	9,377,831	
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
ALTMAN, AMNON	STUDIES OF TUMOR-SPECIFIC IMMUNE RESPONSES	5R23 CA24911-03	37,116
BEUTLER, ERNEST	DIAGNOSIS AND THERAPY OF GAUCHER'S DISEASE	5R01 AM25696-02	155,802
BEUTLER, ERNEST	THE FORMATION AND SURVIVAL OF RED BLOOD CELLS	5R01 HL25552-02	203,396
BUCHMEIER, MICHAEL J.	ARENAVIRUSES: THEIR BIOCHEMISTRY AND BIOLOGY	5R01 AI16102-02	66,348
CALLAHAN, GERALD N.	CELL SURFACE ANTIGENS OF MURINE TUMORS	5R01 CA25171-02	161,744
CALLAHAN, GERALD N.	CELL SURFACE ANTIGENS IN MURINE LEUKEMIA	5R01 CA26456-02	42,906
CARSON, DENNIS A.	RHEUMATOID FACTOR: GENETICS, PATHOGENESIS & MODULATION	5R01 AM25443-02	95,931
CARSON, DENNIS A.	ADENOSINE DEAMINASE DEFICIENCY: GENETICS AND IMMUNOLOGY	5R01 GM23200-05	98,123
CHENOWETH, DENNIS E.	C5A-INDUCED NEUTROPHIL RESPONSES IN VITRO AND IN VIVO	5R01 AI16344-02	44,535
CHISARI, FRANCIS V.	IMMUNOBIOLOGY AND PATHOGENESIS OF HEPATITIS B	5R01 AI13393-05	67,701
CHISARI, FRANCIS V.	HEPATIC BIOREGULATORY MOLECULES, HEPATITIS AND CANCER	1R01 AI17353-01	66,428
COOPER, NEIL R.	CANCER CELL SURVIVAL AND MECHANISMS OF CYTOTOXICITY	5R01 CA14692-08	139,694
CURTISS, LINDA K.	SERUM LIPOPROTEINS AS REGULATORS OF IMMUNE FUNCTION	5R23 AI14921-03	46,789
DANDLIKER, WALTER B.	BIOPHYSICAL STUDY OF HORMONE-RECEPTOR INTERACTIONS	5R01 GM23980-03	88,987
DIXON, FRANK J.	IMMUNOPATHOLOGIC STUDIES	5P01 AI07007-15	2,951,811
DIXON, FRANK J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05514-18	189,877
EDGINGTON, THOMAS S.	MOLECULAR IMMUNOLOGY AND PATHOBIOLOGY OF NEOPLASIA	1P01 CA28166-01	685,008
EDGINGTON, THOMAS S.	BLOOD SYSTEMS IN COAGULATION AND VESSEL DISEASE	5P01 HL16411-07	1,143,572
EDWARDS, DAVID L.	A GENETIC APPROACH TO MITOCHONDRIAL FUNCTION	5R01 GM25990-02	49,159
ELDER, JOHN H.	GLYCOPROTEIN 70'S SEQUENCE OF RECOMBINANT RETROVIRUS	5R01 CA25533-02	90,601
FELDMAN, JOSEPH D.	CELL STRUCTURE AND FUNCTION IN AGED RATS	5R01 AG00924-02	80,825
FELDMAN, JOSEPH D.	MEMBRANE MOLECULES OF B CELLS AND NEOPLASIA	5R01 AI16205-02	82,036
FERRONE, SOLDANO	HUMAN B CELL (DR) ANTIGENS: BIOLOGICAL/CHEMICAL PROFILE	5R01 AI13154-05	98,669
FERRONE, SOLDANO	IMMUNOCHEMICAL CHARACTERIZATION OF ANTIGENS IN MELANOMA	5R01 CA16069-06	85,757
FERRONE, SOLDANO	MONOCLONAL ANTIBODIES TO HUMAN CELL SURFACE ANTIGENS	5R01 CA24329-03	75,641
FIDLER, JOHN M.	DIFFERENTIATION OF MEMORY B CELL PRECURSORS	5R01 AI15226-03	89,051
FONG, SHERMAN	AUTOANTIBODIES AND IMMUNOLOGICAL AGING IN MAN	1R23 AG02267-01	45,256
FOX, ROBERT J.	CELL SURFACE ANTIGENS IN NEOPlastic & AUTOIMMUNE DISEASE	1R01 CA28746-01	86,850
GALANTE, YVES M.	MITOCHONDRIAL NADH AND SUCCINATE DEHYDROGENASE	1R01 GM27812-01	61,956
GINSBERG, MARK H.	THE ROLE OF PLATELETS IN RHEUMATIC DISEASE	1R01 AM27214-01	50,770
GOODMAN, MICHAEL G.	MECHANISM OF LYMPHOCYTE ACTIVATION BY THIOL COMPOUNDS	5R01 AI15284-03	75,405
GOTTESFELD, JOEL M.	ISOLATION OF 5S GENE CHROMATIN	5R01 GM26453-02	123,797
GREEN, RALPH	IRON CHELATOR DELIVERY IN RED BLOOD CELL GHOSTS	5R01 HL22479-02	43,534
GREEN, RALPH	CLINICAL TRIAL OF DESFERRIOXAMINE IN RED CELL GHOSTS	1R01 HL24171-01A1	65,121

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
GREEN, RALPH	A MODEL FOR COBALAMIN DEFICIENCY	5R01 NS13714-03	99,157
GRIFFIN, JOHN H.	PROTEINS OF COAGULATION AND HAGEMAN FACTOR PATHWAYS	2R01 HL21544-04	86,986
GRIFFIN, JOHN H.	A NEW ANTICOAGULANT-PROFIBRINOLYTIC PLASMA PROTEIN	5R01 HL24891-02	50,761
HATEFI, YOUSSEF	ENERGY CONSERVATION AND TRANSFER IN MITOCHONDRIA	5R01 AM08126-17	189,971
HATEFI, YOUSSEF	ENERGY-LINKED MITOCHONDRIAL TRANSDYDROGENATION	5R01 GM24887-03	45,219
HENDERSON, GARY B.	MECHANISM AND COMPONENTS OF METHOTREXATE TRANSPORT	5R23 CA23970-03	38,992
HOCH, JAMES A.	NEOPLASTIC ACTIVATION OF FETAL GENE EXPRESSION	1R01 CA28555-01	106,959
HOCH, JAMES A.	GENETIC CONTROL OF DEVELOPMENT	5R01 GM19416-09	76,409
HOCH, JAMES A.	MOLECULAR CLONING OF SPORULATION GENES	5R01 GM25891-02	78,575
HOCH, SALLIE O.	NUCLEAR PROTEINS AND AUTOIMMUNITY	1R01 AI17126-01	78,142
HOCH, SALLIE O.	DNA-BINDING PROTEINS IN HUMAN SERUM	5R01 CA17563-06	109,287
HUENNEKENS, FRANK M.	FOLATE COENZYMES: MECHANISM OF ACTION AND TRANSPORT	5R01 CA06522-19	220,906
HUENNEKENS, FRANK M.	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P30 CA16600-05	383,272
HUGLI, TONY E.	HUMORAL FACTORS IN INFLAMMATION	1R01 HL25658-01	84,308
JACOBSEN, DONALD W.	B12 DEFICIENCY: COENZYME SYNTHESIS & INTERCONVERSION	5R01 AM25406-02	63,518
JOHNSON, ERIC F.	DETERMINANTS OF CARCINOGEN ACTIVATION/DETOXIFICATION	5R01 CA24146-03	71,117
KATES, JOSEPH R.	MOLECULAR BIOLOGY OF VACCINIA VIRUS REPLICATION	5R01 AI15941-02	193,950
KATZ, DAVID H.	GENETIC CONTROL OF IMMUNOCOMPETENT CELL DIFFERENTIATION	5R01 AI13781-04	186,028
KATZ, DAVID H.	CELL COOPERATION IN IMMUNE RESPONSES	2R01 AI13874-04	165,739
KATZ, DAVID H.	CONTROL OF NORMAL AND ABNORMAL CELL DEVELOPMENT	5P01 CA25803-02	562,775
KLINMAN, NORMAN R.	EXPRESSION OF THE B-CELL REPERTOIRE DURING AGING	5R01 AG05154-02	95,601
KLINMAN, NORMAN R.	CLONAL ANALYSIS OF THE IMMUNE MECHANISM	5R01 AI15797-03	246,664
LERNER, RICHARD A.	IMMUNOLOGIC PROBING OF SARCOMA DIVERSITY	5R01 CA25325-02	163,094
LERNER, RICHARD A.	CONSEQUENCES OF ENDOGENOUS RETROVIRAL EXPRESSION	1P01 CA27489-01	496,996
LERNER, RICHARD A.	THE CELLULAR SLIME MOLD AS A MODEL FOR HUMAN DEVELOPMENT	5R01 GM22500-15	109,613
LEWIS, URBAN J.	CONVERSION PRODUCTS OF GROWTH HORMONE AND PROLACTIN	5R01 AM09537-15	130,406
LEWIS, URBAN J.	PRIMARY STRUCTURES OF GROWTH HORMONES AND PROLACTINS	5R01 AM16065-09	57,119
LOSKUTOFF, DAVID J.	ENDOTHELIAL CELL MEDIATED FIBRINOLYSIS	5R01 HL22289-03	106,656
MC MILLAN, ROBERT	PATHOGENESIS OF THE IMMUNE THROMBOCYTOPENIAS	5R01 AM16125-09	105,364
MOLINARO, GIUSEPPE A.	MONITORING Ig-SECRETING CELLS	5R01 CA24484-03	42,442
MULLER-EBERHARD, URSULA	HEMOGLOBIN METABOLISM—CLINICAL AND BASIC APPROACH	5R01 AM16737-18	55,119
MULLER-EBERHARD, URSULA	DISTRIBUTION OF IRON AND HEME BY PROTEINS	5R01 AM18329-02	137,997
MULLER-EBERHARD, URSULA	PERINATAL DETOXIFICATION MECHANISMS	5R01 HD04445-11	161,663
OLDSTONE, MICHAEL B.	PATHOGENESIS OF DISEASE FROM PERSISTENT VIRAL INFECTION	5R01 AI09484-12	140,368
OLDSTONE, MICHAEL B.	MULTIPLE & AMYOTROPHIC LATERAL SCLEROSIS PATHOGENESIS	2P50 NS12428-06	815,628
OLDSTONE, MICHAEL B.	DEMYELINATION AND SLOW VIRUS DISEASE	5R01 NS14068-03	66,388
PARKS, DANIEL E.	ROLE OF SUPPRESSOR CELLS IN IMMUNOLOGIC TOLERANCE	5R01 AG01629-02	84,940
PELLEGRINO, MICHELE A.	URINE AS SOURCE OF HUMAN CELL SURFACE MARKERS	5R01 CA16071-07	165,413
FLOW, EDWARD F.	CLASSICAL AND ALTERNATIVE PATHWAYS OF FIBRINOLYSIS	2R01 HL17964-06	70,750
RATNER, DAVID I.	CELL DIFFERENTIATION & CELL SORTING IN DICTYOSTELIUM	5R01 GM26309-02	64,229
REISFELD, RALPH A.	MOLECULAR APPROACHES TO CELL SURFACE ANTIGENS	5R01 AI10180-10	188,891
REISFELD, RALPH A.	NEOPLASIA AND HISTOCOMPATIBILITY ANTIGENS IN SERUM	5R01 CA19108-05	82,431
REISFELD, RALPH A.	MOLECULAR PROFILE OF HUMAN MELANOMA ANTIGENS	1R01 CA28420-01	119,190
SEALE, RONALD L.	NUCLEOSOME-DNA INTERACTIONS IN CHROMATIN REPLICATION	1R01 GM27950-01	151,901
SHERMAN, LINDA A.	IDIOTYPE SHARING BY T AND B LYMPHOCYTES	5R01 AI15710-02	80,066
SIEGEL, JACQUELINE G.	GENETIC DISSECTION OF THE DROSOPHILA HISTONE GENES	5R01 GM26261-02	74,634
SILVER, JACK	STRUCTURAL STUDIES OF HUMAN DR ANTIGENS	1R01 AI16136-01A1	99,543
SILVER, JACK	STRUCTURAL STUDIES OF IA ALLOANTIGENS	2R01 CA23030-04	129,203
SINHA, YAGYA N.	ROLE OF PROLACTIN IN MOUSE MAMMARY TUMORIGENESIS	5R01 CA18664-05	87,168
SPIEGELBERG, HANS L.	STUDIES OF LYMPHOCYTE RECEPTORS AND OF IGD	5R01 AI10734-09	178,904
SPIEGELBERG, HANS L.	THE PRIMARY STRUCTURE OF HUMAN IGD	5R01 AI15350-02	60,773
STRUM, WILLIAMSON B.	BIOCHEMICAL BASIS FOR INTESTINAL ANTIFOLATE TOXICITY	5R01 CA17809-06	93,108
SUNDSMO, JOHN S.	COMPLEMENT MEMBRANE ATTACK PROTEINS	7R01 CA30114-01	32,760
TAVASSOLI, MEHDI	STRUCTURE AND FUNCTION RELATION IN HEMOPOIESIS	5R01 AM25510-02	87,594
THEOFILOPOULOS, ARGYRIOS N.	CIRCULATING AND CELL BOUND IMMUNE COMPLEXES	5R01 CA23322-03	79,625
THOMAS, CHARLES A, JR.	CHROMATIN, EPIGENETICS, AND AGING	1P01 AG02305-01	252,051
THOMAS, CHARLES A, JR.	MOLECULAR CYTOGENETICS	2R01 GM25531-03	109,132
ULEVITCH, RICHARD J.	THE MOLECULAR PATHOLOGY OF LPS-INDUCED INJURY	5R01 AI15136-03	83,519
VANDER LAAN, WILLARD P.	MULTIPLE FORMS OF HGH: MEASUREMENTS & ACTIONS	2R01 CA14025-08	149,408
VANDER LAAN, WILLARD P.	DIABETES, SOMATOTROPIN, FACTOR VIII & ATHEROSCLEROSIS	5R01 HL20517-05	194,897
VAUGHAN, JOHN H.	PATHOGENESIS IN BRONCHIAL ASTHMA AND OTHER ALLERGIES	5P50 AI10386-10	157,710

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
VAUGHAN, JOHN H.	ETIOLOGY AND PATHOGENESIS OF RHEUMATOID ARTHRITIS	5R01 AM21175-03	193,970
VAUGHAN, JOHN H.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00833-06	527,382
VAZQUEZ, JACINTO J.	IMMUNOBIOLOGY AND IMMUNOPATHOLOGY OF AGING	1P01 AG01743-01	192,046
WALKER, SHARYN M.	MODULATION OF THE IMMUNE RESPONSE BY ADJUVANTS	5R01 AI16149-02	66,706
WEIGLE, WILLIAM O.	EFFECT OF AGING ON IMMUNE AND TOLERANT STATES	5R01 AG00783-03	69,209
WEIGLE, WILLIAM O.	REGULATION OF LYMPHOCYTE ACTIVATION	5R01 AI15761-02	68,944
WHITELEY, JOHN M.	CHEMISTRY OF FOLATE AND PTERIDINE COENZYMES	5R01 CA11778-11	60,300
WHITELEY, JOHN M.	PTERIDINE DEPENDENT HYDROXYLASES FROM LIVER AND BRAIN	5R01 GM22125-05	30,699
WHITELEY, JOHN M.	AMINO ACID ANALYZER EQUIPMENT	5P41 GM27452-02	17,185
WILSON, CURTIS B.	METABOLISM OF RENAL BASEMENT MEMBRANES AND TUBULAR CELLS	5R01 AM18626-05	77,023
WILSON, CURTIS B.	IMMUNOPATHOLOGY OF RENAL DISEASE IN MAN	5R01 AM20043-04	245,033
WISEMAN, ANDREW	MITOCHONDRIAL GENETICS OF MAMMALIAN CELLS	5R01 GM26258-02	85,700
YU, JOHN C.	HUMAN RED CELL MEMBRANE: STRUCTURE AND FUNCTION	5R01 HL21845-03	81,563
ZICCARDI, ROBERT J.	MECHANISM AND DETECTION OF COMPLEMENT ACTIVATION	5R01 AI14502-03	56,240
ZIMMERMAN, THEODORE S.	BLOOD COAGULATION: PLATELET-PLASMA PROTEIN INTERACTION	5R01 HL15491-08	126,547
ORGANIZATION TOTAL	110 18,089,682		
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
ABELSON, JOHN N.	STRUCTURE AND FUNCTION OF RIBONUCLEIC ACIDS	5R01 CA10984-12	144,410
ADLER, RUBEN	VISUAL NEURONS: DEVELOPMENT AND REGENERATION IN VITRO	5R01 EY02854-02	90,634
AKESON, WAYNE H.	JOINT CONTRACTURE: BIOMECHANICAL-CHEMICAL CORRELATES	5R01 AM14918-09	91,189
AKESON, WAYNE H.	INTERNAL FIXATION PLATES FOR FRACTURE MANAGEMENT	2R01 AM15478-10	127,418
AKESON, WAYNE H.	EXERCISE EFFECTS ON TENDON REPAIR	5R01 GM24900-04	77,414
ALHADEFF, JACK A.	HUMAN LIVER ALPHA-L-FUCOSIDASE AND FUCOSIDOSIS	5R01 AM20409-04	56,362
ALHADEFF, JACK A.	HUMAN LIVER SIALYLTRANSFERASES AND ALPHA-L-FUCOSIDASE	5R01 AM21245-03	22,025
ALLISON, WILLIAM S.	STRUCTURAL STUDIES ON THE ENERGY TRANSDUCING ATPASE	5R01 GM16974-11	79,008
BADA, JEFFREY L.	ASPARTIC ACID RACEMIZATION: RELATIONSHIP TO AGING	2R01 AG00638-04	56,065
BAKER, BRUCE S.	GENETICS OF MEIOSIS AND DEVELOPMENT IN DROSOPHILA	5R01 GM23345-05	134,218
BAKER, BRUCE S.	GENETIC CONTROL OF RECOMBINATION IN DROSOPHILA	5R01 GM26200-02	30,600
BARONDES, SAMUEL H.	ENDOGENOUS LECTINS IN DEVELOPING CELL INTERACTIONS	9R01 HD13542-11	94,793
BECKER, MICHAEL A.	REGULATION OF PURINE NUCLEOTIDE SYNTHESIS IN MAN	5R01 AM18197-06	52,326
BENJUMOF, JONATHAN L.	DISTRIBUTION OF BLOOD FLOW IN ABNORMAL LUNGS	5R23 GM24674-03	40,699
BERG, DARWIN K.	NEURONAL DEVELOPMENT AND SYNAPSE FORMATION IN VITRO	5R01 NS12601-05	89,540
BERK, ROBERT N.	BILIARY AND PANCREATIC RADIOGRAPHIC CONTRAST MATERIALS	2R01 AM21620-03	128,854
BERNSTEIN, EUGENE F.	ARTERIOVENOUS CONNECTION IN EXTREMITY REVASCULARIZATION	5R01 HL22741-03	98,084
BINDER, PERRY S.	REFRACTIVE CORNEAL SURGERY	1R01 EY03585-01	110,260
BLANTZ, ROLAND C.	PATHOPHYSIOLOGY OF GLOMERULONEPHRITIS	5R01 AM21582-02	42,659
BLANTZ, ROLAND C.	AUTOREGULATION OF GLOMERULAR FILTRATION RATE	5R01 HL14914-08	101,923
BLOOR, COLIN M.	PATHOGENESIS OF CARDIAC HYPERTROPHY	2R01 HL20190-04	53,127
BLUESTEIN, HARRY G.	CELLULAR CONTROL OF EB VIRUS IN RHEUMATOID ARTHRITIS	1R01 AM25719-01	80,937
BORDERS, STEPHEN E.	VASCULAR MECHANICS AND STRUCTURE IN HYPERTENSION	5R23 HL22745-03	40,993
BOYNTON, ROBERT M.	PSYCHOPHYSIOLOGICAL AND OPTICAL STUDIES OF VISION	5R01 EY01541-07	72,800
BRAUDE, ABRAHAM I.	LETHAL BACTEREMIA	5R01 AI10108-10	124,382
BRIMM, JOHN E.	COMPUTER ASSISTANCE IN CRITICAL CARE DECISION MAKING	5R23 GM25955-02	39,300
BRODY, STUART	BIOCHEMISTRY OF CIRCADIAN RHYTHMS IN NEUROSPORA	5R01 GM21842-05	63,788
BROWN, JOAN H.	CHOLINERGIC MODULATION OF ATRIAL CAMP ACCUMULATION	5R23 HL24441-02	38,903
BROWN, WILLIE C.	MINORITY BIOMEDICAL SUPPORT	5S06 RR08135-06	224,674
BULLOCK, THEODORE H.	STUDIES IN COMPARATIVE NEUROPHYSIOLOGY	2R01 NS00021-33	151,465
BULLOCK, THEODORE H.	PLANNING GRANT FOR WORLD CONGRESS ON BRAIN RESEARCH	5R13 NS15373-02	14,000
BUNASSISI, VINCENZO	CELLULAR SYNTHESIS AND RELEASE OF MUCOPOLYSACCHARIDES	5R01 HL17995-06	99,738
BUTLER, WARREN L.	PHOTORECEPTOR PIGMENTS IN PHOTORESPONSIVE ORGANISMS	2R01 GM20648-07	62,845
CARPENTER, ADELAIDE T.	EM OF RECOMBINATION MUTANTS IN DROSOPHILA	5R01 GM23338-05	88,293
CHU, BARBARA C.	METHOTREXATE CARRIER COMPLEXES IN CANCER CHEMOTHERAPY	5R01 CA26152-02	61,279
CLEVELAND, PATRICK H.	IMMUNODIAGNOSIS OF OCULAR HERPES VIRUS INFECTIONS	5R01 EY03093-02	79,338
CORBEIL, LYNETTE B.	IMMUNITY IN EXPERIMENTAL GONORRHEA	7R01 AI17089-01	51,760
COVELL, JAMES W.	AFTERLOAD REDUCTION IN CONGESTIVE HEART FAILURE	1R01 HL24282-01A1	83,599
CRICQUI, MICHAEL H.	THE ETIOLOGY/PREVALENCE OF PERIPHERAL ARTERIAL DISEASE	3R01 HL22255-02S1	38,357
DAVIS, CHARLES E.	ANTIBIOTIC RESISTANCE OF BACTEROIDES	1R01 AI16463-01	82,313
DE LUCA, MARLENE A.	IMMOBILIZED BIOLUMINESCENT ASSAYS—CLINICAL CHEMISTRY	5R01 GM24621-02	53,442
DEFTOS, LEONARD J.	THE CALCITROPIC HORMONES	5R01 AM15888-08	141,248
DENNIS, EDWARD A.	ACTION OF LIPOLYTIC ENZYMES	5R01 GM20501-06	61,126

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
DILLMANN, WOLFGANG H.....	THYROID HORMONE ACTION IN THE HEART.....	5R01 HL25022-02	30,988
DOOLITTLE, RUSSELL F.....	THROMBOSIS RESEARCH PROGRAM PROJECT.....	5P01 HL18576-05	763,200
DUECK, RONALD.....	GAS EXCHANGE IMPAIRMENT MECHANISMS DURING ANESTHESIA.....	5R01 GM26949-02	74,421
DUNN, MARVIN R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05665-13	189,787
DUTTON, RICHARD W.....	CELLULAR MECHANISMS IN THE IMMUNE RESPONSE.....	5R01 AI08795-12	194,238
ELLISMAN, MARK H.....	DYNAMICS OF MEMBRANE ORGANIZATION AT NODES OF RANVIER.....	3R01 NS14718-02S1	5,991
ELLISMAN, MARK H.....	DYNAMICS OF MEMBRANE ORGANIZATION AT NODES OF RANVIER.....	5R01 NS14718-03	45,532
FAHEY, ROBERT C.....	ROLE OF DISULFIDES IN NORMAL AND TUMOR CELL GROWTH.....	5R01 CA25009-02	53,717
FAHEY, ROBERT C.....	PHYSIOLOGIC ROLE OF SH/SS REACTIONS IN CELL DORMANCY.....	5R01 GM22122-05	67,325
FANESTIL, DARRELL D.....	HORMONAL REGULATION OF EPITHELIAL TRANSPORT.....	5R01 AM14915-11	161,338
FARRON-FURSTENTHAL, F.....	REGULATION OF NUCLEAR PROTEIN KINASES.....	1R01 GM28699-01	64,032
FAULKNER, DAVID J.....	ANTIBIOTICS FROM MARINE ORGANISMS.....	2R01 AI11969-07	80,114
FEHER, GEORGE.....	SPECTROSCOPIC INVESTIGATIONS OF BIOLOGICAL SYSTEMS.....	5R01 GM13191-16	115,087
FIRTEL, RICHARD A.....	GENE STRUCTURE AND TRANSCRIPTIONAL REGULATION.....	2R01 GM24729-04	158,614
FRIEDKIN, MORRIS E.....	NEW ANTAGONISTS OF AMETHOPTERIN-RESISTANT LEUKEMIA.....	5R01 CA11449-11	113,213
FRIEDMANN, THEODORE.....	NUCLEOTIDE SEQUENCING OF POLYOMA DNA.....	5R01 CA24288-02	116,527
FRIEDMANN, THEODORE.....	STUDIES OF MAMMALIAN HGPRT GENES.....	1R01 GM28223-01	160,852
FROELICHER, VICTOR F.....	THE EFFECTS OF EXERCISE TRAINING ON CARDIAC FUNCTION.....	1R01 HL25296-01	124,859
FRONEK, ARNOST.....	NONINVASIVE DIAGNOSIS OF PERIPHERAL ARTERIAL DISEASE.....	5R01 HL18977-05	110,597
FRONEK, KITTY.....	THE SYMPATHETIC NERVOUS SYSTEM AND THE ARTERIAL WALL.....	5R01 HL16768-06	122,168
FRONEK, KITTY.....	PATHOGENESIS OF PERIPHERAL ARTERIAL DISEASE.....	3R01 HL20564-03S1	19,370
FRONEK, KITTY.....	PATHOGENESIS OF PERIPHERAL ARTERIAL DISEASE.....	2R01 HL20564-04	84,753
GEIDUSCHEK, E PETER.....	NUCLEIC ACIDS AND NUCLEOPROTEINS.....	2R01 GM18386-11	181,944
GILL, GORDON N.....	HORMONAL REGULATION OF CONTROL MECHANISMS.....	5R01 AM13149-13	126,462
GLUCK, LOUIS L.....	SURFACTANT: BIOCHEMICAL DEVELOPMENT AND STABILIZATION.....	5R01 HD10622-04	199,135
GOLDBAUM, MICHAEL H.....	ANGIOGENESIS, HEALING, AND AGING IN RETINA AND CHOROID.....	5R01 EY02434-03	62,969
GOODMAN, MURRAY.....	SYNTHESIS AND CONFORMATIONS OF PEPTIDE HORMONES.....	5R01 AM15410-11	93,002
GOODMAN, MURRAY.....	NOVEL PEPTIDE DERIVED SWEETENERS.....	1R01 DE05476-01A1	62,743
GOODMAN, MURRAY.....	CONFORMATION OF BIOPOLYMERS AND PEPTIDES.....	5R01 GM18694-08	60,260
GOUGH, DAVID A.....	DEVELOP A GLUCOSE SENSOR FOR DIABETES.....	1R01 MT2541-01	49,826
GOULIAN, MEHRAN.....	DNA SYNTHESIS STUDIES.....	2R01 CA11705-11	170,618
GREEN, MARK R.....	ACUTE LEUKEMIA COOPERATIVE GROUP B.....	2R10 CA11789-10A1	51,408
GREEN, MELVIN H.....	THE PROCESS AND CONTROL OF TRANSCRIPTION OF SV40.....	5R01 CA24281-03	65,423
GRUNDY, SCOTT M.....	CAUSES AND TREATMENT OF GALLSTONES.....	5R01 AM16667-07	79,487
GUINEY, DONALD G.....	MECHANISM OF PLASMID DNA TRANSFER IN BACTERIA.....	1R01 GM28924-01	65,527
HALASZ, NICHOLAS A.....	RENAL PRESERVATION: ANALYSIS AND DEVELOPMENT.....	1R01 AM26324-01	73,179
HARGENS, ALAN R.....	TOURNIQUET-ISCHEMIA EFFECTS ON SKELETAL MUSCLE AND NERVE.....	5R01 AM25501-02	49,669
HARRIS, WILLIAM A.....	AXONAL GUIDANCE AND IMPULSE ACTIVITY IN DEVELOPMENT.....	1R01 HD14490-01	75,063
HAYASHI, MASAKI.....	SYNTHESIS OF INFECTIOUS BACTERIOPHAGE PARTICLES.....	5R01 GM12934-16	89,142
HAYASHI, MASAKI.....	STRUCTURE AND FUNCTION OF THE TUBULIN GENES.....	5R01 GM25086-03	41,269
HEGENAUER, JACK.....	IRON TRANSPORT, METABOLISM AND NUTRITION.....	2R01 AM12386-13	121,838
HELINSKI, DONALD R.....	STRUCTURE AND GENETIC CONTROL OF COLICINES.....	5R01 AI07194-15	123,968
HEMMINGSSEN, EDVARD A.....	STUDIES OF CAVITATION IN BIOLOGICAL SYSTEMS.....	2R01 HL16855-05	90,124
HENDERSON, LEE W.....	CHARACTERIZING MEMBRANES WITH MARKER SOLUTES.....	1R01 AM26543-01	61,261
HIGGINS, CHARLES B.....	ISCHEMIC CHANGES IN X-RAY IMAGING.....	5R01 HL23506-02	88,229
HIGGINS, CHARLES B.....	CARDIOTOXICITY MYOCARDIAL PROTECTION AND CHEMOTHERAPY.....	5R01 HL24922-02	62,222
HOFFMAN, ROBERT M.....	METHIONINE DEPENDENCE—A METABOLIC MARKER IN CANCER.....	3R01 CA27564-01S1	4,468
HOFFMAN, ROBERT M.....	METHIONINE DEPENDENCE—A METABOLIC MARKER IN CANCER.....	5R01 CA27564-02	96,704
HOFMANN, ALAN F.....	BILE ACID METABOLISM IN HEALTH AND DISEASE.....	5R01 AM21506-03	228,429
HOLLAND, JOHN J.....	SYNTHESIS IN NORMAL, VIRUS-INFECTED AND TUMOR CELLS.....	5R01 AI14627-13	167,515
HOLLINGSWORTH, DOROTHY R.....	HIGH-FIBER DIET IN DIABETIC PREGNANCIES.....	5R01 HD13469-02	94,909
HORNSBY, PETER J.....	AGING OF ENDOCRINE CELLS IN CULTURE.....	5R01 AG00936-03	42,017
HOSTETLER, KARL Y.....	PATHOGENESIS OF DRUG-INDUCED LIPODYSIS.....	5R01 GM24979-03	60,293
HOTTA, YASUO.....	BIOCHEMICAL STUDIES OF MEIOSIS IN MOUSE SPERMATOCYTES.....	5R01 HD11975-02	105,035
HOUGIE, CECIL.....	MOLECULAR BASIS OF V. WILLEBRAND'S DISEASE & HEMOPHILIA.....	5R01 HL15230-07	74,192
HOWELL, STEPHEN B.....	THYMIDINE RESCUE OF HIGH DOSE METHOTREXATE.....	5R01 CA23334-03	92,834
HOWELL, STEPHEN B.....	CONTROL OF METHOTREXATE SELECTIVITY BY NUCLEOSIDES.....	5R01 CA25336-02	30,278
HSUEH, AARON J.....	DIRECT INHIBITION OF GONADAL FUNCTIONS BY GNRH.....	1R01 HD14084-01	92,765
HUDIG, DOROTHY.....	PROTEINASES OF HUMAN NATURAL KILLER CELLS.....	5R23 CA26223-02	32,750
HUDIG, DOROTHY.....	PROTEINASES OF HUMAN NATURAL KILLER CELLS.....	1R01 CA28196-01	92,752
INTAGLIETTA, MARCOS.....	BIOENGINEERING ANALYSIS OF MICROVASCULAR FUNCTION.....	2R01 HL12493-12	87,518

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
ITANO, HARVEY A.....	STUDIES IN MOLECULAR HEMATOLOGY.....	5R01 AM14982-10	143,806
KAGNOFF, MARTIN F.....	INTESTINAL IMMUNE RESPONSES.....	2R01 AM17276-07	103,224
KAMEN, MARTIN D.....	MOLECULAR BASIS FOR FUNCTION OF IRON PROTEINS.....	5R01 GM18528-20	75,980
KAPLAN, NATHAN O.....	COENZYMES AND NUCLEIC ACIDS METABOLISM.....	5R01 CA11683-11	201,632
KAPLAN, NATHAN O.....	PROGRAM PROJECT ON ATHYMIC MICE AND HUMAN TUMORS.....	3P01 CA23052-02S1	36,376
KAPLAN, NATHAN O.....	PROGRAM PROJECT ON ATHYMIC MICE AND HUMAN TUMORS.....	5P01 CA23052-03	725,139
KAVENOFF, RUTH M.....	CHROMOSOME STRUCTURE IN REOVIRUS.....	5R01 AI16049-02	58,958
KEARNS, DAVID R.....	STRUCTURAL STUDIES OF RNA.....	2R01 GM22969-05	120,773
KENNEDY, SAMUEL I.....	ALPHAVIRUS PERSISTENCE IN VERTEBRATE CELLS.....	5R22 AI15087-03	67,342
KOZIOL, JAMES A.....	TOPICS IN BIostatISTICS.....	5R01 CA26666-02	53,764
KRAUT, JOSEPH.....	CRYSTALLOGRAPHIC STUDIES OF DIHYDROFOLATE REDUCTASES.....	5R01 CA17374-06	103,083
KRAUT, JOSEPH.....	CRYSTALLOGRAPHIC STUDY OF BIOLOGICAL MOLECULES.....	5R01 GM10928-18	151,429
KRAUT, JOSEPH.....	COMPUTER RESOURCE FOR BIOMOLECULAR RESEARCH.....	5P41 RR00757-08	243,108
KRISTAN, WILLIAM B, JR.....	NEURONS CONTROLLING RHYTHMIC BEHAVIOR.....	5R01 NS14110-02	52,238
KROMER, LAWRENCE F.....	NEURONAL IMPLANTS AND SEPTUM-HIPPOCAMPUS PLASTICITY.....	5R01 NS15270-02	51,613
KUNG, FAITH H.....	SOUTHWEST ONCOLOGY GROUP—PEDIATRICS.....	1R10 CA28439-01	27,186
KYTE, JACK E.....	MOLECULAR STRUCTURE OF THE QUABAIN SENSITIVE ATPASE.....	5R01 HL17879-06	86,049
LAMPERT, PETER W.....	FINE STRUCTURAL PATHOLOGY OF MYELIN.....	5R01 NS09053-11	104,296
LASSER, ELLIOTT C.....	COMPLEMENT, COAGULATION, IN CONTRAST MEDIA REACTIONS.....	5R01 GM22794-05	163,616
LEFFERT, HYAM L.....	EARLY EFFECTS OF AN HEPATHOPROCARCINOGEN.....	7R01 CA29540-01	65,161
LEIBOWITZ, JULIAN L.....	REPLICATION AND PERSISTENCE OF NEUROTROPIC MHV-JHM.....	1R01 NS15211-01A1	50,678
LEONG, JOHN.....	MICROBIAL TRANSITION METAL ION TRANSPORT.....	5R01 AI14084-03	52,164
LEONG, JOHN.....	CHROMIUM (III) COMPLEXES AND GLUCOSE TOLERANCE.....	5R01 NS14515-02	47,562
LINDSLEY, DAN L, JR.....	MORPHOGENETICS OF SPERMATOGENESIS IN D. MELANOGASTER.....	5R01 GM26810-02	67,572
LONG, DAVID M.....	RADIOPAQUE FLUOROCARBON IN DIAGNOSTIC RADIOLOGY.....	5R01 GM25723-02	90,214
LOOMIS, WILLIAM F.....	BIOCHEMICAL BASIS OF DEVELOPMENT IN DICTYOSTELIUM.....	5R01 GM23822-02	64,214
LOY, REBEKAH.....	REGENERATION OF SYMPATHETIC NEURONS IN HIPPOCAMPUS.....	5R01 NS14372-03	55,644
MACLEOD, DONALD I.....	RETINAL MECHANISMS IN VISION.....	5R01 EY01711-05	56,864
MASOUREDIS, SERAFEIM P.....	RH COMPLEX AND THE RED CELL MEMBRANE.....	5R01 HL12994-11	91,064
MASTENBROOK, S MARTIN, JR.....	GAS EXCHANGE IN DISEASE BY MASS SPECTROMETRY.....	5R23 HL23776-02	36,491
MATTSON, FRED H.....	DIET AND HIGH DENSITY LIPOPROTEIN: METABOLIC STUDIES.....	3R01 HL24690-01S1	10,204
MATTSON, FRED H.....	DIET AND HIGH DENSITY LIPOPROTEIN: METABOLIC STUDIES.....	5R01 HL24690-02	142,828
MAYER, STEVEN E.....	DRUG MODULATED EXTRUSION OF CYCLIC AMP FROM RED CELLS.....	5R01 GM25819-02	60,371
MAYER, STEVEN E.....	BIOCHEMICAL MECHANISMS IN CARDIAC ADRENERGIC RESPONSES.....	5R01 HL22961-02	130,512
MAZZONE, ROBERT W.....	CAPILLARY MORPHOLOGY IN PULMONARY EDEMA.....	5R23 HL21943-03	38,633
MC MORRIS, TREVOR C.....	SEX HORMONES OF ACHLYA.....	5R01 GM21350-05	69,089
MENDELSON, JOHN.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19087-05	133,743
MENDELSON, JOHN.....	SPECIALIZED CANCER CENTER (CORE) SUPPORT.....	5P30 CA23100-03	370,534
MILLER, ARNOLD L.....	STUDIES OF LYSOSOMAL GLYCOPROTEINS IN SLIME MOLD.....	1R01 GM29262-01	88,205
MILLER, ARNOLD L.....	I-CELL DISEASE AND MENTAL RETARDATION.....	5R01 NS12138-06	107,873
MILLS, STANLEY E.....	PURIFICATION OF TRYPTOPHAN BIOSYNTHETIC ENZYMES.....	5R01 AI15455-02	65,285
MIYAI, KATSUMI.....	PATHOLOGY OF BILIARY SECRETION AND CHOLESTASIS.....	5R01 AM16110-08	75,762
MONTAL, S MAURICIO.....	RHODOPSIN IN BILAYER MEMBRANES AND VISUAL EXCITATION.....	5R01 EY02084-03	87,224
MOSER, KENNETH M.....	PULMONARY SCOR: ADULT RESPIRATORY FAILURE.....	5P50 HL23584-02	388,866
MOXLEY, JOHN H, III.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00827-06	863,006
NGUYEN-HUU, XUONG.....	COMPUTER CONTROLLED MULTIREFLECTION DIFFRACTOMETER.....	5R01 GM20102-08	159,345
NGUYEN-HUU, XUONG.....	AUTOMATIC ANALYSIS OF 2-DIMENSIONAL ELECTROPHEROGRAMS.....	5R01 GM22940-05	90,689
NYHAN, WILLIAM L.....	BIOMEDICAL MASS SPECTROMETER DATA SYSTEM.....	5P41 GM27583-02	19,650
O'BRIEN, JOHN S.....	MOLECULAR BASIS OF CEREBRAL DEGENERATION.....	5R01 NS08682-12	115,971
O'BRIEN, JOHN S.....	SIALIDOSIS: HEREDITARY ACID NEURAMINIDASE DEFICIENCY.....	1R01 NS16665-01	48,146
O'CONNOR, DANIEL T.....	HUMAN DOPAMINE-BETA-HYDROXYLASE.....	5R01 HL18095-06	45,912
ORLOFF, MARSHALL J.....	ISOLATION OF THE INTESTINAL PHASE HORMONE.....	5R01 AM19875-03	115,712
ORLOFF, MARSHALL J.....	STUDIES OF PANCREAS TRANSPLANTATION IN DIABETES.....	3R01 AM20745-03S1	81,293
PARK, CHUN SIK.....	EPITHELIAL SODIUM TRANSPORT: SODIUM CHANNEL.....	1R01 AM26689-01	58,649
PETERS, RICHARD M.....	INTERSTITIAL TISSUE AND ONCOTIC PRESSURE IN TRAUMA.....	5R01 GM24901-04	94,714
PILCH, YOSEF H.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA12240-09	48,422
PINON, RAMON, JR.....	FOLDED CHROMOSOMES FROM MITOTIC AND MEIOTIC CELLS.....	5R01 GM26742-02	79,111
POWELL, FRANK L.....	FUNCTION AND STRUCTURE OF AVIAN LUNG.....	1R23 HL26050-01	38,285
POWELL, HENRY C.....	PATHOGENESIS OF TOXIC AND METABOLIC NEUROPATHIES.....	5R01 NS14162-03	43,411
PRICE, PAUL A.....	A NOVEL MARKER FOR BONE TURNOVER.....	5R01 AM25921-02	56,579
PRICE, PAUL A.....	FUNCTION OF THE VITAMIN K DEPENDENT BONE PROTEIN.....	1R01 AM27029-01	103,927

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PRINTZ, MORTON P.....	ROLE OF ANGIOTENSINOGEN IN HYPERTENSION AND STROKE.....	5R01 HL15808-08	102,426
PRINTZ, MORTON P.....	HYPERTENSION SPECIALIZED CENTER OF RESEARCH.....	1P50 HL25457-01	690,321
RANNEY, HELEN M.....	STUDIES OF THE PROPERTIES OF HEMOGLOBIN.....	5R01 AM17348-08	128,945
REARDEN, ANN C.....	RH ANTIGEN COMPLEX & ERYTHROPOIESIS.....	5R23 HL24292-02	38,450
REBAR, ROBERT W.....	HORMONAL BASIS OF REPRODUCTIVE DEFECTS IN ATHYMIC MICE.....	1R01 HD14362-01	106,253
REDELMAN, DOUGLAS D.....	T-CELL RECEPTOR AND EFFECTOR MOLECULES.....	5R01 CA24450-05	90,167
RESNIK, ROBERT.....	MECHANISMS IN THE REGULATION OF UTERINE BLOOD FLOW.....	5R01 HD11504-02	71,995
RESNIK, ROBERT.....	NICOTINE EFFECT ON MATERNAL FETAL VASCULAR HOMEOSTASIS.....	1R01 HD14154-01	68,461
ROSENFELD, MICHAEL G.....	HORMONAL & CAMP REGULATION OF PROTEIN SYNTHESIS.....	2R01 AM18477-06	124,290
ROSS, JOHN, JR.....	SPECIALIZED CENTER OF RESEARCH IN ISCHEMIC HEART DISEASE.....	2P50 HL17682-06	1,268,614
ROTENBERG, MANUEL.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR07011-15	189,787
RUDOLPH, ROSS.....	CONTRACTION MECHANISMS IN PROBLEM WOUND HEALING.....	5R01 GM24648-03	6,263
RYAN, ALLEN F.....	MIDDLE EAR RESPONSES IN SEROUS OTITIS MEDIA.....	5R01 NS14389-03	57,949
RYAN, ALLEN F.....	ENVIRONMENTAL INFLUENCES UPON AUDITORY DEVELOPMENT.....	5R01 NS14549-02	40,114
SAIER, MILTON H, JR.....	MECHANISM OF CARBOHYDRATE TRANSPORT IN BACTERIA.....	2R01 AI14176-04	106,914
SAIER, MILTON H, JR.....	FUNCTION AND GROWTH OF A KIDNEY EPITHELIAL CELL LINE.....	5R01 AM21994-02	98,770
SALTMAN, PAUL D.....	5TH INTERNATIONAL CONFERENCE ON PROTEINS OF IRON STORAGE.....	1R13 AM28177-01	29,650
SATO, GORDON H.....	HORMONAL REQUIREMENT OF CELLS IN VITRO AND IN VIVO.....	3R01 CA19731-03S1	39,329
SATO, GORDON H.....	HUMAN TUMOR CULTURE LINES IN DEFINED MEDIA.....	2R01 CA19731-04A1	230,497
SCHAEFFER, JAMES M.....	BIOCHEMICAL CHARACTERIZATION OF ISOLATED RETINAL CELLS.....	5R01 EV03154-02	62,122
SCHAEFFLER, IMMO E.....	GENETICS AND BIOCHEMISTRY OF SOMATIC CELLS.....	3R01 GM18835-09S1	124,534
SCHAEFFLER, IMMO E.....	GENETICS AND BIOCHEMISTRY OF SOMATIC CELLS.....	5R01 GM18835-10	100,793
SCHMIDT, JOSEPH D.....	CHEMOTHERAPY IN PROSTATIC CANCER (NPCP).....	5R26 CA21438-05	123,922
SCHMIDT, JOSEPH D.....	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.....	2R26 CA25891-02	49,614
SCHNEIDER, JERRY A.....	METABOLIC DEFECT IN CYSTINOSIS.....	5R01 AM18434-05	167,318
SEEGMILLER, JARVIS E.....	ARTHRITIS: INHERITED METABOLIC AND NUTRITIONAL CAUSES.....	5R01 AM13622-12	168,144
SEEGMILLER, JARVIS E.....	HUMAN BIOCHEMICAL GENETICS PROGRAM.....	5P50 GM17702-10	984,777
SEEGMILLER, JARVIS E.....	PREVENTIVE CONTROL OF THE LESCH-NYHAN SYNDROME.....	3R01 HD10847-02S1	26,926
SELL, STEWART.....	SYNPHIL IMMUNITY.....	2R01 AI14262-04	106,786
SELL, STEWART.....	THE ROLE OF RABBIT LYMPHOID CELLS IN TUMOR IMMUNITY.....	5R01 CA16136-05	74,990
SELL, STEWART.....	LYMPHOCYTES-3GENE EXPRESSION AND ACTIVATION EVENTS.....	5R01 CA16367-07	84,065
SELL, STEWART.....	ONCO-DEVELOPMENTAL GENE CONTROL: ALPHA-FETOPROTEIN.....	3R01 CA22227-04	121,439
SELVERSTON, ALLEN I.....	NEURAL GEOMETRY AND INTEGRATION IN GANGLIA.....	5R01 NS09322-09	25,909
SELVERSTON, ALLEN I.....	FUNCTIONAL ANATOMY OF IDENTIFIED NEURONS.....	1R01 NS16168-01	66,537
SHARMA, VIJAY S.....	MECHANISM OF REACTIONS OF HEMOGLOBIN WITH LIGANDS.....	5R01 AM18781-05	62,533
SIMON, MELVIN I.....	MOLECULAR MECHANISMS OF MOTILITY AND CHEMOTAXIS.....	5R01 AI14988-03	82,871
SINGER, S JONATHAN.....	STRUCTURE OF ANTIBODY MOLECULES AND CELL MEMBRANES.....	2R01 AI06659-16	135,074
SINGER, S JONATHAN.....	TRANS-MEMBRANE CONTROL IN TRANSFORMED AND NORMAL CELLS.....	3R01 CA22031-03S1	50,584
SINGER, S JONATHAN.....	MOLECULAR APPROACHES TO CELL ULTRASTRUCTURE.....	5R01 GM15971-13	153,242
SMITH, DOUGLAS W.....	DNA REPLICATION AND DNA REPAIR IN MYCOPLASMALES.....	5R01 GM26025-02	56,393
SOVAK, MILOS.....	DEVELOPMENT OF NEW RADIOGRAPHIC CONTRAST MEDIA.....	5R01 GM22911-05	260,860
SPECTOR, DEBORAH H.....	MOLECULAR BIOLOGY OF HUMAN CYTOMEGALOVIRUS.....	5R01 AI15635-03	66,147
SPITZER, NICHOLAS C.....	THE DEVELOPMENT OF NEURONS.....	1R01 NS15918-01	85,449
STEINBERG, DANIEL.....	A/S SCOR LIPROTEIN AND STEROL METABOLISM.....	5P50 HL14197-09	850,120
STEINBERG, DANIEL.....	DISORDERED LIPID METABOLISM OF DIABETES MELLITUS.....	2R01 HL22053-04	152,018
SWEETMAN, LAWRENCE.....	AMINO ACID INTERRELATIONS IN HUMAN METABOLIC DISEASE.....	2R01 HD04608-12	128,272
TAYLOR, PALMER W.....	KINETICS OF DRUG MACROMOLECULE COMPLEX FORMATION.....	2R01 GM18360-09	95,374
TAYLOR, PALMER W.....	PHARMACOLOGY OF MEMBRANE ASSOCIATED RECEPTORS.....	2R01 GM24337-04	67,944
TAYLOR, SUSAN S.....	PROTEIN KINASE: PRIMARY STRUCTURE AND C-AMP INTERACTION.....	5R01 GM19301-09	55,087
TAYLOR, SUSAN S.....	EVOLUTION OF LACTATE DEHYDROGENASES.....	5R01 GM22452-05	59,962
TRAYLOR, TEDDY G.....	MECHANISMS OF REACTIONS OF OXYGEN WITH HEME PROTEINS.....	5R01 HL13581-13	84,610
UTLEY, JOELLA F.....	RADIOPROTECTION OF NORMAL AND TUMOR TISSUE BY WR-2721.....	3R01 CA24092-02S1	4,205
UTLEY, JOELLA F.....	RADIOPROTECTION OF NORMAL AND TUMOR TISSUE BY WR-2721.....	5R01 CA24092-03	47,717
VACQUIER, VICTOR D.....	BIOCHEMISTRY OF SPERM-EGG BINDING AND FERTILIZATION.....	5R01 HD12986-03	102,490
VARON, SILVIO S.....	HUMORAL AND CELLULAR INFLUENCES ON NEURAL CELLS.....	5R01 NS07606-12	129,594
VARON, SILVIO S.....	NEURONOTROPHIC FACTORS IN DEVELOPMENT AND REGENERATION.....	1R01 NS16349-01	176,225
VICTORIA, EDWARD J, JR.....	MEMBRANE BIOCHEMISTRY OF RH ANTIGENS.....	5R01 HL23108-03	76,162
VOLCANI, BENJAMIN E.....	BIOCHEMICAL STUDIES OF SILICEOUS SKELETAL FORMATION.....	2R01 GM08229-20	151,817
WALTER, JOSEPH F.....	PERCUTANEOUS ABSORPTION AND EFFECTS OF ANTIMETABOLITES.....	5R01 AM25281-03	100,159
WARD, DAVID M.....	IMMUNE COMPLEX HANDLING BY THE GLOMERULAR MESANGIUM.....	5R01 AM26000-02	58,505
WARD, DAVID M.....	GLYCOSYLATED PROTEINS AS NEPHROTOXINS IN DIABETES.....	1R01 AM26295-01	40,559

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
WARD, JOHN F.....	CELLULAR REPAIR OF POTENTIALLY MUTAGENIC DAMAGE.....	7R01 CA28640-01	106,362
WASSERMAN, STEPHEN I.....	RELEASE AND EFFECT OF MAST CELL/BASOPHIL MEDIATORS.....	1R01 AI17268-01	69,323
WENKERT, ERNEST.....	ALKALOID SYNTHESIS.....	7R01 GM29232-01	126,360
WEST, JOHN B.....	PHYSIOLOGICAL BASIS OF PULMONARY DISEASE.....	2P01 HL17731-06	622,195
WEST, JOHN B.....	HUMAN RESPIRATORY FUNCTION AT EXTREME ALTITUDES.....	5R01 HL24335-02	92,753
WILSON, DORIS B.....	CEREBROVASCULAR RESPONSE TO EMBRYONIC OVERGROWTH.....	5R01 HD09562-05	65,570
WILSON, DORIS B.....	GROWTH AND DIFFERENTIATION OF THE PITUITARY GLAND.....	5R01 HD12308-02	59,568
WITZTUM, JOSEPH L.....	EFFECT OF BILE SEQUESTRATION ON VLDL METABOLISM.....	5R01 HL25585-02	32,729
YAYANOS, A ARISTIDES.....	VOLUME CHANGES IN TRYPSIN-INHIBITOR REACTIONS.....	1R01 HL25108-01A1	30,575
YEN, SAMUEL S.....	ROLE OF CNS CATECHOLAMINES IN REPRODUCTIVE SENESENCE.....	5R01 AG02284-02	76,463
YEN, SAMUEL S.....	CONTROL OF THE HYPOTHALAMIC-HYPOPHYSAL-OVARIAN SYSTEM.....	5P01 HD12303-02	638,242
YU, ALICE L.....	CELL-MEDIATED CYTOTOXICITY IN CHILDREN WITH NEOPLASMS.....	5R01 CA26141-02	86,909
YU, ALICE L.....	TREATMENT OF HUMAN T-CELL LEUKEMIA.....	1R01 CA27740-01	60,793
ZIEGLER, ELIZABETH J.....	PATHOGENESIS OF PSEUDOMONAS VASCULITIS.....	1R01 AI16108-01	43,898
ZIMM, BRUNO H.....	NUCLEIC ACIDS AND CHROMOSOMAL DNA.....	5R01 GM11916-17	93,870
ZVAIFLER, NATHAN J.....	BLOOD/SYNOVIAL FLUID IMMUNOREACTANTS—RHEUMATIC DISEASE.....	5R01 AM14916-11	142,461
ZWEIFACH, BENJAMIN W.....	STRUCTURE AND FUNCTION OF MICROCIRCULATION.....	5R01 HL10881-15	167,280
ZWEIFACH, BENJAMIN W.....	MICROCIRCULATION IN PATIENTS WITH DIABETES MELLITUS.....	3R01 HL22118-03S1	7,944
ZWEIFACH, BENJAMIN W.....	MICROCIRCULATION IN PATIENTS WITH DIABETES MELLITUS.....	5R01 HL22118-04	179,952
ZYSKIND, JUDITH W.....	DNA INITIATION AND TERMINATION IN BACTERIA.....	5R01 GM21978-05	64,463
ORGANIZATION TOTAL	246 28,738,083		
LOMA LINDA			
LOMA LINDA UNIVERSITY ZIP CODE 92354			
CRAWFORD, JAMES M.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05821-01	44,533
FRASER, GARY E.....	FACTORS IN BLOOD PRESSURE LEVELS OF CHILDREN.....	5R01 HL20005-05	193,553
GILBERT, RAYMOND D.....	ADAPTATIONS OF THE FETAL CARDIOVASCULAR SYSTEM.....	2R01 HD10029-04A1	113,703
HADLEY, G GORDON.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05352-19	35,047
KISSINGER, DAVID G.....	DIET AND AGE AT MENARCHE.....	5R01 HD10572-04	100,851
KUZMA, JAN W.....	DETERMINANTS OF AGING AMONG SEVENTH-DAY ADVENTISTS.....	1R01 AG01582-01	147,852
LONGO, LAWRENCE D.....	FETAL OXYGENATION AND PLACENTAL GAS EXCHANGE.....	5R01 HD03807-12	154,909
LONGO, LAWRENCE D.....	DYNAMICS AND CONTROL OF FETAL OXYGENATION.....	1P01 HD13949-01	426,514
PHILLIPS, ROLAND L.....	EPIDEMIOLOGY OF CANCER IN ADVENTISTS—A LOW RISK GROUP.....	2R01 CA14703-06	338,057
SLATTERY, CHARLES W.....	INTERACTIONS AND STRUCTURE IN HUMAN CASEIN SYSTEMS.....	5R01 HD13109-02	51,584
TINBERG, HAROLD M.....	ANALYSIS OF EXPERIMENTALLY-INDUCED MALLORY BODIES.....	5R01 AM26700-02	41,124
ORGANIZATION TOTAL	11 1,647,727		
LONG BEACH			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LONG BEACH ZIP CODE 90840			
COHLBERG, JEFFREY A.....	PROTEIN-PROTEIN INTERACTIONS IN E. COLI RIBOSOMES.....	5R01 GM23541-03	40,971
DRUZGALSKI, CHRISTOPHER K.....	AUDIOSONIC CHARACTERIZATION OF THE HUMAN THORAX.....	5R23 HL25801-02	44,787
ORGANIZATION TOTAL	2 85,758		
LOS ANGELES			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LOS ANGELES ZIP CODE 90032			
BROWN, COSTELLO L.....	NEGATIVE ION STUDIES OF BIOORGANIC MOLECULES.....	5R01 GM20793-06	33,276
FERGUSON, LLOYD N.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07152-06	40,050
FERGUSON, LLOYD N.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08101-09	969,549
ORGANIZATION TOTAL	3 1,042,875		
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048			
BRAUNSTEIN, GLENN D.....	PLACENTAL PROTEINS IN NON-PLACENTAL TISSUES.....	5R01 HD13042-02	53,914
BUSH, MICHAEL A.....	INSULIN EFFECTS ON MUSCLE CELL PHOSHOPEPTIDES.....	5R23 AM27383-02	50,073
CORDAY, ELIOT.....	OPTIMIZATION DIASTOLIC AUGMENTATION AND SYSTOLIC SINK.....	5R01 HL14644-07	89,891
EZRIN, CALVIN.....	PITUITARY ADENOMAS: STRUCTURE-FUNCTION RELATIONS.....	5R01 CA21905-03	70,068
FORRESTER, JAMES S.....	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH.....	2P50 HL17651-06	908,568
GATTI, RICHARD A.....	MLR LOCUS TYPING OF CANCER PATIENTS.....	3R01 CA18892-03S2	9,133

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
GATTI, RICHARD A.....	MHC AND CANCER SUSCEPTIBILITY GENES IN MAN.....	9R01 GM28631-04A1	105,406
KATZ, JOSEPH.....	PATHWAYS OF GLUCOSE METABOLISM AND HYDROGEN TRANSPORT.....	5R01 AM12604-12	90,066
KATZ, JOSEPH.....	GLYCOGEN METABOLISM BY ISOLATED HEPATOCYTES.....	2R01 AM19576-04	67,168
KIPPEN, IAN.....	URICOSURIC DRUGS: MECHANISMS OF ACTION.....	5R01 AM25588-02	105,776
MAXWELL, MORTON H.....	EXPERIMENTAL RENAL ARTERIAL HYPERTENSION.....	5R01 HL22069-04	99,246
MURTHY, VRUDHULA K.....	COMPREHENSIVE MODELS FOR CANCER SURVIVAL AND MORTALITY.....	3R01 CA21380-03S1	7,352
ROGNSTAD, ROBERT A.....	METABOLIC PATHWAYS IN THE INTACT LIVER CELL.....	5R01 AM20417-03	30,093
ROGNSTAD, ROBERT A.....	PYRUVATE CYCLES IN THE METABOLISM OF GLUCOGENIC CELLS.....	5R01 AM21437-03	49,813
RUBENSTEIN, PAUL.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05468-18	92,412
SWAN, HAROLD J.....	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH.....	3P50 HL17651-05S1	143,193
ORGANIZATION TOTAL	16	1,972,172	
CHARLES R. DREW POSTGRADUATE MEDICAL SCHOOL ZIP CODE 90059			
ALFRED, LAWRENCE J.....	COMPREHENSIVE HOSPITAL/COMMUNITY SICKLE CELL CENTER.....	5P60 HL23282-03	627,718
ALFRED, LAWRENCE J.....	MINORITY BIOMEDICAL SUPPORT.....	3S06 RR08140-06S1	34,662
ALFRED, LAWRENCE J.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08140-07	479,525
CAMPBELL, JOHN.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05780-05	72,062
MYERS, HECTOR F.....	LIFE CHANGE STRESS AND SOMATIZATION IN HYPERTENSION.....	5R23 HL23522-02	49,104
ORGANIZATION TOTAL	5	1,263,071	
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027			
BENEDICT, WILLIAM F.....	ONCOGENIC AND MUTAGENIC POTENTIAL OF ANTITUMOR AGENTS.....	5R01 CA14226-08	113,330
DUKES, PETER P.....	ENHANCERS OF ERYTHROID BURST FORMATION.....	1R01 AM26500-01	70,396
DUKES, PETER P.....	PURIFICATION OF HUMAN ERYTHROPOIETIN FOR RESEARCH USE.....	5R01 HL10880-15	134,911
DUKES, PETER P.....	REGULATION OF MEGAKARYOCYTE FORMATION.....	5R01 HL24629-02	48,043
HAYS, DANIEL M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA23146-03	136,416
HIGGINS, GUSSIE R.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA02649-24	290,906
JONES, PETER A.....	5-AZACYTIDINE INDUCED DIFFERENTIATION.....	5R01 GM25739-03	68,363
KOCH, RICHARD.....	STUDY OF DIET DISCONTINUATION IN PKU CHILDREN.....	3R01 HD09543-05S1	67,396
LAUG, WALTER E.....	SECRETION OF PLASMINOGEN ACTIVATOR BY ENDOTHELIAL CELLS.....	5R01 HL23500-02	73,921
MC ALLISTER, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05469-18	54,974
MORAN, RICHARD G.....	MOLECULAR MECHANISM(S) OF METHOTREXATE MODALITIES.....	1R01 CA27146-01	61,244
MORAN, RICHARD G.....	EVALUATION OF A NEW APPROACH TO ANTIFOLATE CHEMOTHERAPY.....	1R01 CA27605-01	57,579
MURPHREE, A LINN.....	BIOCHEMICAL & CYTOGENETIC MARKERS IN RETINOBLASTOMA.....	5R01 EY02715-02	53,868
SNODGRASS, S ROBERT.....	DEVELOPMENTAL PHARMACOLOGY OF CNS SYNAPSES IN CULTURE.....	5R01 NS16313-02	41,435
SNODGRASS, S ROBERT.....	ABNORMAL MOVEMENTS AND PHARMACOLOGY OF THE FOREBRAIN.....	5R01 NS16314-02	92,194
ORGANIZATION TOTAL	15	1,364,976	
ESTELLE DOHENY EYE FOUNDATION ZIP CODE 90033			
BLANKS, JANET C.....	RETINAL DIFFERENTIATION, CELL INTERACTIONS & PLASTICITY.....	5R01 EY03042-02	66,889
CITRON, MARK C.....	LOCAL CIRCUITRY FOR PATTERN RECOGNITION IN THE RETINA.....	1R01 EY03462-01	88,421
MINCKLER, DONALD S.....	MORPHOLOGY OF MONKEY OPTIC NERVE.....	5R01 EY02210-03	94,745
MINCKLER, DONALD S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05810-02	58,431
NESBURN, ANTHONY B.....	HERPES SIMPLEX OF THE EYE: PATHOGENESIS AND TREATMENT.....	2R01 EY00858-08	234,706
NESBURN, ANTHONY B.....	OCULAR HERPES SIMPLEX INFECTION IN RABBITS.....	5R01 EY02957-02	120,928
NESBURN, ANTHONY B.....	KERATOPHAKIA: SAFETY AND EFFICACY IN ANIMALS.....	5R01 EY02987-02	110,879
OGDEN, THOMAS E.....	A STUDY OF STRUCTURE AND FUNCTION OF RETINAL NEURONES.....	5R01 EY01671-05	97,421
OGDEN, THOMAS E.....	PRIMATE RETINA NERVE FIBER LAYER.....	5R01 EY02637-02	72,478
RYAN, STEPHEN J.....	VISUAL SCIENCE RESEARCH CENTER SUPPORT.....	5P30 EY03040-02	150,758
SORGENTE, NINO.....	ROLE OF VASCULARIZATION DURING CRANIOFACIAL DEVELOPMENT.....	7R01 DE05851-01	107,586
SORGENTE, NINO.....	VITREO-RETINAL CONTROL OF VASCULAR PROLIFERATION.....	5R01 EY03229-02	114,731
ORGANIZATION TOTAL	12	1,317,973	
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT--LOS ANGELES COUNTY-UNIV OF SO CALIFORNIA MED CTR ZIP CODE 90033			
BERNSTEIN, SOL.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05466-14	18,043
GOEBELSMANN, UWE T.....	PLASMA ESTRIOL: TRANSPORT, MEASUREMENT & CLINICAL USE.....	5R01 HD05932-08	58,264
HOPPENBROUWERS, CATHARINA T.....	RESPIRATORY FUNCTION DURING SLEEP, AND RISK FOR SIDS.....	1R01 HD13689-01	157,835
O'BRIEN, TIMOTHY J.....	HORMONE INDUCTION AND RNA POLYMERASE MODULATION.....	5R01 HD12405-02	36,058
SOBIN, SIDNEY S.....	VASCULAR PHYSIOLOGY.....	5R01 HL11152-14	78,455
SOBIN, SIDNEY S.....	HYPOXIA AND PULMONARY VASCULAR SMOOTH MUSCLE.....	5R01 HL23224-03	65,067

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SOBIN, SIDNEY S	FIBROPROTEIN NETWORKS OF THE PULMONARY ALVEOLAR WALL	1R01 HL23744-01A1	140,883
ORGANIZATION TOTAL	7 554,605		
LOYOLA MARYMOUNT UNIVERSITY ZIP CODE 90045			
WALSH, PATRICIA R	SOURCES OF ATTITUDES TOWARD THE AGED	5R01 AG00860-03	49,162
ORGANIZATION TOTAL	1 49,162		
SPEECH COMMUNICATIONS RESEARCH LABORATORY ZIP CODE 90007			
SHOUP, JUNE E	INVERSE FILTERING FOR DETECTING LARYNGEAL PATHOLOGY	5R01 NS13309-03	47,528
WAKITA, HISASHI	ACOUSTICAL APPROACH TO ESTIMATION OF VOCAL TRACT SHAPES	5R01 NS14924-02	26,974
ORGANIZATION TOTAL	2 74,502		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
AMSTUTZ, HARLAN C	NEW HIP PROSTHESIS AND FIXATION MODES—IN VIVO STUDY	3R01 AM20333-03S2	26,200
ASH, LAWRENCE R	DEVELOPMENT OF LABORATORY MODELS IN FILARIASIS	5R22 AI10250-10	115,587
ASSALI, NICHOLAS S	FETAL AND NEONATAL CARDIOVASCULAR FUNCTIONS	5R01 HL01755-27	132,685
ATKINSON, DANIEL E	ENZYME-EFFECTOR INTERACTIONS AND METABOLIC REGULATION	5R01 AM09863-15	100,524
BAKER, BRUCE L	PARENTS AS TEACHERS	2R01 HD10962-04	123,268
BAKER, NOME	LIPID TRANSPORT AND METABOLISM IN CANCER-HOST SYSTEMS	5R01 CA15813-05	75,715
BALTAXE, CHRISTIANE A	PROSODIC ABNORMALITIES IN AUTISM	1R01 NS16479-01	70,545
BALUDA, MARCEL A	TUMOR INDUCTION BY AVIAN MYELOBLASTOSIS VIRUS	5R01 CA10197-14	101,759
BARBER, THOMAS K	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05304-19	125,690
BARNARD, R JAMES	EFFECTS OF EXERCISE ON THE HEART AND ITS BLOOD SUPPLY	3R01 HL20253-03S1	3,734
BARR, ALLAN R	CYTOPLASMIC INCOMPATIBILITY FOR FILARIASIS CONTROL	5R22 AI11847-13	89,739
BARRETT, CYNTHIA T	NEONATAL RESPIRATORY DISTRESS: AMINOPHYLLINE EFFECTS	5R01 HD12197-03	90,257
BARRETT, JACK D	ISO-RENINS IN HYPERTENSIVES	5R01 HL21877-03	35,385
BELKIN, JOHN N	MOSQUITOES OF MIDDLE AMERICA	5R01 AI04379-19	38,095
BERK, ARNOLD J	BIOSYNTHESIS OF ADENOVIRUS EARLY RNAS	5R01 CA25235-02	55,163
BEUMER, JOHN, III	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18724-05	80,646
BEVAN, JOHN A	CEREBRAL ARTERIAL TONE AND REACTIVITY	5R01 HL15805-08	56,830
BEVAN, JOHN A	VASCULAR NEUROEFFECTOR MECHANISMS IN HEALTH & DISEASE	5P01 HL20581-03	399,684
BEVAN, JOHN A	NERVOUS CONTROL OF RESISTANCE VESSELS IN HYPERTENSION	1R01 HL26414-01	61,320
BILLING, RONALD J	LEUKEMIA ASSOCIATED ANTIGENS	5R01 CA24358-03	96,074
BOK, DEAN	ELECTRON MICROSCOPE AUTORADIOGRAPHY OF OCULAR TISSUES	5R01 EY00444-12	92,343
BONAVIDA, BENJAMIN	MIXED LEUKOCYTE TUMOR REACTION IN SYNGENEIC SYSTEMS	5R01 CA19753-05	61,281
BONAVIDA, BENJAMIN	INAPPROPRIATE ANTIGENS ON SJL/J RETICULUM CELL SARCOMA	5R01 CA24314-03	53,656
BOYER, PAUL D	BIOLOGICAL ENERGY TRANSDUCING MECHANISMS	3R01 GM11094-17S1	76,000
BOYER, PAUL D	BIOLOGICAL ENERGY TRANSDUCING MECHANISMS	2R01 GM11094-18	131,765
BRADY, ALLAN J	CELLULAR & MOLECULAR MECHANISM OF MYOCARDIAL FUNCTION	5P01 HL11351-14	987,562
BRESLOW, LESTER	COLORRECTAL CANCER AMONG CALIFORNIA MORMONS	5R26 CA25157-02	80,881
BRESLOW, LESTER	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05442-19	89,842
BRICKER, NEAL S	HOMEOSTATIC MECHANISMS IN UREMIA	5R01 AM26098-02	286,057
BROWN, JOSIAH	ENDOCRINE FUNCTION OF TRANSPLANTED FETAL PANCREAS	5R01 AM17980-06	98,399
BROWN, W JANN	DEVELOPMENTAL BIOLOGY IN MENTAL RETARDATION	5P01 HD05615-10	691,990
BUBBERS, J ERIC	GENETIC BASIS OF SJL/J MURINE RETICULUM CELL SARCOMA	1R23 CA28963-01	43,341
BUCHWALD, NATHANIEL A	MENTAL RETARDATION RESEARCH CENTER	5P30 HD04612-12	676,672
BUCHWALD, NATHANIEL A	NEUROPHYSIOLOGY & NEUROPSYCHOLOGY IN MENTAL RETARDATION	5P01 HD05958-10	520,604
BUCKBERG, GERALD D	SURGERY AND NONOBSTRUCTIVE CORONARY INSUFFICIENCY	5R01 HL16292-07	299,745
BUTCHER, LARRY L	CHOLINERGIC-MONOAMINERGIC RELATIONSHIPS IN STRIATUM	5R01 NS10928-06	58,993
CAMPFIELD, L ARTHUR	INSULIN SECRETION IN GENETIC DIABETES AND VMH OBESITY	5R01 AM25111-03	51,720
CARLISLE, EDITH M	STUDY OF PHYSIOLOGICAL ROLE OF SILICON	3R01 AM16611-07S1	30,668
CARNES, WILLIAM H	CARDIOVASCULAR STUDIES ON COPPER DEFICIENCY	3R01 HL12561-12S1	33,750
CEDERBAUM, STEPHEN D	HUMAN ARGINASE AND ARGINASE DEFICIENCY	5R01 HD11298-03	58,115
CHANG, YI-HAN	MECHANISM OF ACTION OF COLCHICINE	5R01 AM20367-03	104,398
CHAO, LI-PEN	STUDIES WITH PURIFIED CHOLINE ACETYLTRANSFERASE	5R01 NS11087-06	97,059
CHAPMAN, ORVILLE L	ORGANIC PHOTOCHEMISTRY	5R01 GM24427-07	91,309
CHASE, MICHAEL H	INTERDISCIPLINARY STUDY OF SLEEP IN AGED	5R01 AG01428-02	78,348
CHASE, MICHAEL H	AGING AND THE CENTRAL NERVOUS SYSTEM	1P01 AG01754-01	534,323
CHO, ARTHUR K	NITROGEN OXIDATION IN DRUG METABOLISM	5R01 GM26024-02	75,168
CHOPRA, INDER J	THYROID GLAND PHYSIOLOGY IN HEALTH AND DISEASE	5R01 AM16155-09	110,513
CIANI, SERGIO	SELECTIVE ION PERMEATION IN EXCITABLE CELLS	9R01 GM27042-04	60,401

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
CLARK, GLENN T.	NOCTURNAL MASSETER MUSCLE ACTIVITY AND JAW DYSFUNCTION	5R23 DE05036-02	31,960
CLARK, WILLIAM R.	MECHANISMS OF DIFFERENTIATION OF T LYMPHOCYTES	5R01 AI14747-09	95,932
CLARKE, STEVEN G.	CONTROL OF EUKARYOTIC MEMBRANE FUNCTION BY METHYLATION	5R01 GM26020-02	53,677
CLINE, MARTIN J.	A NEW METHOD OF BONE MARROW CULTURE	2R01 AM18058-07	47,239
CLINE, MARTIN J.	NORMAL AND MALIGNANT HEMATOPOIETIC CELL REPLICATION	5R01 CA15619-07	122,346
CLINE, MARTIN J.	A PROGRAM IN MEDICAL ONCOLOGY	5P01 CA15688-07	524,748
CODE, CHARLES F.	MOTOR AND ELECTRICAL ACTIVITY OF THE ALIMENTARY CANAL	5R01 AM18618-06	111,542
COLLIER, ROBERT J.	MOLECULAR MECHANISMS OF BACTERIAL PATHOGENESIS	5R01 AI07877-13	109,341
COOPER, EDWIN L.	ORIGIN OF IMMUNE RECEPTORS	5R01 AI15976-02	44,987
CORNFORD, EAIN M.	TRANSPORT MECHANISMS IN THE SCHISTOSOME INTEGUMENT	5R22 AI15692-02	77,339
COTY, WILLIAM A.	VITAMIN D ACTION IN THE AVIAN SHELL GLAND	5R23 AG01102-03	39,485
COTY, WILLIAM A.	CALCIUM TRANSPORT IN THE CHICKEN SHELL GLAND	1R01 AM27599-01	43,630
CRAM, DONALD J.	HOST MOLECULES THAT COMPLEX AND CATALYZE	2R01 GM12640-16	122,296
CRANDALL, EDWARD D.	KINETICS OF LUNG & TISSUE CO ₂ EXCHANGE & TRANSPORT	1R01 HL25669-01	80,746
CRANDALL, EDWARD D.	LUNG EPITHELIAL TRANSPORT PROPERTIES & ALVEOLAR EDEMA	1R01 HL26223-01	76,320
CRANDALL, PAUL H.	A CLINICAL RESEARCH PROGRAM FOR THE 'PARTIAL' EPILEPSIES	5P50 NS02808-20	411,059
CREASY, ROBERT K.	MRP: BASIC AND CLINICAL STUDIES OF PRETERM PARTURITION	1P01 HD13543-01	443,494
CRESCITELLI, FREDERICK	PROPERTIES OF VISUAL PIGMENTS FROM SELECTED VERTEBRATES	5R01 EY02178-03	36,393
DETELS, ROGER	CHRONIC OBSTRUCTIVE RESPIRATORY DISEASE—EPIDEMIOLOGY	2R01 ES01473-04	262,016
DETELS, ROGER	EPIDEMIOLOGIC STUDIES OF IMMUNE FACTORS IN MS	3R01 NS10186-08S1	72,854
DHOPESHWARKAR, GOVIND A.	DEVELOPING BRAIN: EFFECTS OF NUTRITIONAL IMBALANCES	5R01 NS13755-03	44,232
DIAMOND, JARED M.	WATER TRANSPORT ACROSS EPITHELIAL MEMBRANES	5R01 GM14772-13	87,357
DIRKS, DONALD D.	SUPRATHRESHOLD AUDITORY BEHAVIOR	5R01 NS09713-07	76,879
DIRKSEN, ELLEN R.	CILIogenesis IN THE DEVELOPING OVIDUCT	5R01 HD11792-02	49,303
DIRKSEN, ELLEN R.	STRUCTURE AND FUNCTION OF RESPIRATORY TRACT CILIA	5R01 HL23428-02	54,045
ECKERT, ROGER O.	IONIC AND METABOLIC REGULATION OF NEURAL EXCITABILITY	5R01 NS08364-12	83,277
EDGERTON, ROBERT B.	THE COMMUNITY ADAPTATION OF MILDLY RETARDED PERSONS	1P01 HD11944-01A1	358,025
EDGERTON, V REGGIE	NEUROMUSCULAR PLASTICITY: RECOVERY AFTER SPINALIZATION	1P01 NS16333-01	752,033
EDMOND, JOHN	METABOLISM DURING DEVELOPMENT	5R01 HD11496-02	44,070
EDMOND, JOHN	THE METABOLIC CAPACITY OF THE DEVELOPING NEONATE	5R01 HD12473-02	54,845
EDWARDS, PETER A.	CHOLESTEROL AND LIPOPROTEIN METABOLISM	5R01 HL19063-05	94,051
EGGENA, PETER H.	ACTIVATION OF PLASMA RENIN	5R01 HL22773-02	36,772
EGGERDING, FAYE A.	REGULATION OF ADENOVIRUS 2 TRANSCRIPTION	1R01 CA25545-01A1	56,996
EISENBERG, DAVID S.	STRUCTURE AND ACTION OF MULTISUBUNIT ENZYMES	5R01 GM16925-12	152,670
EISENMAN, GEORGE	ION PERMEATION THROUGH CHANNELS, CARRIERS AND NERVE	5R01 GM24749-11	61,426
EISERLING, FREDERICK A.	VIRUS MORPHOGENESIS: CONTROL OF PHAGE ASSEMBLY	2R01 AI14092-04	57,704
ELASHOFF, ROBERT M.	EXPLORATORY STUDIES IN CANCER PATIENT DATA CONTROL	5R10 CA23636-03	110,328
ELLISON, GEORGE W.	OLIGODENDROGLIAL CELL ANTIGEN (S) IN MULTIPLE SCLEROSIS	5R01 NS15259-02	69,557
EYMAN, RICHARD K.	PROGRAM FOR THE DEVELOPMENT OF THE MENTALLY RETARDED	5P01 HD05540-09	525,759
FAHEY, JOHN L.	INTERDISCIPLINARY RESEARCH IN IMMUNOLOGIC DISEASES	5P50 AI15332-03	345,257
FAHEY, JOHN L.	IMMUNE FUNCTIONS AND CANCER	5P01 CA12800-09	771,323
FAIN, GORDON L.	PHYSIOLOGY OF PHOTORECEPTORS	2R01 EY01844-04	153,480
FAIN, GORDON L.	MECHANISM OF VISUAL ADAPTATION	5R01 EY02728-02	59,618
FARBER, DEBORA A.	CYCIC NUCLEOTIDES IN CONE METABOLISM AND DISEASE	5R01 EY02651-03	33,697
FAREED, GEORGE C.	SIMIAN VIRUS 40, DNA REPLICATION AND TRANSFORMATION	5R01 CA20794-05	71,114
FEIG, STEPHEN A.	CHILDREN'S CANCER STUDY GROUP	1R10 CA26768-01	61,235
FESSLER, JOHN H.	BASEMENT MEMBRANE BIOSYNTHESIS	5R01 AG02128-02	86,412
FESSLER, JOHN H.	MOLECULAR DEVELOPMENT OF COLLAGEN FIBERS	5R01 AM13748-12	108,900
FINE, LEON G.	PATHOPHYSIOLOGY OF THE ISOLATED HUMAN NEPHRON	5R01 AM25301-03	37,604
FLUHARTY, ARVAN L.	MICROHETEROGENEITY OF ARYLSULFATASE A	5R01 AM25564-02	53,288
FLUHARTY, ARVAN L.	DERMATAN SULFATE CATABOLISM	5R01 HD08855-06	56,049
FOGELMAN, ALAN M.	LIPOPROTEIN METABOLISM AND ATHEROSCLEROSIS	1R01 HL25590-01	105,960
FONKALSROD, ERIC W.	NEW SURGICAL APPROACHES FOR INFLAMMATORY BOWEL DISEASE	5R01 AM25678-02	51,868
FOOS, ROBERT Y.	VITREORETINAL JUNCTURE	5R01 EY00725-09	62,175
FOOTE, CHRISTOPHER S.	OXIDATION OF MODEL BIOLOGICAL SYSTEMS	5R01 GM20080-08	67,824
FOX, CHARLES F.	EPIDERMAL GROWTH FACTOR RECEPTOR—STRUCT/FUNCT/HOMOLOGY	5R01 AM25826-02	90,698
FRANK, HARRISON J.	INSULIN ACTION IN HEPATOCYTES	1R23 AM27301-01	47,290
FRANK, ROBERT G. JR.	PHYSIOLOGY OF NERVE AND SYNAPSE IN THE 20TH CENTURY	2R01 LMO2956-04	23,760
FRIEDMAN, WILLIAM F.	VASOACTIVE AGENTS AND THE CIRCULATION OF THE FETUS	5R01 HL25476-02	147,933
FULCO, ARMAND J.	UNSATURATED FATTY ACID BIOSYNTHESIS IN BACILLI	5R01 AI09829-11	58,889
FULCO, ARMAND J.	SOLUBLE CYTOCHROME P-450 HYDROXYLASES FROM BACTERIA	5R01 GM23913-04	42,052

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FURST, DANIEL E.	CLINICAL PHARMACOLOGY OF ANTI-RHEUMATIC DRUGS	1R01 AM26473-01	77,046
GALE, ROBERT P.	A PROGRAM IN BONE MARROW TRANSPLANTATION	5P01 CA23175-03	526,760
GARCIA, JOHN	BEHAVIORAL AND NEURAL EFFECTS OF TOXICOSIS AND PAIN	5R01 NS11618-07	54,250
GILLARD, BAIBA K.	CYSTIC FIBROSIS: BASIS FOR ALTERED ENZYME ACTIVITIES	5R01 AM25107-02	37,918
GITNICK, GARY L.	PREVENTION OF POST TRANSFUSION CHRONIC LIVER DISEASE	5R01 AM17984-07	32,274
GITNICK, GARY L.	TRANSMISSION OF INFLAMMATORY BOWEL DISEASE	5R01 AM19498-03	153,654
GITNICK, GARY L.	CULTIVATION OF VIRUSES IN INFLAMMATORY BOWEL DISEASE	5R01 AM21978-03	86,540
GLITZ, DOHN G.	HUMAN PANCREATIC RIBONUCLEASE AND CANCER	5R01 CA25088-03	55,337
GOLDBERG, LOUIS J.	STUDIES IN ORAL PHARYNGEAL REFLEXES	5R01 DE04166-12	74,084
GOLUB, SIDNEY H.	LYMPHOCYTE SENSITIZATION TO TUMOR ANTIGENS IN VITRO	5R01 CA17013-06	84,551
GORSKI, ROGER A.	OVARIAN-HYPOTHALAMIC-HYPOPHYSAL AXIS	5R01 HD01182-18	111,671
GRALLA, JAY	REGULATION OF TRANSCRIPTION BY DNA-PROTEIN COMPLEXES	5R01 CA19941-05	45,609
GRAVES, MICHAEL C.	MEASLES VIRUS POLYPEPTIDE SYNTHESIS AND PROCESSING	5R01 AI16029-02	68,113
GREENFIELD, MOSES A.	IN VIVO BONE STUDY USING ULTRASOUND/PHOTON ABSORPTION	2R01 GM22338-04A1	38,911
GREENFIELD, SHELDON	CHANGING PATIENT BEHAVIOR THROUGH INFORMATION SHARING	1R01 AM27547-01	132,035
GRINELL, ALAN D.	FORMATION, FUNCTION AND PLASTICITY OF SYNAPSES	5R01 NS06232-16	72,055
GROSSMAN, MORTON I.	GASTRIC PHYSIOLOGY STUDIES	5R01 AM08354-16	31,926
GROSSMAN, MORTON I.	PEPTIC ULCER CENTER	5P01 AM17328-07	1,354,475
GROSSMAN, MORTON I.	PANCREATIC PHYSIOLOGY STUDIES	5R01 AM20971-03	35,125
GROSSMAN, MORTON I.	CELL BASIS OF DIGESTIVE SYSTEM CHEMICAL MESSENGERS	1R13 AM26233-01	24,140
GRUNSTEIN, MICHAEL	HISTONE GENE EXPRESSION IN DEVELOPING SEA URCHIN EMBRYO	2R01 GM23674-04	125,255
GUSSEN, RUTH	HUMAN TEMPORAL BONE PATHOLOGY	5R01 NS06606-15	136,521
GUTH, PAUL H.	PERMEABILITY IN GASTRIC AND MESENTERIC MICROVESSELS	5R01 AM25891-02	72,689
HAGIWARA, SUSUMU	MICRONEUROPHYSIOLOGY	5R01 NS09012-12	123,279
HALL, MICHAEL O.	THE ETIOLOGY OF RETINAL DEGENERATION	5R01 EY00046-11	126,216
HANKINSON, OLIVER	CARCINOGEN ACTIVATION AND SCREENING IN VARIANT CELLS	3R01 CA28868-01S1	55,180
HARPER, RONALD M.	ORGANIZATION OF SLEEP STATES AND RISK FOR SIDS	1R01 HD14608-01	89,181
HARPER, RONALD M.	NEURAL CONTROL OF CARDIORESPIRATORY FUNCTION	5R01 HL22418-03	58,912
HAYS, ESTHER F.	DEVELOPMENT OF LYMPHOMA IN THE THYMUS	5R01 CA12386-08	38,937
HERSCHMAN, HARVEY R.	INITIATION OF CELLULAR PROLIFERATION	5R01 GM24797-03	66,601
HILDEMAN, WILLIAM H.	IMMUNORECOGNITION AND ALLOIMMUNITY IN SPONGES	5R01 AI15705-02	85,522
HILDEMAN, WILLIAM H.	COMPARATIVE TRANSPLANTATION IMMUNOGENETICS	5R01 CA23025-05	122,101
HIRSCH, HILDE E.	PATHOGENESIS OF DEMYELINATION IN MULTIPLE SCLEROSIS	1R01 NS15311-01A1	86,608
HONRUBIA, VICENTE	EXPERIMENTAL STUDIES ON COCHLEAR MECHANISMS	5R01 NS08193-12	94,454
HONRUBIA, VICENTE	CLINICAL VESTIBULAR TESTING WORKSHOP	1R13 NS16407-01	26,491
HORWITZ, JOSEPH	RETINOL DELIVERY TO PIGMENT EPITHELIUM & NEURAL RETINA	5R01 EY00704-10	61,896
HORWITZ, JOSEPH	BIOPHYSICAL AND BIOCHEMICAL STUDIES OF LENS PROTEINS	5R01 EY01622-05	41,759
HOWARD, BRUCE D.	BIOCHEMICAL STUDIES OF NEUROTRANSMITTER RELEASE	5R01 NS12873-05	74,053
HOWARD, DEXTER H.	HOW PHAGOCYTES DEAL WITH FUNGI	5R01 AI15120-03	63,644
HUME, WYATT R.	ACTIVE PRINCIPLES OF DENTAL PULP THERAPEUTIC AGENTS	1R23 DE05155-01A1	46,947
JAMES, THOMAS W.	VISUALIZATION AND FUNCTION OF MITOCHONDRIAL FORMS	5R01 AG01862-02	51,406
JARMAKANI, JAY M.	IONIC EXCHANGE IN THE NEONATAL MAMMALIAN HEART	5R01 HL24148-02	114,510
JUDD, HOWARD L.	ESTROGEN AND ANDROGEN STUDIES IN ENDOMETRIAL CANCER	5R01 CA23093-04	101,302
JUNG, MICHAEL E.	SYNTHESIS OF 11-DESONY ANTHROCYCLINE ANTITUMOR AGENTS	5R01 CA21968-02	49,255
JUNG, MICHAEL E.	TOTAL SYNTHESIS OF EPIPODOPHYLLOTOXIN ANTITUMOR DRUGS	5R01 CA22827-03	50,878
KANOWITH-KLEIN, SUSAN A.	REGULATION OF HUMAN IGE TO RYE GRASS ANTIGENS	1R23 AI17218-01	39,300
KAPLOWITZ, NEIL	SMALL INTESTINE AS A PORTAL OF ENTRY FOR XENOBIOTICS	5R01 GM27090-02	50,700
KARK, R A.	FRIEDREICH'S ATAXIA AND LIPOAMIDE DEHYDROGENASE	5R01 NS15245-02	119,894
KASAMATSU, HARUMI	CENTRIOLAR ANTIGENS & INVOLVEMENT IN CELL PROLIFERATION	2R01 CA21768-04	113,478
KAUFFMAN, GORDON L, JR.	GASTRIC ULCER, MUCOSAL BLOOD FLOW, HCO ₃ SECRETION	1R01 AM27465-01	31,014
KAY, MARGUERITE M.	REMOVAL OF SENESCENT AND STORED HUMAN RED CELLS	5R01 HL22671-03	49,520
KIHARA, HAYATO	METACHROMATIC LEUKODYSTROPHY IN CULTURED CELL SYSTEMS	2R01 NS11665-07	129,411
KOLIN, ALEXANDER	DEVELOPMENT OF ELECTROMAGNETIC RHEOANGIOGRAPHY	5R01 HL17591-05	81,911
KORENMAN, STANLEY G.	HORMONAL INTERACTIONS IN THE UTERUS	5R01 HD09285-07	60,778
KRASNE, FRANKLIN B.	ESCAPE BEHAVIOR: INTEGRATION AND PLASTICITY	5R01 NS08108-13	106,864
KRASNE, SALLY J.	PROBES OF HEART AND NERVE MEMBRANES—FLUORESCENT DYES	9R01 HL20254-04	68,145
KRUGER, LAWRENCE	COMPARATIVE STUDIES OF SOMATIC AFFERENT PROJECTION	5R01 NS05685-16	90,941
KUHL, DAVID E.	EMISSION COMPUTED TOMOGRAPHY OF LOCAL CEREBRAL FUNCTIONS	5R01 GM24839-04	206,637
KUHL, DAVID E.	NEUROSCIENCE RESEARCH USING EMISSION TOMOGRAPHY	3P01 NS15654-01S1	78,992
KUHL, DAVID E.	NEUROSCIENCE RESEARCH USING EMISSION TOMOGRAPHY	5P01 NS15654-02	248,488
KURATA, JOHN H.	DYSPEPSIA, PEPTIC ULCER AND ITS COMPLICATIONS	5R01 AM25330-02	101,853

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
KUROKAWA, KIYOSHI	CELL METABOLISM OF DEFINED SEGMENTS OF SINGLE NEPHRON	5R01 AM21351-04	64,548
LADFOGED, PETER N.	COMPUTERIZED RECOVERY OF ARTICULATIONS	5R01 NS09780-09	88,083
LADISCH, STEPHAN	HUMAN IMMUNOREGULATORY GANGLIOSIDES	1R01 CA27701-01	84,120
LAGASSE, LEO D.	GYNECOLOGIC ONCOLOGY GROUP	2R10 CA13630-09	221,641
LAKE, JAMES A.	SPATIAL ARRANGEMENT OF PROTEINS IN RIBOSOMAL SUBUNITS	5R01 GM24034-04	71,926
LAKE, JAMES A.	SHARED ELECTRON MICROSCOPE FACILITY AT UCLA	5P41 GM27566-02	18,750
LASCCELLES, JUNE	REGULATION OF HEMOPROTEIN SYNTHESIS & NITRATE REDUCTASE	5R01 AM11148-14	70,255
LATIES, GEORGE G.	MEMBRANE PERMEABILITY AS A REGULATORY ELEMENT	5R01 GM19807-09	84,345
LEE, DAVID B.	MECHANISMS OF INTESTINAL PHOSPHATE ABSORPTION	5R01 AM20919-02	71,684
LEHRER, ROBERT I.	REGULATION OF PHAGOCYTIC RESPONSES IN NEUTROPHILS	5R01 AM16005-02	85,037
LEHRER, ROBERT I.	CCU-MRU, A MULTIDISCIPLINARY MYCOLOGY RESEARCH UNIT	5P01 AI16252-02	418,043
LENGYEL, JUDITH A.	ANALYZE STEPS CONTROLLING GENE EXPRESSION IN DROSOPHILA	5R01 HD09948-05	90,373
LETINSKY, MICHAEL S.	STRUCTURE & FUNCTION OF DEVELOPING SYNAPSES	2R01 NS13470-04	43,101
LETINSKY, MICHAEL S.	TROPIC AND INDUCTIVE INFLUENCES IN DEVELOPMENT	5R01 NS14417-03	36,873
LEVIN, SEYMOUR R.	ISOLATED PERFUSED INTESTINE: STUDY OF GUT-ISLET AXIS	5R01 AM21031-03	48,218
LEWIS, HARLAN	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07009-15	189,787
LIEBERMAN, JACK	STUDY SERUM LECTIN-LIKE ACTIVITY IN CYSTIC FIBROSIS	1R01 HL24947-01	36,414
LIEBESKIND, JOHN C.	BEHAVIORAL AND ELECTROPHYSIOLOGICAL STUDIES OF PAIN	2R01 NS07628-13	102,308
LIEBLING, MICHAEL R.	UNUSUAL SEROLOGIC INDICATORS OF SLE NEPHRITIS	5R01 AM21906-02	79,510
LOLLEY, RICHARD N.	MATURATION OF METABOLISM IN NORMAL & DYSTROPHIC RETINA	5R01 EY00395-12	54,666
LU, JOHN K.	HORMONE SECRETION AND RECEPTOR PATTERNS DURING AGING	1R01 AG01512-01A1	76,274
MARKHAM, CHARLES H.	CENTRAL VESTIBULAR MECHANISMS	5R01 NS06658-15	78,870
MARKOLF, KEITH L.	FRICTION AND WEAR OF PROSTHETIC BEARING MATERIALS	2R01 AM18988-04A1	106,648
MARKOLF, KEITH L.	LIGAMENOUS STABILITY OF THE KNEE	5R01 AM19043-05	88,445
MARKWELL, MARY A.	MOLECULAR IDENTIFICATION OF PARAMYXOVIRUS RECEPTORS	5R01 AI15629-02	36,087
MARSH, GAYLE G.	MULTIPLE SCLEROSIS EDUCATIONAL PSYCHOSOCIAL PROGRAM	5R01 NS14430-03	52,034
MC GINNIS, JAMES F.	A ROUTINE DIAGNOSTIC TEST FOR MINIMAL HEART DAMAGE	5R01 HL18567-05	63,958
MC GINTY, DENNIS J.	SLEEP RATE RESPIRATORY CONTROL	5R01 HD11903-03	66,500
MELLINKOFF, SHERMAN M.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00865-07	749,811
MELLINKOFF, SHERMAN M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05354-19	195,787
MENDOZA, GUILLERMO R.	THRESHOLD DESENSITIZATION OF BASOPHILS AND MAST CELLS	1R01 AI16713-01	38,649
MERRIAM, JOHN R.	ANEUPLOID EFFECTS ON AGING IN DROSOPHILA MELANOGASTER	5R01 AG01871-02	71,197
MEYER, JAMES H.	STUDY OF ALIMENTARY DERANGEMENTS AFTER ULCER SURGERY	5R01 AM19182-05	36,465
MEYERS, ROBERTA L.	PATHOGENESIS OF EXPERIMENTAL ALLERGIC UVEITIS	5R01 EY01309-07	87,864
MILLER, JAMES N.	IMMUNE MECHANISMS IN EXPERIMENTAL AND HUMAN SYPHILIS	5R01 AI12601-06	125,173
MORTON, DONALD L.	MULTIDISCIPLINARY CANCER DIAGNOSIS AND THERAPY	3P01 CA12582-09S1	931,175
MULLEN, YOKO S.	IMMUNE ASPECTS IN FETAL PANCREAS ALLOGRAFTS	2R01 AM20827-04	76,137
NAYAK, DEBI P.	INTERFERENCE BY DEFECTIVE INFLUENZA VIRUSES	2R01 AI12749-05A1	43,777
NAYAK, DEBI P.	INTERFERENCE BY DEFECTIVE INFLUENZA VIRUSES: MECHANISM	5R01 AI12749-06	74,130
NAYAK, DEBI P.	CLONING OF INFLUENZA VIRAL RNA SEGMENTS	1R01 AI16348-01	91,382
NEUTRA, RAYMOND R.	ELECTRONIC FETAL MONITORING AND THE APGAR SCORE	1R01 HD13556-01	50,118
NODA, HIROHARU	NEURONAL BASIS OF VISUAL PERCEPTION IN EYE MOVEMENTS	2R01 EY01051-07	104,544
NOFFSINGER, PAUL D.	BEHAVIORAL VS. OBJECTIVE ESTIMATES OF AUDITORY FUNCTION	1R01 NS17115-01	71,652
NORMAN, AMOS	EFFECT OF X-RAY CONTRAST MEDIA ON CHROMOSOMES	5R01 GM24679-03	78,265
NOVIN, DONALD	STUDIES OF HUNGER, THIRST AND WATER METABOLISM	2R01 NS07687-13	69,835
O'LAGUE, PAUL H.	ELECTROPHYSIOLOGY OF DEVELOPING NEURONS IN CULTURE	5R01 NS12901-05	62,807
ORNITZ, EDWARD M.	MATURATION OF VESTIBULAR NYSTAGMUS	5R01 EY02612-02	105,526
PARDRIDGE, WILLIAM M.	SKELETAL MUSCLE AMINO ACID METABOLISM	3R01 AM21762-02S1	12,773
PARDRIDGE, WILLIAM M.	SKELETAL MUSCLE AMINO ACID METABOLISM	5R01 AM21762-03	75,388
PARDRIDGE, WILLIAM M.	ENDOCRINOLOGY OF THE BLOOD BRAIN BARRIER	1R01 AM25744-01	73,159
PAULSON, JAMES C.	SIALLYOLIGOSACCHARIDE RECEPTORS OF MYXOVIRUSES	5R01 AI16165-02	69,921
PAULSON, JAMES C.	MAMMALIAN SIALLYLTRANSFERASES	1R01 GM27904-01	60,237
PEASE, DANIEL C.	STRUCTURAL ASPECTS OF THE LUNG SURFACTANT SYSTEM	5R01 HL01770-28	49,924
PHELPS, DALE L.	TOCOPHEROL PROTECTION IN OXYGEN INDUCED RETINOPATHY	2R01 EY01939-02	121,007
PHELPS, DALE L.	OXYGEN THERAPY OF OXYGEN INDUCED RETINOPATHY	1R01 EY03473-01	84,424
PIERCE, JOHN G.	PURIFICATION AND CHEMISTRY OF PROTEIN HORMONES	2R01 AM18005-27	136,949
POPIAK, GEORGE J.	MOLECULAR ASPECTS OF MENTAL RETARDATION	5P01 HD06576-07	532,872
POPIAK, GEORGE J.	ENZYMES AND INHIBITORS OF CHOLESTEROL BIOSYNTHESIS	5R01 HL12745-12	86,617
RAMMING, KENNETH P.	REGIONAL 5 FU AND INTRALESIONAL BCG FOR COLON CANCER	1R01 CA27121-01	102,317
RAY, DAN S.	REGULATION OF M13 VIRAL DNA REPLICATION	5R01 AI10752-09	87,613
REISLER, EMIL	DYNAMIC EVENTS IN MYOSIN DURING CONTRACTION OF MUSCLE	5R01 AM22031-03	65,930

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
RIVIERE, GEORGE R.	TOOTH TRANSPLANTATION GENETICS AND IMMUNOLOGY	2R01 DE04489-05	54,157
ROBERTS, SIDNEY	AMINO ACID IMBALANCES AND BRAIN METABOLISM	2R01 NS13295-04	108,563
ROMIG, WILLIAM R.	GENETIC STUDIES ON VIBRIO CHOLERA	5R22 AI08024-11	46,413
ROSS, GORDON	HUMAN CORONARY ARTERIAL VASOMOTION	1R01 HL26238-01	79,413
SALSER, WINSTON A.	NUCLEOTIDE SEQUENCING METHODS FOR ONCOGENIC VIRUSES	2R01 GM18586-09	104,057
SALSER, WINSTON A.	DETERMINING SEQUENCES FOR HEMOGLOBIN MESSENGER RNA	5R01 HL21831-07	87,267
SANSOME-BAZZANO, GAIL L.	ANDROGEN METABOLISM AND SEBUM COMPOSITION DURING PUBERTY	5R01 HD11633-03	112,021
SAWYER, CHARLES H.	RHINENCEPHALON, NEUROENDOCRINE FUNCTION AND BEHAVIOR	5R01 NS01162-24	114,191
SAXON, ANDREW	REGULATION OF HUMAN IGE IN HEALTH AND DISEASE	2R01 AI15251-03	91,849
SCHIEBEL, ARNOLD B.	THE HISTOLOGICAL SUBSTRATE OF CEREBRAL DOMINANCE	5R01 NS13871-03	57,846
SCHLAG-REY, MADELEINE L.	SINGLE UNIT STUDIES OF VISUO-OCULOMOTOR MECHANISMS	5R01 EY02305-03	70,154
SCHLAG, JOHN D.	CONDITIONING OF PYRAMIDAL ACTIVITY BY SENSORY INFLOW	5R01 NS04955-17	88,624
SCHLIEVERT, PATRICK M.	CHARACTERIZATION AND PATHOBIOLOGY OF PYROGENIC EXOTOXINS	1R01 AI15691-01	67,199
SCHOTZ, MICHAEL C.	LIPOPROTEIN LIPASE: CHEMISTRY AND FUNCTION	5R01 HL16577-06	121,643
SCHUMAKER, VERNE N.	MACROMOLECULES OF CIRCULATORY AND GENETIC IMPORTANCE	5R01 GM13914-16	97,945
SCHWARTZ, ILSA R.	DYNAMIC ASPECTS OF AUDITORY SYNAPTIC TERMINALS	5R01 NS14503-04	44,048
SCOTT, JOHN F.	THE ENZYMOLOGY OF DNA REPLICATION IN YEAST	5R01 GM27000-02	75,367
SEEGER, ROBERT C.	HUMAN NEUROBLASTOMA CELL SURFACE ANTIGENS	5R01 CA22794-03	109,233
SERAYDARIAN, MARIA W.	ENERGY METABOLISM IN CULTURED MAMMALIAN CARDIAC CELLS	1R01 HL21080-01A2	51,770
SERCARZ, ELI E.	REGULATION OF T-B-MO INTERACTIONS BY KEY DETERMINANTS	5R01 AI11183-08	96,659
SERCARZ, ELI E.	CHEMICAL BASIS FOR RECEPTOR RECOGNITION OF LYSOZYMES	5R01 CA24442-12	76,974
SHAPIRO, DAVID	HYPERTENSION: ANALYSIS OF DRUG & BEHAVIORAL THERAPIES	3R01 HL19568-04S1	11,592
SIDELL, NEIL	EFFECTS OF RETINOIC ACID ON THE IMMUNE SYSTEM	5R23 CA25801-03	32,750
SIEGEL, JEROME M.	RETICULAR FORMATION NEURONS: RELATION TO MOTOR ACTIVITY	5R01 NS14610-03	35,199
SIGMAN, DAVID S.	METAL ION FUNCTION IN ENZYMES AND RECEPTOR PROTEINS	2R01 GM21199-12	90,570
SIMPSON, LARRY	FUNCTION OF THE KINETOPLAST IN THE HEMOFAGELLATES	2R01 AI09102-12	124,058
SIMPSON, LARRY	DNA IN TRANSFORMATION OF TRYPANOSOMA BRUCEI	5R01 AI13027-05	54,287
SINGH, BRAMAH N.	MECHANISMS AND CONTROL OF SUDDEN CARDIAC DEATH	5R01 HL23970-03	47,540
SMITH, ROBERTS A.	GROUP TRANSFER PROCESSES IN NORMAL AND MALIGNANT CELLS	3R01 CA13196-08S1	14,279
SOLL, ANDREW H.	PHYSIOLOGY OF THE ISOLATED MAMMALIAN PARIETAL CELL	2R01 AM19984-04	48,077
SOLOMON, DAVID H.	GRAVES' DISEASE STUDIES	5R01 AM17251-06	85,876
SONNENSCHNEN, RALPH R.	NEURAL CONTROL OF CEREBRAL CIRCULATION	5R01 HL17903-05	92,313
STANG, HOWARD D.	NEW TECHNOLOGY FOR CLASSIFYING HUMAN LEUKEMIA	1R01 CA27682-01	67,452
STECKEL, RICHARD J.	CANCER CENTER CORE SUPPORT GRANT	5P30 CA16042-06	1,687,218
STELL, WILLIAM K.	PATHWAYS FOR COLOR VISION IN RETINAS	5R01 EY01190-08	65,790
STERMAN, MAURICE B.	EEG NORMALIZATION BY FEEDBACK TRAINING IN EPILEPTICS	5R01 NS10726-06	40,333
STERMAN, MAURICE B.	SLEEP-SLEEP LOSS EFFECTS ON KINDLED SEIZURES	1R01 NS16152-01	29,555
STEVENS, JACK G.	LATENCY IN HERPES VIRUS INFECTION OF CELLS AND TISSUES	5R01 AI06246-16	125,465
STEVENS, JACK G.	ANALYSIS OF THE SHOPE PAPILLOMA-CARCINOMA SYSTEM	5R01 CA18151-05	103,317
STEVENS, ROBERT V.	SYNTHESIS OF ANTICANCER TERPENOIDS AND ANTIBIOTICS	5R01 CA25675-02	57,521
STEVENS, ROBERT V.	THE SYNTHESIS OF ALKALOIDS	1R01 GM28122-01	90,697
STEVENS, RONALD H.	IN VITRO ANALYSIS OF ANTIBODY REGULATION IN MAN	5R01 AI15859-02	66,410
STEVENS, RONALD H.	HUMORAL IMMUNITY REGULATION IN IMMUNE DEFICIENCY	1R01 AI16694-01	59,021
STIEHM, E. RICHARD	CELLULAR IMMUNITY IN SICK AND MALNOURISHED INFANTS	5R01 HD09800-06	109,588
STORM, F. KRISTIAN	LOCAL HYPERTHERMIC CANCER THERAPY	5R01 CA24883-02	96,138
STRAATSMAN, BRADLEY R.	VISION RESEARCH CENTER	5P30 EY00331-14	197,053
SWEET, ROBERT M.	X-RAY DIFFRACTION STUDIES OF PHYCOBILISOME ASSEMBLY	1R01 GM27076-01	71,315
SWENDESD, MARIAN E.	AMINO ACID AND AMINE METABOLISM IN EXPERIMENTAL UREMIA	5R01 AM15197-08	55,583
SZEGO, CLARA M.	HORMONAL CONTROL OF CELL GROWTH AND DIFFERENTIATION	3R01 HD04354-26S1	62,066
TERASAKI, PAUL I.	STUDY OF SIGNIFICANCE OF HLA ANTIGENS IN DISEASE	5R01 AM02375-22	72,666
THOMAS, JAMES P.	MECHANISMS OF SPATIAL PATTERN VISION	5R01 EY00360-14	53,698
TOBIN, ELAINE M.	REGULATION OF SPECIFIC MRNAS BY LIGHT DURING DEVELOPMENT	5R01 GM23167-05	77,771
TYAN, MARVIN L.	AGE-RELATED CHANGES IN PRECURSORS OF T- AND B-CELLS	5R01 AG00990-04	52,801
TYAN, MARVIN L.	GENETIC CONTROL OF SUSCEPTIBILITY TO CLEFT PALATE	5R01 DE05165-02	74,238
URIST, MARSHALL R.	INDUCTIVE SUBSTRATES OF TOOTH AND BONE FORMATION	5R01 DE02103-16	177,932
VALENTINE, JOAN S.	THE HISTIDYL IMIDAZOLE LIGAND IN METALLOPROTEINS	7R01 GM28222-01	51,080
VALENTINE, WILLIAM N.	ENZYMATIC AND BIOCHEMICAL STUDIES ON BLOOD CELLS	5R01 HL12944-11	189,817
VERGARA, JULIO L.	OPTICAL AND ELECTRICAL STUDIES IN CUT MUSCLE FIBERS	5R01 AM25201-02	62,408
VIJAYARAGHAVAN, SUDARSANA R.	EFFECT OF AGING ON PROTECTIVE RESPONSE TO LEAD EXPOSURE	5R23 ES02047-02	36,744
WALFORD, ROY L.	THE ROLE OF IMMUNE PHENOMENA IN THE AGING PROCESS	5R01 AG00424-19	115,011
WALFORD, ROY L.	IMMUNOLOGIC AGING—GERIATRIC & DOWN'S SYNDROME SUBJECTS	5P01 AG00790-03	321,096

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
WALFORD, ROY L.....	TRANSPLANTATION IMMUNOGENETICS AND CANCER.....	5R01 AI10088-10	132,707
WALL, RANDOLPH.....	THE PRODUCTION OF IMMUNOGLOBULIN MRNA IN MYELOMA CELLS.....	2R01 AI13410-04	102,653
WALSH, JOHN H.....	HORMONAL ETIOLOGY OF GASTRIC HYPERSECRETION.....	5R01 AM17294-07	103,364
WARD, PAUL H.....	EXPERIMENTAL STUDIES ON VESTIBULAR MECHANISMS.....	5R01 NS08335-12	105,449
WARD, PAUL H.....	COMMUNICATIVE DISORDERS CLINICAL RESEARCH CENTER.....	2P50 NS09823-10	720,979
WASTERLAIN, CLAUDE G.....	BRAIN DEVELOPMENT IN EXPERIMENTAL EPILEPSY.....	5R01 NS13515-04	70,062
WEISS, RICHARD L.....	AMINO ACID REGULATORY INTERACTIONS IN YEAST.....	5R01 GM23943-03	43,146
WEST, LOUIS J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05756-07	184,345
WHEELER, LARRY A.....	ORAL FLORA AND CARCINOGENESIS OF DENTAL THERAPEUTICS.....	3R01 CA22249-03S1	14,124
WICKER, WILLIAM T.....	THE ASSEMBLY OF PROTEINS INTO BIOLOGICAL MEMBRANES.....	5R01 GM23377-05	106,231
WISNIESKI, BERNADINE J.....	PHYSICAL STRUCTURE OF ANIMAL CELL MEMBRANES.....	5R01 GM22240-05	47,021
WITHERS, H. RODNEY.....	RADIOBIOLOGY OF NORMAL TISSUES.....	1R01 CA27640-01	135,232
WITHERS, H. RODNEY.....	RADIOBIOLOGY OF NORMAL TISSUES.....	7R01 CA29644-01	126,730
WITTE, OWEN N.....	TRANSFORMATION BY ABELSON MURINE LEUKEMIA VIRUS.....	1R01 CA27507-01	86,494
WONG-MC CARTHY, WILLIAM J.....	SOCIAL COMMUNICATION FUNCTIONS OF ADOLESCENT SMOKING.....	1R01 HD14402-01	106,373
WRIGHT, ERNEST M.....	MOLECULAR MECHANISM OF INTESTINAL CALCIUM TRANSPORT.....	2R01 AM19567-04	117,761
WRIGHT, ERNEST M.....	THE SECRETION OF CEREBROSPINAL FLUID.....	5R01 NS09666-07	103,316
YAMADA, TADATAKA.....	CHEMISTRY AND BIOLOGY OF GUT SOMATOSTATIN.....	1R01 AM26268-01	55,414
YOUNG, LOWELL S.....	STUDY OF HOST-MICROBIAL FACTORS IN BACILEMIA.....	5R01 AI11271-08	46,441
YOUNG, LOWELL S.....	IMMUNOBIOLOGY OF K ANTIGENS OF ENTEROBACTERIACEAE.....	2R01 AI13518-04	75,524
YOUNG, RICHARD W.....	HISTOPHYSICAL AND HISTOCHEMICAL STUDIES ON THE EYE.....	2R01 EY00095-19	139,095
YOUNG, RICHARD W.....	DAILY RHYTHMS IN VISUAL CELL METABOLISM.....	5R01 EY02277-03	42,905
ZABIN, IRVING.....	STUDIES OF AN INDUCIBLE BACTERIAL ENZYME.....	5R01 AI04181-19	125,949
ZAMENHOF, STEPHEN.....	PRENATAL MALNUTRITION AND AGING.....	5R01 AG00162-04	64,832
ORGANIZATION TOTAL	316 38,874,747		
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
ALEXANDER, NATALIE.....	SYMPATHETIC ACTIVITY IN RAT WITH NEUROGENIC HYPERTENSION.....	5R01 HL19251-05	88,633
APPLEMAN, M. MICHAEL.....	AGING AND INSULIN EFFECTS ON CYCLIC AMP METABOLISM.....	5R01 AM20978-03	57,776
BALCHUM, OSCAR J.....	FLUORESCENCE ENDOSCOPY AND PHOTORADIATION THERAPY.....	5R01 CA25582-02	72,640
BAU, ROBERT.....	STRUCTURAL STUDIES ON PLATINUM-NUCLEOTIDE COMPLEXES.....	5R01 CA17367-06	75,207
BEKHOR, ISAAC.....	CHROMATIN-GLUCOCORTICOID INFLUENCES IN CLEFT PALATE.....	5R01 DE04031-06	85,838
BENYA, PAUL D.....	COLLAGEN IN OSTEOARTHRITIC CARTILAGE.....	2R01 AM16404-07	70,592
BERGMAN, RICHARD N.....	QUANTITATIVE STUDIES OF METABOLIC ORGAN DYNAMICS.....	7R01 AM27619-01	84,290
BIRREN, JAMES E.....	A COMPREHENSIVE RESEARCH PROGRAM IN AGING.....	5P01 AG00133-04	535,640
BLANKENHORN, DAVID H.....	ATHEROSCLEROSIS PROGRESSION/REGRESSION IN MAN.....	5P01 HL23619-02	787,372
BLANKENHORN, DAVID H.....	COMPUTER ASSESSMENT OF CORONARY ANGIOGRAMS.....	5R01 HL23807-02	179,652
BRODIE, ARNOLD F.....	MECHANISMS OF OXIDATIVE ENERGY GENERATION IN BACTERIA.....	5R01 AI05637-18	166,140
CARMEL, RALPH.....	VITAMIN B12 TRANSPORT AND ITS DISORDERS.....	5R01 AM23027-02	54,669
CLOUGH, WENDY G.....	EBV DNA SYNTHESIS IN TRANSFORMED LYMPHOCYTES.....	5R01 CA23070-04	77,423
COHEN, ARTHUR M.....	INHIBITION OF CARCINOGENESIS BY SELENIUM.....	5R01 CA24518-03	72,004
COOPER, SHELDON M.....	ISOLATION AND CHARACTERIZATION OF FC RECEPTORS.....	5R01 CA21279-03	68,981
CRAWFORD, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05303-19	55,182
CULLEN, MICHAEL J.....	FREEZE-FRACTURE LOCALIZATION OF PNS MYELIN PROTEINS.....	1R01 NS16195-01	50,034
DANENBERG, PETER V.....	HUMAN TUMOR THYMIDYLATE SYNTHETASES.....	5R01 CA27327-02	41,295
DE QUATRO, VINCENT L.....	HYPERTENSION: BRAIN NORADRENERGIC & DOPAMINERGIC TONE.....	5R01 HL24113-02	82,111
DENNY, PAUL C.....	MECHANISMS OF SALIVARY GLAND DEVELOPMENT.....	5R01 DE04960-02	51,155
DEONIER, RICHARD C.....	IS-MEDIATED INTEGRATION OF THE F PLASMID OF E. COLI.....	5R01 GM24589-03	49,554
DIDDIE, KENNETH R.....	PATHOGENESIS OF EXPTL MASSIVE PERIRETINAL PROLIFERATION.....	5R23 EY02849-02	11,440
DOROSHOW, JAMES H.....	OXYGEN RADICALS AND ANTICANCER QUINONES.....	1R23 CA29463-01	50,435
DUNN, ARNOLD S.....	HORMONAL REGULATION OF HEPATIC GLUCOSE PRODUCTION.....	2R01 AM07215-16	79,525
ESKINAZI, DANIEL P.....	ORAL IMMUNOPATHOLOGY: ORAL SQUAMOUS CELL CARCINOMA.....	1R01 CA29534-01	82,142
FIFE, THOMAS H.....	ENZYMATIC AND NONENZYMATIC HYDROLYSIS OF ACETALS.....	5R01 GM10613-18	63,617
FIFE, THOMAS H.....	ENZYMATIC AND NONENZYMATIC REACTIONS OF ACYL PHOSPHATES.....	5R01 GM16564-12	57,241
FINCH, CALEB E.....	AGING AND BRAIN MONOAMINES IN MICE.....	5R01 AG00117-05	75,473
FINCH, CALEB E.....	AGING AND BIOSYNTHESIS IN NONDIVIDING CELLS.....	2R01 AG00446-07	109,417
FOURNIER, RAYMOND E.....	GENETIC ANALYSIS OF CELL-TYPE-SPECIFIC FUNCTIONS.....	5R01 GM26449-02	59,212
FRIELINGER, JEFFREY A.....	GENETICS AND FUNCTION OF MURINE IA ANTIGENS.....	5R01 CA22662-03	144,881
FRIEDLER, ROBERT M.....	NATRIURESIS OF VOLUME EXPANSION AND CYCLIC AMP.....	5R01 AM19181-05	52,986
GEORGE, FREDERICK W. III.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA18259-05	79,971
GOODMAN, MYRON F.....	CARDIOTOXICITY IN CANCER TREATMENT: A MOLECULAR STUDY.....	5R01 CA17358-06	52,741

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
GOODMAN, MYRON F.	ERROR CORRECTION IN DNA SYNTHESIS	5R01 GM21422-05	60,431
GORDON, IRVING	STUDIES OF MEASLES VIRUS OR OTHER VIRUS INFECTIONS	5R01 AI03874-20	79,502
GRODINS, FRED S.	CARDIOPULMONARY CONTROL COUPLING IN EXERCISE	2R01 HL16390-07	26,600
HAMMOND, G DENMAN	COOPERATIVE STUDY OF CHILDREN'S CANCER	5R10 CA13539-08	931,890
HAMMOND, G DENMAN	LAC-USC CANCER CENTER CORE SUPPORT GRANT	2P30 CA14089-07	2,285,094
HARDING, BOYD W.	STERIOD HYDROXYLASES IN NORMAL AND ABNORMAL ADRENALS	5R01 CA07057-17	159,177
HARPOLD, MICHAEL M.	CONTROL OF GENE EXPRESSION IN MYOGENIC DIFFERENTIATION	1R01 HD14030-01	66,260
HAYWOOD, L JULIAN	COMPREHENSIVE SICKLE CELL CENTER	5P60 HL15162-09	674,885
HEER, DAVID M.	SOCIOECONOMIC STATUS OF MOTHERS OF MEXICAN ORIGIN	1R01 HD14342-01	104,114
HEIDELBERGER, CHARLES D.	IN VITRO CHEMICAL CARCINOGENESIS	5R01 CA21036-05	147,657
HEIDELBERGER, CHARLES D.	CHEMICAL TRANSFORMATION OF PROSTATE EPITHELIAL CELLS	3R26 CA21746-03S1	32,046
HEIDELBERGER, CHARLES D.	ANTITUMOR DRUG DEVELOPMENT PROGRAM	5R01 CA25715-02	199,159
HEIDELBERGER, CHARLES D.	PREDICTION OF CLINICAL RESPONSE TO 5-FLUOROURACIL	1R01 CA27610-01	100,432
HENDERSON, BRIAN E.	CANCER CENTER EPIDEMIOLOGY & BIOSTATISTICS SUPPORT	5P01 CA17054-05	1,133,390
HENDERSON, BRIAN E.	EPIDEMIOLOGY & CANCER REGISTRIES IN THE PACIFIC BASIN	1R13 CA27751-01	77,374
HENRY, JAMES P.	PSYCHOSOCIAL HYPERTENSION, CATECHOLAMINES AND DRUGS	5R01 HL17706-06	81,118
HENRY, JAMES P.	SALT RESTRICTION, ANTIHYPERTENSIVE DRUGS, AND STRESS	1R01 HL25544-01	95,590
HOCHSTEIN, PAUL E.	ULTRASTRUCTURE-BIOCHEMICAL STUDIES OF AGING RED CELLS	5R01 AG00471-05	73,220
HORTON, RICHARD	METABOLISM OF TESTOSTERONE (ANDROGENS) IN MAN	5R01 AM13710-11	49,717
HORTON, RICHARD	ALDOSTERONE, RENIN AND PROSTAGLANDINS IN MAN	5R01 HL13476-09	54,386
ISHIKAWA, KOICHI	LUNG CANCERS AND CARCINOMATOUS NEUROMYOPATHIES	3R01 CA22885-01S1	16,010
KALRA, VIJAY K.	STRUCTURE AND FUNCTION OF MEMBRANE ASSOCIATED PROTEINS	5R01 GM26013-02	66,755
KAPRIELIAN, ZOHRA B.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07012-14	139,330
KELLY, DOUGLAS E.	FINE STRUCTURE OF UVEAL BARRIERS TO INTRAOCULAR FLUID	5R01 EY03122-02	67,542
KELLY, DOUGLAS E.	FREEZE-FRACTURE OF DESMOSOMAL AND TRIADIC JUNCTIONS	1R01 GM27592-01	66,646
KELLY, PETER H.	MECHANISMS OF DOPAMINE-MEDIATED BEHAVIORS	1R01 NS16175-01	56,000
KILBURN, KAYE H.	DETERMINE IN UTERO LUNG SENSITIVITY TO CHEMICAL TOXINS	7R01 ES02561-01	119,188
KLINGMAN, C DAVID	EXPLANATIONS OF CHANGING STATE POLICIES FOR THE AGED	5R01 AG01408-02	123,889
LAI, MICHAEL M.	STRUCTURE AND REPLICATION OF RNA TUMOR VIRUSES	5R01 CA16113-06	85,436
LEE, AMY S.	COORDINATED CONTROL OF MAMMALIAN GENE EXPRESSION	1R01 CA27607-01	100,440
LEVY, DANIEL M.	STRUCTURE AND FUNCTION OF MEMBRANE TRANSPORT PROTEINS	5R01 AM25836-02	96,040
LEWIS, STEVEN M.	ACCURACY OF THE VENTILATORY RESPONSE TO EXERCISE	5R23 HL21990-03	39,421
LIEB, MARGARET	VIRUS & HOST INTERACTIONS IN MISMATCH REPAIR	5R01 GM25034-03	65,383
LIPSON, LOREN G.	PREGNANCY: MECHANISM OF ITS EFFECT ON INSULIN RELEASE	5R01 HD12517-02	61,150
LUKES, ROBERT J.	LYMPHOMA-LEUKEMIA PROGRAM/LAC-USC CANCER CENTER	3P01 CA19449-04S1	331,902
LUKES, ROBERT J.	CLINICAL CANCER EDUCATION GRANT	5R25 CA24426-03	171,740
MACK, THOMAS M.	CASE CONTROL STUDY OF CARCINOMA OF THE PANCREAS	5R26 CA19171-05	78,874
MACK, THOMAS M.	CASE CONTROL STUDY OF CARCINOMA OF THE ESOPHAGUS	5R01 CA19496-05	99,463
MACK, THOMAS M.	CASE-CONTROL STUDY OF MALIGNANT MELANOMA	5R01 CA23927-02	197,420
MANNING, PHIL R.	INDIVIDUALIZED LIBRARY SERVICES FOR OFFICE PRACTICE	2R01 LM02857-04	135,395
MANNING, PHIL R.	SELF-DIRECTED CONTINUING EDUCATION FOR PHYSICIANS	1R01 LM03427-01	138,761
MARKLAND, FRANCIS S, JR.	CHARACTERIZATION OF MAMMARY GLUCOCORTICOID RECEPTOR	5R01 CA22910-02	63,147
MARKLAND, FRANCIS S, JR.	CROTALASE: CHEMISTRY, PHYSIOLOGY, CLINICAL POTENTIAL	5R01 HL22875-03	133,547
MARSH, DONALD J.	COUNTERCURRENT PROPERTIES OF THE RENAL INNER MEDULLA	5R01 AM15968-09	115,970
MARSH, DONALD J.	OSCILLATIONS IN ARTERIAL BLOOD PRESSURE	1R01 GM28398-01	100,106
MASSRY, SHAUL G.	BLOOD BRAIN BARRIER AND CALCIUM	5R01 AM18959-05	79,275
MASSRY, SHAUL G.	PROSTAGLANDIN, CATECHOLAMINES, HORMONES AND WATER	5R01 AM26107-02	83,979
MASSRY, SHAUL G.	5TH INTERNATIONAL WORKSHOP ON PHOSPHATES	1R13 AM28128-01	10,000
MATHIES, ALLEN W, JR.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00043-20	1,204,163
MATHIES, ALLEN W, JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05356-19	189,787
MC CLURE, WILLIAM O.	NEUROLEPTICS, AGING, AND CHOLINERGIC FUNCTION	5R01 AG01896-02	74,643
MEISELMAN, HERBERT J.	HEMORRHEOLOGY STUDIES RELATED TO IN VIVO BLOOD FLOW	5R01 HL15722-08	46,072
MELNICK, MICHAEL	H-2 AND TERATOGEN-INDUCED CRANIOFACIAL MALFORMATION	1R01 DE05440-01	73,643
MILLER, CAROL A.	NEURONAL FUNCTION AND VIRAL INFECTION	1R01 NS15811-01	69,350
MILLS, BARBARA G.	STUDIES OF THE ETIOLOGY OF PAGET'S DISEASE OF BONE	5R01 AM19980-03	59,682
MINKIN, CEDRIC	MECHANISMS OF BONE RESORPTION IN CHRONIC PERIODONTITIS	5R01 DE04961-03	128,930
MITCHELL, MALCOLM S.	EFFECTS OF THERAPY ON TUMOR-SPECIFIC IMMUNITY	3R01 CA25765-02S1	56,988
MONROE, BARBARA G.	ULTRASTRUCTURAL STUDIES OF DEVELOPING INFUNDIBULUM	5R01 NS14633-03	48,436
MOOSER, GREGORY	RECEPTOR FUNCTION AND RELATED STUDIES IN ORAL BIOLOGY	5R01 DE03739-08	89,573
MORROW, C PAUL	GYNECOLOGIC ONCOLOGY GROUP	2R10 CA13641-09	61,106
MOSLEY, JAMES W.	HEPATITIS RISK OF WASHED BUFFY-POOR RED CELLS	5R01 HL23420-02	106,112

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MOSTELLER, RAYMOND D.....	REGULATION OF PROTEIN DEGRADATION IN ESCHERICHIA COLI.....	2R01 GM23292-04A1	79,413
NICOLAIDES, NICHOLAS.....	EXTERNAL EYE DISEASE AND MEIBOMIAN GLAND LIPIDS.....	5R01 EY02702-02	89,974
NICOLOFF, JOHN T.....	HUMAN THYROID HORMONE METABOLISM.....	2R01 AM11727-13	75,218
NIMNI, MARCEL E.....	CONTROL OF COLLAGEN METABOLISM AND CROSS-LINKING.....	5R01 AM10358-14	124,729
OLAH, GEORGE A.....	HYDROCARBONS & THEIR DERIVATIVES AS BIOALKYLATING AGENTS.....	5R01 GM24832-04	137,817
OLAH, GEORGE A.....	SUPERCONDUCTING NMR SPECTROMETER.....	5P41 GM27547-02	13,705
PAL, BUJAY K.....	MECHANISM OF VIRUS INDUCED NEURODEGENERATION.....	5R01 NS14891-02	13,292
PARKER, JOHN W.....	NEW METHOD FOR SEPARATING LEUCOCYTE SUBPOPULATIONS.....	5R01 CA23677-03	129,041
PELLEGRINI, MARIA C.....	EXPRESSION AND ORGANIZATION OF RIBOSOMAL PROTEIN GENES.....	5R01 GM24572-03	52,899
PRESTON-MARTIN, SUSAN.....	EPIDEMIOLOGY OF TUMORS OF THE PAROTID GLAND.....	1R01 CA28215-01	90,461
PUFFER, HAROLD W.....	NIEHS MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	5P30 ES01965-03	153,855
RAJMAN, LUISA J.....	THE REGULATION OF UREA SYNTHESIS IN MAMMALS.....	2R01 AM19417-04A1	56,383
RASHEED, SURAIYA.....	LEUKEMIA AND SARCOMA GENES IN CELLULAR TRANSFORMATION.....	1R01 CA27246-01	104,797
READ, CHRISTOPHER A.....	SYNTHETIC ANALOGUES OF THE CYTOCHROMES.....	5R01 GM23851-03	40,041
RHINELANDER, FREDERIC W.....	MICROCIRCULATION AND HISTOLOGY OF HEALING BONE.....	7R01 AM27625-01	76,581
RHO, JOON H.....	SUBCELLULAR CHANGES OF NE UPTAKE IN HYPERTENSION.....	2R01 HL21099-04	85,323
ROSS, RONALD K.....	IMMUNOBLASTIC LYMPHADENOPATHY AND HISTIOCYTIC LYMPHOMA.....	3R01 CA24082-02S1	52,826
ROSS, RONALD K.....	EPIDEMIOLOGY OF CANCER OF THE RENAL PELVIS AND URETER.....	5R01 CA25669-02	36,126
ROY-BURMAN, PRADIP.....	ONCODEVELOPMENTAL GENE EXPRESSION IN LEUKEMIA.....	1R01 CA26809-01	83,696
RUSSELL, FINDLAY E.....	VENOMS OF ANIMALS OF UNITED STATES AND YUGOSLAVIA.....	5R01 GM24141-02	75,028
RUSSELL, FINDLAY E.....	PEPTIDES AND CERTAIN ENZYMES OF VENOMS.....	2R01 NS11476-06	56,690
RYAN, STEPHEN J.....	AN EXPERIMENTAL APPROACH TO MACULOPATHY.....	5R01 EY01545-05	122,694
RYAN, STEPHEN J.....	PARS PLANA VITRECTOMY IN PENETRATING OCULAR TRAUMA.....	3R01 EY02061-02S1	14,946
RYAN, STEPHEN J.....	PARS PLANA VITRECTOMY IN PENETRATING OCULAR TRAUMA.....	2R01 EY02061-03	140,552
RYAN, STEPHEN J.....	BRUCH'S MEMBRANE/RETINAL PIGMENT EPITHELIAL STUDIES.....	5R01 EY02287-03	97,394
SCHECHTER, JOEL E.....	RATHKE'S POUCH-DERIVED TUMORS: A UNIQUE MODEL SYSTEM.....	3R01 CA21426-03S1	7,730
SCHECHTER, JOEL E.....	RATHKE'S POUCH-DERIVED TUMORS: EFFECTS OF HORMONES.....	2R01 CA21426-04	82,768
SCHIFFMAN, SANDRA.....	MECHANISM OF CONTACT ACTIVATION OF INTRINSIC CLOTTING.....	5R01 HL17402-06	87,305
SCHIFFMAN, SANDRA.....	BIOCHEMISTRY OF HUMAN FACTOR XI.....	2R01 HL18859-04	59,541
SCHNEIR, MICHAEL L.....	THE MOLECULAR NATURE OF GINGIVAL AND MUCOSAL COLLAGEN.....	5R01 DE03318-09	91,344
SCHONFELD, STEVEN E.....	OCCURRENCE AND ANTIGENICITY OF ENAMEL PROTEINS.....	5R01 DE05088-03	59,072
SHIZUYA, HIROAKI.....	ENZYMATIC STUDIES ON SYNTHESIS OF DNA.....	5R01 GM24584-03	52,745
SINGH, MANBIR.....	AN ELECTRONICALLY COLLIMATED GAMMA TOMOGRAPHY SYSTEM.....	1R01 CA28105-01	54,174
SLAVKIN, HAROLD C.....	BIOLOGY OF CONNECTIVE TISSUE, BONES, AND TEETH.....	5P01 DE02848-10	380,085
SMITH, RONALD E.....	EXPERIMENTAL OCULAR HISTOPLASMOSIS IN PRIMATES.....	2R01 EY01883-04	164,031
SMITH, RONALD E.....	SYNTHESIS OF DESCEMET'S MEMBRANE BY CORNEAL ENDOTHELIUM.....	3R01 EY01993-03S1	36,007
SMITH, RONALD E.....	EFFECTS OF INTRAOCULAR LENSES ON CORNEAL ENDOTHELIUM.....	5R01 EY02043-02	104,863
SMITH, RONALD E.....	THE EFFECTS OF RADIAL KERATOTOMY ON CORNEAL CURVATURE.....	1R01 EY03562-01	85,196
STELLWAGEN, ROBERT H.....	MECHANISM OF ENZYME INDUCTION BY CYCLIC NUCLEOTIDES.....	5R01 CA12563-10	74,848
STEPHENS, PHILIP J.....	CIRCULAR DICHROISM AND MAGNETIC CIRCULAR DICHROISM.....	5P41 GM27541-02	1,000
STOHLMAN, STEPHEN A.....	AGE DEPENDENT ADHERENT CELL FUNCTION: VIRUS RESISTANCE.....	5R01 NS15079-02	61,856
SWARBRICK, JAMES.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05792-04	20,070
THOMPSON, LARRY W.....	MULTIPLE FACTORS IN COPING WITH GRIEF IN THE ELDERLY.....	5R01 AG01959-02	136,770
TOKES, ZOLTAN A.....	LIPOSOMES AS ARTIFICIAL VESICLES FOR DRUG DELIVERY.....	3R01 CA21271-03S1	2,483
TOKES, ZOLTAN A.....	SIGNIFICANCE OF GP48 IN DIAGNOSIS OF BREAST CANCER.....	5R01 CA24645-02	66,462
TONG, MYRON J.....	HEPATITIS, HAA AND ANTI-HAA IN MOTHERS AND INFANTS.....	5R01 AI10894-08	34,195
VOGT, PETER K.....	INTERACTIONS BETWEEN AVIAN TUMOR VIRUSES AND THEIR HOSTS.....	5R01 CA13213-09	170,586
VOGT, PETER K.....	GENETICS OF RNA TUMOR VIRUSES.....	5R01 CA19725-05	195,986
WALSH, DAVID A.....	AGE DIFFERENCES IN VISUAL INFORMATION PROCESSING.....	2R01 AG00521-04	58,819
WALTHER, ROBIN J.....	AGE RELATED TRENDS IN FAMILY INCOME INEQUALITY.....	5R01 HD13241-02	92,765
WARSHEL, ARIEH.....	THEORETICAL STUDIES OF THE VISION PROCESS.....	5R01 EY01766-05	42,963
WARSHEL, ARIEH.....	THEORETICAL STUDIES OF ENZYMIC REACTIONS.....	5R01 GM24492-03	44,308
WEIL, MAX H.....	MEDICAL DECISION SYSTEM: EMERGENCY AND CRITICAL CARE.....	5R01 GM25448-05	145,333
WEINER, LESLIE P.....	DEMYELINATING DISEASES CAUSED BY VIRUSES.....	5R01 NS12967-05	56,303
WEINER, LESLIE P.....	THE EFFECT OF VIRUSES ON SPINAL CORD-MUSCLE INTERACTIONS.....	5R01 NS13685-03	72,892
WINET, HOWARD.....	EXPERIMENTAL BIOPHYSICAL MODELS FOR GAMETE TRANSIT.....	7R01 HD15442-01	38,701
WINKLER, DONALD R.....	MIGRATION OF FOREIGN STUDENTS TO THE UNITED STATES.....	5R01 HD12996-02	60,636
YATES, FRANCIS E.....	CENTER FOR SYSTEMS ANALYSIS IN PATHOPHYSIOLOGY.....	5P50 GM23732-04	719,908
ZIPSER, ROBERT D.....	PROSTAGLANDINS AND THROMBOXANES IN LIVER FAILURE.....	1R01 AM26487-01	52,748
ORGANIZATION TOTAL	154	20,626,419	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MENLO PARK			
LINUS PAULING INSTITUTE OF SCIENCE AND MEDICINE		ZIP CODE 94025	
ABERTH, WILLIAM H.....	ADVANCED FIELD ION SOURCE TECHNOLOGY	5R01 GM24814-02	138,167
ORGANIZATION TOTAL	1 138,167		
SRI INTERNATIONAL		ZIP CODE 94025	
ACTON, EDWARD M.....	ANTITUMOR ANTHRACYCLINES, SYNTHETIC N & S ISOMERES	5R01 CA24168-03	79,691
ACTON, EDWARD M.....	MORE EFFECTIVE ANTHRACYCLINES/SYSTEMATIC DEVELOPMENT.....	5R01 CA25711-02	390,770
ALMQUIST, RONALD G.....	SYNTHESIS OF POTENTIAL ANTIHYPERTENSIVE AGENTS.....	2R01 HL19538-04	114,475
BARON, WILLIAM S.....	PHOTORECEPTOR INFORMATION PROCESSING IN PRIMATES	5R01 EY01579-06	143,489
BARON, WILLIAM S.....	HUMAN RETINAL INFORMATION PROCESSING.....	5R01 EY02856-02	92,119
CHESNEY, MARGARET A.....	BEHAVIORAL INTERVENTIONS FOR MILD ESSENTIAL HYPERTENSION	1R01 HL24416-01	234,128
CHESNEY, MARGARET A.....	TYPE A BEHAVIOR: CARDIOVASCULAR AND NONVERBAL COMPONENT.....	1R01 HL26042-01	63,928
COLWELL, WILLIAM T.....	SYNTHESIS AND EVALUATION OF NEOPTERIN ALDOLASE INHIBITOR	5R01 AI16140-02	111,827
CRANE, HEWITT D.....	BINOCULAR VISUAL PROCESSES AND INSTRUMENTATION.....	5R01 EY01031-07	222,842
DAWSON, MARCIA I.....	PRODRUGS, POLYMERIC CHELATORS AND IONOPHORES FOR IRON	5R01 AM25647-02	60,601
DE GRAW, JOSEPH I.....	DEAZA ANALOGS OF FOLIC ACID AND METHOTREXATE.....	1R01 CA28783-01	137,638
FIELDSTEEL, A HOWARD.....	CULTIVATION OF M. LEPRAE IN TISSUE CULTURE.....	2R22 AI08417-11	246,593
FIELDSTEEL, A HOWARD.....	TISSUE CULTURE/GENETIC STUDIES OF TREPONEMA PALLIDUM.....	5R01 AI15113-03	145,235
FREEMAN, GUSTAVE.....	STUDY OF CHRONIC OBSTRUCTIVE LUNG DISEASE.....	3P01 ES00842-08S1	357,565
HELLER, JORGE.....	CLOSED-LOOP BIOERODABLE DRUG DELIVERY DEVICES.....	1R01 GM27164-01	121,239
HENNESSY, MICHAEL B.....	VARIABILITY OF MATERNAL SEPARATION EFFECTS IN MONKEYS.....	1R01 HD14591-01	84,414
KAPLAN, JOEL N.....	MATERNAL BEHAVIOR AND INFANT DEVELOPMENT.....	5R01 HD04905-09	118,276
KELLY, DONALD H.....	PROCESSING OF ELEMENTARY VISUAL STIMULI.....	2R01 EY01128-07	228,366
KUHLMANN, KARL F.....	CHROMATIN AND DNA INTERACTION OF POLYINTERCALATORS	2R01 CA19895-04A1	163,787
LAWSON, JOHN A.....	SYNTHESIS OF NEW ANTICONVULSANTS.....	5R01 NS15450-02	34,527
LEE, WILLIAM W.....	BLOOD COMPATIBLE BENZAMIDINE CONTAINING POLYMERS.....	5R01 HL21769-03	80,081
LOEW, GILDA H.....	THEORY OF PHYSICAL PROPERTIES AND REACTIVITY IN P-450.....	5R01 GM27943-02	77,290
MILL, THEODORE.....	THE ROLE OF FREE RADICALS AND ANTIOXIDANTS IN AGING.....	5R01 AG00486-06	52,125
MILLER, JON P.....	CYCLOC AMP ANALOGS AS ANTIPSORIASIS AGENTS.....	5R01 AM21773-03	125,783
MILLER, JON P.....	EFFECTS OF TUMOR PROMOTERS ON PROTEIN KINASES.....	1R01 CA24588-01A1	97,354
MILLER, JON P.....	MAPPING CYCLIC AMP BINDING SITES ON PROTEIN KINASES.....	5R01 GM25697-03	105,473
MITOMA, CHOZO.....	BIOCHEMICAL STUDIES OF A SWEETENER, SRI OXIME V.....	5R01 DE05466-02	94,593
MORTELMANS, KRISTIE E.....	DNA REPAIR STUDIES IN XERODERMA PIGMENTOSUM CELLS.....	5R01 CA26124-02	54,095
MORTELMANS, KRISTIE E.....	MICROBIAL MUTAGENESIS AND PLASMIDS.....	5R23 ES02004-02	45,727
PETERS, JOHN H.....	STUDIES OF ANTILEPROSY DRUGS IN ANIMALS AND MAN.....	2R22 AI08214-13A1	113,431
PINCUS, JACK H.....	MECHANISM OF NANAASE-ENHANCED TUMOR IMMUNOGENICITY.....	5R01 CA26162-02	102,504
SKINNER, WILFRED A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05522-18	153,721
SMITH, THOMAS H.....	TOTAL SYNTHESIS OF NOGALAMYCIN ANALOGS.....	1R01 CA26288-01A1	101,781
TANABE, MASATO.....	STEREOSPECIFIC SYNTHESIS OF STEROL SIDE CHAINS.....	5R01 GM27058-02	83,525
TANABE, MASATO.....	SYNTHESIS OF NEW, SAFE CONTRACEPTIVE AGENTS.....	1R01 HD14222-01	101,588
TYSON, CHARLES A.....	COMPARATIVE IN VITRO METABOLIC SYSTEMS.....	1R01 GM28158-01	97,950
VOLD, BARBARA S.....	ROLE OF tRNA IN CELLULAR REGULATORY MECHANISMS.....	7R01 GM29231-01	119,416
WALKER, DONALD E.....	NATURAL LANGUAGE ACCESS TO MEDICAL TEXT.....	1R01 LM03611-01	151,601
WOOD, BERNARD J.....	STEREOSPECIFIC SYNTHESIS WITH A MOLECULAR TEMPLATE.....	5R01 GM25140-03	62,367
ORGANIZATION TOTAL	39 4,971,915		
ZWENG MEMORIAL RETINAL RESEARCH FOUNDATION		ZIP CODE 94025	
LITTLE, HUNTER L.....	ALTERATION OF HEMORRHOLOGY AND DIABETIC RETINOPATHY	1R01 EY03292-01	9,540
ORGANIZATION TOTAL	1 9,540		
MONTEREY PARK			
LOS ANGELES COMMUNITY COLLEGE DISTRICT--EAST LOS ANGELES COLLEGE		ZIP CODE 91754	
CHAN, CARCY L.....	MINORITY BIOMEDICAL SUPPORT.....	1S06 RR08177-01	118,430
ORGANIZATION TOTAL	1 118,430		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
NORTHBRIDGE			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT NORTHBRIDGE		ZIP CODE 91330	
HSU, I-NAN	CRYSTALLOGRAPHIC STUDIES OF PENICILLOPEPSIN	1R01 GM26680-01A1	47,413
LEFEVRE, GEORGE, JR.	COMPARATIVE STUDIES ON INDUCED MUTATION IN DROSOPHILA	5R01 GM13631-15	81,014
OPPENHEIMER, STEVEN B.	MECHANISMS OF INTERCELLULAR ADHESION	5R01 CA12920-09	54,144
TOPPEN, DAVID L.	KINETICS OF CHLORPROMAZINE-DOPAMINE RECEPTOR REACTIONS	5R01 NS14775-02	11,800
ORGANIZATION TOTAL	4 194,371		
OAKLAND			
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFORNIA		ZIP CODE 94609	
ABRAHAM, SAMUEL	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05467-12	56,293
CERIANI, ROBERTO L.	USE OF CELL MEMBRANES TO ASSESS PHENOTYPIC EXPRESSION	5R01 CA19455-05	90,254
CERIANI, ROBERTO L.	BREAST NEOPLASIA DIAGNOSIS WITH SPECIFIC ANTIBODIES	5R01 CA20286-03	105,005
HAYFLICK, LEONARD	PROGRAMMED SENESCENCE IN CULTURED HUMAN CELLS	5R01 AG00850-02	258,715
MORETTI, RICHARD L.	PROSTAGLANDINS, PLATELET AGGREGATION AND VASOACTIVITY	5R01 HL22946-03	94,722
PETERSON, JERRY	PHENOTYPIC VARIATION AND NEOPLASTIC PROGRESSION	1R01 CA26790-01A1	96,693
SMITH, STUART	STRUCTURE AND SPECIFICITY OF LIPOGENIC ENZYMES	3R01 AM16073-05S1	19,318
SMITH, STUART	STRUCTURE AND SPECIFICITY OF LIPOGENIC ENZYMES	5R01 AM16073-06	114,422
SMITH, STUART	REGULATION OF TRIGLYCERIDE COMPOSITION OF MILK	5R01 HD12588-02	68,075
ORGANIZATION TOTAL	9 904,497		
INSTITUTE FOR RESEARCH IN SOCIAL BEHAVIOR		ZIP CODE 94612	
MELLINGER, GLEN D.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05719-09	34,706
ORGANIZATION TOTAL	1 34,706		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE		ZIP CODE 94612	
CUTTING, CECIL C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05521-18	46,895
FRIEDMAN, GARY D.	SURVEILLANCE FOR DRUGS THAT MAY BE CARCINOGENIC	5R01 CA19939-04	123,788
FRIEDMAN, GARY D.	ATHEROSCLEROTIC DISEASE AND RISK FACTORS IN TWINS	5R01 HL21971-03	60,253
GLASS, ANDREW G.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	2R10 CA20148-04	67,886
ORGANIZATION TOTAL	4 298,822		
MILLS COLLEGE		ZIP CODE 94613	
BRONSON, GORDON W.	PATTERN ENCODING IN EARLY INFANCY	5R01 HD12565-02	40,995
ORGANIZATION TOTAL	1 40,995		
PALO ALTO			
NORTHERN CALIFORNIA CANCER PROGRAM, INC.		ZIP CODE 94304	
CARTER, STEPHEN K.	CANCER CENTER SUPPORT (CORE) GRANT	5P30 CA19408-05	529,598
CARTER, STEPHEN K.	NORTHERN CALIFORNIA ONCOLOGY GROUP	5R10 CA21744-04	651,155
ORGANIZATION TOTAL	2 1,180,753		
PALO ALTO MEDICAL RESEARCH FOUNDATION		ZIP CODE 94301	
COURTNEY, KENNETH R.	FREQUENCY-DEPENDENT DRUG ACTIONS IN CARDIAC MUSCLE	5R01 HL24156-02	37,100
COURTNEY, KENNETH R.	FREQUENCY-DEPENDENT BLOCK AS ANTICONVULSANT MECHANISM	1R01 NS15914-01	43,829
INGELS, NEIL B, JR.	VENTRICULAR DYNAMICS FROM SURGICALLY INSERTED MARKERS	2R01 HL17993-06	308,201
JOHNSON, BEN F.	REGULATORY MECHANISMS IN MUTAGENESIS AND CELL DIVISION	5R01 GM26205-02	97,892
KRUPP, MARCUS A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05513-18	47,380
REMINGTON, JACK S.	TOXOPLASMOSIS: NATURE OF INFECTION & IMMUNE RESPONSE	5R01 AI04717-19	299,751
ROSS, SHEILA A.	A STUDY OF THE PAIN EXPERIENCE IN CHILDREN	1R01 HD13672-01	90,050
SHARMA, SOMESH D.	MONOCYTES AND MACROPHAGES IN RESISTANCE TO CANCER	5R01 CA22452-03	142,618
SHARMA, SOMESH D.	TUMOR CELL KILLING BY A SOLUBLE MACROPHAGE PRODUCT	5R23 CA27565-02	35,157
ORGANIZATION TOTAL	9 1,101,978		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER		ZIP CODE 94304	
OKARMA, THOMAS B.	AGING AND AUTOIMMUNITY: PHARMACOLOGIC MECHANISMS	5R01 AG01690-02	32,416

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
REAVEN, EVE P	EFFECT OF AGE ON BETA CELL STRUCTURE AND FUNCTION	5R01 AG01237-02	51,204
ORGANIZATION TOTAL	2	83,620	
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
ATTARDI, GIUSEPPE	GENE EXPRESSION AND CONTENT IN CELL DIFFERENTIATION	5R01 GM11726-17	318,380
BALDESCHWIELER, JOHN D.	STUDY OF BIOLOGICAL SYSTEMS BY NEW PHYSICAL METHODS	5R01 GM21111-08	121,299
BERG, HOWARD C	SENSORY TRANSDUCTION IN BACTERIAL CHEMOTAXIS	1R01 AI16478-01	109,472
BONNER, JAMES F	MOLECULAR BASIS OF GENETIC CONTROL	5R01 GM13762-15	257,403
BROCKES, JEREMY P	CULTURED SCHWANN CELLS STUDY	5R01 NS14403-03	69,101
BROKAW, CHARLES J	MECHANISMS OF MOVEMENT OF SIMPLE SPERM FLAGELLA	5R01 GM18711-09	89,525
BROKAW, CHARLES J	COMPUTER SIMULATION OF SLIDING FILAMENT SYSTEMS	5R01 GM21931-05	47,074
CAMPBELL, JUDITH L	ENZYMATIC MECHANISMS OF DNA REPLICATION	5R01 GM25508-03	64,273
CHAN, SUNNEY I	STUDIES OF LIPID-LIPID AND LIPID-PROTEIN INTERACTIONS	2R01 GM22432-06	186,731
CRIMMINS, EILEEN M	THE U.S. MORTALITY DECLINE: EVIDENCE FROM CENSUS DATA	7R01 AG02699-01	29,508
DAVIDSON, ERIC H	SEQUENCE STRUCTURE OF EUKARYOTIC GENOME	5P01 GM20927-06	318,456
DAVIDSON, ERIC H	OÖGENESIS AND GENE CONTROL IN ANIMAL REPRODUCTION	5R01 HD05753-11	286,201
DAVIDSON, ERIC H	YEAR ROUND S. PURPURATUS RESEARCH RESOURCE	5P40 RR00986-06	77,914
DAVIDSON, NORMAN R	PHYSICAL CHEMISTRY OF NUCLEIC ACIDS	5R01 GM10991-21	192,402
DERVAN, PETER B	PROTEIN-NUCLEIC ACID CROSS-LINKING REAGENTS	5R01 GM22909-05	53,215
DERVAN, PETER B	MOLECULAR RECOGNITION OF DNA & RNA BY POLYINTERCALATORS	1R01 GM27681-01	77,427
DICKERSON, RICHARD E	MACROMOLECULAR INTERACTIONS AND GENETIC CONTROL	5R01 GM12121-16	132,040
EVANS, DAVID A	IONOPHORE AND MACROLIDE SYNTHESIS	1R01 CA28187-01	88,130
EVANS, DAVID A	PROSTAGLANDIN SYNTHESIS	5R01 GM21746-06	64,540
EVANS, DAVID A	ANTICANCER AND NEUROTOXIC ALKALOID SYNTHESIS	5R01 GM26111-05	105,841
FENDER, DEREK H	CHILDREN'S DEVELOPMENT OF READING STRATEGIES	5R01 EY02479-03	98,261
FENDER, DEREK H	THE INFLUENCE OF PERIPHERAL VISION ON VISUAL PERFORMANCE	5R01 EY02890-02	85,860
GAGNE, ROBERT R	MODEL INORGANIC SYSTEMS FOR COPPER PROTEINS	5R01 AM18319-06	60,075
GIFFIN, CHARLES E	AN INTEGRATING ELECTRO-OPTICAL MS ION DETECTOR	5R01 GM20850-06	141,864
GRAY, HARRY B	METALLO-OXIDASES: SPECTROSCOPIC AND MAGNETIC STUDIES	5R01 AM19038-02	70,282
HOOD, LEROY E	GENETICS OF ANTIBODY DIVERSITY, EXPRESSION AND EVOLUTION	5R01 AI10781-10	153,169
HOOD, LEROY E	STRUCTURE AND EXPRESSION OF RECEPTOR IGM MOLECULES	1R01 AI16590-01	83,292
HOOD, LEROY E	ORGANIZATION OF ANTIBODY HEAVY CHAIN GENES	1R01 AI16913-01	152,361
HOROWITZ, NORMAN H	IRON TRANSPORT IN FUNGI	5R01 AI15739-02	71,717
HOROWITZ, NORMAN H	BIOEMICAL RESEARCH SUPPORT	2S07 RR07003-15	189,787
HUDSPETH, ALBERT J	TRANSDUCTION MECHANISM OF HAIR CELLS	5R01 NS13154-05	68,951
IRELAND, ROBERT E	THE SYNTHESIS OF APHIDICOLIN AND TIRANDAMYCIN	5R01 CA18191-06	76,439
IRELAND, ROBERT E	POLYETHER IONOPHORES: SYNTHESIS OF X537A AND ANALOGS	5R01 HL21367-04	107,273
KASAMATSU, TAKUJI	MONOAMINERGIC CONTROL OF DEVELOPING VISUAL NEURONS	1R01 EY03409-01	93,974
KONISHI, MASAKAZU	SEXUAL DIFFERENTIATION OF BRAIN AND BEHAVIOR	5R01 HD10501-04	51,191
KONISHI, MASAKAZU	NEUROPHYSIOLOGY OF SOUND LOCALIZATION	5R01 NS14617-03	67,162
KONOPKA, RONALD J	PACEMAKER, MUTATIONS, ENVIRONMENTAL CYCLES, AND AGING	5R01 AG01844-02	104,545
LESTER, H ALLEN	NICOTINIC SYNAPSES, BIOPHYSICAL STUDIES	5R01 NS11756-06	76,198
LEWIS, EDWARD B	GENETIC CONTROL OF DEVELOPMENTAL PATHWAYS	5R01 HD06331-09	108,179
MANIATIS, THOMAS P	THE STRUCTURE AND ORGANIZATION OF HUMAN GLOBIN GENES	5R01 HL24380-02	123,726
MARSH, RICHARD E	CRYSTAL STRUCTURE STUDIES OF COMPOUNDS RELATED TO DNA	5R01 GM16966-11	79,409
MEYEROWITZ, ELLIOT M	GENE STRUCTURE AND FUNCTION IN ANIMAL DEVELOPMENT	1R01 GM28075-01	95,825
MITCHELL, HERSHEL K	MOLECULAR BASIS FOR STRESS PROTECTION	5R01 AG01931-02	35,852
MITCHELL, HERSHEL K	BIOCHEMICAL-GENETICS OF DEVELOPMENT IN DROSOPHILA	5R01 GM25966-02	65,211
NICOLSON, MARGERY O	INTEGRATED INFECTIVE TYPE-C RETROVIRAL GENOMES	7R01 CA30149-01	49,987
PETTIGREW, JOHN D	COMPARATIVE PHYSIOLOGY OF BINOCULAR VISION	5R01 EY01909-04	60,590
PETTIGREW, JOHN D	VISUAL CORTICAL NEURONS	5R01 EY03291-06	89,620
RAFTERY, MICHAEL A	BIOCHEMISTRY AND BIOPHYSICS OF AN ACETYLCHOLINE RECEPTOR	5R01 NS10294-09	91,032
RAFTERY, MICHAEL A	CHEMISTRY AND KINETICS OF AXONAL CONDUCTION	5R01 NS12018-15	101,737
REVEL, JEAN-PAUL	MOLECULAR BASIS OF SPECIFICITY IN CELLULAR MEMBRANES	5P01 GM06965-21	605,388
RICHARDS, JOHN H	MOLECULAR STUDIES OF THE IMMUNE RESPONSE	5R01 CA23028-03	66,351
RICHARDS, JOHN H	ENZYME SYSTEMS USING NUCLEAR MAGNETIC RESONANCE	5R01 GM16424-12	262,952
ROBERTS, JOHN D	NITROGEN-15 AND CARBON-13 NMR SPECTROSCOPY	5R01 GM11072-18	129,153
SCHAEFER, WILLIAM P	X-RAY STUDY OF OXYGEN-CARRYING TRANSITION METAL COMPLEX	5R01 HL12395-12	47,494

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SCHROEDER, WALTER A.....	STRUCTURE-FUNCTION RELATIONSHIPS IN THE HEME PROTEINS.....	2R01 HL02558-24	141,103
STRAUSS, JAMES H.....	A GENETIC ANALYSIS OF SINDBIS VIRUS.....	5R01 AI10793-09	76,205
STRUMWASSER, FELIX.....	MECHANISMS OF INNATE AND ENTRAINED PATTERNS IN NEURONS.....	5R01 NS07071-14	88,575
STRUMWASSER, FELIX.....	PEPTIDERGIC AND CIRCADIAN NEURONS IN TISSUE CULTURE.....	2R01 NS13896-04	129,077
STRUMWASSER, FELIX.....	STUDIES OF A MODEL NEUROENDOCRINE SYSTEM.....	5R01 NS15183-02	104,866
VAN ESSEN, DAVID C.....	FUNCTIONAL ORGANIZATION OF EXTRASTRIATE VISUAL CORTEX.....	2R01 EY02091-04	122,796
ORGANIZATION TOTAL	60 7,116,461		
HUNTINGTON MEMORIAL HOSPITAL ZIP CODE 91105			
BING, RICHARD J.....	INHIBITION OF CHOLESTEROL INFLUX IN INTACT ANIMALS.....	5R01 HL24670-02	76,105
MC CREERY, DOUGLAS B.....	SPINAL AND SUPRASPINAL MECHANISMS OF ELECTROANALGESIA.....	1R01 GM28199-01	60,306
ORGANIZATION TOTAL	2 136,411		
PASADENA FOUNDATION FOR MEDICAL RESEARCH ZIP CODE 91101			
KAIGN, M EDWARD.....	CULTURE AND CARCINOGENESIS OF HUMAN BLADDER UROTHELIUM.....	5R01 CA25089-02	59,025
ORGANIZATION TOTAL	1 59,025		
POMONA			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM--CALIFORNIA STATE POLYTECHNIC U AT POMONA ZIP CODE 91768			
PAL, BIJAY K.....	MECHANISM OF VIRUS INDUCED NEURODEGENERATION IN MICE.....	7R01 NS17321-01	52,895
ORGANIZATION TOTAL	1 52,895		
REDLANDS			
UNIVERSITY OF REDLANDS ZIP CODE 92373			
IFFT, JAMES B.....	PHYSICAL CHEMISTRY OF PROTEINS IN SALT SOLUTIONS.....	5R01 GM18871-13	36,275
ORGANIZATION TOTAL	1 36,275		
RIVERSIDE			
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521			
BARTNICKI-GARCIA, SALOMON.....	BIOCHEMISTRY OF MORPHOGENESIS IN MUCOR.....	5R01 AI05540-15	61,223
BIRGE, ROBERT R.....	SPECTROSCOPY AND PHOTOPHYSICS OF VISUAL CHROMOPHORES.....	5R01 EY02202-03	45,265
BRUNER, LEON J.....	DIPOLE POTENTIALS IN MEMBRANES.....	1R01 GM27626-01	34,293
BYUS, CRAIG V.....	ORNITHINE DECARBOXYLASE INDUCTION IN NEOPLASTIC CELLS.....	3R01 CA23743-02S1	28,900
BYUS, CRAIG V.....	ORNITHINE DECARBOXYLASE INDUCTION IN NEOPLASTIC CELLS.....	5R01 CA23743-03	60,138
CASTRO, CHARLES E.....	BIODEHALOGENATION.....	5R01 ES01588-03	63,608
FLETCHER, WILLIAM H.....	LOCALIZATION OF ACTIVE PROTEIN KINASE IN VIVO/IN VITRO.....	1R01 HD13704-01	83,509
FUKUTO, T ROY.....	DELAYED TOXICITY OF TRIALKYL PHOSPHOROTHIOATES.....	5R01 ES02225-02	47,493
HAMMOCK, BRUCE D.....	BIODEGRADABLE PESTICIDES BASED ON HORMONE METABOLISM.....	2R01 ES01260-04	85,360
HENRY, HELEN L.....	KIDNEY CELL CULTURE: REGULATION OF CALCIUM METABOLISM.....	5R01 AM21398-03	50,457
HENRY, HELEN L.....	INSULIN AND RENAL METABOLISM OF 25-HYDROXYVITAMIN D3.....	5R01 AM25780-02	13,733
HOLTEN, DAROLD D.....	NUTRITIONAL & HORMONAL CONTROL OF G-6-P04 DEHYDROGENASE.....	5R01 AM13324-12	73,342
JURNAK, FRANCES A.....	CRYSTALLOGRAPHIC STUDIES OF PROTEIN ELONGATION FACTORS.....	5R01 GM26895-02	27,107
LUBEN, RICHARD A.....	METABOLIC & DEVELOPMENTAL ASPECTS OF BONE CELL LINES.....	1R01 AM26448-01	29,878
LUBEN, RICHARD A.....	PATHOGENESIS OF LOCALIZED BONE DESTRUCTION.....	1R01 DE05467-01	6,982
MC PHERSON, ALEXANDER.....	DIFFRACTION ANALYSIS OF FRUCTOSE-1,6-DIPHOSPHATASE.....	5R01 GM27017-02	2,253
MC PHERSON, ALEXANDER.....	X-RAY DIFFRACTION ANALYSIS OF DNA BINDING PROTEINS.....	5R01 GM27645-02	69,729
MC PHERSON, ALEXANDER.....	X-RAY CRYSTALLOGRAPHIC ANALYSES OF PROTEIN STRUCTURES.....	5R01 GM27838-02	62,379
MIDLAND, M MARK.....	ASYMMETRIC REDUCTIONS VIA TRIALKYLBORANES.....	5R01 GM24517-03	43,144
MILLER, THOMAS A.....	MODE OF ACTION OF INSECTICIDES.....	2R01 ES00814-10	64,993
MUDD, JOHN B.....	BIOCHEMICAL EFFECTS OF AIR POLLUTANT OXIDANTS.....	5R01 ES00917-05	65,221
NOLTMANN, ERNST A.....	PHOSPHOHEXOSE ISOMERASES.....	5R01 AM07203-18	98,786
NOLTMANN, ERNST A.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05816-01	19,748
NORMAN, ANTHONY W.....	VITAMIN D AND CALCIUM METABOLISM.....	5R01 AM09012-16	124,111
NORMAN, ANTHONY W.....	VITAMIN D METABOLISM IN HUMANS STUDIES.....	5R01 AM14750-09	96,607
OKAMURA, WILLIAM H.....	PREPARATION OF VITAMIN D ANALOGS AND METABOLITES.....	5R01 AM16595-07	69,495
OKAMURA, WILLIAM H.....	RETINOIDS AND VINYL ALLENE CHEMISTRY.....	2R01 EY02452-03	78,274
OLSEN, RICHARD W.....	MOLECULAR MECHANISMS OF NEUROTRANSMITTER ACTION.....	5R01 NS12422-05	37,990

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PATZER, EDWARD G.....	MERMITHID NEMATODES AND INSECT CONTROL: PHYSIOLOGY.....	5R01 AI15717-02	38,504
QUINTON, PAUL M.....	CYSTIC FIBROSIS & UREMIA: SWEAT GLAND PATHOPHYSIOLOGY.....	5R01 AM26547-03	41,531
RIESEN, AUSTIN H.....	SOMATOSENSORY DEPRIVATION: BRAIN-BEHAVIORAL EFFECTS.....	2R01 HD10408-17	31,335
SAWYER, DONALD T.....	THE CHEMISTRY OF BIOLOGICAL MANGANESE.....	2R01 GM22761-04A1	59,768
SCHILLER, NEAL L.....	CF PATIENTS' DEFENSE MECHANISMS VS. PSEUDOMONAS.....	1R01 AI17072-01	51,061
SHANNON, LELAND M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07010-15	100,722
SHERMAN, IRWIN W.....	HOST-PARASITE INTERRELATIONSHIPS IN THE MALARIAS.....	5R01 AI05226-16	52,706
STRAUS, DANIEL S.....	ANALYSIS OF INSULIN AND MSA ACTION IN CELL HYBRIDS.....	2R01 AM21993-03	76,189
SUDMEIER, JAMES L.....	MULTINUCLEAR FTNMR STUDIES OF ZINC METALLOENZYMES.....	5R01 GM25877-02	63,086
TALBOT, PRUDENCE.....	MECHANISMS OF MAMMALIAN OVULATION.....	5R01 HD11386-03	32,134
TALBOT, PRUDENCE.....	A NEW APPROACH TO THE STUDY OF CAPACITATION.....	5R01 HD11684-02	47,127
TAUBERT, KATHRYN A.....	FACTORS MODIFYING CARDIAC DIGOXIN EFFECTS AND CONTENT.....	5R23 HL22575-03	38,510
TRAUGH, JOLINDA A.....	EFFECTS OF RIBOSOME PHOSPHORYLATION ON TRANSLATION.....	2R01 GM21424-06	76,920
TRAUGH, JOLINDA A.....	CYCLOC NUCLEOTIDE-INDEPENDENT PHOSPHORYLATION.....	5R01 GM26738-02	54,693
ORGANIZATION TOTAL	42	2,308,304	
SACRAMENTO			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY ZIP CODE 95814			
MC EWEN, WILLIAM J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05549-18	49,610
ORGANIZATION TOTAL	1	49,610	
SAN DIEGO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN DIEGO STATE UNIVERSITY ZIP CODE 92182			
ABBOTT, MITCHEL T.....	PYRIMIDINE & PROLYL ALPHA-KETOGLUTARATE DIOXYGENASES.....	5R01 GM25055-03	37,191
KAPLAN, ROBERT M.....	BEHAVIORAL PROGRAMS FOR EXERCISE COMPLIANCE IN COPD.....	1R01 HL25109-01	81,727
LEBERZ, HERBERT G.....	REGULATION OF INTRACELLULAR ENZYME CONCENTRATIONS.....	5R01 GM23045-05	75,673
WEISS, RICHARD L.....	CELL FUSION IN CHLAMYDOMONAS REINHARDI.....	5R01 GM25636-03	73,005
ORGANIZATION TOTAL	4	267,596	
CENTER FOR NEUROLOGIC STUDY ZIP CODE 92121			
KOHNE, DAVID E.....	HIGHLY SENSITIVE RAPID NUCLEIC ACID HYBRIDIZATION.....	5R01 NS16311-02	144,306
MANES, COLE.....	MAMMALIAN EMBRYOGENESIS.....	7R01 HD15037-01	98,506
ORGANIZATION TOTAL	2	242,812	
CHILDREN'S HOSPITAL AND HEALTH CENTER ZIP CODE 92123			
GALAMBOS, ROBERT.....	EEG RESPONSES DURING COGNITIVE PROCESSING IN CHILDREN.....	5R01 HD11154-03	64,317
ORGANIZATION TOTAL	1	64,317	
LABORATORY FOR COMPARATIVE BIOCHEMISTRY ZIP CODE 92109			
BARTLETT, GRANT R.....	RED CELL METABOLISM.....	5R01 HL06950-19	72,663
ORGANIZATION TOTAL	1	72,663	
MERCY HOSPITAL AND MEDICAL CENTER ZIP CODE 92103			
GELLER, JACK.....	BIOCHEMICAL STUDY OF PROSTATE CANCER DIFFERENTIATION.....	5R26 CA18003-05	73,595
ORGANIZATION TOTAL	1	73,595	
ZOOLOGICAL SOCIETY OF SAN DIEGO ZIP CODE 92112			
BENIRSCHKE, KURT.....	PECTUS EXCAVATUM IN LEMURS.....	1P40 RR01261-01	27,334
RYDER, OLIVER A.....	COMPARATIVE MOLECULAR CYTOGENETICS.....	5R01 GM23073-05	88,474
ORGANIZATION TOTAL	2	115,808	
SAN FRANCISCO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN FRANCISCO STATE UNIVERSITY ZIP CODE 94132			
LINDQUIST, ROBERT N.....	BORONIC ACID ANALOGS OF PEPTIDES.....	5R01 GM26825-02	29,393
PLACHY, WILLIAM Z.....	MOLECULAR OXYGEN IN BIOLOGICAL FLUIDS.....	5R01 HL19065-04	35,176
STUBBS, JOHN D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07120-06	26,992
ORGANIZATION TOTAL	3	91,561	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
CHILDREN'S HOSPITAL OF SAN FRANCISCO ZIP CODE 94118			
SPENCER, E. MARTIN	THE REGULATION OF GROWTH BY SOMATOMEDIN	1R01 HD14506-01	150,667
ORGANIZATION TOTAL	1 150,667		
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94115			
ADELSON, JOEL W.	CHYMOTENIN: STIMULATION OF ENZYME-SELECTIVE SECRETION	5R01 AM19973-04	111,068
COGAN, ALEXANDER I.	A TEMPORAL ASPECT OF BINOCULAR VISION	5R01 EY01558-05	78,610
COLLINS, CARTER C.	VISUAL SCIENCE RESEARCH CENTER SUPPORT	5P30 EY01186-08	253,188
GLASER, CHARLES B.	STRUCTURE AND FUNCTION STUDIES OF ALPHA-1-ANTITRYPSIN	5R01 HL23357-02	85,908
GLASER, CHARLES B.	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS	5R01 HL24861-02	158,631
KELLER, EDWARD L.	THE OCULOMOTOR SYSTEM OF ALERT PRIMATES	2R01 EY03280-02	99,282
LEVY, JOSEPH V.	DIABETIC HYPERTENSIVE RATS—PHARMACOLOGIC REACTIVITY	5R01 AM21146-03	90,144
LEVY, JOSEPH V.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05566-17	88,952
MITCHELL, RICHARD R.	IMPROVEMENT IN REGIONAL VENTILATION-PERFUSION RESOLUTION	5R01 HL21518-03	100,194
NAKAYAMA, KEN.	THREE-DIMENSIONAL ASPECTS OF VISION AND OCULOMOTILITY	5R01 EY01582-06	72,286
NORRIS, FORBES H. JR.	PASSIVE TRANSFER IN AMYOTROPHIC LATERAL SCLEROSIS	1R01 NS16117-01	41,040
OSBORN, JOHN J.	BIOMEDICAL KNOWLEDGE ENGINEERING IN CLINICAL MEDICINE	5R01 GM24669-03	60,314
PERSIDSKY, MAXIM D.	DEVELOPMENT OF GRANULOCYTE BANKING PROCEDURES	2R01 CA12754-09	105,126
RODVEN, ROBERT.	BLOOD-MATERIAL INTERACTIONS	5R01 HL24018-02	229,702
SAUNDERS, FRANK A.	CLASSROOM EVALUATION OF A TACTILE VOCODER FOR THE DEAF	5R01 NS09714-05	89,225
SCOTT, ALAN B.	CHEMICAL ALTERATION OF EXTRAOCULAR MUSCLE FUNCTION	3R01 EY02106-02S1	8,931
SCOTT, ALAN B.	CHEMICAL ALTERATION OF EXTRAOCULAR MUSCLE FUNCTION	2R01 EY02106-03	57,155
SCOTT, ALAN B.	EYELID MOVEMENTS AND FORCES	5R01 EY03153-02	44,653
VASTINE, DAVID W.	EXPERIMENTAL STUDIES OF ADENOVIRAL OCULAR INFECTIONS	5R01 EY02955-02	126,471
ORGANIZATION TOTAL	19 1,900,880		
MOUNT ZION HOSPITAL AND MEDICAL CENTER ZIP CODE 94115			
FRIEDMAN, MEYER.	BEHAVIORAL CHANGES IN POST INFARCTION PATIENTS	5R01 HL21427-04	260,718
GOLDFINE, IRA D.	SITE OF INSULIN ACTION	2R01 AM26667-02	96,498
LEEDS, SANFORD E.	RELATION OF LYMPHATICS TO CARDIOPULMONARY FUNCTION	5R01 HL03180-23	67,692
REDMAN, HELEN C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05472-18	21,624
ROTH, RICHARD A.	DISULFIDE INTERCHANGE AND INSULIN CATABOLISM	1R23 AM26918-01	43,625
WILLIAMS, JOHN A.	CHOLECYSTOKININ AND OTHER GUT HORMONE RECEPTORS	1R01 AM26422-01	78,985
ORGANIZATION TOTAL	6 589,142		
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—PHS HOSPITAL ZIP CODE 94118			
KRAHENBUHL, JAMES L.	IMMUNOLOGY AND IMMUNOTHERAPY OF EXPERIMENTAL LEPROSY	5R22 AI07801-13	84,447
ORGANIZATION TOTAL	1 84,447		
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
ABLIN, ARTHUR R.	CHILDREN'S CANCER STUDY GROUP	5R10 CA17829-04	125,043
ALBERTS, BRUCE M.	BIOCHEMISTRY OF GENE REGULATION IN HIGHER EUKARYOTES	5R01 GM23928-04	101,550
ALBERTS, BRUCE M.	DNA-PROTEIN INTERACTIONS IN DNA-REPLICATION CONTROL	5R01 GM24020-05	174,756
ALVARADO, JORGE A.	TISSUE CHANGES IN AGING AND IN GLAUCOMATOUS EYES	3R01 EY02068-03S1	7,219
AMEND, WILLIAM J.	PREDNISOLONE KINETIC/DYNAMICS IN RENAL TRANSPLANT PATIENTS	1R01 AM27099-01	91,366
ARMSTRONG, ROSA M.	EPITHELIAL-STROMAL INTERACTIONS OF BREAST CARCINOMA	5R01 CA20122-03	65,097
ARNAUD, CLAUDE D.	PARATHYROID HORMONE AND CALCITONIN	5R01 AM21614-04	149,447
BAINTON, DOROTHY F.	MATURATION AND FUNCTION OF WBC AND MEGAKARYOCYTES	5R01 AM10486-15	81,067
BAINTON, DOROTHY F.	PATHOLOGY OF CELL DIFFERENTIATION IN LEUKEMIA	5R01 CA14264-08	71,273
BANDA, MICHAEL J.	STRUCTURE AND FUNCTION OF MACROPHAGE ELASTASE	1R23 HL26323-01	37,957
BARRETT, SONDR A.	MYELOID CELL SURFACE RECEPTORS: NORMAL AND LEUKEMIC	2R01 CA20575-04	82,792
BASBAUM, ALLAN I.	BRAINSTEM CONTROL OF PAIN TRANSMISSION	5R01 NS14627-03	70,066
BAUMRIND, SHELDON.	DENTOFACIAL EFFECTS OF FORCES TO RETRACT THE MAXILLA	2R01 DE03598-06	112,686
BAXTER, JOHN D.	MECHANISM OF THYROID HORMONE ACTION	5R01 AM18878-05	88,090
BAXTER, JOHN D.	GROWTH HORMONE GENE: PURIFICATION AND REGULATION	5R01 AM19997-04	106,358
BAXTER, JOHN D.	HORMONE RESPONSIVENESS IN GLAUCOMA	5R01 EY01785-05	75,632
BAXTER, JOHN D.	ROLE OF STEROIDS IN HYPERTENSION	2R01 HL16918-07	97,240
BENET, LESLIE Z.	FUROSEMIDE DOSE-EFFECT RELATIONSHIP	5R01 AM20884-02	67,415
BENET, LESLIE Z.	PHARMACOKINETICS IN DISEASE STATES	5R01 GM26551-02	106,716
BENET, LESLIE Z.	PHARMACOKINETICS/PHARMACODYNAMICS	5P50 GM26691-02	265,855

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
BERRY, CHRISTINE A.	WATER TRANSPORT IN THE PROXIMAL CONVOLUTED TUBULE	5R01 AM26142-02	18,248
BIGLIERI, EDWARD G.	SECRETORY STEROID MIXTURES OF ADRENAL CORTEX	3R01 AM06415-18S1	3,550
BIGLIERI, EDWARD G.	SECRETORY STEROID MIXTURES OF ADRENAL CORTEX	5R01 AM06415-19	139,673
BISHOP, J MICHAEL	ROUS SARCOMA VIRUS: REPLICATION & CELL TRANSFORMATION	5R01 CA12705-10	877,132
BISSELL, DWIGHT M, JR	STUDIES OF HEPATOCYTE FUNCTION IN CELL CULTURE	5R01 AM21642-02	95,207
BLOIS, MARSDEN S, JR	NATURAL LANGUAGE ACCESS TO CLINICAL DATA BASES	5R01 CA26655-02	318,821
BOLOUR, AZAD	DEVELOPMENT OF A PROCESS MODEL OF THE MEDICAL RECORD	5R23 LM03363-02	36,600
BOURNE, HENRY R	CARCINOGEN TESTING: A MOUSE LYMPHOMA MUTATION SYSTEM	5R01 CA23218-03	63,606
BOURNE, HENRY R	MOLECULAR BASIS OF RECEPTOR-CYCLASE COUPLING	1R01 GM27800-01	198,392
BOURNE, HENRY R	SOMATIC GENETIC ANALYSIS OF ADENYLATE CYCLASE	1R01 GM28310-01	70,557
BOYD, DOUGLAS P	SCINTILLATION-PHOTODIODE TECHNOLOGY FOR CT SCANNERS	1R01 GM28308-01	51,943
BOYD, DOUGLAS P	A PRACTICAL HIGH-SPEED CT SCANNER FOR CARDIAC IMAGING	1R01 HL23430-01A1	358,399
BROOKS, GEORGE F.	HUMAN IMMUNE RESPONSES TO N. GONORRHOEA INFECTIONS	5R01 AI15642-03	100,426
BROWN, KENNETH T	NEUROPHYSIOLOGY OF THE VERTEBRATE RETINA	2R01 EY00468-21	205,613
CALARCO, PATRICIA G	CELL SURFACE ANTIGENS IN EARLY MOUSE DEVELOPMENT	5R01 HD10894-03	46,813
CALDWELL, HARLAN D	IMMUNOCHEMISTRY OF CHLAMYDIAL SURFACE ANTIGENS	5R01 EY03046-02	97,170
CALDWELL, JOSEPH L	CYTOLYTIC ACTIVITY OF MURINE LUNG CELLS	5R01 HL24482-02	48,690
CALLAWAY, ENOCH	EFFECTS OF METHYLPHENIDATE ON ADULTS AND THE ELDERLY	5R01 AG01741-02	88,150
CARLSSON, ERIK	COMPUTED TOMOGRAPHY OF THE ISCHEMIC MYOCARDIUM	5R01 HL22762-02	64,567
CHAR, DEVRON H.	EYE TUMORS: IN VITRO IMMUNODIAGNOSIS AND MONITORING	5R01 EY01441-03	40,634
CHAR, DEVRON H.	UVEITIS: SPECIFIC AND NONSPECIFIC CELLULAR REACTIVITY	5R01 EY01759-05	81,881
CHAR, DEVRON H.	EYE DISEASE HISTOCOMPATIBILITY ANTIGENS	3R01 EY02072-03S1	6,073
CHARLTON, VALERIE E	FETAL NUTRITION VIA THE GASTROINTESTINAL TRACT	3R01 HD11109-03S1	24,173
CHIERICI, GEORGE J	IN VIVO EXPERIMENTS ON BONE MUSCLE INTERACTION	5R01 DE05119-03	44,264
CLEMENTS, JOHN A	DEVELOPMENT, CONTROL AND DISORDERS OF ALVEOLAR STABILITY	5P01 HL24075-02	1,284,129
COPENHAGEN, DAVID R.	SYNAPTIC INTERACTION IN THE VERTEBRATE RETINA	2R01 EY01869-04	110,804
CORREIA, MARIA A	REGULATION OF HEME METABOLISM IN THE LIVER	1R01 AM26506-01	73,500
CORREIA, MARIA A	REGULATION OF INTESTINAL METABOLISM OF XENOBIOTICS	5R01 GM24707-02	68,272
CURLMAN, PETER R	DEVELOPMENTAL ASPECTS OF IRON DEFICIENCY	5R22 AM13897-11	104,916
DAWSON, CHANDLER R.	ANALYSIS OF PROBLEMS IN OCULAR INFLAMMATORY DISEASES	5R01 EY00427-11	191,948
DAWSON, CHANDLER R.	PATHOGENESIS AND EARLY DIAGNOSIS OF EYE INFLAMMATIONS	5R01 EY01198-06	137,736
DEDO, HERBERT H	PHYSIOLOGIC AND ACOUSTIC FACTORS IN SPASTIC DYSPHONIA	5R01 NS14199-03	65,667
DENNIS, MICHAEL J.	PHYSIOLOGY OF SYNAPSES DEVELOPING IN VIVO	5R01 NS10792-08	86,880
DIAMOND, IVAN F	REGULATION OF RECEPTOR FUNCTION	5R01 NS14742-03	62,813
DIVENYI, PIERRE L	NORMAL AND NEUROPATHOLOGICAL AUDITORY PERCEPTION	7R01 NS16019-01	52,887
DURBIN, RICHARD P	PHOSPHATE UPTAKE IN ISOLATED GASTRIC MUCOSA	5R01 AM25986-02	38,300
EDMONDSON, DALE	MEMBRANE-BOUND ENZYMES IN HEART AND OTHER TISSUES	5P01 HL16251-08	440,855
EKBLAD, E MARGARETA	CYCLIC NUCLEOTIDES IN GASTRIC ACID SECRETION	5R01 AM23148-03	40,821
EKMAN, PAUL	TYPE A BEHAVIOR: NONVERBAL AND CARDIOVASCULAR COMPONENT	1R01 HL25990-01	110,134
ELIAS, PETER M	NATURE OF MAMMALIAN CUTANEOUS PERMEABILITY BARRIER	5R01 AM19098-05	80,567
ELIAS, PETER M	LOCALIZATION OF VITAMIN D BIOSYNTHESIS IN SKIN	1R01 AM27387-01	67,220
ELIAS, PETER M	ANTINEOPLASTIC ACTION OF VITAMIN A IN SKIN CANCER	5R01 CA22683-03	32,684
ENGLEMAN, EPHRAIM P	MULTIPURPOSE ARTHRITIS CENTER	3P60 AM20684-03S1	13,100
ENGLEMAN, EPHRAIM P	MULTIPURPOSE ARTHRITIS CENTER	2P60 AM20684-04	417,669
EPSTEIN, CHARLES J.	MOLECULAR EFFECTS OF CHROMOSOMAL ANEUPLOIDY	5R01 GM24309-04	70,211
EPSTEIN, CHARLES J.	BIOCHEMISTRY OF EARLY MAMMALIAN DEVELOPMENT	2R01 HD03132-13	108,020
EPSTEIN, ERVIN H, JR	GLUCOCORTICOID INTERACTION WITH HUMAN SKIN	5R01 AM18495-06	82,354
EPSTEIN, JOHN H.	CHEMOTHERAPEUTIC AGENTS & ULTRAVIOLET CARCINOGENESIS	2R01 CA15605-07	70,449
EPSTEIN, LOIS B.	INTERFERON AS A MEDIATOR OF CELLULAR IMMUNITY	9R01 CA27903-05A1	108,946
EPSTEIN, WILLIAM L	ALLERGIC SKIN DISEASE COOPERATIVE GROUP	5P50 AI14752-03	271,052
FARMER, SUSAN W	GROWTH HORMONE-PROLACTIN MOLECULE OF S MANSONIOIDES	1R01 AM27197-01	55,394
FELKER, TUNDE E	SECRETION OF ABNORMAL PLASMA LIPOPROTEINS OF CHOLESTASIS	5R23 HL23544-02	39,993
FELTS, JAMES M.	OROSOMUCOID AND NEPHROTIC LIPEMIA	5R01 AM21923-03	74,875
FIELDING, CHRISTOPHER J	REGULATION OF PLASMA CHOLESTEROL METABOLISM	5R01 HL23738-02	109,340
FIELDS, HOWARD L	FACTORS AFFECTING DENTAL POSTOPERATIVE PAIN	5R01 DE05369-02	100,314
FISHER, KNUTE A.	SPLIT MEMBRANE LIPIDS AND POLYPEPTIDES	1R01 GM27049-01	47,972
FISHMAN, ROBERT A.	BRAIN EDEMA CLINICAL RESEARCH CENTER	5P50 NS14543-03	411,195
FLACH, ALLAN J.	NERVE TERMINAL DEGENERATION AFTER EPINEPHRINE	5R01 EY02141-04	91,056
FLEETERICK, ROBERT J.	STRUCTURE AND REGULATION OF GLYCOGEN PHOSPHORYLASE	5R01 AM26081-02	100,187
FLICK, MICHAEL R	GRANULOCYTES IN LUNG CAPILLARY PERMEABILITY EDEMA	7R23 HL26913-01	36,155
FORSHAM, PETER H.	PANCREATIC ISLET FUNCTION IN DIABETES	3R01 AM12763-10S1	43,914

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
FRANKEL, BARBARA J.....	DIABETIC PANCREATIC FUNCTION IN INSULIN SENSITIVITY.....	5R23 AM26033-02	42,617
FRICK, OSCAR L.....	ASTHMA DEVELOPMENT.....	5R01 AI15233-02	75,891
FRIEDLANDER, MITCHELL H.....	IMMUNOPATHOLOGY OF HYPERSENSITIVITY REACTIONS IN THE EYE.....	5R01 EY02502-03	81,475
FRIEDMAN, MICHAEL A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17995-05	104,750
FRIEDMAN, MICHAEL A.....	NORTHERN CALIFORNIA CLINICAL ONCOLOGY GROUP.....	5R10 CA25827-02	209,359
FRIEND, DANIEL S.....	REVERSIBLE INFERTILITY AND SPERM MEMBRANE STRUCTURE.....	2R01 HD10445-04	82,786
FU, KAREN K.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA21439-04	153,240
FUKUYAMA, KIMIE.....	CYTOCHEMICAL STUDIES ON THE KERATINIZATION PROCESS.....	5R01 AM12433-13	161,655
GALLO, ROBERT V.....	NEURAL REGULATION OF EPISODIC LH RELEASE.....	5R01 HD05577-09	92,799
GANONG, WILLIAM F.....	NEURAL AND HUMORAL CONTROL OF ENDOCRINE FUNCTION.....	5P01 AM06704-18	644,475
GAVIN, LAURENCE A.....	METABOLISM OF TETRAC AND TRIAC.....	5R01 AM24013-02	45,353
GLANTZ, STANTON A.....	CARDIAC MECHANISMS.....	1R01 HL25869-01	97,244
GOLDFIEN, ALAN.....	HORMONAL CONTROL OF UTERINE ADRENOTROPIC RECEPTORS.....	5R01 HD08006-03	106,386
GOLDSMITH, PAUL C.....	CONTROL AND INTEGRATION OF GnRH NEURAL PATHWAYS.....	2R01 HD10907-04	76,112
GOLDSTEIN, IRA M.....	COMPLEMENT MEDIATED IMMUNOPATHOLOGY.....	7R01 AM28542-01	48,589
GOLDSTEIN, IRA M.....	PANCREATITIS, COMPLEMENT AND LUNG INJURY.....	7R01 AM28543-01	28,570
GOLDSTEIN, IRA M.....	INFLAMMATION DUE TO PROSTHETIC INTRAOCULAR LENSES.....	7R01 EY03768-01	7,181
GOLDSTEIN, LAWRENCE S.....	HIGH RADIATION DAMAGE IN GERM CELLS AND CULTURED EMBRYOS.....	5R01 CA22644-02	98,901
GOLLAN, JOHN L.....	HEPATIC PATHWAYS OF HEME AND BILIRUBIN METABOLISM.....	5R01 AM21899-03	103,273
GOODMAN, HOWARD M.....	TUMOR VIRUS, PLASMID AND CELL ANALYSIS.....	2R01 CA14026-09	235,781
GOODMAN, HOWARD M.....	AGROBACTERIUM DNA INSERTION AND EXPRESSION IN PLANTS.....	1R01 CA27424-01	42,159
GOODMAN, JOEL W.....	STRUCTURE OF IMMUNOLOGIC DETERMINANTS OF PROTEINS.....	5R01 AI05664-17	192,979
GOSPODAROWICZ, DENIS J.....	REGENERATION OF CORNEAL EPITHELIUM AND ENDOTHELIUM.....	5R01 EY02186-03	81,054
GOSPODAROWICZ, DENIS J.....	CORNEAL ENDOTHELIA TRANSPLANT: CLINICAL IMPLICATION.....	5R01 EY02930-02	31,017
GOSPODAROWICZ, DENIS J.....	CONTROL OF OVARIAN CELL PROLIFERATION.....	2R01 HD11082-04	92,772
GOSPODAROWICZ, DENIS J.....	MAINTENANCE AND REPAIR OF VASCULAR ENDOTHELIUM.....	2R01 HL20197-04	116,393
GOSPODAROWICZ, DENIS J.....	REGULATION OF CHOLESTEROL IN VASCULAR ENDOTHELIUM.....	5R01 HL23678-02	103,081
GREENE, PATRICIA J.....	SEQUENCE-SPECIFIC DNA-PROTEIN INTERACTIONS.....	5R01 GM25729-03	56,422
GREENSPAN, JOHN S.....	LYMPHOCYTE FUNCTION IN RECURRENT APHTHOUS ULCERATION.....	5R01 DE04736-03	69,907
GRODSKY, GEROLD M.....	INSULIN AND GLUCAGON SYNTHESIS AND SECRETION IN VITRO.....	5R01 AM01410-22	158,602
GRODSKY, GEROLD M.....	CHINESE HAMSTER PROGRAM PROJECT.....	5P01 AM21933-03	706,822
GRUMBACH, MELVIN M.....	HORMONAL EFFECTS ON GROWTH AND MATURATION.....	5R01 HD02335-15	169,713
GUTHRIE, CHRISTINE.....	BIOSYNTHESIS OF TRANSFER RNAs.....	2R01 GM21119-07	114,864
HAASE, ASHLEY T.....	SYNTHESIS OF VISNA VIRUS NUCLEIC ACIDS.....	5R01 NS11782-06	78,778
HALL, JOAN M.....	THE NATURE AND SEQUENCE OF OCULAR IMMUNE RESPONSE.....	2R01 EY01182-06	89,586
HALL, ZACH W.....	POSTSYNAPTIC PROTEINS AT THE NEUROMUSCULAR JUNCTION.....	2R01 NS13521-05	86,829
HALL, ZACH W.....	FUNCTION AND DEVELOPMENT OF THE SYNAPSE.....	1P01 NS16033-01	410,736
HAMILTON, WILLIAM K.....	ANESTHESIA RESEARCH CENTER.....	5P50 GM15571-12	750,290
HAVEL, RICHARD J.....	SUPPORT FOR ARTERIOSCLEROSIS CENTER.....	5P50 HL14237-09	1,077,624
HAVEL, RICHARD J.....	HUMAN TRIGLYCERIDE TRANSPORT AND HDL NUTRITIONAL EFFECTS.....	3R01 HL24696-01S1	2,759
HAVEL, RICHARD J.....	HUMAN TRIGLYCERIDE TRANSPORT AND HDL NUTRITIONAL EFFECTS.....	5R01 HL24696-02	136,445
HEDGPETH, JOE.....	PROTEIN SECRETION STUDIES WITH PLASMID-CLONED GENES.....	1R01 GM27472-01	56,137
HENDERSON, SIMON R.....	STRUCTURE AND FUNCTION OF RAT HYPOTHALAMIC HOMOGRAFTS.....	5R01 AM25474-02	66,767
HEUSER, JOHN E.....	THE STRUCTURAL BASIS OF NEUROSECRETION.....	5R01 NS11979-06	85,196
HINMAN, FRANK, JR.....	FUNCTION AND DEFENSES OF URETHRAL EPITHELIUM.....	5R01 AM10045-14	61,578
HOENER, BETTY A.....	DISPOSITION OF NITROFURANTOIN IN MAN.....	1R01 GM27122-01	28,959
HOFF, JULIAN T.....	INTRACRANIAL PRESSURE GRADIENTS AND BRAIN EDEMA.....	1R01 NS16504-01	49,589
HOFFMAN, JULIEN I.....	PROGRAM PROJECT: MYOCARDIAL ISCHEMIA.....	1P01 HL25847-01	546,112
HOLFORD, NICHOLAS H.....	CLINICAL PHARMACODYNAMICS—DIGOXIN AND QUINIDINE.....	1R01 GM28072-01	74,800
HOLLENBERG, MILTON.....	REGULATION OF MYOCARDIAL CELL GROWTH.....	5R01 HL22664-03	58,336
HOLLIDAY, MALCOLM A.....	METABOLIC HORMONE CONTROL OF A MUSCLE MASS IN UREMIA.....	1R01 AM25204-01A1	98,926
HONDEGHEM, LUC M.....	ANTIARRHYTHMIC DRUG ACTION ON VMAX OF CARDIAC CELLS.....	5R01 HL21672-03	63,997
HOROWITZ, MARDI J.....	THE IMPACT OF STRESS ON CORONARY HEART DISEASE.....	5R01 HL17580-06	51,102
HOSKINS, H DUNBAR, JR.....	CONGENITAL GLAUCOMA: CLASSIFICATION, ETIOLOGY, THERAPY.....	5R01 EY01559-05	57,831
HOWES, EDWARD L, JR.....	PATHOGENESIS OF ALTERED OCULAR VASCULAR PERMEABILITY.....	2R01 EY00056-11	82,309
HUMPHREYS, MICHAEL H.....	CIRCULATORY HEMODYNAMICS AND SODIUM EXCRETION.....	5R01 HL22482-03	50,276
HUNT, C ANTHONY.....	LIPOSOMES AS IN VIVO DRUG/THIOPURINE NUCLEOTIDES PRODRUG.....	5R01 GM24612-03	31,474
HUNT, C ANTHONY.....	LASER LIGHT SCATTERING PHOTOMETER.....	5P41 GM27492-02	9,836
HUNT, THOMAS K.....	A STUDY OF WOUND HEALING AND WOUND INFECTION.....	1P50 GM27345-01	411,714
JAFFE, ROBERT B.....	REGULATION OF THE HUMAN HYPOTHALAMIC-PITUITARY SYSTEM.....	5R01 HD08035-06	93,551
JAFFE, ROBERT B.....	PRIMATE ENDOCRINE REGULATION IN THE PERINATAL PERIOD.....	5R01 HD08478-06	129,527

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
JAFFE, ROBERT B.....	REPRODUCTIVE ENDOCRINOLOGY CENTER CORE FACILITIES.....	5P30 HD11979-02	289,263
JAMES, THOMAS L.....	NMR T1 RHO STUDIES OF MOTIONS IN PROTEINS & MEMBRANES.....	5R01 GM25018-03	47,447
JAMES, THOMAS L.....	WIDE-BORE, SUPERCONDUCTING NMR SPECTROSCOPY FACILITY.....	5P41 GM27387-02	19,650
JAN, LILY K.....	GENETIC STUDIES OF THE SYNAPSE.....	1R01 NS15963-01	80,841
JAN, YUH N.....	SLOW POTENTIALS IN AUTONOMIC GANGLIA.....	1R01 NS15757-01	69,283
JAWETZ, ERNEST.....	VIRAL KERATOCONJUNCTIVITIS AND RELATED DISORDERS.....	5R01 EY00186-26	148,709
JEWETT, DON L.....	STIMULI OF INCREASING FREQUENCY IN IMPAIRED NERVE.....	1R01 NS16100-01	116,312
JOHNSON, KENNETH P.....	MULTIPLE SCLEROSIS AND VIRAL INFECTIONS OF THE CNS.....	5P50 NS14069-03	371,296
JONES, ALBERT L.....	SUBCELLULAR STUDY OF BILE SECRETION.....	5R01 AM25878-02	81,899
JORGENSEN, EUGENE C.....	THYROID HORMONE ANALOGS.....	5R01 AM17576-06	82,930
JORGENSEN, EUGENE C.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05453-18	107,604
KALTREIDER, H BENFER.....	IMMUNE FUNCTIONS OF THE LUNG.....	2R01 AI12296-06	76,063
KAMIN, ROBERTA M.....	IMMUNE INTERFERONS: PRODUCTION AND ROLE IN IMMUNITY.....	5R01 CA25035-03	73,888
KAN, YUET W.....	ABNORMAL HEMOGLOBIN SYNTHESIS—MECHANISM & DETECTION.....	5R01 AM16666-08	178,790
KASLOW, HARVEY R.....	REGULATION OF GLYCOGEN SYNTHASE BY PHOSPHORYLATION.....	1R23 AM27307-01	48,288
KATZUNG, BERTRAM G.....	DEPOLARIZATION INDUCED CARDIAC AUTOMATICITY.....	5R01 HL17452-06	64,366
KAYSSEN, GEORGE A.....	ALBUMIN SYNTHESIS IN UREMIC AND IN NEPHROTIC RATS.....	5R01 AM25350-02	59,656
KELLY, AMY S.....	DEVELOPMENT OF ANIMAL CENTRAL VISUAL SYSTEM.....	1R01 NS16702-01	112,937
KELLY, REGIS B.....	PROTEINS OF THE MAMMALIAN VISUAL SYSTEM.....	5R01 EY02306-03	64,722
KELLY, REGIS B.....	BIOCHEMISTRY OF SYNAPTIC TRANSMISSION.....	5R01 NS09878-10	95,261
KELLY, REGIS B.....	ANTIBODIES TO SYNAPTIC VESICLES.....	1R01 NS15927-01	61,067
KENYON, GEORGE L.....	ACTIVE SITES OF CREATINE KINASE FROM HEART AND MUSCLE.....	5R01 AM17323-08	82,776
KIDD, PARRIS M.....	HEART DEVELOPMENT IN INHERITED CARDIOMYOPATHY.....	5R23 HL22959-03	39,439
KIM, YOUNG S.....	INTESTINAL PEPTIDE HYDROLASES AND PEPTIDE TRANSPORT.....	2R01 AM17938-07	95,695
KIM, YOUNG S.....	STUDY OF GLYCOCONJUGATES IN COLONIC NEOPLASIA.....	5R26 CA14905-08	150,194
KIM, YOUNG S.....	CELL SURFACE GLYCOCONJUGATES IN PANCREATIC CANCER.....	5R26 CA24321-03	64,625
KIRSCHNER, MARC W.....	BIOCHEMICAL STUDIES OF MITOSIS.....	5R01 GM26875-02	98,999
KOLLMAN, PETER A.....	THEORETICAL STUDIES OF DRUG-NUCLEIC ACID INTERACTIONS.....	1R01 CA25644-01A1	46,007
KORENBROT, JUAN I.....	RHODOPSIN AND LIGHT-TRANSDUCTION IN ROD PHOTORECEPTORS.....	5R01 EY1586-06	81,468
KORNBERG, THOMAS B.....	IN VITRO RECONSTRUCTION OF GENE EXPRESSION.....	5R01 GM25581-03	60,024
KRAMER, STEVEN C.....	VISION RESEARCH CENTER (CORE FACILITIES).....	5P30 EY02162-03	211,656
KREVANS, JULIUS R.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00079-18	1,093,119
KREVANS, JULIUS R.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00083-18	727,684
KREVANS, JULIUS R.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05355-19	203,787
KUHN, ROBERT W.....	STRUCTURE AND FUNCTION OF STEROID-BINDING PROTEINS.....	5R01 HD10328-05	84,458
KUN, ERNEST.....	ENZYMOLGY OF GLUTATHIONE-CARBOXYLIC ACID THIOESTERS.....	5R01 GM20552-05	59,931
KUNTZ, IRWIN D, JR.....	HYDRATION OF MACROMOLECULES.....	5R01 GM19267-09	49,166
LA VAIL, JENNIFER H.....	RETROGRADE AXONAL TRANSPORT IN THE VISUAL SYSTEM.....	5R01 NS13533-05	94,166
LA VAIL, MATTHEW M.....	CELLULAR MECHANISMS OF INHERITED RETINAL DEGENERATION.....	5R01 EY01919-05	149,626
LANGRIDGE, ROBERT.....	SPECIAL RESEARCH RESOURCE FOR BIOMOLECULAR GRAPHICS.....	2P41 RR1081-03A1	296,953
LAYZER, ROBERT B.....	CARNITINE PARMITYLTRANSFERASE DEFICIENCY.....	1R01 NS15712-01	37,627
LEAKE-JONES, PATRICIA A.....	MORPHOLOGY AND CONNECTIONS OF THE SPIRAL GANGLION.....	1R01 NS16361-01	56,406
LEEPER, HAROLD F.....	INTRACELLULAR RECORDING FROM MAMMALIAN PHOTORECEPTORS.....	5R01 EY02962-02	37,301
LEVY, JAY A.....	C-TYPE VIRUSES IN AUTOIMMUNE DISEASE AND NEOPLASIA.....	5R01 CA13086-09	145,731
LEWIS, FRANK R, JR.....	LUNG WATER AND PULMONARY CAPILLARY PERMEABILITY.....	1R01 GM27229-01	76,657
LEWIS, GEORGE K.....	T-INDEPENDENT ANTIBODY RESPONSE REGULATION BY T-CELLS.....	1R01 AI17090-01	82,466
LI, CHOH H.....	PITUITARY LACTOGENIC AND GONADOTROPIC HORMONES.....	5R01 AM06097-27	118,452
LI, CHOH H.....	HCS(HPL), HGH AND RELATED PROTEINS.....	5R01 AM18677-05	83,044
LI, CHOH H.....	ACTH AND RELATED PEPTIDES.....	5R01 GM02907-29	126,769
LIBET, BENJAMIN.....	SYNAPTIC TRANSMISSION IN AUTONOMIC GANGLIA.....	5R01 NS00884-24	109,073
LIE-INJO, LUAN E.....	SEVERAL ASPECTS OF ABNORMAL RED BLOOD CELL METABOLISM.....	3R01 AM21571-02S1	3,326
LIE-INJO, LUAN E.....	SEVERAL ASPECTS OF ABNORMAL RED BLOOD CELL METABOLISM.....	5R01 AM21571-03	72,401
LIPTON, MARTIN J.....	EVALUATING THROMBOSIS WITH RADIOINCIUM PLATELETS.....	5R01 HL23414-02	81,004
LUDWIG, DANA W.....	COMPUTER AIDED MEDICAL DIAGNOSIS PROJECT.....	3R23 LM03709-01S1	36,287
MARGULIS, ALEXANDER R.....	DIAGNOSTIC RADIOLOGY METHOD DEVELOPMENT RESEARCH.....	2P01 GM21017-07	255,800
MARTIAL, JOSEPH A.....	PURIFICATION AND REGULATION OF THE PROLACTIN GENE.....	5R01 GM25549-03	106,169
MARTIN, DAVID W, JR.....	STUDIES IN GENETIC REGULATION OF PURINE METABOLISM.....	5R01 AM20428-03	123,495
MARTON, LAURENCE J.....	POLYAMINES, POLYAMINE ANTIMETABOLITES AND CELL GROWTH.....	5R01 CA15515-06	45,205
MAYERI, EARL.....	LOCAL HORMONAL COMMUNICATION BETWEEN NEURONS.....	1R01 NS16490-01	144,413
MC CARTHY, BRIAN J.....	COLLAGEN GENES: STRUCTURE AND EXPRESSION.....	5R01 AM25157-02	101,812
MC CARTHY, BRIAN J.....	PUFFING AND RNA SYNTHESIS IN DROSOPHILA CHROMOSOMES.....	5R01 GM25584-03	55,740

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MC CLAIN, CAROL L.....	DECISION-MAKING IN ALTERNATIVE CHILDBIRTH STRATEGIES.....	5R01 HD12858-02	73,301
MC DONAGH, ANTONY F.....	BILIRUBIN AND PHOTOBILIRUBIN/METABOLISM AND EXCRETION.....	1R01 AM26307-01	130,156
MC KENDALL, ROBERT R.....	HOST DEFENSES IN HERPESVIRUS DISEASES OF THE CNS.....	5R23 AI14564-03	35,910
MC SHERRY, ELISABETH.....	GROWTH, ACIDOSIS & RENAL DISORDER IN TYPE 1 RTA.....	5R01 AM21771-03	71,429
MENTZER, WILLIAM C, JR.....	NORTHERN CALIFORNIA SICKLE CELL CENTER.....	5P60 HL20985-03	1,010,938
MERZENICH, MICHAEL M.....	FUNCTIONAL ORGANIZATION OF THE AUDITORY SYSTEM.....	5R01 NS10414-09	73,418
MERZENICH, MICHAEL M.....	DEVELOPMENT OF AN ACOUSTIC PROSTHESIS.....	3R01 NS11804-06S1	25,819
MERZENICH, MICHAEL M.....	DEVELOPMENT OF AN ACOUSTIC PROSTHESIS.....	5R01 NS11804-07	272,295
MEYER, RICH B, JR.....	SPECIFIC INHIBITORS OF PURINE NUCLEOTIDE SYNTHESIS.....	5R01 CA23559-02	2,616
MEYER, RICH B, JR.....	MECHANISM PROBES FOR NUCLEOTIDE BIOSYNTHETIC ENZYMES.....	1R01 GM27281-01	49,683
MILLER, ARTHUR J.....	MUSCULAR DISORDERS IN CRANIOFACIAL MALFORMATIONS.....	5R01 DE04940-03	105,967
MILLER, ARTHUR J.....	ASPECTS OF POSTNATAL DEVELOPMENT WITHIN THE BRAIN STEM.....	5R01 HD09841-06	27,183
MILLER, CAROL L.....	ANALYSIS OF IMMUNE STATUS OF TRAUMA & SURGICAL PATIENTS.....	5R01 GM25896-02	61,668
MILLER, CAROL L.....	EFFECT OF THERMAL INJURY ON IMMUNOCOMPETENCE.....	5R01 GM26204-02	87,002
MILLER, MALCOLM R.....	INNERVATIONAL STUDIES OF AUDITORY PAPILLAE.....	5R01 NS11838-05	71,202
MILLER, RONALD D.....	PARALYSIS—ITS ANTAGONISM DURING SURGERY & ANESTHESIA.....	5R01 GM26403-02	39,823
MORALES, MANUEL F.....	FUNCTIONS IN CARDIAC AND SKELETAL MUSCLE.....	5P01 HL16683-06	626,544
MORRIS, R CURTIS, JR.....	DETERMINANTS OF 1,25-(OH) ₂ D ₃ PRODUCTION IN -D CHICKS.....	5R01 AM21354-03	131,706
NADEL, JAY A.....	NEUROHUMORAL CONTROL OF LUNGS AND AIRWAYS.....	5P01 HL24136-02	1,280,305
NARLA, MOHANDAS.....	RED CELL DEFORMABILITY IN VITRO AND SURVIVAL IN VIVO.....	1R01 AM26263-01A1	66,234
NICHOLS, BARBARA A.....	ROLE OF MONONUCLEAR PHAGOCYTES IN PATHOLOGIC STATES.....	5R01 AI11639-07	49,009
NICOLL, ROGER A.....	DENDRODENDRITIC INHIBITION: AN INTRACELLULAR STUDY.....	1R01 NS16485-01	84,058
O'CONNOR, G RICHARD.....	STUDY OF OCULAR TOXOPLASMOSIS.....	5R01 EY01204-07	164,923
O'CONNOR, G RICHARD.....	VISION RESEARCH CENTER (CORE).....	2P30 EY01597-06	54,033
O'DONNELL, JAMES J.....	ANIMAL MODELS OF RETINAL DEGENERATION IN VITRO.....	5R01 EY01786-05	83,435
O'DONNELL, JAMES J.....	STUDY GYRATE ATROPHY OF THE RETINA.....	5R01 EY02706-02	107,279
OCKNER, ROBERT K.....	LIPID METABOLISM IN INTESTINE AND LIVER.....	5R01 AM13328-11	144,492
OCKNER, ROBERT K.....	CONTROL OF HEPATIC FATTY ACID UPTAKE AND METABOLISM.....	1R01 AM26593-01A1	80,914
OH, JANG O.....	RECURRENT HERPES SIMPLEX UVEITIS.....	2R01 EY00964-06	106,304
OH, JANG O.....	EYE INFECTIONS BY TYPE 2 HERPES SIMPLEX VIRUS.....	5R01 EY01578-05	91,833
OIE, SVEIN.....	DRUG DISPOSITION IN RENAL FAILURE PATIENTS.....	5R01 GM25807-02	56,274
OIE, SVEIN.....	DISPOSITION AND ABSORPTION IN DISEASE STATES.....	1R01 GM28423-01	91,025
OPPENHEIMER, NORMAN J.....	MECHANISM OF BLEOMYCIN.....	5R01 CA26272-02	34,516
OPPENHEIMER, NORMAN J.....	STRUCTURE-FUNCTION RELATIONS IN PYRIDINE COENZYMES.....	5R01 GM22982-05	52,976
ORTIZ DE MONTELLANO, PAUL R.....	SELECTIVE DESTRUCTION OF CYTOCHROME P450 BY DRUGS.....	5R01 GM25515-03	67,245
ORTIZ DE MONTELLANO, PAUL R.....	MECHANISM AND CONTROL OF STEROL BIOSYNTHESIS.....	2R01 HL15476-07	75,917
OSTLER, H BRUCE.....	DIAGNOSIS OF BACTERIAL ENDOPHTHALMITIS.....	5R01 EY01922-04	87,699
OWEN, ROBERT L.....	STRUCTURE AND FUNCTION OF PEYER'S PATCH EPITHELIUM.....	5R01 AM21969-02	126,467
OWENS, ELMER.....	REHABILITATIVE PROCEDURES FOR PROFOUND HEARING LOSS.....	5R01 NS12998-05	67,048
PACKMAN, SEYMOUR.....	REGULATION OF INTRACELLULAR PLP ENZYME TURNOVER.....	5R01 AM25884-02	17,471
PACKMAN, SEYMOUR.....	COPPER METABOLISM IN THE MOTTLED MOUSE.....	1R01 GM28838-01	98,395
PAPAHADJOPOULOS, DEMETRIOS.....	PHOSPHOLIPID-PROTEIN INTERACTIONS AND MEMBRANE FUNCTION.....	5R01 GM26369-03	76,021
PAPAHADJOPOULOS, DEMETRIOS.....	MECHANISM OF MEMBRANE FUSION.....	1R01 GM28117-01	71,943
PAPKOFF, HAROLD.....	PREGNANT MARE SERUM GONADOTROPIN.....	5R01 HD05722-08	73,913
PARER, JULIAN T.....	FETAL CARDIORESPIRATORY RESPONSES TO ASPHYXIA.....	1R01 HD13764-01A1	135,030
PARK, ROBERT.....	PATHOPHYSIOLOGY AND TREATMENT OF LACTIC ACIDOSIS.....	2R01 AM18350-07	65,649
PAVONE, BEN W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05305-19	31,780
PENG, CHIN-TZU.....	NEW METHODS OF PREPARING RADIOPHARMACEUTICALS.....	5R01 GM26987-02	54,353
PERMAN, JAY A.....	CARBOHYDRATE ABSORPTION IN NEONATES: BREATH ANALYSIS.....	5R01 HD12449-02	63,898
PETRAKIS, NICHOLAS L.....	GENETIC EPIDEMIOLOGY & NATURAL HISTORY OF BREAST CANCER.....	2P01 CA13556-09	572,014
PHILLIPS, THEODORE L.....	THE THERAPEUTIC RATIO AND EXPERIMENTAL RADIOTHERAPY.....	5R01 CA17227-06	197,538
PHILLIPS, THEODORE L.....	EXPERIMENTAL COMBINED RADIOTHERAPY-CHEMOTHERAPY.....	5R01 CA20529-05	284,189
POLANSKY, JON R.....	TRABECULAR MESHWORK CELL CULTURE.....	5R01 EY02477-02	103,932
RAGHUPATHY, EASWARAN.....	SYNAPTOSOMAL AMINO ACID TRANSPORT—ROLE OF LIPIDS.....	5R01 NS15659-02	25,470
RALSTON, HENRY J, III.....	SYNAPTIC ORGANIZATION IN SPINAL CORD AND THALAMUS.....	5R01 NS11614-07	99,372
RAMACHANDRAN, JANAKIRAMAN.....	PITUITARY HORMONES IN NORMAL AND NEOPLASTIC GROWTH.....	5R01 CA16417-06	99,339
RAMSAY, DAVID J.....	THIRST AND ITS CONTRIBUTION TO EDEMA.....	2R01 HL18862-04	120,871
RAPPOPORT, BASIL.....	THYROID STIMULATORS IN HEALTH AND DISEASE.....	5R01 AM19289-05	94,228
RECTOR, FLOYD C, JR.....	RENAL REGULATION OF NaCl, WATER, AND ACID-BASE BALANCE.....	1R01 AM27045-01	222,957
RICHARDSON, CHARLES A.....	BRAIN STEM RESPIRATORY PATTERN GENERATORS.....	1R23 HL26176-01	39,293
RIEGLERMAN, SIDNEY.....	INTERSUBJECT VARIATION IN FIRST PASS EFFECT OF DRUGS.....	5R01 GM26556-02	94,987

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
RILEY, DANNY A.....	DEVELOPMENT OF SKELETAL MUSCLE MOTOR INNERVATION.....	1R01 NS15839-01	49,603
RODRIGO, JUAN J.....	KNEE JOINT ALLOGRAFTS.....	1R01 AM26560-01	58,126
ROSEN, STEVEN D.....	CELL SURFACE LECTINS AND INTERCELLULAR ADHESION.....	2R01 GM23547-04	79,040
ROSENAU, WERNER.....	T LYMPHOCYTES AND LYMPHOTOXIN IN TUMOR IMMUNITY.....	3R01 CA07191-16	128,096
ROTHMAN, STEPHEN S.....	SECRETION OF PROTEINS AND IONS BY THE PANCREAS.....	2R01 AM16990-07	140,526
ROTHMAN, STEPHEN S.....	FUNCTIONAL DYNAMICS OF THE PANCREATIC ZYMOGEN GRANULE.....	5R01 AM25664-02	73,170
RUDOLPH, ABRAHAM M.....	DEVELOPMENTAL CONSIDERATIONS IN CIRCULATORY FAILURE.....	1R01 HL23681-01A1	122,918
RUDOLPH, ABRAHAM M.....	CARDIOVASCULAR RESPONSES TO STRESS DURING DEVELOPMENT.....	1P01 HL24056-01	867,757
RUTTER, WILLIAM J.....	DIFFERENTIATION IN THE ENDOCRINE AND EXOCRINE PANCREAS.....	5R01 AM21344-04	146,308
RYNING, FRANK W.....	CMV INFECTION AND PULMONARY DEFENSE MECHANISMS.....	5R23 AI15194-03	39,209
SANTI, DANIEL V.....	CHEMOTHERAPY WITH INHIBITORS OF PROTEIN SYNTHESIS.....	5R01 CA14266-08	96,755
SANTI, DANIEL V.....	THYMIDYLATE SYNTHETASE AND RELATED ENZYMES.....	5R01 CA14394-08	95,568
SCHACHTER, JULIUS.....	OCULAR ZOONOSIS: THE CHLAMYDIAL INFECTION.....	5R01 EY01205-05	92,052
SCHACHTER, JULIUS.....	INCLUSION CONJUNCTIVITIS OF THE NEWBORN.....	5R01 EY02216-03	104,626
SCHACHTER, JULIUS.....	HUMAN INFERTILITY: CHLAMYDIAL ROLE ASSESSED IN VITRO.....	5R01 HD12271-03	67,855
SCHAMBELAN, MORRIS.....	RENIN, ANGIOTENSIN, STEROIDS, IONS AND BLOOD PRESSURE.....	5R01 HL11046-14	98,487
SCHARSCHMIDT, BRUCE F.....	MECHANISMS OF CANALICULAR BILE FORMATION.....	1R01 AM26270-01	44,178
SCHENMAN, MELVIN M.....	PROSPECTIVE BUNDLE BRANCH BLOCK STUDY.....	5R01 HL20238-04	77,107
SCHILLER, NELSON B.....	NONINVASIVE DETECTION OF DIABETIC HEART DISEASE.....	1R01 AM28121-01	134,449
SCHILLER, NELSON B.....	CARDIAC VOLUME BY BIPLANE ECHOCARDIOGRAPHY.....	5R23 HL22787-03	35,706
SCHMID, RUDI.....	STUDIES OF BILE PIGMENT METABOLISM.....	5R01 AM11275-15	243,237
SCHMID, RUDI.....	LIVER CORE CENTER.....	1P30 AM26743-01	583,498
SCHMUCKER, DOUGLAS L.....	AGING EFFECTS ON HEPATIC STRUCTURE AND FUNCTION.....	2R01 AG00357-04	71,358
SEBASTIAN, ANTHONY.....	PATHOPHYSIOLOGY OF RENAL TUBULAR ACIDOSIS.....	5R01 AM21605-02	110,018
SEDAT, JOHN W.....	A STUDY OF EUKARYOTIC INTERPHASE CHROMOSOMES.....	5R01 GM25101-03	63,189
SHAFFER, RICHARD H.....	VISCOELASTIC ANALYSIS OF BRAIN AND TUMOR DNA.....	5R01 CA19658-05	43,888
SHAFFER, RICHARD H.....	EXPERIMENTAL STUDIES OF DRUG-NUCLEIC ACID INTERACTIONS.....	1R01 CA27343-01A1	93,588
SHAH, SHANTILAL N.....	REGULATION OF CHOLESTEROL METABOLISM IN BRAIN.....	2R01 NS11670-07	47,208
SHAH, SHANTILAL N.....	MYELINATION DEFECT-LIPID METABOLISM & EEG ABNORMALITY.....	5R01 NS14938-02	54,332
SHEINER, LEWIS B.....	NEW WAYS TO INVESTIGATE AND FORECAST PHARMACOKINETICS.....	5R01 GM26676-02	111,968
SHETLAR, MARTIN D.....	PHOTOINDUCED DNA-PROTEIN CROSS-LINKING IN CHROMATIN.....	2R01 GM23526-04	68,493
SHILLITOE, EDWARD J.....	HERPES VIRUS ANTIBODIES IN PATIENTS WITH ORAL CANCER.....	1R01 DE05330-01	72,467
SHIPP, THOMAS F.....	SEQUENTIAL NEUROMECHANICAL EVENTS TO INITIATE VOICE.....	3R01 NS14729-02S1	13,189
SHIPP, THOMAS F.....	SEQUENTIAL NEUROMECHANICAL EVENTS TO INITIATE VOICE.....	5R01 NS14729-03	32,793
SHOHET, STEPHEN B.....	MEMBRANE LIPID AND PROTEIN METABOLISM IN BLOOD CELLS.....	5R01 AM16095-09	111,725
SHOHET, STEPHEN B.....	SPECTRIN'S ROLE IN BLOOD CELL SHAPE AND DEFORMABILITY.....	5R01 AM23077-02	43,003
SHUMAN, MARC A.....	BLOOD CLOTTING KINETICS STUDIED BY RADIOIMMUNOASSAY.....	3R01 HL21403-03S2	4,533
SEIGEL, ROBERT C.....	PATHOGENESIS OF GENETIC COLLAGEN DISEASE.....	5R01 AM21897-02	62,695
SITERI, PENTTI K.....	SEX HORMONES, CANCER AND THE IMMUNE SYSTEM.....	9R01 CA27702-07	180,321
SITERI, PENTTI K.....	PROGESTERONE AND PREGNANCY MAINTENANCE.....	5R01 HD12949-02	76,008
SILVERMAN, SOL, JR.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA17914-06	51,599
SIMPSON, PAUL C, JR.....	MYOCARDIAL CELLS IN CULTURE AS A MODEL FOR ISCHEMIA.....	5R01 HL23155-02	67,704
SIPERSTEIN, MARVIN D.....	CHOLESTEROL METABOLISM IN NORMAL AND MALIGNANT LIVER.....	5R01 CA15979-07	167,813
SMITH, WILLIAM M.....	SYSTOLIC HYPERTENSION IN THE ELDERLY.....	1R01 HL23919-01A1	410,419
SMOLIN, GILBERT.....	ALTERATIONS OF CORNEAL IMMUNOLOGIC REACTIONS.....	3R01 EY01121-07S1	3,930
SMUCKLER, EDWARD A.....	CYTOCHEMICAL STUDIES IN LIVER INJURY.....	5R01 AM19843-05	97,705
SMUCKLER, EDWARD A.....	PATHOLOGY OF CHEMICAL CARCINOGENESIS.....	5R01 CA21141-04	153,408
STAUB, NORMAN C.....	PATHOPHYSIOLOGY OF PULMONARY EDEMA.....	5P50 HL19155-04	372,013
STAUB, NORMAN C.....	FORCES REGULATING FLUID EXCHANGE IN THE LUNG.....	1R01 HL25548-01	118,479
STAUB, NORMAN C.....	PATHOPHYSIOLOGY OF LUNG WATER AND SOLUTE EXCHANGE.....	1P01 HL25816-01	577,682
STEINBERG, ROY H.....	PIGMENT EPITHELIUM INTERACTIONS WITH NEURAL RETINA.....	5R01 EY01429-07	146,308
STERN, ROBERT.....	THE FIBROTIC RESPONSE TO HUMAN BREAST CARCINOMA.....	1R01 CA25179-01A1	76,149
STERN, WALTER H.....	EXPERIMENTAL MASSIVE PERIRETINAL PROLIFERATION.....	1R01 EY03228-01	99,069
STITES, DANIEL P.....	STUDY OF FETO-PLACENTAL-MATERNAL INTERACTION.....	5R01 HD03939-12	68,486
STOBO, JOHN D.....	HETEROGENEITY OF THYMUS DERIVED LYMPHOCYTES.....	5R01 AI14104-03	67,574
STOECKENIUS, WALTHER.....	PHOTOENERGY TRANSDUCTION IN HALOBACTERIUM.....	3R01 GM23651-03S2	47,582
STOECKENIUS, WALTHER.....	LIGHT-ENERGY AND SIGNAL-TRANSDUCING MEMBRANES.....	1P01 GM27057-01	619,730
STREWLER, GORDON J.....	RENAL CYCLIC NUCLEOTIDE TRANSPORT AND HORMONE ACTION.....	1R01 AM27319-01	62,973
STROUD, ROBERT M.....	STRUCTURE AND FUNCTION OF PROTEINS AT MOLECULAR LEVEL.....	3R01 GM24485-03S1	5,681
STROUD, ROBERT M.....	STRUCTURE AND FUNCTION OF PROTEINS AT MOLECULAR LEVEL.....	5R01 GM24485-04	107,941
STRYKER, MICHAEL P.....	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM.....	5R01 EY02874-02	79,773

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SWEET, RICHARD L.....	NEISSERIA GONORRHOEAE IN ACUTE SALPINGITIS.....	5R01 AI16631-02	84,072
TABBARA, KHALID F.....	AUTOIMMUNE DISEASE AND THE EYE: SJOGREN'S SYNDROME.....	1R01 EY03436-01	74,111
TALAL, NORMAN.....	AUTOIMMUNITY AND SEX HORMONES IN TWO NEW MOUSE STRAINS.....	5R01 AI15550-02	39,440
TALAL, NORMAN.....	SIGNIFICANCE OF ANTINUCLEIC ACID ANTIBODIES IN LUPUS.....	5R01 AM16140-09	82,740
TALAL, NORMAN.....	IDIOTYPE-ANTI-IDIOTYPE IN MURINE AND HUMAN LUPUS.....	5R01 AM25310-02	53,505
TALCOTT, RONALD E.....	CARBOXYLESTERASES OF TOXICOLOGIC SIGNIFICANCE.....	7R01 ES02616-01	49,480
TANAGHO, EMIL A.....	LOWER URINARY TRACT FUNCTION.....	5R01 AM24009-02	40,958
THALER, M MICHAEL.....	DEVELOPMENTAL ASPECTS OF HEPATOBILIARY METABOLISM.....	5R01 HD03148-13	145,353
THALER, M MICHAEL.....	FETAL BILIARY MALFORMATIONS: INDUCTION AND PREVENTION.....	5R01 HD11645-03	65,236
THRASHER, TERRY N.....	CIRCUMVENTRICULAR ORGANS AND BODY FLUID REGULATION.....	1R23 HL24849-01	36,307
TOWNSEND, JEANNETTE J.....	CELLULAR PATHOGENESIS IN CNS HERPES SIMPLEX INFECTION.....	1R01 NS16469-01	67,108
TREVOR, ANTHONY J.....	PHARMACOLOGICAL PROPERTIES OF KETAMINE ENANTIOMORPHS.....	5R01 GM23918-03	46,240
TRUNKEY, DONALD D.....	TRAUMA CENTER RESEARCH PROGRAM.....	2P50 GM18470-09	492,644
TRUNKEY, DONALD D.....	INTRACELLULAR MEDIATORS DURING SEPTIC AND BURN SHOCK.....	5R01 GM25078-03	81,889
VALENZUELA, PABLO D.....	STRUCTURE AND TRANSCRIPTION OF RIBOSOMAL RNA GENES.....	5R01 GM25157-03	47,231
VARMUS, HAROLD E.....	MOLECULAR BIOLOGY OF MOUSE MAMMARY TUMOR VIRUS.....	5R01 CA19287-05	113,937
VESSEY, DONALD A.....	CHARACTERIZATION OF BILE ACID CONJUGATION.....	5R01 AM19212-05	58,103
WALLERSTEIN, ROBERT S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05755-07	109,752
WARNOCK, DAVID G.....	NA/ION REABSORPTION & H/ION SECRETION RENAL MECHANISMS.....	5R01 AM19407-05	35,010
WARNOCK, MARTHA L.....	ASBESTOS AND CANCER.....	3R01 ES02117-02S1	24,724
WARNOCK, MARTHA L.....	ASBESTOS AND CANCER.....	5R01 ES02117-03	92,279
WASKELL, LUCY A.....	METABOLISM OF INHALATION ANESTHETICS.....	1R23 GM27791-01	33,981
WATSON, JOHN A.....	EFFECTORS OF CHOLESTEROL SYNTHESIS.....	5R01 HL16294-06	52,345
WEBER, HANS J.....	ACTIVE SODIUM TRANSLLOCATION IN HALOBACTERIUM HALOBIIUM.....	1R01 GM28767-01	85,324
WEINER, RICHARD I.....	ROLE OF BRAIN MONOAMINES IN LH AND PROLACTIN RELEASE.....	5R01 HD08924-06	95,618
WHITING-O'KEEFE, QUINN E.....	METHOD TO MEASURE INFORMATION TRANSFER.....	1R01 LM03590-01	71,953
WIKMAN-COFFELT, JOAN.....	HYPERTROPHY FACTORS AND MYOCARDIAL ALTERATIONS.....	5R01 HL23518-02	32,022
WILLIAMS, JOHN A.....	REGULATION OF PANCREATIC ACINAR FUNCTION BY INSULIN.....	5R01 AM21089-03	79,464
WILLIAMS, JOHN A.....	ROLE OF CELL MEMBRANE IN HORMONE SECRETION AND ACTION.....	5R01 GM19998-07	84,283
WILSON, CHARLES B.....	PROGRAM FOR TREATMENT OF MALIGNANT BRAIN TUMORS.....	5P01 CA13525-08	888,559
WISNESKI, JUDITH A.....	METABOLIC REGULATION OF MYOCARDIAL OXYGEN CONSUMPTION.....	1R01 HL25625-01	82,563
WISSIG, STEVEN L.....	ULTRASTRUCTURAL STUDIES OF CAPILLARY PERMEABILITY.....	5R01 HL04512-21	75,432
WOLFF, MANFRED E.....	RECEPTORS WITH SITE SPECIFIC STEROIDS.....	5R01 AM14824-09	80,194
WONG-RILEY, MARGARET T.....	ORGANIZATION AND CONNECTIONS OF VISUAL CORTEX.....	2R01 NS12995-04A1	93,158
WONG-RILEY, MARGARET T.....	FUNCTIONALLY RELATED ENZYMATIC CHANGES IN ADULT CNS.....	1R01 NS16429-01	40,519
YAMAMOTO, KEITH R.....	GENE REGULATION BY STEROID RECEPTOR PROTEINS.....	2R01 CA20535-04	114,262
YANG, JEN T.....	OPTICAL ROTATORY POWER OF BIOPOLYMERS.....	5R01 GM10880-21	91,528
YANG, JEN T.....	STEREOCHEMICAL MECHANISM OF SICKLING OF HEMOGLOBIN S.....	5R01 HL18818-06	61,180
ZAKIM, DAVID.....	REGULATION OF GLUCURONYLTRANSFERASES.....	5R01 GM20316-05	36,776
ZIPPIN, CALVIN.....	CONFERENCES FOR PERSONNEL OF CANCER DATA PROGRAMS.....	5R13 CA23655-03	67,287
ORGANIZATION TOTAL	365	47,931,966	
UNIVERSITY OF THE PACIFIC ZIP CODE 94115			
HIGHSMITH, STEFAN.....	SEGMENTAL MOTION OF CA2 + /MG2 + -ATPASE IN SR VESICLES.....	5R01 AM25177-02	7,700
INESI, GIUSEPPE.....	CALCIUM ION AND CONTROL OF CARDIAC FUNCTION.....	5P01 HL16607-07	278,589
ROBERTS, W EUGENE.....	OSTEOCLAST ORIGIN AND HISTOGENESIS IN PERIODONTIUM.....	5R01 DE05136-02	57,839
RYGE, GUNNAR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05301-12	31,491
ORGANIZATION TOTAL	4	375,619	
SAN JOSE			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN JOSE STATE UNIVERSITY ZIP CODE 95192			
HICKS, ROBERT A.....	MINORITY BIOMEDICAL SUPPORT.....	1S06 RR08192-01	291,001
ORGANIZATION TOTAL	1	291,001	
SANTA CLARA VALLEY MEDICAL CENTER ZIP CODE 95128			
GATHMAN, GARY E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05768-02	36,772
HOTSON, JOHN R.....	SUPRANUCLEAR CONTROL OF FIXATION EYE MOVEMENTS.....	1R01 EY03387-01	43,133
MILES, LAUGHTON E.....	CHRONOBIOLOGICAL DISORDERS IN BLIND PEOPLE.....	5R01 EY02614-03	88,795
O'REILLY, ROBERT A.....	ANALYTIC DEVELOPMENT OF PHARMACOKINETIC TOOLS.....	5R01 GM22860-05	124,943

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
O'REILLY, ROBERT A	METABOLISM OF COUMARIN ANTICOAGULANT DRUGS IN MAN	5R01 HL08058-16	74,937
RABKIN, RALPH	THE KIDNEY AND INSULIN	2R01 AM25313-03A1	111,835
SACKS, ALVIN H.	MICROCIRCULATORY CHANGES FROM ALTERED BLOOD RHEOLOGY	5R01 HL24266-02	86,907
ORGANIZATION TOTAL	7 567,322		
SANTA BARBARA			
SANTA BARBARA BOTANIC GARDEN ZIP CODE 93105			
WALTERS, MARTA S.	MEIOSIS: A REVISED SEQUENCE OF EVENTS IN PROPHASE	5R01 GM19272-07	43,578
ORGANIZATION TOTAL	1 43,578		
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA ZIP CODE 93106			
ANDERSON, DON H.	RELATIONSHIP OF MAMMALIAN CONES TO PIGMENT EPITHELIUM	5R01 EY02082-04	66,196
BREWER, MARILYNN B.	AGE RELATED STEREOTYPES	1R01 AG01503-01	28,979
BRUCE, THOMAS C.	BIOCHEMICAL MECHANISMS—ENZYMES, CANCER AND MODELS	5R01 AM09171-17	183,073
CARBON, JOHN A.	GENE ORGANIZATION AND EXPRESSION	5R01 CA11034-12	185,275
FARRELL, KEVIN W.	CONTROL OF MICROTUBULE PROPERTIES AND FUNCTIONS	5R01 GM26732-02	43,683
FISHER, STEVEN K.	THE DEVELOPING AND ADULT VISUAL SYSTEM	2R01 EY00888-09	87,966
FLEURET, ANNE K.	ECOLOGICAL ASSESSMENT OF NUTRITIONAL STATUS IN TAITA	1R01 HD13575-01	77,268
FOLINSBEE, L J.	VENTILATION AND VOLUNTARY CONTROL OF BREATHING PATTERN	1R01 HL26034-01	78,100
GERIG, JOHN T.	STRUCTURAL STUDIES OF PROTEINS BY FLUORINE NMR	5R01 GM25975-02	74,933
GERIG, JOHN T.	STRUCTURAL STUDIES OF ENZYME-POLYMER CONJUGATES	5R01 GM26469-02	37,760
HOOKE, THOMAS M, JR.	CONFORMATIONS OF BIOLOGICALLY IMPORTANT MOLECULES	5R01 GM18092-08	51,057
HUBBARD, ARTHUR T.	ELECTROANALYSIS OF CENTRAL MONOAMINE NEURONS	3R01 NS13556-04S1	20,374
HUBBARD, ARTHUR T.	ELECTROANALYSIS OF CENTRAL MONOAMINE NEURONS	5R01 NS13556-05	61,552
JACOBS, GERALD H.	CONE-DOMINATED AND ROD-DOMINATED VISUAL SYSTEMS	5R01 EY00105-11	76,665
JACOBS, GERALD H.	WITHIN-SPECIES VARIATIONS IN VISUAL CAPACITY	5R01 EY02052-04	63,261
LARIS, PHILIP C.	EXTRINSIC FLUORESCENCE AND MEMBRANE POTENTIALS	5R01 CA119234-07	58,312
LEE, NANCY L.	GENETIC CONTROL OF PROTEIN SYNTHESIS IN E. COLI	5R01 GM14652-14	72,412
LIPSHUTZ, BRUCE H.	NOVEL APPROACHES TO THE CYCLOPEPTIDE ALKALOIDS	1R01 GM28128-01	53,750
LOOMIS, JACK M.	FACTORS LIMITING THE TACTILE PERCEPTION OF FORM	5R01 NS15129-02	24,097
MORSE, DANIEL E.	GENETIC REGULATION BY CYCLIC AMP IN TETRAHYMENA	5R01 GM25652-03	60,201
ORIAS, EDUARDO	CONDITIONAL LETHAL MUTANTS OF TETRAHYMENA	5R01 GM19290-09	89,911
ORIAS, EDUARDO	GENETIC DISSECTION OF PHAGOCYTOSIS IN TETRAHYMENA	5R01 GM21067-06	58,725
ORIAS, EDUARDO	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07099-14	106,424
PARSONS, STANLEY M.	METABOLIC REGULATION OF ATP PHOSPHORIBOSYLTRANSFERASE	5R01 GM23031-05	45,163
PARSONS, STANLEY M.	TRANSPORT ENZYMES IN SYNAPTIC VESICLES	1R01 NS15047-01A2	77,440
PURICH, DANIEL L.	PHOSPHOTRANSFERASE CATALYSIS AND REGULATION	5R01 GM24039-04	44,407
PURICH, DANIEL L.	MOLECULAR MECHANISMS OF MICROTUBULE INTERACTIONS	5R01 GM24958-02	48,880
REED, STEVEN I.	THE CONTROL OF CELL DIVISION IN YEAST	1R01 GM28005-01	83,534
SAMUEL, CHARLES E.	MECHANISM OF INTERFERON ACTION	5R01 AI12520-06	59,558
SEARS, DUANE W.	STRUCTURES OF HISTOCOMPATIBILITY-2 MEMBRANE ANTIGENS	5R01 CA24433-03	58,147
WAGNER, JEAMES A.	CARDIOVASCULAR ADJUSTMENTS TO COLD EXPOSURE	5R01 AG01030-02	77,942
WILSON, LESLIE	DRUG INTERACTIONS WITH BRAIN MICROTUBULE PROTEINS	5R01 NS13560-05	101,114
ORGANIZATION TOTAL	32 2,256,159		
SANTA CRUZ			
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064			
BERGER, RALPH J.	THERMOREGULATION DURING SLEEP & TORPOR IN MAMMALS	5R01 GM23694-05	78,518
DANIEL, CHARLES W.	AGING OF MOUSE MAMMARY CELLS	5R01 AG01050-02	77,743
DAVIS, WILLIAM J.	NEURAL BASIS OF BEHAVIORAL HIERARCHIES AND PLASTICITY	2R01 NS09050-10	147,798
DRATZ, EDWARD A.	THE STRUCTURE OF RHODOPSIN AND THE ROD DISK MEMBRANE	5R01 EY00175-11	74,408
DRATZ, EDWARD A.	ANTIOXIDANTS AND RETINA-PIGMENT EPITHELIUM FUNCTION	5R01 EY01521-06	94,072
FELDMAN, JERRY F.	GENETIC ANALYSIS OF BIOLOGICAL CLOCK MECHANISMS	5R01 GM22144-06	75,065
FINK, ANTHONY L.	ENZYME-CATALYZED REACTIONS AT SUBZERO TEMPERATURES	5R01 GM20555-06	54,284
KLIGER, DAVID S.	INVESTIGATION OF THE BLEACHING STAGES OF RHODOPSIN	2R01 EY00983-08	54,143
MC MURRY, JOHN E.	TOTAL SYNTHESIS OF CARDIAC AGLYCONES	5R01 HL18118-06	37,286
NOLLER, HARRY F, JR.	RIBOSOME STRUCTURE AND FUNCTION	3R01 GM17129-09S1	10,561
NOLLER, HARRY F, JR.	RIBOSOME STRUCTURE AND FUNCTION	2R01 GM17129-10	120,075

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
NOLLER, HARRY F, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07135-10	78,540
ORTIZ, CHARLES L.....	UPTAKE AND RECYCLING OF TRANSMITTER BY NEURONS AND GLIA.....	1R01 NS16362-01	11,105
POODRY, CLIFTON A.....	GENETIC CONTROL OF DEVELOPMENT, USING DROSOPHILA.....	2R01 GM20401-07A1	94,538
ROCHA, VICTOR.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08132-06	304,664
SCHLEICH, THOMAS W.....	MECHANISMS OF RNA-PROTEIN INTERACTIONS.....	5R01 GM23951-03	83,511
TALAMANTES, FRANK J, JR.....	NEONATAL HORMONE EXPOSURE AND MAMMARY TUMORIGENESIS.....	1R01 CA28393-01	136,647
WANG, HOWARD H.....	FUNCTIONALLY SIGNIFICANT BINDING OF LOCAL ANESTHETICS.....	1R01 GM28087-01	52,599
WIPKE, W TODD.....	RESOURCE-RELATED RESEARCH: BIOMOLECULAR SYNTHESIS.....	3R24 RR01059-03S1	21,286
ORGANIZATION TOTAL	19	1,606,843	
SANTA MONICA			
RAND CORPORATION ZIP CODE 90406			
KING, WILLIAM S.....	MATHEMATICAL MODELS FOR STUDYING SICKLE-CELL DISEASE.....	5R01 HL16580-06	90,866
MC CARTHY, KEVIN F.....	CHANGING GEOGRAPHIC DISTRIBUTION OF THE ELDERLY.....	1R01 AG01767-01	86,976
WILLIAMS, ALBERT P, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05710-10	69,024
ORGANIZATION TOTAL	3	246,866	
SEPULVEDA			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 91343			
PIKO, LAJOS.....	GENE EXPRESSION IN EARLY MOUSE DEVELOPMENT.....	5R01 CA24989-02	55,835
ORGANIZATION TOTAL	1	55,835	
STANFORD			
STANFORD UNIVERSITY ZIP CODE 94305			
AGRAS, W STEWART.....	RELAXATION TRAINING IN ESSENTIAL HYPERTENSION.....	5R01 HL23667-02	118,179
ANDERSEN, HANS C.....	COMPUTER SIMULATION OF AQUEOUS SOLUTIONS.....	5R01 GM26626-02	70,276
ANDERSON, MALCOLM F.....	HEPATIC HEMODYNAMICS IN PORTAL HYPERTENSION.....	5R01 HL24517-02	72,967
ANGELL, JAMES B.....	RESOURCE FOR SILICON BIOMEDICAL TRANSDUCERS.....	5P41 RR01086-04	242,282
BALDWIN, ROBERT L.....	PHYSICAL STUDIES OF NUCLEIC ACIDS AND PROTEINS.....	5R01 GM19988-20	144,133
BAYLOR, DENIS A.....	NEURAL SIGNALLING IN THE RETINA.....	5R01 EY01543-07	134,122
BERG, PAUL.....	BASIC MECHANISMS IN VIRAL CARCINOGENESIS.....	5R01 CA15513-07	112,418
BERG, PAUL.....	MECHANISMS AND REGULATION OF GENE EXPRESSION.....	2R01 GM13235-16	280,385
BERNFELD, MERTON R.....	PROTEOGLYCANS AND BASAL LAMINA STRUCTURE AND FUNCTION.....	1R01 CA28735-01	143,282
BERNFELD, MERTON R.....	EXTRACELLULAR MATERIALS AND EMBRYONIC ORGAN FORMATION.....	5R01 HD06763-09	163,317
BIENENSTOCK, ARTHUR I.....	A SYNCHROTRON RADIATION BIOTECHNOLOGY RESOURCE.....	1P41 RR01209-01	600,808
BLASCHKE, TERRENCE F.....	COMPARATIVE DRUG METABOLISM: EFFECTS OF AGING IN MAN.....	5R01 AG01340-02	110,354
BLASCHKE, TERRENCE F.....	KINETICS OF DRUG-DRUG AND DRUG-DISEASE INTERACTIONS.....	5R01 GM22209-06	88,048
BLAU, HELEN M.....	MUSCLE DIFFERENTIATION IN HETEROKARYONS.....	5R01 GM26717-02	66,888
BLECK, EUGENE E.....	POSTURAL MECHANISMS IN IDIOPATHIC SCOLIOSIS.....	5R01 AM26021-02	76,839
BLUM, ROBERT L.....	INTEGRATING MEDICAL KNOWLEDGE AND CLINICAL DATA BANKS.....	5R23 LM03370-02	52,234
BOXER, STEVEN G.....	BIOMOLECULAR STRUCTURE/DYNAMICS—NUCLEAR POLARIZATION.....	1R01 GM27738-01	51,126
BRISTOW, MICHAEL R.....	ALTERATIONS IN IONIZED CALCIUM IN CARDIAC DISEASE.....	5R23 HL23832-02	47,425
BRITT, RICHARD H.....	INTRACELLULAR STUDY OF COCHLEAR NUCLEUS.....	1R01 NS15860-01	72,231
BROWN, J MARTIN.....	EXPERIMENTAL RADIOTHERAPY: BASIS AND MODIFICATION.....	5R01 CA15201-07	189,154
BRUTLAG, DOUGLAS L.....	ORGANIZATION OF PERICENTRIC HETEROCHROMATIN.....	5R01 GM21498-06	109,661
BRUTLAG, DOUGLAS L.....	TOPOISOMERASES FOLD AND SEGREGATE CHROMOSOMES.....	1R01 GM28079-01	115,648
CAMPBELL, ALLAN M.....	GENETICS OF LAMBDA PROPHAGE—BIOTIN OPERON.....	5R01 AI08573-13	129,807
CAVALLI-SFORZA, LUIGI L.....	HUMAN POPULATION GENETICS.....	5R01 GM20467-08	214,933
CAVALLI-SFORZA, LUIGI L.....	GENETICS RESEARCH PROJECT.....	1P01 GM28428-01	463,617
CHOW, KAO L.....	NEUROLOGY OF VISION AND LEARNING.....	5R01 EY00691-20	81,005
CLAYTON, DAVID A.....	MITOCHONDRIAL GENE EXPRESSION IN MALIGNANT CELLS.....	5R01 CA12312-10	134,957
COHEN, STANLEY N.....	GENETIC CONTROL OF NONCHROMOSOMAL DRUG RESISTANCE.....	5R01 AI08619-13	199,363
COHEN, STANLEY N.....	REPLICATION AND TRANSFER OF BACTERIAL PLASMIDS.....	5R01 GM26355-02	147,839
COHEN, STANLEY N.....	GENE EXPRESSION IN HETEROSEXUAL ENVIRONMENTS.....	1R01 GM27241-01	185,066
COLEMAN, C NORMAN.....	UNIVERSITY ONCOLOGY PROGRAM.....	5R10 CA25862-02	149,582
COLLMAN, JAMES P.....	MODELS FOR CYTOCHROME P450 HYDROXYLASES.....	5R01 GM17880-10	113,093
COOPER, ALLEN D.....	REGULATION OF HEPATIC CHOLESTEROL SYNTHESIS.....	5R01 AM18774-06	100,021

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
COOPER, ALLEN D.	CHOLESTEROL BIOSYNTHESIS AND ITS CONTROL IN LIVER	5R01 HL05360-21	99,360
CROWLEY, LAWRENCE G.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00070-18	587,241
CROWLEY, LAWRENCE G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05353-19	189,787
CUTLER, ROBERT W.	MECHANISMS OF NEUROTRANSMITTER RELEASE	2R01 NS12079-07	83,111
DAVID, PAUL A.	CONTRACEPTIVE TECHNOLOGY AND FAMILY LIMITING BEHAVIOR	5R01 HD10724-03	88,519
DAVIDSON, JULIAN M.	ENDOCRINE FACTORS AND SEXUALITY IN AGING	5R01 AG01437-02	140,278
DAVIS, RONALD W.	CELL REGULATION: BIOCHEMICALLY ISOLATED DNA SEGMENTS	5R01 GM21891-06	141,242
DE BUSK, ROBERT F.	OBJECTIVE EVALUATION EARLY AFTER MI AND HEART SURGERY	5R01 HL18907-05	308,573
DEMENT, WILLIAM C.	DAYTIME ALERTNESS IN THE AGED: NOCTURNAL DETERMINANTS	5R01 AG01435-02	51,767
DEMENT, WILLIAM C.	AN INDISPENSABLE RESOURCE FOR THE STUDY OF NARCOLEPSY	1R01 NS15184-01A1	67,428
DJERASSI, CARL	MASS SPECTROMETRY IN ORGANIC AND BIOCHEMISTRY	3R01 AM04257-19S1	39,413
DJERASSI, CARL	MARINE CHEMISTRY WITH SPECIAL EMPHASIS ON STEROIDS	5R01 GM06840-22	219,046
DJERASSI, CARL	MAGNETIC CIRCULAR DICHROISM—PORPHYRINS/HEME PROTEINS	5R01 GM20276-07	85,915
DJERASSI, CARL	MASS SPECTROMETRY IN ORGANIC AND BIOCHEMISTRY	9R01 GM28352-20	277,780
DJERASSI, CARL	RESOURCE-RELATED RESEARCH—COMPUTERS AND CHEMISTRY	3R24 RR00612-10S1	158,198
DJERASSI, CARL	RESOURCE-RELATED RESEARCH—COMPUTERS AND CHEMISTRY	2R24 RR00612-11	320,289
DONIAH, SEBASTIAN	X-RAY SPECTROSCOPY OF CA 2 PLUS IONS—BIOLOGICAL SYSTEM	5R01 GM25217-03	60,797
ELIASON, JOSEPH A.	ISOLATION OF CORNEAL EPITHELIAL ANGIOGENIC FACTORS	7R23 EY03770-01	46,686
ENG, LAWRENCE F.	CENTRAL NERVOUS SYSTEM MEMBRANES AND ACIDIC PROTEINS	5R01 NS11632-06	82,963
ENGLEMAN, EDGAR G.	HLA RESTRICTED SUPPRESSOR T CELLS OF MIXED LYMPHOCYTES	5R01 CA24607-02	103,583
ENZMANN, DIETER R.	STAGING OF BRAIN ABSCESS USING COMPUTED TOMOGRAPHY	1R01 NS16404-01	96,769
FARBER, EUGENE M.	THIRD INTERNATIONAL SYMPOSIUM ON PSORIASIS (1981)	1R13 AM27124-01	5,000
FARQUHAR, JOHN W.	STANFORD FIVE CITY MULTIFACTOR RISK REDUCTION STUDY	5R01 HL21906-03	2,265,738
FEE, WILLARD E. JR.	FATE OF CAROTID ARTERY AFTER RADIOACTIVE IMPLANTS	1R01 CA27254-01	123,275
FEE, WILLARD E. JR.	AMINOGLYCOSIDE OTOTOXICITY DETERMINANTS	5R01 NS14596-03	45,323
FEIGENBAUM, EDWARD A.	RESEARCH PROGRAM: BIOMEDICAL KNOWLEDGE REPRESENTATION	5P01 LM03395-02	155,486
FEIGENBAUM, EDWARD A.	MEDICAL EXPERIMENTAL COMPUTER RESOURCE (SUMEX)	5P41 RR00785-08	900,445
FELDMAN, DAVID	STEROID RECEPTORS AND FUNCTIONS IN BONE CELLS	2R01 AM19675-04	86,336
FELDMAN, DAVID	THE ROLE OF RECEPTORS IN GLUCOCORTICOID ACTION	9R01 GM28825-07	89,679
FELDMAN, MARCUS W.	POPULATION GENETICS THEORY	1R01 GM20816-01	75,052
FLAVELL, JOHN H.	MEMORY DEVELOPMENT	5R01 HD10429-04	75,678
FRIEDBERG, ERROL C.	DNA REPAIR AND ITS RELATIONSHIP TO CARCINOGENESIS	5R01 CA12428-10	125,734
FRIES, JAMES F.	A NATIONAL ARTHRITIS DATA RESOURCE (ARAMIS)	5R18 AM21393-06	316,923
FUHRMAN, FREDERICK A.	SPASMOLYTIC COMPOUNDS FROM MARINE MOLLUSKS	2R01 HL22201-03	56,272
FUHRMAN, FREDERICK A.	NEW MARINE SOURCES OF CARDIOVASCULAR AGENTS	1R01 HL25771-01	70,873
GANESAN, ADAYAPALAM T.	DNA SYNTHESIS AND GENETIC RECOMBINATION IN B. SUBTILIS	2R01 GM14108-15	114,263
GANESAN, ANN K.	DNA REPAIR IN ESCHERICHIA COLI AND BACILLUS SUBTILIS	2R01 GM19010-09	104,986
GETTING, PETER A.	ANALYSIS OF INTERNEURONS AND MOTONEURONS	5R01 NS14517-03	11,261
GLADER, BERTIL E.	PATHOPHYSIOLOGY OF HEMOLYSIS: RBC HYDRATION DISORDERS	5R01 AM20879-03	59,472
GOODWIN, DAVID A.	BIFUNCTIONAL CHELATES IN CANCER IMAGING AND THERAPY	1R01 CA28343-01	115,416
GRAY, GARY M.	CARBOHYDRATE DIGESTION BY THE INTESTINE	5R01 AM11270-14	86,350
GRAY, GARY M.	ROLE IN DIGESTION OF SMALL INTESTINAL OLIGOPEPTIDASES	5R01 AM15802-08	158,864
GREGORY, PETER B.	UPPER GI BLEEDING—DIAGNOSIS AND TREATMENT	5R01 AM19976-02	126,101
GRUMET, FRANK C.	HLA ANTIGENS: POLYMORPHISMS AND APPLICATIONS	5R01 HL21662-03	78,113
HAHN, GEORGE M.	MODIFICATION OF RADIATION RESPONSE IN VITRO	5R01 CA04542-22	155,064
HAHN, GEORGE M.	TUMOR RADIOCHEMOTHERAPY: EFFECTS OF ULTRASOUND AND HEAT	3R01 CA19386-03S1	56,741
HAHN, GEORGE M.	TUMOR RADIOCHEMOTHERAPY: EFFECTS OF ULTRASOUND AND HEAT	2R01 CA19386-04	215,879
HALL, DENNIS A.	HORMONAL EFFECTS ON TRANSPORT BY THE THICK LIMB	2R01 AM21911-03	58,932
HANAWALT, PHILIP C.	GROWTH AND DNA REPAIR IN AGING HUMAN KERATINOCYTES	5R01 AG02006-02	85,124
HANAWALT, PHILIP C.	REPLICATION AND REPAIR OF GENETIC MATERIAL	5R01 GM09901-19	113,995
HANAWALT, PHILIP C.	DNA REPAIR IN ESCHERICHIA COLI AND BACILLUS SUBTILIS	3R01 GM19010-08S1	45,065
HANCE, ALLAN J.	O2 DEPENDENT BIOSYNTHESIS—RESPONSE TO O2 DEPLETION	5R23 HL22383-03	37,298
HARELL, GEORGE S.	COMPARISON OF MICROSPHERE AND RBC BEHAVIOR IN VIVO	3R01 HL20943-03S1	19,183
HARRISON, DONALD C.	CLINICAL ANTIARRHYTHMIC AND PHARMACODYNAMIC STUDIES	3R01 HL21221-03S1	13,920
HARRISON, DONALD C.	CLINICAL APPLICATION OF MAGNETOMETRY IN HEART DISEASE	5R01 HL23184-02	98,327
HELLER, H CRAIG	CNS REGULATION OF BODY TEMPERATURE	5R01 NS10367-09	71,727
HELLER, H CRAIG	THERMOREGULATION DURING SLEEP AND TORPOR	5R01 NS16317-02	41,445
HERZENBERG, LEONARD A.	IMMUNOGLOBULINS: GENETICS AND REGULATION	5R01 AI08917-16	115,571
HERZENBERG, LEONARD A.	GENETIC STUDIES WITH MAMMALIAN CELLS	5R01 CA04681-22	296,153
HERZENBERG, LEONARD A.	CLINICAL AND BIOLOGICAL USES OF AUTOMATED CELL SORTING	5R01 GM17367-11	635,182
HERZENBERG, LEONARD A.	SHARED FLUORESCENCE ACTIVATED CELL SORTER	5P41 GM27457-02	19,628

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
HERZENBERG, LEONARD A.	FETAL-MATERNAL IMMUNOLOGICAL INTERACTIONS.	5R01 HD01287-18	135,542
HERZENBERG, LEONARD A.	FETAL CELLS FROM MATERNAL BLOOD.	5R01 HD13025-02	105,507
HILBERMAN, MARK	ACUTE RENAL FAILURE FOLLOWING CARDIAC SURGERY.	5R01 HL21210-03	95,246
HINTZ, RAYMOND L.	GROWTH HORMONE AND SOMATOMEDIN IN DIABETES MELLITUS.	5R01 AM21058-03	99,055
HINTZ, RAYMOND L.	PLASMA SOMATOMEDIN METABOLISM AND ACTIONS.	5R01 AM24085-02	86,573
HODGSON, KEITH O.	STRUCTURE OF TUMOR REGULATORY PROTEINS.	5R01 CA16748-06	77,892
HOGNESS, DAVID S.	THE ARRANGEMENT OF INFORMATION IN ANIMAL CHROMOSOMES.	5R01 GM20158-08	179,450
HOLMAN, HALSTED R.	MULTIPURPOSE ARTHRITIS CENTER.	2P60 AM20610-04	376,774
HOLTZMAN, SHERMAN D.	PATHOGENESIS OF LEAD ENCEPHALOPATHY OF THE RAT PUP.	1R01 ES02571-01	98,917
HOLTZMAN, SHERMAN D.	HYPERTHERMIC SEIZURES.	1R01 NS16256-01	76,155
HUESTIS, WRAY H.	NMR STUDIES OF HEME-GLOBIN INTERACTIONS.	5R01 HL23505-02	42,484
HUESTIS, WRAY H.	VESICLE-MEDIATED MEMBRANE PROTEIN TRANSFER.	5R01 HL23787-02	49,179
HUMPHRIES, GILLIAN M.	IMMUNE RESPONSES TO MEMBRANES: PHYSICO-CHEMICAL STUDIES.	5R23 AI14813-03	47,381
JAMISON, REX L.	MICROPUNCTURE STUDIES OF THE MAMMALIAN RENAL MEDULLA.	5R01 AM18077-10	169,355
JARDETZKY, OLEG.	NMR STUDY OF THE LAC-REPRESSOR PROTEIN.	5R01 GM18098-10	112,077
JARDETZKY, OLEG.	HIGH FREQUENCY NMR BIOTECHNOLOGY RESOURCE.	5P41 RR00711-08	225,160
JOHNSON, WILLIAM S.	STEROID AND TERPENOID SYNTHESIS AND RELATED STUDIES.	2R01 AM03787-21	135,727
JOHNSON, WILLIAM S.	CONTROL OF BIOMIMETIC POLYENE CYCLIZATIONS.	5R01 HL24604-02	135,674
JONES, PATRICIA P.	GENETICS, STRUCTURE AND EXPRESSION OF IA ANTIGENS.	5R01 AI15732-02	86,867
KAISER, A DALE.	CONTROL OF MULTICELLULAR DEVELOPMENT IN MYXOBACTERIA.	2R01 GM23441-04	103,334
KALLMAN, ROBERT F.	EXPERIMENTAL RADIOTHERAPY—CELLULAR RESPONSES IN VIVO.	5R01 CA03353-23	178,470
KALLMAN, ROBERT F.	COMBINED MODALITIES: CELL, TUMOR AND TISSUE EFFECTS.	5R01 CA25990-02	230,644
KAPLAN, ERNEST N.	PERINEURAL TUBULIZATION WITH TENOPEPTIDE-POOR COLLAGEN.	2R01 NS14165-03	43,733
KAPLAN, HENRY S.	BIOLOGICAL ASPECTS OF CARCINOGENESIS BY RADIATION.	5R01 CA03352-24	305,484
KAPLAN, HENRY S.	CLINICAL CANCER RESEARCH CENTER PROGRAM.	2P01 CA05838-19	2,263,923
KAPLAN, HENRY S.	C57BL MOUSE RETROVIRUSES: MOLECULAR CHARACTERIZATION.	5R01 CA25619-02	86,150
KARASEK, MARVIN A.	METABOLIC CONTROL OF EPIDERMAL CELL GROWTH.	5R01 AM14121-11	101,191
KARASEK, MARVIN A.	BIOCHEMISTRY OF SKIN BLOOD VESSEL GROWTH.	5R01 AM19595-04	131,990
KARLIN, SAMUEL.	STOCHASTIC MODELS IN MEDICINE AND BIOLOGY.	5R01 GM10452-17	158,687
KEDES, LAURENCE H.	EMBRYONIC CHROMOSOMAL PROTEINS AND THEIR RNA TEMPLATES.	5R01 GM17995-08	93,062
KEDES, LAURENCE H.	HISTONE GENE TRANSCRIPTION IN EMBRYONIC DEVELOPMENT.	5R01 GM24118-04	47,828
KENDIG, JOAN J.	MECHANISM OF LOCAL ANESTHETIC CONDUCTION BLOCK.	2R01 GM22113-04A1	82,049
KENDIG, JOAN J.	EXCITABLE CELL FUNCTION AT HYPERBARIC PRESSURES.	5R01 NS13108-05	64,089
KNUDSEN, ERIC I.	ANALYSIS OF SPACE BY THE AUDITORY SYSTEM.	1R01 NS16099-01	132,636
KORN, DAVID.	DNA POLYMERASES IN NORMAL AND NEOPLASTIC HUMAN CELLS.	5R01 CA14835-08	171,553
KORNBERG, ARTHUR.	MECHANISM AND CONTROL OF DNA REPLICATION.	3R01 GM07581-19S1	30,020
KORNBERG, ARTHUR.	MECHANISM AND CONTROL OF DNA REPLICATION.	5R01 GM07581-20	339,511
KORNBERG, ROGER D.	RELATION OF HISTONES TO DNA IN NORMAL AND CANCER CELLS.	2R01 CA24546-03	74,795
KORNBERG, ROGER D.	CHROMOSOME STRUCTURE AND DYNAMICS.	5R01 GM25772-02	83,657
KRISS, JOSEPH P.	LONG-ACTING THYROID STIMULATOR.	5R01 AM07642-17	118,091
KRISS, JOSEPH P.	CELL-MEDIATED CYTOTOXICITY IN GRAVES' OPHTHALMOPATHY.	5R01 EY03065-02	81,509
LEHMAN, I ROBERT.	DNA REPLICATION IN PRO- AND EUKARYOTES.	5R01 GM06196-22	252,636
LEVINE, SEYMOUR.	DEVELOPMENTAL AND BEHAVIORAL NEUROENDOCRINOLOGY.	2P01 HD02881-14	253,215
LEVY, RONALD.	ANTITUMOR ANTIBODIES GENERATED IN VITRO.	2R01 CA21223-04	107,985
LUCAS, ZOLTAN J.	FACTORS NEGATING RESPONSE TO MAMMARY ADENOCARCINOMA.	5R01 CA24725-02	126,901
LUETSCHER, JOHN A, JR.	SECRETION AND EFFECTS OF ADRENAL HORMONES.	2R01 HL13917-21A1	92,807
LUETSCHER, JOHN A, JR.	BIG RENIN: BIOCHEMICAL AND CLINICAL STUDIES.	2R01 HL17364-06	102,719
MACCOBY, ELEANOR E.	BASIC PROCESSES IN COGNITIVE AND SOCIAL DEVELOPMENT.	2P01 HD09814-06	371,008
MAMELOK, RICHARD D.	PURIFICATION OF THE PAH TRANSPORTER FROM RENAL CORTEX.	1R01 AM27212-01	104,123
MANSOUR, TAG E.	REGULATORY ENZYMES IN PARASITIC HELMINTHS.	1R01 AI16501-01	111,322
MANSOUR, TAG E.	HEART PHOSPHOFRUCTOKINASE—REGULATION AND STRUCTURE.	2R01 HL17976-20A1	104,416
MARMOR, MICHAEL F.	INTERACTION BETWEEN RETINA AND PIGMENT EPITHELIUM.	5R01 EY01678-06	66,740
MAURICE, DAVID M.	CONTROL OF CORNEAL HYDRATION.	5R01 EY00431-12	292,156
MAURICE, DAVID M.	CORNEAL NEUROBIOLOGY.	2R01 EY02108-04	145,744
MAZZE, RICHARD I.	NEPHROTOXICITY OF FLUORINATED ANESTHETICS.	5R01 GM22746-05	69,442
MC CALLUM, W DESMOND.	ULTRASONIC MEASUREMENT OF FETAL VOLUME AND WEIGHT.	5R01 HD12327-02	81,212
MC CONNELL, HARDEN M.	IMMUNOLOGY AND BIOPHYSICS OF RECONSTITUTED MEMBRANES.	2R01 AI13587-05	176,806
MC CULLEY, JAMES P.	MEIBOMIAN KERATOCONJUNCTIVITIS.	5R01 EY02302-03	23,128
MC DEVITT, HUGH O.	GENETIC CONTROL OF THE IMMUNE RESPONSE.	5R01 AI07757-14	338,196
MC DEVITT, HUGH O.	HUMORAL, CELLULAR & GENETIC MECHANISMS IN AUTOIMMUNITY.	5P01 AI11313-08	430,640
MC DEVITT, HUGH O.	TWO-DIMENSIONAL ANALYSIS OF HLA-D ANTIGENS.	1R01 AM26908-01	102,956

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
MC DEVITT, HUGH O	DEVELOPMENTAL ANALYSIS OF THE MURINE T/T ALLELE MUTANTS	5R01 HD09410-06	138,231
MC MAHAN, UEL J, II	STRUCTURE AND FUNCTION OF REGENERATING SYNAPSES	5R01 NS14506-04	167,089
MEINDL, JAMES D	BME CENTER FOR INTEGRATED ELECTRONICS IN MEDICINE	5P50 GM17940-11	1,272,745
MEINDL, JAMES D	SYMPOSIUM: NEW OPPORTUNITIES IN BIOMEDICAL RESEARCH	1R13 GM28756-01	12,540
MELMON, KENNETH L	CONJUGATED VASOACTIVE AGENTS AS A NEW CLASS OF DRUGS	1R01 HL26340-01	359,299
MERIGAN, THOMAS C	INTERFERON, IMMUNITY AND LATENT VIRUSES	5R01 AI05629-18	194,445
MERIGAN, THOMAS C	EFFECT OF INTERFERON THERAPY ON NONHODGKIN'S LYMPHOMA	3R01 CA16857-04S1	333,341
MILLER, RUPERT G, JR	ADAPTATION OF NEW STATISTICAL IDEAS FOR MEDICINE	2R01 GM21215-06	110,864
MOSHER, HARRY S	CHIRAL HYDRIDE TRANSFER AGENTS	5R01 GM19554-07	55,623
MOSHER, HARRY S	SYNTHETIC TETRODOTOXIN ANALOGS	5R01 NS14345-03	70,657
NICHOLLS, JOHN G	INTEGRATION AND REGENERATION OF THE NERVOUS SYSTEM	2R01 NS11544-08	169,253
NORTHWAY, WILLIAM H, JR	PULMONARY OXYGEN TOXICITY IN THE NEWBORN LUNG	5R01 HL14663-09	105,665
PAFFENBARGER, RALPH S, JR	PSYCHOSOCIAL FACTORS IN STUDENTS PREDICTIVE OF CANCER	3R01 CA24255-02S1	19,703
PAFFENBARGER, RALPH S, JR	EARLY PREDICTORS OF SITE-SPECIFIC CANCERS	5R01 CA25264-02	113,169
PAFFENBARGER, RALPH S, JR	LIFE STYLE AND CHRONIC DISEASE IN COLLEGE ALUMNI	5R01 HL24133-02	214,921
PAYNE, ROSE O	LEUKOCYTE ANTIGENS AND ANTIBODIES	5R01 AI14438-23	147,298
PECORA, ROBERT	DYNAMIC LIGHT SCATTERING FROM BIOLOGICAL SYSTEMS	5R01 GM22517-05	52,765
PERKEL, DONALD H	STOCHASTIC MODELS OF NEURAL SYSTEMS	5R01 NS09744-11	78,537
PERKEL, DONALD H	FUNCTIONAL PROPERTIES OF LOCAL-CIRCUIT NEURONS	1R01 NS16451-01	55,302
PERKINS, DAVID D	GENETICS OF NEUROSPORA	5R01 AI01462-25	168,732
PITTEDRIGH, COLIN S	CIRCADIAN RHYTHMS: PROPERTIES OF A COMPLEX PACEMAKER	1R01 GM28803-01	87,761
PITTEDRIGH, COLIN S	ORIGINS AND CONSEQUENCES OF LATERAL ASYMMETRIES	5R01 NS15597-02	69,996
PIZIALI, ROBERT L	THE MECHANICS OF HUMAN BONE AND LONG BONES	1R01 GM28827-01	79,399
POPP, RICHARD L	ABNORMAL CARDIAC WALL MOTION VIEWED ULTRASONICALLY	5R01 HL21278-03	76,739
POPP, RICHARD L	PULMONARY ARTERY PRESSURE MEASUREMENT	1R01 HL25898-01	194,026
PRINCE, DAVID A	CELLULAR MECHANISMS IN FOCAL EPILEPTOGENESIS	5R01 NS06477-15	79,194
PRINCE, DAVID A	EPILEPSY RESEARCH PROGRAM	2P50 NS12151-06	409,861
QUATE, CALVIN F	ACOUSTIC MICROSCOPY FOR BIOMEDICAL INVESTIGATIONS	5R01 GM25826-02	110,892
RANSOM, BRUCE R	MAMMALIAN NEURONS AND GLIA IN VITRO	5R01 NS15589-02	28,159
REAVEN, GERALD M	ENDOCRINOLOGY OF AGING	5P01 AG01312-02	297,753
REAVEN, GERALD M	LIPIDEMIA—CARBOHYDRATE AND GLYCERIDE METABOLISM	5R01 HL08506-17	128,131
REAVEN, GERALD M	VLDL-TG METABOLISM IN DIABETES MELLITUS	5R01 HL20397-05	170,724
RINGOLD, GORDON M	MOLECULAR BIOLOGY OF STEROID HORMONE ACTION	5R01 GM25821-02	88,677
ROBERTSON, CHANNING R	STUDIES OF RENAL WATER AND SOLUTE TRANSPORT	2R01 AM18910-07A1	108,087
ROBIN, EUGENE D	LUNG CELL FUNCTION IN HEALTH AND DISEASE	5R01 HL23701-11	144,734
ROBINSON, WILLIAM S	THE VIRUS OF HUMAN HEPATITIS B	5R01 AI13526-05	210,742
ROSENBERG, LEON T	ANTIBODY AGAINST IRON CHELATORS TO CONTROL INFECTION	1R01 AI16602-01	92,680
ROSENBERG, SAUL A	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA21555-04	229,887
ROTHMAN, JAMES E	'INTRACELLULAR' TRANSPORT IN CELL-FREE EXTRACTS	1R01 AM27044-01	133,978
ROTHMAN, JAMES E	MECHANISM OF ASSEMBLY OF A VIRAL MEMBRANE	5R01 GM25662-03	90,605
RUBINSTEIN, LUCIEN J	DIFFERENTIATION AND STROMA-INDUCTION IN NEURAL TUMORS	2R01 CA11689-09	134,167
RUDD, PETER	PATIENT LABELING AFTER HYPERTENSIVE SCREENING	1R01 HL25070-01	152,315
SCHIMKE, ROBERT T	MOLECULAR MECHANISM IN RESISTANCE TO FOLATE ANALOGUES	2R01 CA16318-06	203,446
SCHIMKE, ROBERT T	ENZYME SYNTHESIS AND DEGRADATION IN METABOLIC CONTROL	5R01 GM14931-15	49,828
SCHRIER, STANLEY L	METABOLISM OF ERYTHROCYTE STROMA	5R01 AM13682-21	112,782
SCHURMAN, DAVID J	IMMUNOSUPPRESSIVE IRRADIATION AND RHEUMATOID ARTHRITIS	5R01 AM25128-02	86,005
SCHURMAN, DAVID J	INFECTIOUS ARTHRITIS AND CARTILAGE DESTRUCTION	1R01 AM26833-01	103,457
SCHWARTZ, HERBERT C	DEVELOPMENTAL CHANGES IN INFANTS OF DIABETIC MOTHERS	5R01 AM25603-03	87,405
SEARS, ROBERT R	AGING OUTCOMES IN A 55-YEAR LONGITUDINAL STUDY	3R01 AG01015-02S1	23,898
SEARS, ROBERT R	AGING OUTCOMES IN A 55-YEAR LONGITUDINAL STUDY	5R01 AG01015-03	53,214
SHARPLESS, K BARRY	ASYMMETRIC OXIDATION OF ORGANIC COMPOUNDS	5R01 GM24551-03	73,746
SHATZ, CARLA J	PRE AND POSTNATAL DEVELOPMENT OF VISUAL CONNECTIONS	5R01 EY02858-02	84,876
SHOOTER, ERIC M	THE BIOSYNTHESIS OF EPIDERMAL GROWTH FACTOR	5R01 AM25434-02	51,032
SHOOTER, ERIC M	NERVE GROWTH FACTOR IN NEURONAL DEVELOPMENT	5R01 NS04270-18	159,852
SHUMWAY, NORMAN E	ORTHOTOPIC HEART TRANSPLANTATION	5R01 HL08696-17	303,641
SIMMONS, F BLAIR	DEVELOPMENT OF A COCHLEAR PROSTHESIS	5R01 NS10532-08	209,805
SIMONI, ROBERT D	MEMBRANE FUNCTION AND CELLULAR ENERGETICS	5R01 GM18539-10	109,850
SIMONI, ROBERT D	REGULATION OF CHOLESTEROL METABOLISM	5R01 HL18219-06	79,934
SMITH, KENDRIC C	REPAIR OF RADIATION-INDUCED LESIONS IN DNA	5R01 CA02896-24	116,438
SMITH, KENDRIC C	MOLECULAR BASIS OF RADIATION LETHALITY	5R01 CA06437-19	88,320
SMITH, MARION E	BIOSYNTHESIS OF LIPIDS IN EXPERIMENTAL DEMYELINATION	2R01 NS02785-21	89,296

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
SPUDICH, JAMES A.	PROTEINS IN CELL MOVEMENTS AND CHANGES OF CELL SHAPE	5R01 GM25240-04	164,465
SPUDICH, JAMES A.	ACTIN ASSEMBLY BEFORE AND AFTER FERTILIZATION	1R01 GM27510-01	93,967
STANSKI, DONALD R.	INTRAVENOUS ANESTHETICS IN SURGICAL PATIENTS	1R23 GM28032-01	47,829
STARK, GEORGE R.	ASPECTS OF CONTROL IN MAMMALIAN GENE EXPRESSION	5R01 CA17287-06	247,413
STARK, GEORGE R.	EFFECTS OF L-ASPARTATE-RELATED ANTITUMOR DRUGS ON CELLS	5R01 CA20870-04	76,687
STEELE, CHARLES R.	MECHANICS OF THE ORGAN OF CORTI	5R01 NS12086-06	45,967
STEVENSON, DAVID K.	THE PULMONARY EXCRETION RATE OF HYDROGEN GAS (VEH ₂)	1R01 HD14375-01	59,105
STEVENSON, DAVID K.	INFANT HEME CATABOLISM AND CARBON MONOXIDE DETECTION	1R01 HD14426-01	62,742
STINSON, EDWARD B.	CLINICAL HEART TRANSPLANTATION	5P01 HL13108-11	1,467,024
STOCKDALE, FRANK E.	STUDIES IN GROWTH REGULATION	5R01 HD12083-03	114,758
STOCKER, BRUCE A.	GENETICS AND PHYSIOLOGY OF SALMONELLA TYPHIMURIUM	5R01 AI07168-15	73,242
STOCKER, BRUCE A.	PLASMIDS AND MUTATION	5R01 GM25903-02	51,105
STROBER, SAMUEL	MATURATION OF B LYMPHOCYTES	5R01 AI10293-09	150,616
STROBER, SAMUEL	ROLE OF THE SPLEEN IN THE GROWTH OF A B CELL LEUKEMIA	1R01 CA27942-01	51,273
STRYER, LUBERT	CONFORMATIONAL ASPECTS OF VISUAL EXCITATION	5R01 EY02005-04	109,319
STRYER, LUBERT	TIME-RESOLVED RESONANCE RAMAN STUDIES OF VISION	5R01 EY02387-03	84,775
STRYER, LUBERT	OPTICAL STUDIES OF PROTEIN STRUCTURE & FUNCTION	5R01 GM24032-04	129,821
SUNSHINE, PHILIP	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00081-18	297,925
SUSSMAN, HOWARD H.	ECTOPIC PLACENTAL PROTEINS IN CANCER	2R01 CA13533-09	163,849
TAUBE, HENRY	BIOCHEMICALLY SIGNIFICANT MOLECULES AS LIGANDS	5R01 GM13638-15	116,389
THOMPSON, STUART H.	SOMA CALCIUM AND POTASSIUM CONDUCTANCES	5R01 NS14519-03	43,452
UNWIN, PETER N.	STRUCTURE OF MOLECULAR ASSEMBLIES INVOLVING MEMBRANES	1R01 GM27764-01	299,222
VAN TAMELEN, EUGENE E.	BIOORGANIC CHEMISTRY OF STEROIDS AND TERPENOIDES	5R01 GM10421-16	57,151
WALL, ROBERT T.	ENDOTHELIAL CELL MECHANISMS IN VASCULAR DISEASE	5R23 HL24117-02	46,749
WALLACE, BRUCE G.	DIFFERENTIATION OF IDENTIFIED NEURONS	1R01 NS16440-01	98,515
WALLACE, DOUGLAS C.	MITOCHONDRIAL GENETICS AND NEOPLASTIC TRANSFORMATION	2R01 GM24285-04	103,988
WANDELL, BRIAN A.	WAVELENGTH DISCRIMINATION AT MODULATION THRESHOLD	5R01 EY03164-02	27,377
WAXMAN, STEPHEN G.	REGIONAL MORPHOLOGY OF MYELINATED AXONS	5R01 NS15320-02	79,700
WEISSMAN, IRVING L.	NORMAL AND NEOPLASTIC T AND B LYMPHOCYTE MATURATION	2R01 AI09072-12	212,340
WEISSMAN, IRVING L.	HISTOCOMPATIBILITY AND ALLORECOGNITION IN TUNICATES	5R01 GM25902-02	82,188
WESSELS, NORMAN K.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07005-15	193,787
WHARTON, ROBERT S.	EFFECTS OF INHALATIONAL ANESTHETICS ON REPRODUCTION	5R23 GM25952-02	41,273
WHITLOCK, JAMES P., JR.	CHEMICAL CARCINOGENS AND THEIR CELLULAR RECEPTORS	5R01 CA24580-02	99,339
WHITTEMORE, ALICE S.	ENVIRONMENTAL TOXICANT—MULTIPLE EXPOSURE EFFECTS	5R01 CA23214-02	36,144
WOLLENBERG, ROBERT H.	SYNTHESIS OF THE PODOCARPUS DILACTONES	5R01 CA24499-02	8,518
WOOD, PETER D.	EXERCISE TRAINING AND PLASMA LIPOPROTEINS IN MAN	5R01 HL24462-02	98,224
YANOFSKY, CHARLES	GENETIC/BIOCHEMICAL STUDY OF TRYPTOPHAN SYNTHETASE	5R01 GM09738-18	142,441
YEAGER, ANNE S.	CYTOMEGALOVIRUS: TRANSMISSION TO NEWBORNS BY BLOOD	5R01 HD09872-05	108,310
YELDERMAN, MARK L.	A CONTINUOUS CARDIAC OUTPUT MONITOR	5R01 HL24798-02	38,135
YOUNG, STUART W.	MALIGNANT PERFUSION: APPLIED TO DIAGNOSIS AND THERAPY	5R23 CA24879-03	39,483
ZARE, RICHARD N.	LASER FLUORESCENCE ANALYSIS	5R01 CA23156-04	68,525
ORGANIZATION TOTAL	257	40,845,955	

STOCKTON

UNIVERSITY OF THE PACIFIC	ZIP CODE 95211		
BLANKENSHIP, JAMES W.	ACETYL POLYAMINES IN THE CENTRAL NERVOUS SYSTEM	1R01 NS16350-01	46,403
ORGANIZATION TOTAL	1	46,403	

TORRANCE

LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER	ZIP CODE 90509		
ANTHONY, BASCOM F.	HUMAN IMMUNITY TO THE GROUP B STREPTOCOCCI	5R01 AI14827-02	59,721
ANTHONY, BASCOM F.	EPIDEMIOLOGY OF THE GROUP B STREPTOCOCCUS	5R01 AI15698-02	76,467
BARAJAS, LUCIANO	ELECTRON MICROSCOPY OF THE JUXTAGLOMERULAR APPARATUS	5R01 HL18340-06	64,658
BEALL, GILDON N.	IMMUNOPATHOGENESIS OF THYROID DISEASE	1R01 AM23070-01A1	80,127
BORDER, WAYNE A.	IGM MEDIATED EXPERIMENTAL GLOMERULONEPHRITIS	5R01 AM21389-02	46,404
BRAY, GEORGE A.	CLINICAL AND EXPERIMENTAL STUDY OF OBESITY	5R01 AM15165-10	132,108
BRAZIER, MARY A.	THE HISTORICAL DEVELOPMENT OF NEUROPHYSIOLOGY	1R01 LM03462-01	22,326
CRANDALL, MARJORIE A.	GENETIC CONTROL OF MATING IN HANSENULA WINGEI	7R01 GM29235-01	54,459

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CALIFORNIA—Continued			
EFFROS, RICHARD M	PATHOGENESIS AND MEASUREMENT OF PULMONARY EDEMA	5R01 HL18606-06	60,512
FINKLESTEIN, JERRY Z	CHILDREN'S CANCER STUDY GROUP A	5R10 CA14560-07	145,241
FISHER, DELBERT A.	THYROID FUNCTION IN THE FETUS AND NEWBORN	5R01 HD04270-12	189,954
FISHER, DELBERT A.	VASOPRESSIN PHYSIOLOGY IN THE FETUS AND NEWBORN	5R01 HD06335-07	100,651
GLASSOCK, RICHARD J.	PATHOPHYSIOLOGY OF EXPERIMENTAL GLOMERULONEPHRITIS	1R01 AM27647-01	120,732
GLICK, ZVI	DIETARY OBESITY: CONSEQUENCES OF OVERFEEDING	1R01 AM27019-01	80,769
HEBER, DAVID	ENTERAL SUPPLEMENTS AND PROTEIN METABOLISM IN CANCER	1R01 CA26563-01A1	103,434
HEINER, DOUGLAS C	PERINATAL RECOGNITION AND MANAGEMENT OF ALLERGY	5R01 HD09327-06	91,866
HOBEL, CALVIN J.	CATECHOLAMINE PHYSIOLOGY IN MOTHER, FETUS AND NEWBORN	5R01 HD11753-02	109,931
HOLLISTER, DAVID W.	CHARACTERIZATION OF A NEW HUMAN COLLAGEN	2R01 AM19618-04	72,249
HOYER, JOHN R.	PATHOGENESIS OF IMMUNOLOGIC RENAL DISEASE	1R01 AM27122-01	77,677
IMAGAWA, DAVID T.	STUDY VARIOUS FORMS OF DISTEMPER ENCEPHALITIS	5R01 AI13369-03	69,505
JOBE, ALAN H.	DEVELOPMENTAL LUNG PHOSPHOLIPID METABOLISM	5R01 HD12714-02	80,608
KELLER, MARGARET A.	IMMUNOLOGIC DEFENSES AGAINST INFECTION IN HUMAN MILK	1R23 AI17124-01	43,020
KLEIN, ALAN H.	DEVELOPMENT OF TISSUE THERMOGENESIS IN NEWBORN ANIMALS	5R01 HD13084-02	47,855
LAKS, MICHAEL M.	HEMODYNAMICS AND HEART STRUCTURE—VENTRICULAR OVERLOAD	5R01 HL14717-08	90,870
LEMMI, CARLOS A.	ISOLATED GASTRIC CELLS INVOLVED IN HISTAMINE METABOLISM	5R01 AM19873-02	75,777
LEMMI, CARLOS A.	HEART PRESERVATION AND TRANSPLANTATION STUDIES	3R01 HL18936-03S1	30,661
MILLER, MICHAEL E.	MATERNAL NEONATAL AND FETAL FACTORS IN HOST DEFENSE	5P01 HD10975-02	272,969
NATHANIELSZ, PETER W.	PROLACTIN FUNCTION IN FETAL SHEEP	5R01 HD11483-03	100,047
NATHANIELSZ, PETER W.	FETAL FACTORS IN THE INITIATION AND MAINTENANCE OF LABOR	5R01 HD12274-02	147,413
NELSON, RONALD J.	COMPOSITE PROSTHESIS FOR TRACHEA OR ESOPHAGUS	5R01 GM24300-03	48,997
NIES, KENNETH M.	ANTIBODY SYNTHESIS IN SYSTEMIC LUPUS ERYTHEMATOSUS	5R01 AM21988-03	57,501
NOBLE, NANCY A.	ASSOCIATED 2,3-DPG AND HB TYPE GENES IN RATS	5R01 HL22672-02	57,274
RIMOIN, DAVID L.	HETEROGENEITY IN JUVENILE INSULIN DEPENDENT DIABETES	1R01 AM25834-01	177,871
RIMOIN, DAVID L.	WORKSHOP: GENETICS AND HETEROGENEITY OF GI DISEASES	1R13 AM26714-01	37,050
RIMOIN, DAVID L.	MEDICAL GENETICS CENTER	5P01 HD11966-03	382,068
SAMLOFF, I MICHAEL	PEPSINOGEN POLYMORPHISM IN MAN	5R01 AM13233-12	106,737
SHAPIRO, LARRY J.	GENETIC AND BIOCHEMICAL STUDIES OF STEROID SULFATASE	5R01 HD12178-03	51,306
SWANSON, WILLIAM H.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00425-12	763,434
SWANSON, WILLIAM H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05551-18	147,173
SWERDLOFF, RONALD S.	CNS BIOGENIC AMINES: THE GONADOSTAT THEORY OF PUBERTY	5R01 HD12056-02	85,768
TANAKA, KOICHI R.	METABOLIC AND BIOCHEMICAL STUDIES OF BLOOD CELLS	5R01 AM14898-18	104,890
UITTO, JOUNI J.	COLLAGEN BIOSYNTHESIS BY CULTURED HUMAN FIBROBLASTS	1R01 GM28833-01	95,905
WASSERMAN, KARLMAN	MECHANISMS OF PHYSIOLOGICAL RESPONSES TO EXERCISE	5R01 HL11907-10	121,990
WEICHEL, MORTON E, JR.	DEVELOPMENTAL ASPECTS OF NERVE GROWTH FACTOR	5R01 HD11303-03	122,819
WHITE, RODNEY A.	IN VIVO EFFECT OF COMPLIANCE ON VASCULAR PROSTHETICS	5R01 HL24618-02	57,397
YOUNG, RONALD F.	MECHANISMS OF DENTAL AND FACIAL SENSATION	5R01 DE05208-02	73,960
ORGANIZATION TOTAL	46	5,140,151	
STATE TOTAL	2,408	297,686,770	

COLORADO

BOULDER

UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO AT BOULDER ZIP CODE 80309

BONNEVILLE, MARY A.	PLASMA MEMBRANE OF NORMAL AND NEOPLASTIC UROTHELIA	5R26 CA22468-03	70,779
CARUTHERS, MARVIN H.	CHROMOSOME DNA REGULATORY REGIONS	5R01 GM21120-06	112,892
CARUTHERS, MARVIN H.	CHEMICAL AND ENZYMATIC STUDIES ON GENE CONTROL REGIONS	5R01 GM25680-03	62,591
CECH, CAROL L.	MOLECULAR MECHANISMS OF TRANSCRIPTIONAL CONTROL	5R01 AI14938-03	52,620
CECH, THOMAS R.	CHROMATIN STRUCTURE OF A TRANSCRIPTION UNIT	5R01 GM25273-03	54,192
CECH, THOMAS R.	ENZYMATIC SPLICING OF A RIBOSOMAL RNA PRECURSOR	1R01 GM28039-01	58,205
CHIKARAISHI, DONA M.	POST-TRANSCRIPTIONAL CONTROL OF GENE EXPRESSION	1R01 GM27197-01	69,215
CHUNG, LELAND W.	NORMAL AND ABNORMAL GROWTH OF THE PROSTATE	5R01 AM25266-02	88,398
CHUNG, LELAND W.	SEX STEROID IMPRINTING AND PROSTATIC GROWTH	5R26 CA27418-02	107,602
CHUNG, LELAND W.	NEONATAL IMPRINTING AND HEPATIC DRUG METABOLISM	5R01 GM25027-03	45,138
DANNA, KATHLEEN J.	SV40 EARLY PROTEINS—POSSIBLE ROLES IN ONCOGENESIS	5R01 CA24924-02	86,117
DE FRIES, JOHN C.	DETERMINANTS OF BEHAVIORAL DEVELOPMENT IN CHILDREN	5R01 HD10333-04	146,280

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
DE FRIES, JOHN C.....	DIFFERENTIAL DIAGNOSIS IN READING DISABILITY.....	5P01 HD11681-02	256,444
DUBIN, MARK W.....	RECEPTIVE FIELD ORGANIZATION IN THE VISUAL SYSTEM.....	2R01 EY00998-07	68,199
ERWIN, V GENE.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05831-01	16,998
FALL, R RAY.....	REGULATION OF LIPID METABOLISM.....	5R01 HL16628-07	62,263
FIFKOVA, EVA.....	VISUAL DEPRIVATION EFFECT ON SYNAPSES OF VISUAL CENTERS.....	5R01 EY01500-06	67,691
GILL, STANLEY J.....	THERMODYNAMIC STUDY OF PROTEIN-NUCLEIC ACID INTERACTIONS.....	5R01 GM25889-02	56,426
GILL, STANLEY J.....	THERMODYNAMICS IN RESPIRATORY PROTEIN BINDING.....	5R01 HL22325-03	67,704
GOLD, LAWRENCE M.....	REGULATION OF BACTERIOPHAGE T4 GENE EXPRESSION.....	5R01 GM19963-08	159,820
GOLDSTEIN, LESTER.....	CELLULAR SENESCENCE, REPLICATION, AND DIFFERENTIATION.....	5R01 AG02045-02	46,522
GOLDSTEIN, LESTER.....	BIOCHEMICAL INTERRELATIONS OF NUCLEUS AND CYTOPLASM.....	5R01 GM15156-13	87,448
GREENWOOD, MICHAEL J.....	MIGRATION-URBAN GROWTH AND INTRAURBAN LOCATION.....	7R01 HD15282-01	33,630
GREENWOOD, MICHAEL J.....	MIGRATION-URBAN GROWTH AND INTRAURBAN LOCATION.....	5R01 HD15282-02	63,917
HALLICK, RICHARD B.....	GENE EXPRESSION IN CELL ORGANELLES.....	5R01 GM21351-07	61,217
HAM, RICHARD G.....	GROWTH REGULATION: SENESCENT VS. NONSENESCENT CELLS.....	5R01 AG00947-03	103,846
HAM, RICHARD G.....	EFFECT OF MALIGNANCY ON CELL GROWTH REQUIREMENTS.....	5R01 CA15305-06	92,730
HAM, RICHARD G.....	GROWTH REQUIREMENTS OF HUMAN DIPLOID CELLS.....	5R01 GM26455-02	123,219
HIRSH, DAVID I.....	GENETIC CONTROL OF DEVELOPMENT.....	2R01 GM19851-09	182,468
HIRSH, DAVID I.....	STRUCTURE AND EXPRESSION OF EUKARYOTIC GENES.....	5R01 GM26515-02	60,538
JOHNSON, THOMAS E.....	GENETIC ANALYSIS OF THE CONTROL OF AGING.....	5R23 AG01236-02	41,884
JONES, RICHARD E.....	HORMONAL CONTROL OF OVIDUCT CONTRACTION.....	1R01 HD14000-01	34,167
KOCH, TAD H.....	NEW DRUGS TO ALLEVIATE ADRIAMYCIN CARDIOTOXICITY.....	5R01 CA24665-02	46,204
KOCH, TAD H.....	PHOTOCHEMICAL REACTIVITY OF 5-BROMOURACIL WITH PEPTIDES.....	5R01 GM24965-02	35,636
KUEMPEL, PETER L.....	TERMINATION OF CHROMOSOME REPLICATION.....	5R01 GM15905-13	79,086
LIPETZ, MILTON E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07013-15	192,451
LISKAY, ROBERT M.....	GENETIC ANALYSIS OF CELLULAR PROLIFERATION.....	5R01 GM25870-02	73,627
MALKINSON, ALVIN M.....	BIOCHEMISTRY OF URETHANE-INDUCED LUNG TUMORS.....	1R01 ES02370-01	75,307
MC CLEARN, GERALD E.....	HEREDITY AND ENVIRONMENT IN AGING: A UNIQUE RESOURCE.....	1R01 AG01592-01	82,758
MC CLEARN, GERALD E.....	WORKSHOP ON PHARMACOGENETICS.....	3R13 GM27034-01S1	2,000
MC CLELAND, GARY H.....	FERTILITY DECISION MAKING BY INDIVIDUALS AND COUPLES.....	1R01 HD14403-01	53,553
MC CONKEY, EDWIN H.....	RIBOSOMAL PROTEIN PHOSPHORYLATION AND CELL GROWTH.....	3R01 CA22250-03S1	12,943
MC CONKEY, EDWIN H.....	HUMAN GENETICS, POLYPEPTIDES, AND TWO-DIMENSIONAL GELS.....	1R01 GM27708-01	68,907
PICKETT-HEAPS, J D.....	CELL DIVISION STUDIES USING THE DIATOM SPINDLE.....	1R01 GM27124-01	46,340
PIERPONT, CORTLANDT G.....	COORDINATION COMPLEXES OF ORTHOQUINONES, HYDROXYQUINONES.....	5R01 GM23386-02	39,001
PORTER, KEITH R.....	CYTOPLASMIC GROUND SUBSTANCE: FORM, FUNCTION, RESPONSE.....	1R01 GM27324-01	101,703
PORTER, KEITH R.....	THE PIGMENT MOTILITY MECHANISM IN CHROMATOPHORES.....	7R01 GM28068-01	36,056
PORTER, KEITH R.....	HIGH-VOLTAGE ELECTRON MICROSCOPY OF BIOLOGICAL SYSTEMS.....	3P41 RR00592-10S1	760
PORTER, KEITH R.....	HIGH-VOLTAGE ELECTRON MICROSCOPY OF BIOLOGICAL SYSTEMS.....	5P41 RR00592-11	309,201
PRESCOTT, DAVID M.....	THE GENETIC APPARATUS OF HYPOTRICHOUS CILIATES.....	2R01 GM19199-09	140,032
RAKOWSKI-DU BOIS, MARY C.....	SULFUR TRANSFER REACTIONS OF MOLYBDENUM COMPLEXES.....	5R01 GM25122-03	44,164
RUNNER, MEREDITH N.....	INFORMATION FLOW REGULATING MAMMALIAN MORPHOGENESIS.....	1R01 HD13500-01	155,511
RUTH, JAMES A.....	PRESYNAPTIC PHARMACOLOGY IN GABA NEUROTRANSMISSION.....	5R01 NS15374-02	48,246
SOLL, LARRY J.....	GENETIC AND BIOCHEMICAL ANALYSIS OF tRNA FUNCTIONS.....	5R01 GM21596-06	70,963
SOUTHWICK, CHARLES H.....	PRIMATE POPULATION STUDIES.....	2R24 RR01245-02	25,507
STAEHELIN, L ANDREW.....	STRUCTURE AND FUNCTION OF FREEZE-ETCHED CELL MEMBRANES.....	5R01 GM18639-09	105,639
STAEHELIN, L ANDREW.....	ADHESIVE INTERACTIONS BETWEEN MEMBRANES.....	2R01 GM22912-04	68,877
SUEOKA, NOBORU.....	GENE EXPRESSION IN NERVOUS VS OTHER TISSUES.....	5R01 GM22951-05	136,308
SUEOKA, NOBORU.....	IN VITRO INITIATION OF BACILLUS SUBTILIS CHROMOSOME.....	1R01 GM28133-01	64,918
SUEOKA, NOBORU.....	IN VITRO DIFFERENTIATION OF CLONAL CELL.....	5R01 NS15304-02	77,690
THOMPSON, JOHN A.....	MICROSOMAL OXIDATIVE DEHALOGENATION OF CHLOROETHANES.....	5R01 ES02069-02	42,653
WALBA, DAVID M.....	TOTAL SYNTHESIS OF NATURAL CARDIOTONIC IONOPHORES.....	5R01 HL22778-03	67,165
WILSON, IRWIN B.....	THE CONVERTING ENZYME OF LUNG.....	5R01 HL22242-03	29,600
WILSON, IRWIN B.....	ENZYME THEORY AND RELATIONSHIP TO FUNCTION.....	5R01 NS07156-14	73,599
WINSTON, PAUL W.....	BIOAVAILABILITY AND KINETICS OF INGESTED MOLYBDENUM.....	1R01 AM26853-01	57,468
WOOD, WILLIAM B.....	GENETIC CONTROL OF EMBRYOGENESIS IN C. ELEGANS.....	5R01 HD11762-03	90,131
YARUS, MICHAEL J.....	STRUCTURE, SPECIFICITY AND SYNTHESIS OF tRNA.....	5R01 GM25627-03	127,454
ORGANIZATION TOTAL	67	5,322,618	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
COLORADO SPRINGS			
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO AT COLORADO SPRINGS ZIP CODE 80907			
MATTOON, JAMES R.....	GENETIC MODIFICATION OF MITOCHONDRIA.....	2R01 GM27860-02	120,646
ORGANIZATION TOTAL	1 120,646		
DENVER			
CHILDREN'S HOSPITAL ZIP CODE 80218			
FRAIKOR, ARLENE L.....	ANATOMICAL, BREATHING AND ALTITUDE VARIABLES IN SIDS.....	5R01 HD12365-02	56,466
ORGANIZATION TOTAL	1 56,466		
COLORADO REGIONAL CANCER CENTER ZIP CODE 80206			
MAJOR, FRANCIS J.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA25378-03	83,080
WALKER, STROTHER H.....	CANCER PATIENT DATA CONTROL.....	2R10 CA21878-04	89,784
ORGANIZATION TOTAL	2 172,864		
DENVER HEALTH AND HOSPITALS DEPARTMENT—DENVER GENERAL HOSPITAL ZIP CODE 80204			
MOORE, GEORGE E.....	STUDIES OF HUMAN HEMATOPOIETIC AND CANCER CELLS.....	3R01 CA15018-06S1	18,196
ORGANIZATION TOTAL	1 18,196		
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER ZIP CODE 80206			
ABEL, CARLOS A.....	DIFFERENTIATION OF THYMOCYTES.....	5R01 AI15420-02	56,015
BRENNAN, PATRICK J.....	STRUCTURE OF THE ANTIGENS OF ATYPICAL MYCOBACTERIA.....	5R22 AI14687-03	50,830
CAMPBELL, PRISCILLA A.....	CELL BIOLOGY OF THE IMMUNE RESPONSE TO BACTERIA.....	5R01 AI11240-08	86,891
CHILLER, JACQUES M.....	CELLULAR MECHANISMS OF IMMUNOREGULATION AND TOLERANCE.....	2R01 AI13131-04	118,221
DAHLEM, NANCY W.....	HYPERREACTIVE AIRWAYS DISEASE AND MEDICATION REQUESTS.....	5R01 AI15392-02	55,995
DAHLEM, NANCY W.....	INTRACTABILITY, MEDICATION, AND COPING STYLES IN ASTHMA.....	5R01 HL22065-03	81,319
FARR, RICHARD S.....	INACTIVATION OF PLATELET ACTIVATING FACTOR BY SERUM.....	1R01 HL25220-01	118,183
GANGADHARAM, PATTISAPU R.....	PATHOGENESIS OF MYCOBACTERIUM INTRACELLULARE DISEASE.....	5R01 AI15049-02	120,022
GOREN, MAYER B.....	SURFACE CHEMISTRY OF MYCOBACTERIA.....	5R22 AI08401-13	93,407
GREY, HOWARD M.....	STRUCTURE-FUNCTION RELATIONSHIP OF IMMUNOGLOBULINS.....	2R01 AI09758-11	135,329
GREY, HOWARD M.....	SELF-NONSELF DISCRIMINATION AND TUMOR RECOGNITION.....	5P01 CA21825-03	523,328
HANSON, DONALD G.....	ORALLY-INDUCED IMMUNOLOGIC TOLERANCE TO PROTEINS.....	5R01 AI13474-05	96,357
HARBECK, RONALD J.....	CNS PATHOLOGY DURING IMMUNE COMPLEX DISEASE.....	1R01 NS15483-01	91,776
HAROLD, FRANKLIN M.....	TRANSPORT AND METABOLISM OF INORGANIC ELECTROLYTES.....	5R01 AI03568-17	59,378
HENSON, PETER M.....	RELEASE OF INJURIOUS CONSTITUENTS FROM CELLS.....	5R01 GM24834-04	135,139
HENSON, PETER M.....	PATHOGENESIS OF INFLAMMATORY LUNG INJURY.....	2R01 HL21565-04A1	180,966
HOFFMAN, STEVEN A.....	BRAIN REACTIVE ANTIBODIES IN AUTOIMMUNE MICE.....	1R01 NS15855-01A1	62,161
JOHNSTON, RICHARD B, JR.....	MECHANISMS OF RESISTANCE TO BACTERIAL INFECTION.....	2R01 AI14148-04	104,052
KAPPLER, JOHN W.....	REGULATORY MECHANISMS IN THE IMMUNE RESPONSE.....	7R01 AI17134-01	68,251
KINSKY, STEPHEN C.....	IMMUNOGENICITY OF LIPOSOMES.....	5R01 AI15796-03	112,279
KUBO, RALPH T.....	B2-MICROGLOBULIN ON THE SURFACE OF LYMPHOCYTES.....	5R01 AI12136-05	69,233
MC GUIRE, EDWARD J.....	CELL ADHESION OF NORMAL AND MALIGNANT LIVER CELLS.....	5R01 CA14431-08	82,267
MINDEN, PERCY.....	ANTIGEN-ANTIBODY INTERACTIONS IN NEOPLASTIC DISEASE.....	5R01 CA15446-11	133,333
MORRIS, HELEN G.....	ENDOGENOUS PROSTAGLANDINS IN ASTHMA.....	5R01 HL22026-03	81,313
PABST, MICHAEL J.....	ACTIVATION OF MACROPHAGES IN PERIODONTAL DISEASE.....	1R01 DE05494-01	73,001
PACE, NORMAN R.....	METABOLISM OF RNA IN PROKARYOTES AND EUKARYOTES.....	5R01 GM20147-08	180,006
PATO, MARTIN L.....	EXCISION AND REPLICATION OF MU VIRUS DNA.....	5R01 GM24270-03	60,752
RICKENBERG, HOWARD V.....	CONTROL OF ENZYME BIOSYNTHESIS—ROLE OF CYCLIC AMP.....	5R01 AM11046-15	123,426
ROBINSON, ARTHUR.....	SEX CHROMOSOMAL ABNORMALITIES: A PROSPECTIVE STUDY.....	5R01 HD10032-05	170,893
ROBINSON, ARTHUR.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05842-01	124,003
SKIDMORE, BARRY J.....	T CELL SPECIFICITY AND REGULATION TO CYTOCHROME C.....	1R23 AI16573-01	44,850
SOGIN, MITCHELL L.....	THE ROLE OF REPETITIVE DNA SEQUENCES IN GENE EXPRESSION.....	2R01 GM23464-04	83,440
SOUHRADA, JOSEPH F.....	FUNCTIONAL CHARACTERISTICS OF SMOOTH MUSCLE FROM LUNG.....	5R01 HL17322-06	54,531
ORGANIZATION TOTAL	33 3,630,947		
UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER ZIP CODE 80262			
ABRAMS, ADOLPH.....	STRUCTURE AND FUNCTION OF BACTERIAL MEMBRANE ATPASE.....	5R01 GM05810-21	75,505
ALFREY, ALLEN C.....	PHOSPHATE TOXICITY IN END-STAGE KIDNEY FAILURE.....	5R01 AM26095-02	49,855

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
ALLEN, ROBERT H.....	STRUCTURE AND FUNCTION OF B12-BINDING PROTEINS.....	5R01 AM21365-04	82,014
ALLEN, ROBERT H.....	COBALAMIN ANALOGUES AS ANTITUMOR ANTIMETABOLITES.....	5R01 CA22976-03	58,638
ANDERSON, ROBERT J.....	MECHANISM OF RENAL ESCAPE FROM VASOPRESSIN.....	5R01 AM26111-02	30,651
ARMSTRONG, DONALD.....	RETINAL DEGENERATION: AN APPROACH TO THERAPY.....	5R01 EY02627-02	132,892
AUSTIN, JAMES H.....	GENETICALLY DETERMINED NEUROLOGICAL DISEASES.....	5R01 NS07701-14	44,473
BANCHERO, NATALIO.....	OXYGEN TRANSPORT MECHANISMS IN HYPOXIA AND COLD.....	5R01 HL18145-05	47,914
BATTAGLIA, FREDERICK C.....	PREMATURITY—HCG ROLE IN IMMUNOSUPPRESSION.....	5P01 HD00781-17	397,316
BERL, THOMAS.....	MECHANISM OF CALCIUM MEDIATED CHANGES IN RENAL FUNCTION.....	1R01 AM26469-01A1	56,827
BETZ, GEORGE.....	REPRODUCTIVE FUNCTION OF GONADAL OXIDASES.....	5R01 HD08309-06	55,865
BETZ, WILLIAM J.....	NERVE MUSCLE SYNAPSE FORMATION.....	5R01 NS10207-09	57,095
BROWN, JERRY L.....	MODIFICATION OF THE NH ₂ -TERMINAL REGION OF PROTEINS.....	3R01 CA12574-08S1	5,196
BROWN, WILLIAM R.....	IMMUNOGLOBULIN A AND THE HUMAN GASTROINTESTINAL TRACT.....	5R26 CA17342-06	45,370
BURKE, THOMAS J.....	ISCHEMIC ACUTE RENAL FAILURE.....	5R01 AM25151-02	48,559
CANN, JOHN R.....	PHYSICOCHEMISTRY AND IMMUNOLOGY OF MACROMOLECULES.....	5R01 HL13909-29	92,250
CARSON, PAUL L.....	ULTRASONIC COMPUTED TOMOGRAPHY OF BREAST CANCER.....	5R01 CA25323-02	174,482
CLAMAN, HENRY N.....	IMMUNOCOMPETENCE OF THYMUS CELLS.....	5R01 AI12685-15	122,011
COHEN, J JOHN.....	MATURATION OF LYMPHOCYTE PRECURSORS.....	5R01 AI11661-07	87,753
CONGER, JOHN D.....	PATHOGENESIS OF ACUTE RENAL FAILURE.....	5R01 HL18097-06	66,202
CRAPO, PHYLLIS A.....	DIETARY THERAPY OF DIABETES MELLITUS.....	5R01 AM25240-03	26,667
CROWLE, ALFRED J.....	EFFECTS OF AGING ON DELAYED HYPERSENSITIVITY IN MICE.....	5R01 AG00008-04	54,160
CROWLE, ALFRED J.....	IMMUNOIDENTIFICATION OF PERIODONTAL PLAQUE BACTERIA.....	5R01 DE05156-02	41,009
CUMMINGS, DONALD J.....	EXPRESSION OF MESSENGER RNA AND AGING IN PARAMECIUM.....	5R01 AG00409-02	43,786
CUMMINGS, DONALD J.....	MITOCHONDRIAL FUNCTION, DNA REPLICATION AND SENESCENCE.....	5R01 AG01367-02	53,977
CUMMINGS, DONALD J.....	REPLICATION, FUNCTION AND BIOGENESIS OF MITOCHONDRIA.....	5R01 GM21948-05	85,715
CUNHA, GERALD R.....	BENIGN PROSTATIC HYPERPLASIA—DEVELOPMENTAL APPROACH.....	1R01 AM26570-01	54,896
CUNHA, GERALD R.....	NORMAL AND ABNORMAL CERVICAL-VAGINAL DEVELOPMENT.....	5R01 HD12116-02	106,667
DOUVAS, ANGELINE S.....	CHARACTERIZATION OF A NUCLEAR RNA-PROTEIN COMPLEX (RNP).....	5R01 AM21839-03	46,064
ECKEL, ROBERT H.....	HORMONAL CONTROL OF ADIPOSE TISSUE LIPOPROTEIN LIPASE.....	1R01 AM26356-01	32,368
EIPPER, ELIZABETH A.....	BIOCHEMISTRY AND PHYSIOLOGY OF ACTH AND ENDORPHIN.....	5R01 AM18929-05	93,723
ERIKSON, RAYMOND L.....	BIOSYNTHESIS OF VIRAL RNA.....	5R01 CA21117-15	79,020
ERIKSON, RAYMOND L.....	AVIAN SARCOMA VIRUS TRANSFORMATION-SPECIFIC ANTIGENS.....	3R01 CA21326-03S1	14,994
FENNESSEY, PAUL V.....	STERIOD IMBALANCE—MASS SPECTRO & CHEMICAL TECHNIQUES.....	1R01 HD14107-01	74,010
FENNESSEY, PAUL V.....	CLINICAL MASS SPECTROMETRY RESOURCE.....	1P41 RR01152-01	330,269
FINGER, THOMAS E.....	SEGREGATION OF CENTRAL GUSTATORY SYSTEMS.....	5R01 NS15258-02	31,316
FINK, LOUIS M.....	PLASMA MEMBRANE ALTERATIONS IN TRANSFORMED CELLS.....	1R01 CA27397-01	70,067
FREED, CURT R.....	BRAIN CATECHOLAMINES IN CONTROL OF BLOOD PRESSURE.....	5R01 HL20194-03	50,120
GERDES, JOHN C.....	H. SIMPLEX VIRUS REACTIVATION DURING RECURRENT KERATITIS.....	5R01 AI16077-02	49,437
GERSCHENSON, LAZARO E.....	HORMONAL REGULATION OF CULTURED ENDOMETRIAL CELLS.....	5R01 CA25365-02	61,666
GORDON, JULIUS A.....	PHOSPHORYLATION EVENTS AND TRANSFORMED CELL MEMBRANES.....	1R01 CA28685-01	76,861
GORDON, JULIUS A.....	LECTINS, MEMBRANE BINDING AND BIOLOGIC REGULATION.....	1R01 GM27509-01	44,676
GORDON, ROBERT D.....	ANTI-IDIOTYPIC SUPPRESSION OF ALLOGRAFT REACTIVITY.....	1R01 AI16825-01	56,698
GORDON, STUART G.....	BIOCHEMICAL LESION OF PSEUDOXANTHOMA ELASTICUM.....	5R01 AM25300-02	51,040
GORDON, STUART G.....	MOLECULAR AND CELLULAR STUDY OF CANCER PROCOAGULANT A.....	5R01 CA14408-08	63,407
GREER, ROBERT O.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA21098-04	41,931
GROVER, ROBERT F.....	ADAPTATION TO HYPOXIA.....	5P01 HL14985-09	945,758
HAGERMAN, DWAIN D.....	STERIOD ENZYMOLOGY: OVARIAN AROMATASE.....	5R01 HD11730-03	55,978
HAGERMAN, PAUL J.....	FLEXIBILITY OF DNA.....	1R01 GM28293-01	71,744
HAHN, WILLIAM E.....	GENETIC TRANSCRIPTION IN THE BRAIN.....	5R01 NS10813-08	82,335
HAMBIDGE, K MICHAEL.....	STUDIES OF HUMAN ZINC DEFICIENCY.....	5R22 AM12432-12	119,368
HATHAWAY, WILLIAM E.....	ANTITHROMBIN III (AT3) METABOLISM IN AT3 DEFICIENCIES.....	1R01 HL25477-01	55,635
HAYWARD, ANTHONY R.....	LYMPHOCYTE DEVELOPMENT IN NEWBORNS & IMMUNODEFICIENCY.....	1R01 HD13733-01A1	57,276
HENDEE, WILLIAM R.....	IMPROVEMENTS IN RADIATION THERAPY TREATMENT PLANNING.....	5R01 CA23059-02	64,858
HIRS, CHRISTOPHE H.....	STRUCTURE AND FUNCTION OF PANCREATIC ENZYMES.....	3R01 AM25230-02S1	28,125
HOFFER, BARRY J.....	CHRONIC PERINATAL LEAD EXPOSURE AND BRAIN FUNCTION.....	5R01 ES02011-02	44,321
HORWITZ, KATHRYN B.....	NUCLEAR ESTROGEN RECEPTORS IN BREAST CANCER.....	1R01 CA26869-01	77,819
HORWITZ, LAWRENCE D.....	CATECHOLAMINES AND HEART DISEASE.....	5R01 HL24400-02	56,892
HORWITZ, LAWRENCE D.....	LEFT VENTRICULAR FUNCTION IN EXERCISE.....	5R01 HL24763-03	107,180
HUFFER, WILLIAM E.....	PATHOLOGY OF BONE IN DIALYSIS PATIENTS.....	5R01 AM18890-05	39,388
IMADA, MASARU.....	MEMBRANE PROTEINS IN TUMORS.....	3R01 CA22096-03S1	4,323
JANKOVSKY, LYNN D.....	ANIMAL RESOURCE DIAGNOSTIC LABORATORY.....	3P40 RR01090-03S1	22,046
JONES, CAROL A.....	IMMUNOLOGIC STUDIES RELATED TO MALIGNANCY.....	5R01 CA18734-05	108,179

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
KAO, FA-TEN.....	CELL HYBRIDS CONTAINING SINGLE HUMAN CHROMOSOMES.....	1R01 GM26631-01A1	114,371
KERN, FRED, JR.....	ESTROGEN EFFECTS ON BILIARY LIPIDS & BILE ACID KINETICS.....	3R01 AM19605-03S1	56,085
KERR, SYLVIA J.....	STUDY OF METHYLATIONS IN NEOPLASIA.....	3R01 CA12742-08S1	26,723
KING, DONALD W.....	SEMINARS AND WORKSHOPS IN TECHNIQUES OF CANCER RESEARCH.....	2R13 CA15961-07	87,427
KING, DONALD W.....	SEMINARS & LABORATORY WORKSHOPS IN NEUROBIOLOGY.....	2R13 GM23356-04	35,000
KOHLER, PETER F.....	ALLERGIC DISEASE CENTER—ALLERGIC VASCULITIS.....	5P50 AI12028-07	74,721
KOLHOUSE, J FRED.....	THE METABOLIC ROLE OF COBALAMIN IN MAMMALIAN TISSUE.....	5R01 GM26486-02	72,887
KOONTZ, JOHN W.....	INSULIN AND GROWTH PEPTIDES: MECHANISM OF ACTION.....	5R01 AM24047-02	66,227
LANGAN, THOMAS A.....	FUNCTION OF LYSINE RICH (H1) HISTONE PHOSPHORYLATION.....	5R01 CA12877-10	60,881
LASHER, ROBERT S.....	DIFFERENTIATION OF GABA NEURONS IN THE CNS.....	2R01 NS13133-04A1	52,919
LEHMAN, JOHN M.....	PATHOLOGY OF NEOPLASTIC TRANSFORMATION.....	2R01 CA16030-06	59,817
LEVINSON, SIMON R.....	MECHANISMS OF THE VOLTAGE-DEPENDENT SODIUM CHANNEL.....	1R01 NS15879-01	91,753
LINAS, STUART L.....	POTASSIUM DEPLETION ON RENIN AND HEMODYNAMICS.....	5R01 AM26156-02	39,340
MACKENZIE, COSMO G.....	A NUTRITIONAL CONTROL OF CANCER.....	1R01 CA27861-01	74,560
MAINS, RICHARD E.....	CELL BIOLOGY OF ACTH/ENDORPHIN SECRETION.....	2R01 AM19859-04	75,124
MALLER, JAMES L.....	CONTROL OF CELL DIVISION BY CYCLIC AMP.....	5R01 GM26743-02	36,470
MANCHESTER, DAVID K.....	HUMAN PLACENTAL METABOLISM: RESPONSIVE ENZYME SYSTEMS.....	5R01 HD12936-02	71,651
MARTIN, A ROBERT.....	MECHANISMS OF SYNAPTIC TRANSMISSION.....	5R01 NS09660-11	59,059
MC CABE, EDWARD R, III.....	DEVELOPMENTAL IMPACT OF GLYCEROL KINASE DEFICIENCY.....	1R01 AM26265-01A1	61,339
MC INTIRE, FLOYD C.....	BACTERIAL COAGGREGATION MECHANISMS IN DENTAL PLAQUE.....	5R01 DE04926-03	60,239
MESCHIA, GIACOMO.....	PHYSIOLOGICAL STUDY OF THE PLACENTA.....	5R01 HD01866-15	174,521
MILLER, STEPHEN D.....	SUPPRESSOR CELL MECHANISMS AND GENETICS IN TOLERANCE.....	5R23 AI14913-03	39,265
MOLINOFF, PERRY B.....	REGULATION OF CATECHOLAMINE RECEPTORS.....	2R01 NS13289-04	72,712
MOLINOFF, PERRY B.....	NEUROTRANSMITTER RECEPTORS IN THE BASAL GANGLIA.....	1R01 NS15756-01	51,396
MOORE, GEORGE E.....	CELL LINES FROM HUMAN PANCREAS AND BILIARY CARCINOMAS.....	1R26 CA29514-01	30,183
MOORHEAD, JOHN W.....	INTERACTION OF T CELLS IN IMMUNITY AND TOLERANCE.....	2R01 AI12993-04A1	72,230
MORAN, DAVID T.....	HISTOPATHOLOGY OF OLFACTORY DYSFUNCTION.....	5R01 NS15203-02	72,069
MURPHY, ROBERT C.....	LEUKOTRIENES AND SLOW REACTING SUBSTANCE OF ANAPHYLAXIS.....	1R01 HL25785-01	318,815
NAKANE, PAUL K.....	ENZYME-LABELED ANTIBODIES FOR IMMUNOHISTOCHEMISTRY.....	5R01 AI09109-12	103,109
NAKANE, PAUL K.....	FETAL PANCREATIC ISLET DEVELOPMENT IN DIABETIC MICE.....	5R01 HD11603-03	42,083
NEVILLE, MARGARET C.....	MECHANISMS IN NUTRIENT TRANSPORT INTO CELLS.....	3R01 AM15807-07S1	15,329
NEVILLE, MARGARET C.....	MECHANISMS IN NUTRIENT TRANSPORT INTO CELLS.....	9R01 HD14013-08	106,592
NIES, ALAN S.....	PROSTAGLANDINS AND LOCAL CONTROL OF THE CIRCULATION.....	5R01 HL21308-03	103,777
NORRIS, DAVID A.....	CYTOTOXIC MECHANISMS IN CUTANEOUS DISEASE.....	1R01 AM26427-01	87,467
O'BRIEN, DONOUGH.....	CENTER GRANT FOR RESEARCH IN MENTAL RETARDATION.....	5P30 HD04024-12	358,590
O'BRIEN, DONOUGH.....	BIOCHEMICAL GENETICS AND NUTRITION IN RETARDATION.....	5P01 HD08315-06	399,148
OLEFSKY, JERROLD M.....	INSULIN RECEPTORS AND THE GLUCOSE TRANSPORT SYSTEM.....	2R01 AM25241-03	76,615
OLEFSKY, JERROLD M.....	PLASMA INSULIN LEVELS AND ADIPOCYTE METABOLISM.....	3R01 AM25242-03S1	10,954
OLEFSKY, JERROLD M.....	MECHANISMS OF INSULIN RESISTANCE IN MAN.....	5R01 AM26180-02	125,679
PATERSON, CHRISTOPHER A.....	REGULATION OF LENS CATION BALANCE AND DISTRIBUTION.....	2R01 EY00506-12	147,365
PATTERSON, DAVID.....	GENE EXPRESSION IN SOMATIC CELLS IN THE AGING PROCESS.....	5R01 AG00029-06	117,972
PATTERSON, DAVID.....	GENETIC AND BIOCHEMICAL STUDY OF HUMAN CHROMOSOME 21.....	5R01 HD13423-02	44,164
PETERSON, LINDA N.....	CONCENTRATING DEFECT IN HYPOKALEMIA AND HYPERCALCEMIA.....	5R01 AM26164-02	41,642
PETERSON, ROBERT G.....	BIOAVAILABILITY OF FUROSEMIDE IN HUMAN NEONATES.....	1R01 GM29136-01	47,520
PETTUJOHN, DAVID E.....	ORGANIZATION OF DNA IN CHROMOSOMES.....	5R01 GM18243-09	83,569
PETTY, THOMAS L.....	THE MORPHOLOGIC BASIS OF AIRFLOW OBSTRUCTION.....	5R01 HL22723-03	38,315
PIERCE, G BARRY.....	PROGRAM IN DEVELOPMENTAL BIOLOGY OF CANCER.....	2P01 CA15823-05A1	330,595
PIERCE, G BARRY.....	DIFFERENTIATION OF CANCER.....	5R01 CA24010-02	98,194
PIZER, LEWIS I.....	CONTROL MECHANISMS IN PRO- AND EUKARYOTIC CELLS.....	5R01 AI15300-03	63,948
PUCK, THEODORE T.....	SOMATIC CELL GENETICS IN CANCER.....	5P01 CA20810-05	261,988
PUCK, THEODORE T.....	THE CELL BIOLOGY OF DEVELOPMENTAL ANOMALIES.....	5P01 HD02080-15	330,403
QUISSELL, DAVID O.....	PHOSPHORYLATION MECHANISMS IN SUBMANDIBULAR GLANDS.....	1R01 AM27278-01	85,064
QUISSELL, DAVID O.....	PHARMACOLOGY OF SUBMAXILLARY GLAND SECRETION IN VITRO.....	5R01 DE04778-03	46,163
REISS, OSCAR K.....	ROLE OF MACROPHAGE ARGINASE IN TUMOR IMMUNITY.....	1R01 CA26462-01A1	45,361
REPINE, JOHN E.....	ROLE OF PHAGOCYTES IN OXYGEN INDUCED LUNG INJURY.....	5R01 HL24248-02	21,477
ROBINSON, WILLIAM A.....	AUTOLOGOUS BLOOD RESCUE AFTER INTENSIVE CHEMOTHERAPY.....	5R01 CA23552-03	81,326
ROBINSON, WILLIAM A.....	RED AND WHITE BLOOD CELL PRODUCTION IN BURNED HUMANS.....	1R01 GM25759-01A1	98,713
ROPER, STEPHEN D.....	REPAIR OF DAMAGED SYNAPTIC CONNECTIONS.....	2R01 NS11505-07	78,727
RUTHERFORD, ROBERT B.....	EVALUATING ARTERIAL DISEASE BY VELOCITY-WAVE ANALYSIS.....	5R01 HL22893-03	68,952
SADLER, JOHN R.....	DEFECTIVE HERPES VIRAL DNA.....	5R01 AI14592-03	39,277
SADLER, JOHN R.....	THE CLONING OF SYNTHETIC LACTOSE OPERATORS.....	5R01 GM24606-03	89,133

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
SANDERSON, RICHARD J.....	RESPONSE OF LEUKOCYTES TO HUMAN TUMOR CELLS.....	1R01 CA23593-01A2	61,515
SCHALCH, DON S.....	ROLE OF SOMATOMEDIN IN GROWTH AND DIABETES MELLITUS.....	5R01 AM18617-06	90,422
SCHALCH, DON S.....	REGULATION OF SOMATOMEDIN BIOSYNTHESIS.....	1R01 AM26617-01	51,629
SCHRIER, ROBERT W.....	SYSTEMIC HEMODYNAMICS AND RENAL WATER EXCRETION.....	5P01 AM19928-04	326,393
SCHWARZ, M ROY.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00051-19	820,498
SCHWARZ, M ROY.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00069-18	729,377
SCHWARZ, M ROY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05357-19	189,787
SEEDS, NICHOLAS W.....	IN VITRO BIOCHEMICAL DIFFERENTIATION OF NERVE CELLS.....	2R01 NS09818-08	69,123
SEEDS, NICHOLAS W.....	GTP AND FACTORS REGULATING TUBULIN POLYMERIZATION.....	5R01 NS10709-06	49,680
SELIGMAN, PAUL A.....	CELLULAR UPTAKE OF IRON AND COBALAMIN.....	1R01 AM27039-01	59,807
SIMON, FRANCIS R.....	SURFACE MEMBRANE REGULATION OF BILE ACID TRANSPORT.....	5R01 AM15851-09	61,204
SINENSKY, MICHAEL S.....	BIOCHEMICAL GENETICS OF CHOLESTEROL REGULATION.....	5R01 GM24732-02	66,651
STARZL, THOMAS E.....	EFFECTS OF ORTHOTOPIC LIVER TRANSPLANTATION.....	2R01 AM07772-17	147,388
STARZL, THOMAS E.....	HEPATOTROPIC FACTORS IN SPLANCHNIC VENOUS BLOOD.....	5R01 AM17260-12	57,977
STEWART, JOHN M.....	KININ SYSTEM INHIBITORS.....	1R01 HL26284-01	74,915
SWANSON, GEORGE D.....	MULTIPLE GAS MEASUREMENT OF LUNG TISSUE VOLUME.....	5R23 HL22978-03	29,916
TALMAGE, DAVID W.....	THE ROLE OF MACROPHAGES IN ALLOGRAFT IMMUNITY.....	5R01 AI03047-22	102,860
TAN, ENG M.....	AUTOIMMUNE RESPONSES TO NUCLEAR ANTIGENS.....	5R01 AM20705-03	105,332
TAN, ENG M.....	MULTIPURPOSE ARTHRITIS CENTER.....	1P60 AM27179-01	256,891
TAYLOR, AUSTIN L.....	PHAGE MU: A MODEL FOR INTEGRATION OF ANIMAL VIRUS DNA.....	2R01 AI14025-04	74,817
VASIL, MICHAEL L.....	GENETICS OF VIRULENCE IN PSEUDOMONAS AERUGINOSA.....	5R01 AI15940-02	52,840
WADDELL, WILLIAM R.....	CELL SYNCHRONY IN SOLID TUMORS: WARFARIN EFFECT.....	3R01 CA19137-04S1	5,692
WEBBER, MUKTA M.....	HUMAN PROSTATIC GROWTH REGULATION AND CARCINOGENESIS.....	1R01 CA28279-01	75,748
WEIL, JOHN V.....	HEMODYNAMIC AND VENTILATORY CONSEQUENCES OF POLYCYTHEMIA.....	1R01 HL26088-01	30,371
WEINER, NORMAN.....	SYNTHESIS, STORAGE AND RELEASE OF CATECHOLAMINES.....	5R01 NS07927-13	136,830
WEINER, NORMAN.....	BASAL GANGLIA DISORDERS AND NEUROTRANSMITTER FUNCTION.....	3P01 NS09199-09S2	21,864
WEINER, NORMAN.....	BASAL GANGLIA DISORDERS & NEUROTRANSMITTER FUNCTION.....	2P50 NS09199-10	713,906
WENGER, DAVID A.....	SPINGOMYELINASE ACTIVITY AND SPHINGOMYELIN LIPIDOSES.....	5R01 HD10494-04	32,721
WENGER, DAVID A.....	FACTORS AFFECTING HUMAN BETA-GALACTOSIDASE ACTIVITY.....	5R01 NS10698-06	22,039
WESTON, WILLIAM L.....	ERYTHEMA MULTIFORME: A CLINICAL-PATHOGENETIC STUDY.....	5R01 AI16637-02	37,043
WESTON, WILLIAM L.....	MONOCYTE-LYMPHOCYTE INTERACTIONS IN MYCOSIS FUNGOIDES.....	9R01 CA26760-04	48,846
WICKELGREN, WARREN O.....	ORGANIZATION OF THE NERVOUS SYSTEM.....	5R01 NS09961-10	62,308
WICKS, WESLEY D.....	CYCLOC AMP ANALOGS AS GROWTH REGULATORS IN TUMOR CELLS.....	5R01 CA26549-02	16,853
WOLFE, BARRY B.....	HEART & LUNG MUSCARINIC AND BETA-ADRENERGIC RECEPTORS.....	5R23 HL24353-02	36,297
ORGANIZATION TOTAL	158 15,923,172		
UNIVERSITY OF DENVER ZIP CODE 80210			
EATON, GARETH R.....	INTERACTION OF SPIN LABELS WITH TRANSITION METALS.....	2R01 GM21156-07	86,747
EATON, GARETH R.....	BROADENING REAGENTS FOR NITROXYL SPIN PROBES.....	5R01 GM26566-02	35,826
HARTER, SUSAN.....	THE DEVELOPMENT OF MOTIVE HIERARCHIES IN CHILDREN.....	5R01 HD09613-05	60,743
HORN, JOHN L.....	PROCESS STUDIES OF AGE DIFFERENCE IN ABILITIES.....	5R01 HD13251-02	84,629
RINARD, GEORGE A.....	PATIENT EVALUATION OF AN OCULAR CONTROL SYSTEM.....	5R01 AM10763-11	104,478
WEINER, IRVING.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07138-09	59,544
WICKSTROM, ERIC.....	MOLECULAR RULERS FOR RIBOSOMES.....	5R01 GM24128-03	46,569
WICKSTROM, ERIC.....	COLORADO SHARED CIRCULAR DICHROISM FACILITY.....	5P41 GM27462-02	1,000
YORK, SHELDON S.....	CHANGES IN LAC REPRESSOR STRUCTURE DURING DNA BINDING.....	5R01 GM20561-08	71,267
ORGANIZATION TOTAL	9 550,803		
FORT COLLINS			
COLORADO STATE UNIVERSITY ZIP CODE 80523			
ALEXANDER, ARCHIBALD F.....	MODELS OF HYPOXIC PULMONARY HYPERTENSION.....	5R01 HL18191-06	58,244
ALLEN, KENNETH G.....	COPPER NUTRITURE, CHOLESTEROL AND ARTERIAL METABOLISM.....	5R01 HL24565-02	52,181
AMANN, RUPERT P.....	FUNCTION OF THE EPIDIDYMAL EPITHELIUM.....	1R01 HD14501-01	76,006
ANDERSON, OREN P.....	LIGAND-STABILIZED COPPER MERCAPTEID COMPLEXES.....	5R01 GM25302-02	35,735
AZARI, PARVIZ.....	INTERMOLECULAR CROSS-LINKS IN LENS.....	3R01 EY02416-02S1	12,250
AZARI, PARVIZ.....	INTERMOLECULAR CROSS-LINKS IN LENS.....	2R01 EY02416-03	62,288
BAMBURG, JAMES R.....	REGULATION AND FUNCTION OF PROTEINS IN GROWING NERVES.....	5R01 NS10429-08	63,771
BEDFORD, JOEL S.....	DOSE AND TIME FACTORS IN CELLULAR RADIOSENSITIVITY.....	5R01 CA18023-06	158,445
CAUGHEY, WINSLOW S.....	REACTIONS OF HEMEPROTEINS AND OXYGEN.....	5R01 HL15980-08	163,145

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
CONNELL, CAROLYN J.....	THE EFFECT OF HCG ON SERTOLI CELLS.....	2R01 HD13928-02	68,836
COSS, RONALD A.....	CELLULAR BASIS FOR HEAT KILLING & RADIOSENSITIZATION.....	5R23 CA26416-02	29,376
DALBOW, DAVID G.....	MECHANISM OF ADRIAMYCIN-INDUCED CARDIOMYOPATHY.....	5R01 CA22191-03	71,416
DE BRUIN, KENNETH E.....	STEREOSPECIFICITY IN ANTITUMOR ACTIVITY.....	5R01 CA19908-05	36,379
DEWEY, WILLIAM C.....	CELLULAR RESPONSES TO IRRADIATION.....	5R01 CA08618-15	214,800
DEWEY, WILLIAM C.....	MOLECULAR BASIS OF RADIOSENSITIZATION BY HYPERTHERMIA.....	5R01 CA18334-05	131,733
FAHRNEY, DAVID E.....	METABOLIC REGULATION IN MYCOPLASMAS.....	5R01 AI15872-02	45,471
FIXMAN, MARSHALL.....	THEORETICAL CHEMISTRY AND POLYMERS.....	5R01 GM27945-02	110,465
FOX, MICHAEL H.....	APPLICATIONS OF FLOW CYTOMETRY TO RADIATION BIOLOGY.....	5R23 CA25636-02	34,562
GILLETTE, EDWARD L.....	RADIATION REPAIR OF NORMAL MAMMALIAN TISSUES.....	2R01 CA13899-09	235,579
GILLETTE, EDWARD L.....	TUMOR & NORMAL TISSUE RESPONSE TO HEAT AND RADIATION.....	5R01 CA17831-06	88,525
GILLETTE, EDWARD L.....	HYPERTHERMIA AND IRRADIATION EFFECT ON TUMORS.....	5R01 CA24262-02	77,838
GORTHY, WILLIS C.....	MORPHOLOGICAL AND HISTOCHEMICAL STUDIES OF CATARACTS.....	5R01 EY00378-11	89,682
HEGEDUS, LOUIS S.....	ORGANOMETALLIC SYNTHESIS OF BIOACTIVE COMPOUNDS.....	5R01 GM26178-02	57,721
HILL, GEORGE C.....	BIOCHEMISTRY OF CULTURED INFECTIVE TRYPAOSOMES.....	5R01 AI15070-02	106,023
HISTAND, MICHAEL B.....	NONINVASIVE MEASUREMENT OF CARDIAC OUTPUT.....	5R01 HL23236-03	93,985
JORDAN, JOHN P.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07127-12	92,157
LETT, JOHN T.....	AGING, RADIATION & DNA DAMAGE IN NONDIVIDING TISSUE.....	5R01 AG00005-07	89,322
MASKEN, JAMES F.....	NEUROENDOCRINE REGULATION OF PUBERTY.....	5R01 HD09363-03	56,055
MATHIAS, MELVIN M.....	DIETARY FAT COMPOSITION AND PROSTAGLANDIN SYNTHESIS.....	5R01 HL18239-05	53,258
MEYERS, ALBERT I.....	SYNTHETIC STUDIES OF STREPTOGRAMIN ANTIBIOTICS.....	5R01 AI15471-02	48,699
MEYERS, ALBERT I.....	SYNTHESIS OF MAYTANSINE AND ITS DERIVATIVES.....	5R01 CA16051-06	103,479
NETT, TERRY M.....	GN-RH-RECEPTOR INTERACTION: AFFINITY VERSUS BIOPOTENCY.....	3R01 HD07841-05S1	5,670
NETT, TERRY M.....	CELLULAR MECHANISMS REGULATING RELEASE OF LH.....	2R01 HD07841-06	84,910
NETT, TERRY M.....	CONTROL OF SEASONAL REPRODUCTION IN EWES BY MELATONIN.....	1R01 HD13568-01	60,400
NISWENDER, GORDON D.....	REGULATION OF LH RECEPTORS AND PROGESTERONE SECRETION.....	5R01 HD11590-03	107,979
PAULE, MARVIN R.....	GENE SELECTION BY MULTIPLE EUKARYOTIC RNA POLYMERASES.....	5R01 GM22580-05	66,955
PAULE, MARVIN R.....	ISOLATION AND CHARACTERIZATION OF ACANTHAMOEBA GENES.....	5R01 GM26059-02	47,168
PAUTLER, EUGENE L.....	SUGAR TRANSPORT BY MAMMALIAN BLOOD-RETINAL BARRIERS.....	5R01 EY01643-05	70,460
PEARSON, LEONARD D.....	HOST-VIRUS INTERACTIONS IN A LOCAL LYMPH NODE.....	5R23 AI14893-03	43,721
PEMISTER, ROBERT D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05458-18	108,853
RALPH, CHARLES L.....	FUNCTION OF THE PINEAL COMPLEX.....	5R01 NS12257-07	76,900
RASH, JOHN E.....	STUDIES OF EXCITABLE MEMBRANES.....	5R01 NS15991-02	55,306
ROBERTSHAW, DAVID.....	PHYSICAL TRAINING AND HUMAN OVARIAN FUNCTION.....	1R01 HD13778-01	27,085
SAWYER, HEYWOOD R, JR.....	LOSS AND RENEWAL OF LH RECEPTORS IN LUTEAL CELLS.....	1R01 HD13486-01A1	47,808
SEIDEL, GEORGE E, JR.....	ABNORMALITIES IN CALVES FROM EMBRYO TRANSFER.....	1R01 HD13487-01A1	42,215
SKOGERBOE, R K.....	EFFECTS OF LEAD ON PROCARYOTIC AND EUKARYOTIC CELLS.....	5R01 ES01047-06	44,086
STERMITZ, FRANK R.....	ANTITUMOR COMPOUNDS FROM NORTH AMERICAN PLANTS.....	5R01 CA19243-05	51,160
STONE, HELEN B.....	RADIATION AND HYPOXIC CELL SENSITIZERS.....	5R01 CA20344-05	112,064
STORZ, JOHANNES.....	PATHOGENESIS OF CHLAMYDIAL POLYARTHRITIS ENTERITIS.....	5R01 AI08420-12	78,120
SWAN, HENRY.....	PREVENTION OF MYOCARDIAL HYPOXIA DURING BY-PASS.....	5R01 HL21969-03	63,723
TU, ANTHONY T.....	HEMORRHAGIC AND NECROTIC TOXINS IN SNAKE VENOMS.....	5R01 GM15591-13	72,503
TU, ANTHONY T.....	SEA SNAKE VENOMS AND TOXINS.....	5R01 GM19172-09	63,442
TU, ANTHONY T.....	ACTION OF LIZARD TOXINS AND ROLE IN ENVENOMATION.....	5R01 GM24718-03	58,856
TUCKER, ALAN.....	HYPOXIC PULMONARY VASCULAR HYPERTROPHY AND HYPERPLASIA.....	5R01 HL25815-02	45,814
WOODY, ROBERT W.....	OPTICAL PROPERTIES OF BIOLOGICAL MACROMOLECULES.....	2R01 GM22994-05	106,623
WOODY, ROBERT W.....	SPECTROSCOPIC STUDIES OF RNA POLYMERASE MECHANISM.....	5R01 GM23697-05	73,937
YOUNG, STUART.....	PATHOGENETIC MECHANISMS IN RETINAL DYSPLASIA.....	5R01 EY03100-02	64,398
ORGANIZATION TOTAL	57	4,297,132	

LAKEWOOD

AMC CANCER RESEARCH CENTER AND HOSPITAL ZIP CODE 80214

BOREK, ERNEST.....	MOLECULAR BIOLOGY OF ETHIONINE CARCINOGENESIS.....	2R01 CA23536-04	137,251
BOREK, ERNEST.....	ORIGINS OF URINARY NUCLEOSIDES IN TUMOR TISSUE.....	1R01 CA25210-01A1	54,710
ORGANIZATION TOTAL	2	191,961	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
COLORADO—Continued			
JEFFERSON COUNTY HEALTH DEPARTMENT		ZIP CODE 80226	
JOHNSON, CARL J.	EVALUATION OF LOW LEVEL PLUTONIUM & CANCER	5R01 CA25729-02	32,792
ORGANIZATION TOTAL	1	32,792	
STATE TOTAL	332	30,317,597	
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER		ZIP CODE 06032	
BALLOW, MARK	IMMUNE RESPONSES TO MINOR HISTOCOMPATIBILITY ANTIGENS	5R01 AI14484-02	63,588
BALLOW, MARK	IMMUNOGENETICS OF SACRAL AGENESIS	5R01 AM20975-03	60,049
BALLOW, MARK	MEDIATORS OF INFLAMMATION IN TEAR SECRETIONS	2R01 EY02036-04	65,037
BALLOW, MARK	ALTERED METABOLISM & IMMUNE FUNCTION IN NEPHROSIS	5R01 HD12050-03	70,895
BECKER, ELMER L	IMMUNOLOGICALLY ACTIVATED ENZYME SYSTEMS OF CELLS	2R01 AI09648-11	146,911
BERLIN, RICHARD D	EFFECT OF MICROTUBULAR PROTEINS ON CELL SURFACES	5R01 CA15544-07	67,898
BERLIN, RICHARD D	PATHOGENESIS OF INFLAMMATORY LUNG DISEASES	5P01 HL23192-02	491,720
BIGAZZI, PIERLUIGI E	INFLAMMATORY AUTOIMMUNE RESPONSES AND NEOPLASIA	5R01 CA26053-02	45,275
BRONNER, FELIX	COPPER NUTRITION, ABSORPTION AND COPPER-BINDING PROTEINS	3R01 AM26174-01S1	7,856
BRONNER, FELIX	COPPER NUTRITION, ABSORPTION, & COPPER-BINDING PROTEINS	5R01 AM26174-02	95,033
BURSTONE, CHARLES J	PREDICTION OF TOOTH DISPLACEMENT	2R01 DE03545-08	150,400
BURSTONE, CHARLES J	FORCE SYSTEMS FROM ORTHODONTIC APPLIANCE	5R01 DE03953-06	175,207
CARSON, JOHN H	MYELIN PROTEIN POLYMORPHISM AND MEMBRANE BIOGENESIS	5R01 NS15190-02	60,096
CINTI, DOMINICK L	CYTOCHROME B5 IN MICROSOMAL ELONGATION OF FATTY ACIDS	5R01 AM21633-03	65,258
COHEN, STANLEY	COMPLEMENT AND CELLULAR ACTIVATION	5R01 AI12477-07	71,359
COHEN, STANLEY	ANTIBODIES TO LYMPHOCYTE-DERIVED MEDIATORS	5R01 AI13258-05	65,075
COHEN, STANLEY	REGULATION OF LYMPHOKINE ACTIVITY	1R01 AI16706-01	83,021
DEUTSCHER, MURRAY P	ENZYMOLGY AND CONTROL OF AMINO ACID ACTIVATION	5R01 GM17536-13	154,882
DORE-DUFFY, PAULA	LYMPHOCYTE ADHERENCE IN MULTIPLE SCLEROSIS	1R01 NS14357-01A2	85,712
ENGELMAN, RICHARD M	MYOCARDIAL PRESERVATION DURING ISCHEMIC ARREST	5R01 HL22559-02	59,479
FEINSTEIN, MAURICE B	MECHANISM OF ACTION OF ANESTHETICS	5R01 GM17536-11	83,892
FEINSTEIN, MAURICE B	CYCLOC NUCLEOTIDES AND CALCIUM IN PLATELETS	5R01 HL18937-05	89,277
FERNANDEZ, SALVADOR M	NIGMS SHARED INSTRUMENTATION PROGRAM	5P41 GM27524-02	9,600
FERNANDEZ, SALVADOR M	SMOOTH MUSCLE DEVELOPMENT IN VITRO	5R01 HL23013-03	50,631
FREEDMAN, MICHAEL L	VIRULENCE AND COMPETITION AGAINST STREPTOCOCCUS MUTANS	2R01 DE03758-06	161,018
GAY, THOMAS J	PHYSIOLOGICAL STUDIES OF MASTICATION	5R01 DE04610-02	59,227
GAY, THOMAS J	THE MOTOR ORGANIZATION OF SPEECH PRODUCTION	5R01 NS10424-06	56,197
GOLDBERG, A JON	TITANIUM ALLOYS IN DENTISTRY	1R01 DE05321-01	105,525
GOLDSCHNEIDER, IRVING	DEVELOPMENT OF IMMUNOLOGICALLY COMPETENT LYMPHOCYTES	2R01 AI09649-11	100,810
GOLDSCHNEIDER, IRVING	TERMINAL TRANSFERASE IN NORMAL & NEOPLASTIC LYMPHOCYTES	5R01 AI14743-04	130,521
GONDOS, BERNARD	GONADAL DIFFERENTIATION IN THE HUMAN FETUS	5R01 HD12918-03	66,156
GRASSO, JOSEPH A	RBC DIFFERENTIATION	5R01 AM19167-06	81,762
GRIMM-JORGENSEN, YVONNE	THYROTROPIN RELEASING FACTOR; RELEASE AND FUNCTION	5R01 AM20929-03	41,400
HOCK, JANET M	BLOOD VESSEL RESPONSE IN PERIODONTAL DISEASE	5R01 DE05188-02	80,743
HOLLAND, MICHAEL J	CONTROL OF TRANSCRIPTION OF ISOLATED EUKARYOTIC GENES	5R01 GM23109-05	61,226
HOYER, LEON W	STUDIES OF ANTIBODIES TO ANTIHEMOPHILIC FACTOR	5R01 HL16626-07	105,114
JANIS, RONALD A	ROLE OF PHOSPHOPROTEINS IN MYOMETRIAL CONTRACTION	7R01 HD15441-01	17,813
JANIS, RONALD A	CALCIUM REGULATION AND HYPERTENSION	7R01 HL27331-01	60,883
JUNGAS, ROBERT L	EFFECT OF INSULIN ON CO2 FIXATION IN ADIPOSE TISSUE	5R01 AM22142-02	101,321
KAPLAN, JERRY	REGULATION OF PROTEASE SECRETION BY ALVEOLAR MACROPHAGES	5R01 HL23376-02	11,201
KATZ, ARNOLD M	ACTIONS OF DRUGS AND IONS ON CARDIAC MEMBRANES	2R01 HL21812-04	200,169
KATZ, ARNOLD M	CONTROL OF CATION FLUXES ACROSS CARDIAC MEMBRANES	5R01 HL22135-03	82,572
KEGELES, S STEPHEN	CHILDREN'S ACCEPTANCE OF CARIES PREVENTIVE PROCEDURES	5R01 DE03868-06	121,389
KOPPEL, DENNIS E	MEMBRANE DYNAMICS OF LOCOMOTING TISSUE CELLS	2R01 GM23585-04	43,871
KOPPEL, DENNIS E	GLYCOPROTEIN MOBILITIES-MATRIX CONTROLS	1R01 GM28250-01	106,059
KORNMAN, KENNETH S	MICROBIOLOGY OF LIGATURE-INDUCED PERIODONTITIS	1R23 DE05599-01	47,263
KREUTZER, DONALD L	LEUKOTACTIC MEDIATORS IN LUNG INFLAMMATORY REACTIONS	5R23 HL22437-03	13,991
KREUTZER, DONALD L	RESPONSE OF PULMONARY ENDOTHELIAL CELLS TO INJURY	5R01 HL25015-02	126,610

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
LANGELAND, KAARE	BIOCOMPATIBILITY OF ENDODONTIC MATERIALS	3R01 DE04096-03S1	41,172
LANGELAND, KAARE	BIOCOMPATIBILITY OF ENDODONTIC MATERIALS	2R01 DE04096-04	78,384
LOE, HARALD	BIOMEDICAL RESEARCH SUPPORT	2507 RR05677-12	135,227
LUNDY, JOEL	MECHANISM OF ANESTHESIA AND SURGERY INDUCED METASTASES	5R23 GM25535-02	39,312
LURIE, ALAN G.	ENHANCED ORAL CARCINOGENESIS BY LOW DOSE X-RADIATION	5R01 DE03996-05	80,566
MASSEY, ROBERT U.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05678-12	189,107
MAXWELL, GERALD D.	DEVELOPMENTAL INFLUENCES ON NEURAL CREST CELLS	1R01 NS16115-01	62,464
MC LEAN, ROBERT H.	EVALUATE C3 TYPE AND GLOMERULONEPHRITIS	5R01 AM25216-02	50,845
MOREST, D KENT	ANATOMY OF THE AUDITORY SYSTEM	3R01 NS14347-03S1	17,310
MOREST, D KENT	ANATOMY OF THE AUDITORY SYSTEM	5R01 NS14347-04	156,378
MOREST, D KENT	NEUROGENESIS	2R01 NS14354-03	60,740
NANDA, RAVINDRA	ANTERIOR DISPLACEMENT OF MAXILLA BY CONTROLLED FORCES	5R01 DE03998-06	42,868
NANDA, RAVINDRA	CRANIOFACIAL ADAPTATIONS AFTER MAXILLARY OSTEOATOMY	1R01 DE05396-01	111,032
NUKI, KLAUS	LOCALIZATION IN GINGIVA OF BONE RESORPTION MEDIATORS	5R01 DE04728-03	103,600
O'ROURKE, J.	UVEAL BLOOD FLOW AND METABOLISM IN VIVO	5R01 EY00123-09	56,984
OLIVER, JANET M.	CHEDIAK-HIGASHI AND CANCER CELLS WITH SIMILAR DEFECTS	5R01 CA18564-05	43,245
OLIVER, JANET M.	ACTION OF CARBAMATE HERBICIDES IN MAMMALIAN CELLS	5R01 ES01106-06	52,017
OSBORN, MARY J.	BIOSYNTHESIS OF LIPOPOLYSACCHARIDES	5R01 AI08650-12	182,106
OZOLS, JURIS B.	STRUCTURE AND PROTEOLYSIS OF HEPATIC MEMBRANE PROTEINS	5R01 GM26351-02	64,179
PAPPANO, ACHILLES J.	PHARMACOLOGY OF DEVELOPING CARDIAC TISSUES	5R01 HL13339-10	91,496
PATTERSON, JOHN W.	LENS FIBER FORMATION	5R01 EY02128-03	63,459
PHILIPPS, ANTHONY F.	INSULIN SECRETION IN THE FETUS AND IN NEONATES	5R01 AM25607-02	84,240
POYTON, ROBERT O.	STRUCTURE AND ASSEMBLY OF CYTOCHROME C OXIDASE	5R01 GM21800-06	63,331
POYTON, ROBERT O.	PATHWAYS OF PROTEIN TRANSPORT INTO CELL ORGANELLES	1R01 GM27773-01	96,754
RAISZ, LAWRENCE G.	FACTORS INFLUENCING BONE METABOLISM	2R01 AM18063-07	184,805
RAISZ, LAWRENCE G.	GORDON RESEARCH CONFERENCE ON BONES AND TEETH	1R13 DE05748-01	3,500
REISINE, SUSAN T.	DENTAL DISEASE AND WORK LOSS	1R23 DE05497-01	57,516
RESSLER, CHARLOTTE	CYSTINE DEGRADATION FOR CONTROL OF CELL GROWTH	5R01 CA25690-02	75,660
RICKLES, FREDERICK R.	THE ROLE OF FIBRIN DEPOSITION IN CANCER	5R01 CA22202-03	30,497
ROBINSON, KENNETH R.	ELECTRICAL CURRENTS AND EMBRYONIC CELLS	3R01 HD14228-01S1	20,397
RODAN, GIDEON A.	PARATHYROID HORMONE (PTH) BIOASSAY & CAMP IN PTH ACTION	5R01 AM17848-06	90,003
RODAN, GIDEON A.	MECHANICAL AND ELECTRICAL EFFECTS ON OSTEOGENESIS	5R01 DE04327-05	92,574
ROSSOMANDO, EDWARD F.	ABNORMAL PALATAL DEVELOPMENT INDUCED BY HDACIDIN	2R01 DE04657-04	56,067
ROTH, GERALD J.	PROSTAGLANDIN SYNTHESIS IN HUMAN PLATELETS	3R01 HL20794-03S1	3,877
ROTHFIELD, LAWRENCE I.	STUDIES OF MEMBRANE GLYCOSYLTRANSFERASES	2R01 AM13407-13	130,583
ROTHFIELD, LAWRENCE I.	MOLECULAR ORGANIZATION OF PRESYNAPTIC MEMBRANES	5R01 NS14647-03	58,567
ROTHFIELD, NAOMI F.	ROLE OF PROPERDIN IN CONNECTIVE TISSUE DISEASES	5R01 AM16576-08	118,431
ROTHFIELD, NAOMI F.	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20621-03	247,724
SCHENKMAN, JOHN B.	INDUCTION AND MODE OF ACTION OF HEPATIC DRUG OXIDASE	5R01 GM26114-03	155,128
SCHENKMAN, JOHN B.	ACTIVE OXYGEN GENERATION BY HEPATIC MICROSOMES	5R01 GM26548-03	69,514
SETLOW, PETER	DEGRADATION REACTIONS IN SPORE GERMINATION	5R01 GM19698-09	98,992
SHA'AFI, RAMADAN I.	CHEMOTAXIS AND ELECTROLYTE TRANSPORT IN NEUTROPHILS	5R01 AI13734-03	54,956
SHA'AFI, RAMADAN I.	HUMAN RED CELL AND WATER MOVEMENT	1R01 HL24160-01A1	66,210
SHASKAN, EDWARD G.	PSYCHOSOCIAL AND BIOCHEMICAL RISKS FOR MONONUCLEOSIS	5R01 AI15901-02	91,750
SHEETZ, MICHAEL P.	MODULATION OF RED CELL MEMBRANE ACTIVITIES BY LECTINS	5R01 HL23359-02	68,211
SHEETZ, MICHAEL P.	CELL CYTOSKELETON: STRUCTURE AND MEMBRANE INTERACTIONS	5R01 HL23795-02	27,967
SHERLINE, PETER	MICROTUBULES AND THE MECHANISM OF INSULIN SECRETION	5R01 GM22497-05	65,890
SLEE, ANDREW M.	VIRULENCE FACTORS OF GRAM NEGATIVE CORRODING BACTERIA	5R01 DE04808-02	61,552
SMILOWITZ, HENRY M.	DEVELOPMENTAL AND NEURAL CONTROL OF THE CELL SURFACE	2R01 NS13860-04	80,037
SPENCER, RICHARD P.	PROGRAM IN RADIONUCLIDE STUDIES OF TUMORS AND GROWTH	5R01 CA17802-06	264,268
STRITTMATTER, PHILIPP	STUDY OF STRUCTURE AND FUNCTION OF MICROSOMAL MEMBRANES	5R01 GM15924-13	181,110
SUNDERMAN, F WILLIAM, JR.	NICKEL CARCINOGENESIS	5R01 ES01337-05	108,135
TANZER, MARVIN L.	STRUCTURE, FUNCTION AND PROPERTIES OF COLLAGEN	5R01 AM12683-12	82,979
TANZER, MARVIN L.	BIOLOGY AND CHEMISTRY OF PROCOLLAGEN IN CELL CULTURE	5R01 AM17220-08	58,629
TIBBETTS, CLARK J.	ADENOVIRUS GENOME EXPRESSION—PHYSICAL MAPPING STUDIES	5R01 CA17130-06	82,613
VIOLA, MICHAEL V.	PATHOGENESIS OF PAGET'S DISEASE OF BONE	1R01 CA27792-01	68,980
VOLLE, ROBERT L.	GANGLIONIC TRANSMISSION STUDIES	5R01 NS07540-13	57,729
WEINSTEIN, SAM	EXTENSIBILITY CHARACTERISTICS OF HUMAN CHEEK	5R01 DE04047-04	72,571
ORGANIZATION TOTAL	106	9,255,430	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
HAMDEN			
QUINNIPIAC COLLEGE	ZIP CODE 06518		
OPHEIM, DENNIS J.	BIOLOGICAL FUNCTIONS OF ALPHA MANNOSIDASE IN YEAST	7R01 GM29251-01	32,601
RITCHIE, BRENDA B.	HUMAN MUSCULAR FATIGUE	5R01 NS14756-03	60,261
ORGANIZATION TOTAL	2 92,862		
HARTFORD			
HARTFORD HOSPITAL	ZIP CODE 06115		
MADERAZO, EUFRONIO G.	LEUKOTAXIS ENHANCING FACTOR AND LUNG INFECTIONS	5R01 HL22257-03	53,014
ORGANIZATION TOTAL	1 53,014		
TRINITY COLLEGE	ZIP CODE 06106		
BRONZINO, JOSEPH D.	BRAIN STEM MECHANISMS INVOLVED IN PAIN MODULATION	1R01 GM27226-01	59,991
ORGANIZATION TOTAL	1 59,991		
MIDDLETOWN			
WESLEYAN UNIVERSITY	ZIP CODE 06457		
ALLEWELL, NORMA M.	SUBUNIT INTERACTIONS IN ASPARTATE TRANSCARBAMYLASE	2R01 AM17335-08	71,103
BERRY, SPENCER J.	CHARACTERIZATION OF INSECT OOCYTE MRNA	5R01 HD10435-03	15,964
BODZNICK, DAVID A.	ELECTRORECEPTION: NEURAL ORGANIZATION	1R01 NS16574-01	55,407
DONADY, JOHN J.	GENETIC CONTROL OF CELL DIFFERENTIATION	5R01 HD08286-06	53,267
HAAKE, PAUL C.	PHOSPHORYLATION IN METABOLIC PROCESSES	3R01 AM12743-12S1	15,722
HAAKE, PAUL C.	PHOSPHORYLATION IN METABOLIC PROCESSES	2R01 AM12743-13	36,213
KIEFER, BARRY I.	RNA METABOLISM AND AGING: GENETIC APPROACH	5R01 AG02039-02	65,470
KIEFER, BARRY I.	DEVELOPMENTAL GENETICS OF SPERMATID DIFFERENTIATION	5R01 GM19130-08	61,552
KOHLER, BRYAN E.	SPECTROSCOPIC STUDIES OF VISUAL PIGMENTS	2R01 EY01733-05	94,625
LUKENS, LEWIS N.	COLLAGEN SYNTHESIS AND ITS REGULATION	5R01 AM16162-08	90,502
LUKENS, LEWIS N.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07107-13	63,436
LYNCH, CAROL B.	GENETIC ANALYSIS OF BEHAVIORAL THERMOREGULATION	5R01 GM21993-06	63,916
LYNCH, CAROL B.	AN ADAPTIVE MODEL OF MATERNAL BEHAVIOR	5R01 HD11293-03	19,630
LYNCH, G. ROBERT	ROLE OF THE PINEAL GLAND IN TEMPERATURE REGULATION	5R01 NS15503-02	47,682
PAWLOWSKI, PHILIP J.	REGULATION OF COLLAGEN BIOSYNTHESIS	5R23 HL21663-03	41,191
POTTER, STANLEY S.	TWO DIMENSIONAL RESTRICTION STUDIES OF DROSOPHILA DNA	5R01 GM26940-02	53,456
PRATT, REX F.	BETA-LACTAMASES—INHIBITION, MECHANISM, AND EVOLUTION	5R01 AI15077-03	27,393
PRATT, REX F.	THE CHEMICAL MODIFICATION OF HISTIDINE IN PROTEINS	5R01 GM24079-03	25,083
TURNER, ROBERT S., JR.	ALTERED CELL ADHESIVENESS IN VIVO: MEMBRANE CHANGES	3R01 CA20350-03S1	7,338
WOLFE, JASON S.	REGULATION OF GENE EXPRESSION IN SYNCHRONIZED CELLS	5R01 GM18014-10	108,830
ORGANIZATION TOTAL	20 1,017,780		
NEW HAVEN			
HASKINS LABORATORIES	ZIP CODE 06510		
BACCHI, CYRUS J.	POLYAMINES IN TRYPAPOSOMES—FUNCTION AND METABOLISM	5R01 AI13852-03	46,412
HARRIS, KATHERINE S.	RESEARCH PROGRAM ON DYNAMICS OF SPEECH ARTICULATION	5P50 NS13617-18	254,630
HARRIS, KATHERINE S.	LARYNGEAL FUNCTION IN NORMAL AND ABNORMAL SPEECH	3R01 NS13870-03S1	46,400
HUTNER, SEYMOUR H.	CATIONIC TRYPAPOSIDES: POLYAMINES AND LETHALITY	5R01 AI13801-03	69,178
KELSO, J. A.	MOVEMENT CONTROL FOLLOWING FINGER JOINT REPLACEMENT	5R01 AM25814-02	26,831
LIBERMAN, ALVIN M.	NATURE AND ACQUISITION OF THE SPEECH CODE AND READING	5P01 HD01994-15	430,607
LIBERMAN, ALVIN M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05596-16	54,021
ORGANIZATION TOTAL	7 928,079		
JOHN B. PIERCE FOUNDATION OF CONNECTICUT	ZIP CODE 06519		
BARTOSHUK, LINDA M.	TASTE AND AGING	5R01 AG01331-02	44,148
BARTOSHUK, LINDA M.	TASTE OF MIXTURES	2R01 ES00880-07	54,497
CAIN, WILLIAM S.	PERCEIVED INTENSITY OF ODORANTS AND IRRITANTS	5R01 ES00592-08	77,648
DU BOIS, ARTHUR B.	PERIPHERAL CIRCULATION AND FLUID BALANCE	2R01 HL17407-06A1	102,702
DU BOIS, ARTHUR B.	MECHANISM OF ACTION OF ASCORBIC ACID ON BRONCHI IN MAN	5R01 HL23599-02	49,139

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
NADEL, ETHAN R.	BLOOD VOLUME AND VENOUS RETURN IN THERMAL STRAIN	5R01 HL20634-03	59,774
RITCHIE, BRENDA B.	BIOPHYSICS OF MUSCULAR EXERCISE	1R01 NS16338-01	90,989
STEVENS, JOSEPH C.	THERMO-TACTILE AND THERMO-GUSTATORY INTERACTIONS	5R01 NS15419-02	50,311
STITT, JOHN T.	TEMPERATURE REGULATION: ACTION OF PROSTAGLANDIN E1	2R01 NS11487-07	73,599
STOLWIJK, JAN A.	HUMAN RESPONSES TO THE THERMAL ENVIRONMENT	5P01 ES00354-13	370,327
STOLWIJK, JAN A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05692-11	55,231
WENGER, C. BRUCE	PERIPHERAL VENOMOTOR CONTROL IN THERMAL STRESS	5R01 HL17732-05	78,112
ORGANIZATION TOTAL	12	1,106,477	
YALE UNIVERSITY ZIP CODE 06520			
ADELBERG, EDWARD A.	AMINO ACID TRANSPORT MUTANTS OF MAMMALIAN CELLS	5R01 AM25853-02	28,253
ALTMAN, SIDNEY	TRNA: STUDIES OF PRECURSORS, MUTANTS AND FUNCTION	3R01 GM19422-08S1	28,966
ALTMAN, SIDNEY	TRNA: STUDIES OF PRECURSORS, MUTANTS AND FUNCTION	5R01 GM19422-09	136,015
APPEL, ROBERT E.	CHARACTERIZATION OF BIOMATERIALS BY ELASTIC PROPERTY	5R01 HL22233-03	46,573
ARMITAGE, IAN M.	MULTINUCLEAR NMR PROBES OF BIOLOGICAL SYSTEMS	5R01 AM18778-05	90,036
ASKENASE, PHILIP W.	IMMUNOLOGY OF CUTANEOUS BASOPHIL HYPERSENSITIVITY	5R01 AI12211-07	149,997
ATKINS, ELISHA	PATHOGENESIS OF FEVER	2R01 AI01564-23	156,837
BARRNETT, RUSSELL J.	CELL BIOLOGY OF PLASMA MEMBRANES	3R01 AM03688-20S1	29,278
BARTHOLD, STEPHEN W.	TRANSMISSIBLE MURINE COLONIC HYPERPLASIA	5R26 CA15405-07	58,911
BAUE, ARTHUR E.	SURGICAL ASPECTS OF SHOCK AND HYPOXIA	5R01 HL19673-05	150,480
BEATY, BARRY J.	BUNYAVIRUS REASSORTANTS IN MOSQUITOES	5R22 AI15426-02	49,768
BEATY, BARRY J.	EARLY DIAGNOSIS OF LA CROSSE ARBOVIRAL ENCEPHALITIS	5R01 AI15641-03	74,403
BEHRMAN, HAROLD R.	CONTROL OF CORPUS LUTEUM FUNCTION	2R01 HD10718-04	130,415
BENZ, EDWARD J. JR.	DELTA & BETA GLOBIN GENE EXPRESSION IN HUMAN RED CELLS	5R01 HL24385-02	46,500
BERNARD, GARY D.	OPTICAL INFORMATION PROCESSING IN EYES	2R01 EY01140-08	90,782
BERSON, JEROME A.	DNA, PHOTOSYNTHESIS, AND THE CHEMISTRY OF TRIPLETS	3R01 GM23375-03S1	16,000
BERSON, JEROME A.	SPIN-REACTIVITY LABELS AS DIMENSIONAL PROBES	2R01 GM23375-04	80,457
BERTINO, JOSEPH R.	MECHANISM OF ACTION OF FOLATE ANTAGONISTS	2R01 CA08010-16	114,111
BERTINO, JOSEPH R.	CLINICAL PHARMACOLOGY AND CANCER CHEMOTHERAPY	5P01 CA08341-15	1,362,643
BERTINO, JOSEPH R.	QUINAZOLINE ANALOGS OF FOLIC ACID THERAPEUTIC AGENTS	5R26 CA24887-03	34,987
BIAGI, BRUCE A.	INTRACELLULAR NA ⁺ /IONS ACTIVITY IN PROXIMAL RENAL TUBULE	1R01 AM27051-01	42,395
BIANCANI, PIERO.	BIOPHYSICAL PRINCIPLES OF PERISTALTIC PHENOMENA	5R01 AM16021-09	118,513
BINDER, HENRY J.	INTESTINAL ELECTROLYTE TRANSPORT IN HEALTH AND DISEASE	5R01 AM14669-10	148,237
BINDER, HENRY J.	CONTROLLING POTASSIUM TRANSPORT IN INTESTINAL TISSUE	2R01 AM18777-04	87,274
BITENSKY, MARK W.	INTERACTION OF PROTEINS AND CYCLIC NUCLEOTIDE REGULATION	5R01 AM20179-08	133,590
BITENSKY, MARK W.	GLYCOSILATION OF MEMBRANE PROTEINS IN DIABETES	1R01 AM26412-01	139,400
BITENSKY, MARK W.	INTERACTIONS OF VIBRIO CHOLERA ENTEROTOXIN	5R01 CA22301-03	59,158
BOCKELMAN, CHARLES K.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07015-15	189,787
BOULPAEP, EMILE L.	FUNCTIONAL STRUCTURE OF RENAL TUBULE	2R01 AM13844-11	135,571
BOYER, JAMES L.	MECHANISMS OF BILE SECRETION AND CHOLESTASIS	2R01 AM25636-03	130,809
BRACKEN, MICHAEL	PREGNANCY COMPLICATIONS AFTER INDUCED ABORTION	5R01 HD11357-02	283,765
BRAVERMAN, IRWIN M.	ROLE OF MICROCIRCULATION IN CUTANEOUS DISORDERS	5R01 AM15739-09	132,157
BRAVERMAN, IRWIN M.	PATHOGENESIS OF MYCOSIS FUNGOIDES	5R01 AM21153-03	82,781
BREAKEYFIELD, XANDRA O.	BIOCHEMICAL AND GENETIC ANALYSIS OF MONOAMINE OXIDASE	5R01 NS12105-05	64,775
CADMAN, EDWIN C.	RATIONAL SEQUENCING OF NUCLEOSIDE DRUG ANALOGUES	5R23 CA24187-03	35,441
CADMAN, EDWIN C.	PURINE AND PYRIMIDINE SYNTHESIS INHIBITORS	5R01 CA27130-02	38,750
CANELLAKIS, EVANGELO S.	RESEARCH TEAMS FOR ANTITUMOR DRUG DEVELOPMENT	5R01 CA23153-03	139,216
CANELLAKIS, EVANGELO S.	REGULATION OF ENZYME ACTIVITY IN NORMAL & TUMOR CELLS	5R01 CA26546-02	79,017
CARIDE, VICENTE J.	LIPOSOME MYOCARDIAL UPTAKE IN INFARCT AND ISCHEMIA	5R01 HL22470-03	79,518
CARTER, DAVID M.	MODEL SYSTEMS TO STUDY ACCELERATED CUTANEOUS AGING	3P01 AG01012-02S1	16,740
CARTER, DAVID M.	MODEL SYSTEMS TO STUDY ACCELERATED CUTANEOUS AGING	5P01 AG01012-03	326,691
CARTER, DAVID M.	CELL RESPONSE TO DNA DAMAGE BY UV AND OTHER MUTAGENS	5R01 AM21784-09	104,824
CASALS-ARIET, JORDI	SUPPORT FOR WORLD REFERENCE CENTER FOR ARBOVIRUSES	5R22 AI10984-09	104,901
CASTLE, JOHN D.	MOLECULAR EVENTS OF EXOCYTOSIS: IN VITRO STUDIES	5R01 GM26524-02	71,794
CHANDLER, WILLIAM K.	ELECTRICAL AND CONTRACTILE PROPERTIES OF MUSCLE	3R01 NS07474-13S1	18,754
COHEN, LAWRENCE B.	OPTICAL STUDIES OF NEURON ACTIVITY AND ORGANIZATION	2R01 NS08437-12	150,691
COLE, JACK W.	CANCER CENTER SUPPORT GRANT	5P30 CA16359-06	1,752,966
COLEMAN, JOSEPH E.	METALLOENZYME SYNTHESIS, STRUCTURE AND FUNCTION	5R01 AM09070-16	86,136
COLEMAN, JOSEPH E.	STRUCTURE AND FUNCTION OF DNA BINDING PROTEINS	5R01 GM21919-06	76,997
COLLINS, WILLIAM F. JR.	A CENTER FOR ACUTE SPINAL CORD INJURY	5P50 NS10174-09	939,843
COLLINS, WILLIAM F. JR.	METHYLPREDNISOLONE AND SPINAL CORD TRAUMA	5R01 NS15078-02	231,305

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
CONN, HAROLD O.	PORTAL SYSTEMIC SHUNTS AND COMPLICATIONS	5R01 AM18897-06	55,458
CONTRERAS, ROBERT J.	BEHAVIORAL ASPECTS OF SALT INTAKE AND HYPERTENSION	5R23 HL24732-02	46,018
COOPER, JACK R.	CHOLINERGIC NERVE ENDING PARTICLES	5R01 NS09836-09	62,809
COOPER, JACK R.	MODULATORS OF ILEUM SYNAPTOSOMAL ACTIVITY	1R01 NS15179-01A1	44,454
COTLIER, EDWARD M.	BIOCHEMICAL STUDIES IN NORMAL AND CATARACTOUS LENSES	5R01 EY02490-04	147,681
COTLIAR, EDWARD M.	INSULIN & GROWTH HORMONE RECEPTORS IN RETINAL VESSELS	5R01 EY02905-02	94,242
CROTHERS, DONALD M.	NATURAL AND ARTIFICIAL CONTROL OF DNA FUNCTION	5R01 CA15583-07	87,981
CROTHERS, DONALD M.	MACROMOLECULAR CONFORMATION AND DYNAMICS	5R01 GM21966-06	91,340
CROTHERS, DONALD M.	FRACTIONATION OF EUKARYOTIC DNA	5R01 GM25245-03	63,446
DANISHEFSKY, SAMUEL J.	THE SYNTHESIS OF POTENTIAL ANTIBIOTICS	1R01 AI16943-01	93,045
DANISHEFSKY, SAMUEL J.	THE SYNTHESIS OF ANTITUMOR NATURAL PRODUCTS	7R01 CA28824-01	171,973
DANISHEFSKY, SAMUEL J.	NEW SYNTHETIC REACTIONS: AN APPROACH TO COMPACTIN	1R01 HL25848-01	78,814
DANNIES, PRISCILLA S.	REGULATION OF HORMONE SYNTHESIS AND SECRETION	5R01 HD11487-03	61,142
DE FRONZO, RALPH A.	INSULIN ACTION & INSULIN SECRETION IN HEALTH AND DISEASE	5R01 AM24092-03	131,977
DE LORENZO, ROBERT J.	PROTEIN PHOSPHORYLATION, EPILEPSY, & ANTICONSULSANTS	2R01 NS13632-04	86,285
DONALDSON, ROBERT M, JR.	BINDING AND TRANSPORT FUNCTIONS OF INTESTINAL MICROVILLI	2R01 AM17509-08	81,383
DOUGLAS, WILLIAM W.	STIMULUS-SECRETION COUPLING: CHROMAFFIN AND OTHER CELLS	5R01 NS09137-11	141,069
DOWNING, S EVANS	MYOCARDIAL PERFORMANCE AND METABOLISM IN THE NEWBORN	5R01 HL08659-16	124,961
DOWNING, S EVANS	RELATIONSHIP OF INSULIN TO CATECHOL CARDIOMYOPATHY	5R01 HL20401-05	103,376
DWYER, JOHN M.	CELLULAR IMMUNITY AND HUMAN DISEASE	5R01 AI11785-07	84,918
EBBERT, ARTHUR, JR.	GENERAL CLINICAL RESEARCH CENTERS—ADULT & CHILDREN	5M01 RR00125-17	1,473,015
EBBERT, ARTHUR, JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05358-19	207,787
EISENFELD, ARNOLD J.	PITUITARY STEROID RECEPTORS, ESTROGENS, AND ADENOMAS	1R01 CA27828-01	131,480
EISENFELD, ARNOLD J.	STUDY OF CONTRACEPTIVE RECEPTOR MECHANISMS	2R01 HD08280-06A1	136,526
EISENSTADT, JEROME M.	CYTOSOLIC INHERITANCE IN CULTURED MAMMALIAN CELLS	2R01 GM21873-06	204,005
EISENSTADT, JEROME M.	CHROMOSOME MEDIATED GENE TRANSFER IN CULTURED CELLS	5R01 GM24353-03	86,564
ENGELMAN, DONALD M.	CHOLESTERYL ESTERS IN MEMBRANES AND ATHEROSCLEROSIS	5R01 HL14111-09	71,316
ERNEST, MICHAEL J.	HORMONAL CONTROL OF TYROSINE AMINOTRANSFERASE MRNA	5R01 AM22030-03	62,442
FALLER, JOHN W.	METAL CHELATE PROBES OF DNA-DRUG INTERACTIONS	5R01 CA21490-03	61,858
FARQUHAR, MARILYN G.	GLOMERULAR CAPILLARIES: NORMAL AND PATHOLOGIC	5R01 AM17724-06	137,908
FARQUHAR, MARILYN G.	STUDIES OF SECRETION IN PITUITARY AND OTHER CELLS	5R01 AM17780-07	147,468
FELIG, PHILIP	HORMONES, SUBSTRATES & LIVER IN GLUCOSE HOMEOSTASIS	5R01 AM13526-11	136,994
FISCHER, DIANA B.	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	2R10 CA21194-04	63,712
FISCHER, JAMES J.	RADIATION THERAPY AND BIOLOGY RESEARCH PROGRAM	5P01 CA06519-18	1,640,579
FORBES, THOMAS R.	THE EMERGENCE OF BRITISH FORENSIC MEDICINE	5R01 LM03266-02	31,126
FORBUSH, BLISS, III.	SUBUNIT INTERACTIONS AND THE MECHANISM OF NA, K-ATPASE	1R01 GM27920-01	92,282
FORGET, BERNARD G.	MOLECULAR BIOLOGY OF THALASSEMIA	5R01 AM19482-05	129,537
FORGET, BERNARD G.	CONTROL OF HUMAN FETAL HEMOGLOBIN SYNTHESIS	5R01 HL20922-04	75,513
FRANCKE, BERTOLD R.	GENE FUNCTIONS OF HERPES SIMPLEX VIRUS	5R01 AI15644-02	114,740
FRANCKE, UTA	INTRACHROMOSOMAL GENE MAPPING IN MAN	5R01 GM26105-03	116,329
FRIEDLAENDER, GARY E.	IMMUNOBIOLOGY OF BONE TUMORS AND BONE ALLOGRAFTS	3R01 CA22267-03S1	17,186
FROST, DOUGLAS O.	FUNCTION OF ECTOPIC RETINAL PROJECTIONS IN HAMSTERS	1R01 EY03465-01	71,774
FRUTON, JOSEPH S.	PROTEIN CONFORMATION AND ENZYME CATALYSIS	2R01 GM18172-10	96,836
GALARDY, RICHARD E.	THE SYNTHESIS AND PROPERTIES OF MEMBRANE PEPTIDES	5R01 GM25702-02	57,361
GALL, JOSEPH G.	THE ORGANIZATION OF ANIMAL CELL NUCLEI	5R01 GM12427-17	152,834
GAREN, ALAN	HORMONAL CONTROLS OF DROSOPHILA DEVELOPMENT	5R01 GM24764-03	83,636
GEE, J BERNARD	OBSTRUCTIVE LUNG DISEASE & ALVEOLAR MACROPHAGES	5R01 HL19237-05	99,707
GEHA, ALEXANDER S.	SURGICAL ASPECTS OF MYOCARDIAL HYPERTROPHY	5R01 HL19182-05	190,386
GERLT, JOHN A.	ENZYMOLOGY OF PHOSPHORUS METABOLISM	5R01 GM22350-05	84,267
GERSHON, RICHARD K.	RESPONSE OF THYMUS-DERIVED CELLS TO ANTIGEN	5R01 AI10497-10	144,758
GERSHON, RICHARD K.	IMMUNE RESPONSE TO TUMOR GRAFTS	2R01 CA08593-14	94,772
GERSHON, RICHARD K.	CHARACTERIZATION OF LYMPHOID POPULATIONS IN CANCER	5R01 CA14216-08	160,479
GIEBISCH, GERHARD H.	CARDIOVASCULAR & METABOLIC ASPECTS OF MEMBRANE TRANSPORT	5P01 AM17433-07	948,739
GILLIS, CHARLES N.	DISPOSITION OF VASOACTIVE HORMONES IN MAMMALIAN LUNG	5R01 HL13315-10	97,075
GILLIS, CHARLES N.	ADRENERGIC RECEPTORS IN PULMONARY VASCULAR MUSCLE	5R01 HL23245-03	82,494
GLASER, GILBERT H.	NEUROLOGICAL RESEARCH CENTER	2P50 NS06208-15	483,814
GLENN, WILLIAM W.	REMOTE STIMULATION BY RADIO-FREQUENCY TRANSMISSION	5R01 HL04651-21	144,927
GOLDMAN, PATRICIA S.	DEVELOPMENT AND PLASTICITY OF PREFRONTAL CORTEX	1R01 NS16666-01	193,100
GOLDSMITH, TIMOTHY H.	VISUAL MECHANISMS	5R01 EY00222-20	95,996
GOLDSMITH, TIMOTHY H.	AVIAN COLOR VISION	5R01 EY03266-02	10,163
GOODMAN, DAVID B.	CELLULAR BASIS OF ALDOSTERONE ACTION	1R01 AM26184-01	30,196

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
GREENGARD, PAUL	METABOLIC BASIS OF NEURAL FUNCTION	2R01 NS08440-12	104,439
GREGGERSON, DALE S.	THE NATURE AND ROLE OF AUTOIMMUNE RESPONSES IN UVEITIS	5R01 EY02365-02	116,864
GRIFFITH, BRIGITTE P.	HIST DEFENSE IN CONGENITAL CYTOMEGALOVIRUS INFECTION	5R23 AI16028-02	36,230
GRINDLEY, NIGEL D.	MECHANISM OF INSERTION SEQUENCE TRANSLOCATION	7R01 GM28470-01	51,632
GRINDLEY, NIGEL D.	STRUCTURE AND FUNCTION OF E COLI PO1A GENE	1R01 GM28550-01	102,064
GROSS, IAN	PHOSPHOLIPID SYNTHESIS BY FETAL LUNG IN CULTURE	5R01 HL19752-05	117,044
HAMMOND, GRAEME L.	CARDIOPULMONARY BYPASS AND THE VASCULAR ENDOTHELIUM	5R01 HL22244-03	117,371
HAMMOND, GRAEME L.	MOLECULAR STIMULUS FOR ORGAN HYPERTROPHY	1R01 HL25411-01	136,282
HARDIN, JOHN A.	BIOLOGICAL ROLE OF 8S-IGM IN RHEUMATIC DISEASES	5R01 AM21603-02	98,938
HASELTINE, FLORENCE P.	MECHANISMS OF SEX DIFFERENTIATION	5R01 HD12289-02	71,705
HAYSLETT, JOHN P.	STUDY OF THE MECHANISM OF RENAL POTASSIUM ADAPTATION	5R01 AM18061-07	93,469
HELLER, JOHN S.	POST-TRANSLATIONAL CONTROL OF ORNITHINE DECARBOXYLASE	5R01 GM26559-02	70,409
HERRUP, KARL F.	CNS DEVELOPMENT: A GENETIC AND CELL SURFACE STUDY	5R01 HD12213-03	70,202
HOCHBERG, RICHARD B.	STEROID HORMONES IN BREAST CANCER	7R01 CA29591-01	147,295
HODSON, CECIL J.	BLADDER INFECTION AND REFLEX NEPHROPATHY	1R01 AM21438-01A1	32,780
HODSON, CECIL J.	STERILE REFLEX NEPHROPATHY AND HYPERTENSION IN SWINE	1R01 AM27049-01	91,297
HOFFMAN, JOSEPH F.	MEMBRANE TRANSPORT PROCESSES IN RED BLOOD CELLS	5R01 HL09906-15	147,402
HOFFMAN, RONALD	REGULATION OF ERYTHROPOIESIS IN CANCER	5R01 CA22697-03	40,513
HORSTMANN, DOROTHY M.	RESPONSES TO RUBELLA VIRION AND SUBUNIT VACCINES	3R01 AI11788-10S1	8,849
HORSTMANN, DOROTHY M.	RESPONSES TO RUBELLA VIRION AND SUBUNIT VACCINES	5R01 AI11788-11	114,224
HORSTMANN, DOROTHY M.	PATHOGENESIS & BIOLOGY OF EPSTEIN-BARR VIRUS INFECTIONS	5P01 AI1741-02	340,622
HORVATH, CSABA G.	NOVEL HYDROPHOBIC INDEX FOR LFER OF ANTITUMOR AGENTS	2R01 CA21948-04	100,161
HORVATH, CSABA G.	EXTRACORPORAL ENZYME REACTORS FOR METHOTREXATE REMOVAL	1R01 CA28037-01	118,571
HORVATH, CSABA G.	LIQUID CHROMATOGRAPHY OF BIOLOGICAL SUBSTANCES	5R01 GM20993-06	95,037
HOWARD-FLANDERS, PAUL	EXCISION ENZYMES AND THE REPAIR OF DAMAGED DNA	1R01 CA26763-01	55,284
HOWARD-FLANDERS, PAUL	CROSS-LINKING OF NUCLEOPROTEINS BY RADIATION	5R01 GM11014-20	77,866
HOWELL, KATHRYN E.	THE GOLGI PHASE OF LIPOPROTEIN METABOLISM IN THE LIVER	1R01 HL26186-01	108,280
HSIUNG, GUEH-DJEN	EXPERIMENTAL MODELS FOR CYTOMEGALOVIRUS INFECTIONS	5R01 HD10609-05	99,699
HUSZAR, GABOR B.	URINARY 3MH EXCRETION AND METABOLIC STATE OF INFANTS	5R01 HD12183-03	67,784
HUTCHINSON, FRANKLIN	A STUDY OF DOUBLE-STRAND BREAK REPAIR IN CELLULAR DNA	5R01 GM25260-03	34,838
HUTCHINSON, FRANKLIN	MECHANISMS OF MUTAGENESIS	1R01 GM25927-01	90,873
JACOBY, ROBERT O.	GENETIC RESISTANCE TO LETHAL FLAVIVIRAL ENCEPHALITIS	5R22 AI14712-03	76,276
JACOBY, ROBERT O.	RESOURCE FOR STUDY OF LABORATORY ANIMAL DISEASES	5P40 RR00393-13	324,316
JAMIESON, JAMES D.	CELL SECRETION AND MEMBRANE FORMATION IN THE PANCREAS	5R01 AM17389-08	122,484
JANEWAY, CHARLES A, JR.	IDIOTYPES OF T AND B LYMPHOCYTES	2R01 AI13766-04	65,217
JANEWAY, CHARLES A, JR.	INFLUENCE OF H-2 ANTIGENS ON MOUSE T CELL RESPONSES	5R01 AI14579-03	84,911
KANKEL, DOUGLAS R.	NERVOUS SYSTEM DEVELOPMENT AND SYNAPSE FORMATION	2R01 NS11788-07	135,827
KANKEL, DOUGLAS R.	ACETYLCHOLINESTERASE: GENETICS-NEUROBIOLOGY	5R01 NS12346-06	94,513
KANKEL, DOUGLAS R.	CONTROL OF VISUAL NEURON MORPHOLOGY: GENETIC ANALYSES	5R01 NS14877-02	33,582
KANTOR, FRED S.	INTERPLAY OF HUMORAL FACTORS IN CELLULAR IMMUNITY	5R01 AI11077-08	158,971
KANTOR, FRED S.	ANTI-IDIOTYPIC CONTROL OF NEURAL & ALLERGIC DISEASES	1R01 AI17716-01	94,601
KASHGARIAN, MICHAEL	THE PATHOLOGY OF RECOVERY FROM ACUTE RENAL INJURY	2R01 AM19930-04	94,055
KELSEY, JENNIFER L.	FIBROCYTIC BREAST DISEASE: EPIDEMIOLOGY & HISTOLOGY	5R01 CA26021-02	271,356
KELSEY, JENNIFER L.	EPIDEMIOLOGY OF PROLAPSED LUMBAR AND CERVICAL DISCS	5R01 NS15230-02	269,613
KESSEN, WILLIAM	TEMPORAL ASPECTS OF YOUNG INFANTS' VISUAL PERCEPTION	5R01 HD11104-03	111,080
KIDD, KENNETH K.	GENETICS OF HUMAN BEHAVIORAL DISORDERS: STUTTERING	5R01 NS11786-07	90,372
KIDD, KENNETH K.	GENETICS OF A NEUROLOGICAL DISORDER, TOURETTE SYNDROME	1R01 NS16648-01	103,402
KIRK, R GARY	MEMBRANE TRANSPORT IN BLOOD CELLS AND TISSUE	5R01 AM21391-03	126,275
KITAHATA, LUKE M.	NEUROPHARMACOLOGY—ANESTHESIA AND THE NERVOUS SYSTEM	5R01 NS09871-09	128,600
KLEINHAUS, ANNA L.	NEURONAL EFFECTS OF CONVULSANT/ANTICONSULSANT DRUGS	5R01 NS08851-09	57,354
KONIGSBERG, WILLIAM H.	RELATION OF PROTEIN STRUCTURE TO BIOLOGICAL FUNCTION	2R01 GM12607-16	170,746
KONIGSBERG, WILLIAM H.	PURIFICATION OF TISSUE FACTOR (THROMBOPLASTIN)	5R01 HL22957-03	80,628
KOZARICH, JOHN W.	CHEMISTRY AND BIOCHEMISTRY OF 7-METHYLGUANOSINE	1R01 GM26985-01A1	67,361
LA MOTTE, CAROLE C.	DISTRIBUTION OF PAIN AND TEMPERATURE AFFERENTS	5R01 NS13335-02	67,423
LA MOTTE, ROBERT H.	NEUROPHYSIOLOGY OF PAIN ADAPTATION AND HYPERALGESIA	3R01 NS14624-02S1	30,811
LA MOTTE, ROBERT H.	NEUROPHYSIOLOGY OF PAIN ADAPTATION AND HYPERALGESIA	5R01 NS14624-03	52,503
LA MOTTE, ROBERT H.	NEUROPHYSIOLOGY OF CUTANEOUS PERCEPTION OF TEXTURE	1R01 NS15888-01	106,812
LAI, YIN-LOK	PERIPHERAL RETINAL DEGENERATION IN FISCHER RATS	5R01 EY02542-03	75,432
LAKS, HILLEG	MICROCIRCULATION OF THE HEART DURING CARDIAC SURGERY	5R01 HL24328-02	182,199
LANDMESSER, LYNN T.	DEVELOPMENTAL AND TROPIC NEURAL INTERACTIONS	2R01 NS10666-09	133,812
LENGYEL, PETER	INTERFERON, ANIMAL VIRUSES, AND PROTEIN SYNTHESIS	2R01 AI12320-06	116,674

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
LERNER, AARON B.	VITILIGO CENTER GRANT	5P01 AM25252-02	464,367
LERNER, AARON B.	BIOLOGY OF NORMAL AND MALIGNANT MELANOCYTES	5R01 CA04679-21	360,275
LEWIS, SIMON A.	MODELING NA/ION TRANSPORT IN MAMMALIAN URINARY BLADDER	5R01 AM20851-03	87,228
LIEBKE, E HOPE	REGULATION OF RRN OPERON EXPRESSION: MUTANT ANALYSIS	1R01 GM27896-01	50,660
LOKE, JACOB S.	SMOKE INHALATION: BIOCHEMICAL AND CELLULAR RESPONSES	5R23 HL22895-03	45,910
MACNAB, ROBERT M.	PRINCIPLES OF SENSORY RECEPTION AND MOTOR FUNCTION	2R01 AI12202-07	83,144
MALAWISTA, STEPHEN E.	BIOPHYSICAL MECHANISMS IN LEUKOCYTES AND MELANOCYTES	5R01 AM10493-15	145,159
MALAWISTA, STEPHEN E.	CONTROL OF LYSOSOMAL MOVEMENTS IN HUMAN LEUKOCYTES	2R01 AM19742-04	76,847
MALECH, HARRY L.	ANTIBODY BINDING TO HUMAN NEUTROPHILS	5R23 AI15252-03	46,500
MANUELIDIS, ELIAS E.	EXPERIMENTAL CREUTZFELDT-JAKOB DISEASE	5R01 NS12674-05	119,763
MANUELIDIS, LAURA M.	PATHOGENETIC DETERMINANTS OF HUMAN CNS TUMORS	2R01 CA15044-07	82,723
MARRETT, LORAIN E.	POPULATION BASED STUDY OF LOWER URINARY TRACT TUMORS	5R26 CA26692-02	35,363
MARSH, JOHN C.	EASTERN COOPERATIVE ONCOLOGY GROUP—CLINICAL STUDIES	5R10 CA15485-07	130,242
MC COLLUM, ROBERT W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05443-19	123,945
MC GUIRE, EDWARD J.	PERIPHERAL AND CENTRAL INNERVATION OF THE URINARY TRACT	5R01 AM12485-03	72,381
MC GUIRE, JOSEPH S.	CONTROL OF EPIDERMAL CELL DIFFERENTIATION	5R01 AM13929-11	142,467
MICHAEL, CHARLES R.	NEUROPHYSIOLOGY OF ALL-CONE VISION	5R01 EY00568-12	110,298
MILLER, I GEORGE, JR.	STUDIES OF EPSTEIN-BARR VIRUS	5R01 CA12055-09	163,241
MOORE, PETER B.	RIBOSOME STRUCTURE AND FUNCTION	5R01 AI09167-12	98,212
MOOSEKER, MARK S.	MICROVILLAR MOVEMENT IN INTESTINAL EPITHELIAL CELLS	5R01 AM25387-02	50,077
NAFTOLIN, FREDERICK	METABOLISM AND MECHANISM OF ACTION OF ESTROGENS	1R01 HD13587-01A1	100,948
NATH, RAVINDER	MAGNETIC ENHANCEMENT OF ELECTRON DOSE DISTRIBUTIONS	1R01 CA27703-01	81,164
OGDEN, JOHN A.	NORMAL AND ABNORMAL POSTNATAL SKELETAL DEVELOPMENT	5R01 HD10854-04	91,681
ORNSTON, L NICHOLAS	ORIGINS OF METABOLIC DIVERSITY	5R01 GM25487-03	83,101
OTVOS, JAMES D.	MULTINUCLEAR NMR INVESTIGATIONS OF METALLOTHIONEIN	5R23 ES01674-03	36,268
PALADE, GEORGE E.	CELLULAR MEMBRANES RESEARCH CENTER	2P50 GM21714-06	588,593
PALADE, GEORGE E.	MEMBRANE INTERACTIONS IN EUKARYOTIC CELLS	1R01 GM27303-01	128,831
PALADE, GEORGE E.	TEM-SEM-X-RAY MICROANALYSIS ELECTRON MICROSCOPE	5P41 GM27574-02	23,250
PALADE, GEORGE E.	LOCALIZATION OF PORE SYSTEMS IN CAPILLARY WALLS	5R01 HL17080-07	180,802
PAPERMASTER, DAVID S.	MEMBRANE BIOSYNTHESIS IN NORMAL AND DYSTROPHIC RETINA	5R01 EY00845-07	103,887
PAPERMASTER, DAVID S.	IMMUNOCYTOCHEMISTRY OF MEMBRANE BIOSYNTHESIS IN EYE	5R01 EY03239-02	119,850
PATTON, CURTIS L.	CYCLOC AMP AND REGULATION IN TRYPANOSOMES	5R01 AI15742-02	86,788
PAWLEK, JOHN M.	INSULIN AND THE REGULATION OF THE MELANOMA PHENOTYPE	5R01 AM23032-03	19,803
PINCUS, JONATHAN H.	SYNAPTIC TRANSMISSION OF CONVULSANT/ANTICONVULSANT DRUGS	5R01 NS15145-02	48,459
PLATT, TERRY	REGULATORY SEQUENCES IN TRP OPERON MRNA OF E COLI	5R01 GM22830-05	89,699
PRESTEGARD, JAMES H.	NMR INVESTIGATIONS OF VESICULAR MEMBRANES	5R01 GM19035-09	75,770
PRUSOFF, WILLIAM H.	IODODEOXYRIDINE, IODO-DNA, AND BIOLOGICAL ACTIVITY	5R01 CA05262-20	171,092
RAE, PETER M.	GENE INTERRUPTIONS IN DROSOPHILA	5R01 GM26378-02	90,153
RAKIC, PASKO T.	PRENATAL DEVELOPMENT OF THE PRIMATE VISUAL SYSTEM	5R01 EY02593-03	129,712
RAKIC, PASKO T.	NEUROGENETIC PROCESSES IN THE FETAL BRAIN	5R01 NS14841-03	180,606
RASMUSSEN, HOWARD	HORMONAL AND IONIC CONTROL OF METABOLISM	5R01 AM19813-05	196,498
RASMUSSEN, HOWARD	UROLITHIASIS SPECIALIZED CENTER—CORE	5P01 AM20570-04	456,980
REID, TED W.	ROLE OF GLUTAMINE TRANSFERASE IN THE RETINA	5R01 EY01656-05	67,788
REID, TED W.	GROWTH AND METABOLISM OF RETINAL CELLS	5R01 EY02709-02	91,738
REYNOLDS, HERBERT Y.	IMMUNE RESPONSES IN THE HUMAN LUNG	5R01 HL22302-03	55,299
RICHARDS, FRANK F.	STUDY OF POLYFUNCTIONAL ANTIBODY-COMBINING REGIONS	5R01 AI08614-13	148,663
RICHARDS, FRANK F.	MECHANISM OF ANTIGENIC VARIATION IN T. CONGOLENSE	5R01 AI15530-02	86,580
RICHARDS, FRANK F.	BIOCHEMICAL STUDIES OF MEMBRANE BOUND IMMUNOGLOBULIN	5R01 CA25758-03	84,380
RICHARDS, FREDERIC M.	PROGRAM IN MACROMOLECULAR STRUCTURE, MOTION, CONTROL	3P01 GM22778-04S1	106,000
RICHARDS, FREDERIC M.	PROGRAM IN MACROMOLECULAR STRUCTURE, MOTION, CONTROL	5P01 GM22778-05	544,510
RITCHIE, J MURDOCH	STUDY OF C FIBERS	5R01 NS08304-13	97,780
RITCHIE, J MURDOCH	DEMYELINATING DISEASE—BIOPHYSICS OF NERVE DYSFUNCTION	2R01 NS12327-06	75,511
RODIN, JUDITH	DIETARY HABITS, SOCIAL FACTORS, STRESS AND HEALTH	1R01 AG02455-01	147,437
ROONEY, SEAMUS A.	EFFECT OF HORMONES ON LUNG PHOSPHOLIPID BIOSYNTHESIS	5R01 HD010192-05	200,311
ROOT, RICHARD K.	HUMAN PHAGOCYTE FUNCTION IN HEALTH AND DISEASE	5R01 AI13251-05	127,914
ROSA, MARGARET D.	MOLECULAR INTERACTIONS IN PHAGE T7 GENE EXPRESSION	1R01 GM28292-01	41,129
ROSENBERG, LEON E.	METABOLISM OF AMINO ACIDS AND ORGANIC ACIDS	5R01 AM09527-16	140,485
ROSENBERG, LEON E.	TISSUE CULTURE STUDIES OF INBORN METABOLIC ERRORS	5R01 AM12579-12	209,659
ROSENBERG, LEON E.	STUDY OF HUMAN GENETICS AND INHERITED DISEASE	5P50 GM20124-08	841,750
ROSENSTEIN, ROBERT W.	THE BEHAVIOR OF CELL SUSPENSIONS IN VITRO AND IN VIVO	5R01 CA23887-17	86,787
RUDDLE, FRANK H.	SOMATIC CELL GENETIC APPROACHES TO THE STUDY OF AGING	5R01 AG01940-02	90,224

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
RUDDLE, FRANK H.....	GENETIC ANALYSIS OF SOMATIC CELL POPULATIONS.....	2R01 GM09966-19	465,641
RUDDLE, NANCY H.....	PROPAGATION OF THYMUS-DERIVED LYMPHOCYTE LINES.....	5R01 CA16885-05	81,012
RUDNICK, GARY W.....	ION AND 5-HYDROXYTRYPTAMINE TRANSPORT BY PLATELETS.....	5R01 HL21217-03	64,561
SARTORELLI, ALAN C.....	BIOCHEMICAL PHARMACOLOGY OF ANTINEOPLASTIC AGENTS.....	5R01 CA02817-24	385,394
SASAKI, CLARENCE T.....	POSTNATAL RESPIRATORY DEVELOPMENT AS RELATED TO SIDS.....	5R01 HD09494-06	117,507
SASAKI, CLARENCE T.....	AUDITORY DE-AFFERENTATION IN THE STUDY OF TINNITUS.....	1R01 NS16288-01	57,945
SCHAFER, DAVID E.....	PHYSICAL STUDIES OF ENTEROTOXIN-MEMBRANE INTERACTIONS.....	5R01 GM24704-03	40,583
SCHULTZ, T. PAUL.....	DETERMINANTS OF CHILD MORTALITY.....	5R01 HD12172-03	38,156
SCHULZ, ROBERT J.....	CALORIMETRIC MEASUREMENT OF FRICKE DOSIMETER G VALUES.....	5R01 CA26348-02	77,427
SCHWARTZ, PAULINE M.....	ALLOPURINOL MODIFICATION OF 5-FLUOROURACIL TOXICITY.....	5R23 CA25742-02	30,393
SEARS, MARVIN L.....	PHYSIOLOGIC STUDIES OF INTRAOCULAR PRESSURE.....	5R01 EY00237-19	261,835
SEARS, MARVIN L.....	VISION RESEARCH CENTER.....	5P30 EY00785-10	218,284
SHAW, RICHARD K.....	LONG-TERM ASSESSMENT OF FLOW IN VASCULAR GRAFTS.....	5R01 HL22352-02	55,053
SHAYWITZ, BENNETT A.....	ONTOGENY OF BRAIN CATECHOLAMINES AND BEHAVIORAL AROUSAL.....	2R01 NS12384-04A1	82,229
SHEPHERD, GORDON M.....	INTEGRATIVE MECHANISMS OF CORTICAL NEURONS.....	2R01 NS07609-14	177,274
SHERWIN, ROBERT S.....	GLUCOREGULATORY HORMONE INTERACTIONS IN DIABETES.....	2R01 AM20495-04	107,619
SHOPE, ROBERT E.....	CONTROL OF ARBOVIRUS INFECTIONS OF MAN.....	2P01 AI11132-09	341,919
SHULMAN, ROBERT G.....	NMR STUDIES OF METABOLISM AND REGULATION IN CELLS.....	5R01 AM27121-02	216,891
SLAYMAN, CAROLYN W.....	GENETIC STUDY OF ION TRANSPORT IN NEUROSPORA.....	5R01 GM15761-12	101,874
SLAYMAN, CLIFFORD L, JR.....	ELECTROGENIC PUMPS IN NEUROSPORA: PROPERTIES, CONTROL.....	5R01 GM15858-13	125,081
SLIGAR, STEPHEN G.....	HEME PROTEIN REDUCTASES.....	5R01 GM24976-03	50,422
SOLL, DIETER G.....	AMINOACYL-TRNA IN AGING DROSOPHILA.....	5R01 AG01806-02	62,622
SOLL, DIETER G.....	TRANSFER RNA (BACTERIA, YEAST).....	3R01 GM22854-04S1	2,584
SOLL, DIETER G.....	TRANSFER RNA (BACTERIA, YEAST).....	5R01 GM22854-05	169,726
SPENCER, DENNIS D.....	POST MORTEM X-RAY AND HISTOLOGY OF SELLA AND PITUITARY.....	1R01 CA27875-01	39,452
STEERE, ALLEN C.....	LYME ARTHRITIS: A NEW EPIDEMIC DISEASE.....	2R01 AM20358-04	227,007
STEITZ, JOAN A.....	MOLECULAR MECHANISMS IN GENE EXPRESSION.....	5R01 GM26154-10	158,481
STEVENS, CHARLES F.....	BASIC NEURO MECHANISMS.....	2R01 NS12961-05	159,336
STUBBE, JOANNE.....	MECHANISM AND INHIBITION OF RIBONUCLEOTIDE REDUCTASE.....	1R01 GM28061-01	116,976
STURTEVANT, JULIAN M.....	PHYSICOCHEMICAL STUDIES OF BIOCHEMICAL REACTIONS.....	2R01 GM04725-24	87,188
SUMMERS, WILLIAM C.....	GENETIC STUDY OF ANIMAL VIRUSES.....	5R01 CA13515-08	86,490
SUSSEX, IAN M.....	EXPRESSION OF GENES CODING FOR BEAN STORAGE PROTEIN.....	5R01 GM24775-03	61,996
TABACHNICK, WALTER J.....	MOSQUITO POPULATION GENETICS DNA RESTRICTION ENZYMES.....	1R23 AI16989-01	44,300
TANAKA, KAY.....	STUDIES OF DISEASES OF ORGANIC ACID METABOLISM.....	5R01 AM17453-08	118,664
TIGNOR, GREGORY H.....	RABIES SEROGROUP VIRUS INFECTIONS: IMMUNOPATHOLOGY.....	5R22 AI12541-06	83,657
TOMITA, TSUNEO.....	CELLULAR ORIGIN OF TRANSRETINAL POTENTIALS.....	5R01 EY02528-03	113,124
TRINKAUS, JOHN P.....	CONTACT BEHAVIOR OF DEVELOPING AND TRANSFORMED CELLS.....	5R01 CA22451-07	90,043
TRITTON, THOMAS R.....	MEMBRANE TARGETS IN CANCER CHEMOTHERAPY.....	5R01 CA24955-02	57,799
TSIEN, RICHARD W.....	PHARMACOLOGICAL CONTROL OF CARDIAC MEMBRANE CURRENTS.....	5R01 HL13306-10	138,798
VAN DEN POL, ANTHONY N.....	MEDIOBASAL HYPOTHALAMIC HYPOPHYSIOTROPHIC AREA.....	1R01 NS16296-01	56,703
VARGA, JANOS M.....	CELL CYCLE DEPENDENCE OF CELL SURFACE RECEPTORS.....	5R01 CA26081-02	88,711
WAKSMAN, BYRON H.....	SPECIFICITY AND INFORMATION TRANSFER IN SENSITIVITY.....	5R01 AI06455-16	56,344
WARSHAW, JOSEPH B.....	CELLULAR ENERGY METABOLISM DURING FETAL DEVELOPMENT.....	5R01 HD08293-07	137,957
WARSHAW, JOSEPH B.....	PREVENTION OF PULMONARY OXYGEN TOXICITY IN THE NEWBORN.....	5R01 HD10949-03	82,567
WASSERMAN, HARRY H.....	SYNTHESIS OF B-LACTAM ANTIBIOTICS AND MACROCYCLIC LACTAM.....	2R01 GM07874-18	77,474
WASSERMAN, HARRY H.....	SINGLET OXYGEN REACTIONS WITH ORGANIC SUBSTRATES.....	5R01 GM13854-14	92,999
WATERMAN, TALBOT H.....	PHOTORECEPTOR MEMBRANE TURNOVER CONTROLS.....	5R01 EY02929-02	101,866
WEINER, ALAN M.....	EXTRACHROMOSOMAL RIBOSOMAL RNA GENES OF DICTYOSTELIUM.....	5R01 GM26312-02	69,322
WEISS, ROBERT M.....	AGE DEPENDENT FACTORS IN URETERAL FUNCTION.....	5R01 AG00112-04	59,548
WEISSMAN, SHERMAN M.....	VIRAL TRANSFORMATION MOLECULAR BASIS—DNA VIRUS.....	5P01 CA16038-07	1,211,757
WEISSMAN, SHERMAN M.....	FUNCTION OF SV40 GENE PRODUCTS.....	5R01 CA16106-06	65,100
WHITTEMORE, RUTH.....	27-30 YEAR FOLLOW-UP OF HIGH BLOOD PRESSURE IN CHILDREN.....	1R01 HL25115-01	125,394
WILSON, GEOFFREY.....	PRODUCTION OF SV40-SPECIFIED ANTIGENS IN E. COLI.....	1R23 CA29183-01	47,988
WYMAN, ROBERT J.....	THE GENETIC SPECIFICATION OF NEURAL CIRCUITS.....	5R01 NS07314-14	100,133
WYMAN, ROBERT J.....	GENETIC ANALYSIS OF THE NERVOUS SYSTEM.....	5R01 NS14887-02	33,590
YU, ROBERT K.....	GLYCOSPHINGOLIPIDS IN NORMAL AND MS NERVOUS SYSTEMS.....	5R01 NS11853-06	72,204
ZARET, BARRY L.....	SEQUENTIAL MULTINUCLEIDE STUDY OF ACUTE INFARCTION.....	3R01 HL21690-03S1	5,975
ZAWALICH, WALTER S.....	CARBOHYDRATE REGULATION OF INSULIN SECRETION.....	7R01 AM28553-01	47,385
ZIEGLER, FREDERICK E.....	SYNTHETIC STUDIES ON MACROLIDE ANTIBIOTICS.....	5R01 AI15617-02	80,861
ZIEGLER, FREDERICK E.....	SYNTHETIC STUDIES OF CYTOTOXIC NATURAL PRODUCTS.....	5R01 CA16432-07	93,207

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
ZIGLER, EDWARD F.....	COGNITION AND MOTIVATION IN RETARDED INDIVIDUALS	5P01 HD03008-14	420,812
ORGANIZATION TOTAL	295 42,536,059		
STORRS			
UNIVERSITY OF CONNECTICUT STORRS ZIP CODE 06268			
BERG, CLAIRE M.....	TRANSPOSABLE ELEMENT MUTAGENESIS IN BACTERIA	5R01 AI14278-04	64,712
CHAPPLE, WILLIAM D.....	MECHANICAL PROPERTIES OF MUSCLE	1R01 NS15210-01A1	41,297
CHOVNIK, ARTHUR.....	GENETIC STUDIES IN DROSOPHILA MELANOGASTER.....	2R01 GM09886-19	197,422
CLARK, HUGH.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07014-15	127,271
DAVID, CARL W.....	POLYPEPTIDE SOLUTION CONFORMATION PREDICTION.....	5R01 GM26525-02	64,482
DENENBERG, VICTOR H.....	LONGITUDINAL ASSESSMENT & HIGH RISK INFANT PREDICTION.....	5R01 HD12948-02	96,854
DRAKE, ALLEN D.....	PHOTOELECTRIC IMPEDANCE MEASUREMENTS ON AUDITORY SYSTEM	5R01 NS15719-02	23,360
EPLING, GARY A.....	PHOTOOTOXICITY IN PHARMACOLOGICALLY ACTIVE COMPOUNDS	5R01 AI12200-05	50,190
FULLER, JAMES H.....	MUSCULAR CONTROL OF HEAD MOVEMENTS.....	5R01 NS13809-03	4,453
GIACOBINI, EZIO.....	LOCALIZATION AND METABOLISM OF PIPECOLIC ACID IN CNS	5R01 NS15086-02	38,360
GOETINCK, PAUL F.....	MOLECULAR BASIS OF NORMAL AND MUTANT LIMB DEVELOPMENT	2R01 HD09174-06	142,112
GOLDMAN, BRUCE D.....	ENVIRONMENTAL AND HORMONAL FACTORS IN HIBERNATION	2R01 HD10478-04	74,773
GORDON, MALCOLM W.....	TYROSYLATION OF TUBULIN IN DIFFERENTIATING TISSUES	5R01 NS14240-03	43,512
GOULD, STEVEN J.....	MUTASYNTHETIC AND BIOORGANIC STUDIES OF ANTIBIOTICS	1R01 CA27339-01	50,000
GOULD, STEVEN J.....	BIOSYNTHETIC STUDIES USING 15N-13C CNMR SPECTROSCOPY.....	5R01 GM25996-02	56,347
HALL, BARRY G.....	EXPERIMENTAL EVOLUTION OF LACTOSE UTILIZATION.....	5R01 AI14766-03	47,146
HENKEL, JAMES G.....	SYNTHESIS AND STUDY OF NEW CNS ANTITUUMOR AGENTS	5R01 CA25436-02	54,459
HEYWOOD, STUART M.....	MOLECULAR CONTROLS IN MUSCLE DIFFERENTIATION.....	5R01 HD30316-12	110,288
HIGHTOWER, LAWRENCE E.....	NDV INFECTION: ANALYSIS AT THE SUBCELLULAR LEVEL	5R01 HL23588-03	32,682
HITE, GILBERT J.....	SYNTHESIS AND EVALUATION OF DES-4-AZAPENICILLINS	5R01 AI13773-03	37,847
KHAIIRALLAH, EDWARD A.....	NUTRITIONAL CONTROL OF HEPATIC PROTEIN & AUTOPHAGY	1R01 AM26596-01	70,584
KNOX, JAMES R.....	A NEW APPROACH TO ENZYME-RESISTANT PENICILLINS	2R01 AI10925-08	69,013
KNOX, JAMES R.....	X-RAY STRUCTURE OF A PENICILLIN RECEPTOR	1R01 AI16702-01	33,540
KRAMER, PAUL A.....	SPECIAL INITIATIVE GRANT FOR RESEARCH ON AGING.....	5R21 AG01168-03	84,946
KRIDER, HALLIE M.....	BRDU EFFECTS ON THE RIBOSOMAL DNA OF DROSOPHILA	5R01 GM23605-03	56,538
LANGNER, RONALD O.....	LIPID FLUX AND COLLAGEN SYNTHESIS IN ATHEROSCLEROSIS	3R01 HL15478-06S1	3,777
LANGNER, RONALD O.....	THE AORTA AND IMMUNOLOGICALLY INDUCED ATHEROSCLEROSIS.....	1R01 HL26122-01	68,858
LAUGHLIN, WILLIAM S.....	BIOBEHAVIORAL ADAPTATION	5R01 AG01299-02	164,444
LUCAS-LENARD, JEAN M.....	TRANSLATIONAL CONTROL MECHANISMS	5R01 AI15898-10	111,642
MARCUS, PHILIP I.....	GENE EXPRESSION, VIRUS REPLICATION AND CELL GROWTH.....	5P01 CA14733-07	309,633
MARCUS, PHILIP I.....	HOST CELL INTERACTION OF ANIMAL VIRUSES.....	5R01 CA20882-10	84,926
MUGNAINI, ENRICO.....	ORGANIZATION AND DEVELOPMENT OF NERVOUS TISSUE.....	5R01 NS09904-10	96,941
PILAR, GUILLERMO R.....	GANGLIONIC SYNAPTIC TRANSMISSION.....	2R01 NS10338-09	105,848
ROSENBERG, PHILIP.....	PROPERTIES OF CHEMICALLY MODIFIED PHOSPHOLIPASE A	5R01 NS14521-03	78,946
ROTH, JAY S.....	DNASES AND LEUKEMIA	5R01 CA18543-03	44,598
ROTH, JAY S.....	REDUCTION OF RIBONUCLEOTIDES IN NORMAL AND TUMOR TISSUES.....	5R01 CA22329-03	36,693
SACHS, BENJAMIN D.....	ANALYSIS OF MASCULINE BEHAVIOR	5R01 HD08933-06	63,546
SAMULSKI, EDWARD T.....	POLYPEPTIDE LIQUID CRYSTAL AND COLLAGEN; NMR STUDIES.....	5R01 AM17497-05	52,900
SAYARE, MITCHEL.....	MEMBRANE-BOUND HEMOGLOBIN AND SICKLE-CELL DISEASE.....	1R23 HL25646-01	41,015
SCHUSTER, TODD M.....	BIOPHYSICAL STUDIES OF VIRUS ASSEMBLY.....	5R01 AI11573-07	94,736
SCHUSTER, TODD M.....	HEMOPROTEINS: STATIC & RAPID KINETIC MAGNETIC STUDIES.....	5R01 HL24644-02	32,565
SCHWARTING, ARTHUR E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05743-03	37,056
SCHWARTING, ARTHUR E.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09078-03	95,549
SHAW, ROBERT E.....	A STUDY OF GROWTH OF NORMAL AND ABNORMAL FACES	5R01 DE04990-02	93,189
SIMONELLI, ANTHONY P.....	DISSOLUTION MECHANISMS FOR RENAL CALCULI	5R01 AM18891-03	66,735
SOMES, RALPH G, JR.....	REGISTRY OF SPECIALIZED GENETIC STOCKS	5P40 RR00529-12	17,638
SUSZKIEW, JANUSZ B.....	MECHANISM OF CHOLINERGIC TRANSMISSION.....	5R01 NS15674-02	41,900
YANG, TSU-JU T.....	CELLS INVOLVED IN SPONTANEOUS REGRESSION OF TUMORS.....	5R01 CA23469-03	67,346
ZEAMAN, DAVID.....	MINIATURE LANGUAGE SYSTEMS IN RETARDATES	5R01 HD12386-02	58,873
ORGANIZATION TOTAL	49 3,541,542		
WEST HARTFORD			
UNIVERSITY OF HARTFORD ZIP CODE 06117			
GRAY, EDWARD T, JR.....	TRACE ANALYSIS OF AQUEOUS CHLORAMINES.....	3R23 ES02033-01S1	4,141

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CONNECTICUT—Continued			
GRAY, EDWARD T. JR.....	TRACE ANALYSIS OF AQUEOUS CHLORAMINES.....	5R23 ES02033-02	42,450
ORGANIZATION TOTAL	2 46,591		
STATE TOTAL	495 58,637,825		
DELAWARE			
DOVER			
DELAWARE STATE COLLEGE	ZIP CODE 19901		
WILLIAMS, HARRIET R.....	MINORITY BIOMEDICAL SUPPORT.....	1S06 RR08182-01	317,135
ORGANIZATION TOTAL	1 317,135		
NEWARK			
UNIVERSITY OF DELAWARE	ZIP CODE 19711		
BISCHOFF, KENNETH B.....	PHARMACOKINETICS OF THE NEUROTOXIN 2,5-HEXANEDIONE.....	5R01 ES02138-02	31,773
BOORD, ROBERT L.....	LATERAL LINE PATHWAYS.....	5R01 NS11272-07	39,519
COLMAN, ROBERTA F.....	EFFECT OF COENZYMES ON ENZYME STRUCTURE AND FUNCTION.....	5R01 AM17552-08	114,667
COLMAN, ROBERTA F.....	NUCLEOTIDE SITES OF GLUTAMATE DEHYDROGENASE.....	2R01 GM21200-07	66,708
DE LEON, PATRICIA A.....	SPERM AGING AND THE INCIDENCE OF CHROMOSOME ANOMALIES.....	1R01 HD12035-01A2	39,386
FRANCIS, DAVID W.....	GENETIC STUDIES ON DEVELOPMENT OF POLYSPHONDYLUM.....	5R01 GM24847-03	69,252
GRANDA, ALLEN M.....	PROCESSING OF VISUAL INFORMATION.....	5R01 EY01540-11	67,990
GRANDA, ALLEN M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07016-07	70,582
NORTHMORE, DAVID P.....	FUNCTION IN GROWING AND REGENERATING VISUAL SYSTEMS.....	5R01 EY02697-02	46,857
PEASE, LILA G.....	PEPTIDE CONFORMATIONS AND INTERACTIONS WITH MEMBRANES.....	5R01 GM27616-02	189,535
PENE, JACQUES J.....	VIRAL CHROMOSOMES: MEMBRANE INTERACTIONS.....	5R01 AI16132-02	62,805
RECHNITZ, GARRY A.....	CLINICAL ANALYSIS WITH SELECTIVE MEMBRANE ELECTRODES.....	5R01 GM25308-03	57,497
RECHNITZ, GARRY A.....	BIO-SELECTIVE ELECTRODES USING LIVING BACTERIAL CELLS.....	5R01 GM25312-02	29,175
ROSE, GEORGE D.....	HIERARCHIC SELF-ASSEMBLY IN GLOBULAR PROTEINS.....	1R01 GM27370-01	38,966
SCHWEIZER, EDWARD E.....	MULTI RING PYRAZOLOHETEROCYCLES FROM ALLENYL AZINES.....	1R01 GM27620-01	47,070
SIMMONS, DANIEL T.....	ORIGIN AND FUNCTION OF SV40-SPECIFIC TAU ANTIGENS.....	5R01 CA25942-02	46,913
SKEEN, LESLIE C.....	ORGANIZATION AND FUNCTIONS OF PREFRONTAL NEOCORTEX.....	5R01 NS14535-03	33,744
THORPE, COLIN.....	FLAVOPROTEINS IN FATTY ACID METABOLISM.....	5R01 GM26643-02	44,631
USHER, DAVID C.....	REGULATION OF TWO GENES LINKED TO AN IKG CHAIN GENE.....	1R01 GM27096-01	82,259
WETLAUFER, DONALD B.....	KINETICS AND MECHANISMS OF PROTEIN SELF-ASSEMBLY.....	5R01 GM23713-05	67,392
WRISTON, JOHN C. JR.....	GLYCOSYLATED L-ASPARAGINASE AND GLYCOSYLATED LIPOSOMES.....	5R01 GM25378-03	26,396
ORGANIZATION TOTAL	21 1,273,117		
WILMINGTON			
WILMINGTON MEDICAL CENTER	ZIP CODE 19801		
FRELICK, ROBERT W.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA20743-04	33,529
FRELICK, ROBERT W.....	CANCER & ACUTE LEUKEMIA GROUP B.....	1R10 CA28411-01	47,878
ORGANIZATION TOTAL	2 81,407		
STATE TOTAL	24 1,671,659		
DIST OF COL			
WASHINGTON			
AMERICAN INSTITUTES FOR RESEARCH	ZIP CODE 20007		
WILSON, SANDRA R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05615-13	25,162
ORGANIZATION TOTAL	1 25,162		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
AMERICAN NATIONAL RED CROSS ZIP CODE 20006			
INGHAM, KENNETH C.....	PRECIPITATION OF PROTEINS WITH POLY(ETHYLENE GLYCOL)	5R01 HL21791-03	76,504
JAMIESON, GRAHAM A.....	ROLE OF PLATELET MEMBRANES IN HEMOSTASIS.....	2R01 HL14697-09	109,234
JAMIESON, GRAHAM A.....	MEMBRANE GLYCOPROTEINS OF PLATELETS AND LEUKOCYTES.....	5R01 HL20971-12	100,360
JAMIESON, GRAHAM A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05737-09	43,265
KOSOW, DAVID P.....	REGULATION OF THE ACTIVATION OF HUMAN FACTORS X AND XI.....	5R01 HL19282-05	49,900
MENACHE-ARONSON, DORIS.....	ISOLATION AND CHARACTERIZATION OF NEW PLASMA DERIVATIVES.....	5R01 HL24944-02	131,330
MERYMAN, HAROLD T.....	PRESERVATION OF ORGANS BY FREEZING.....	5R01 GM17959-08	107,702
SCHANFIELD, MOSES S.....	SELECTED BLOOD TRANSFUSION TOPICS.....	5R01 HL23654-03	46,249
ORGANIZATION TOTAL	8 664,544		
AMERICAN REGISTRY OF PATHOLOGY ZIP CODE 20306			
FINE, BEN S.....	FOVEOMACULAR AGING IN THE RHESUS MONKEY.....	5R01 EY03060-02	103,371
ORGANIZATION TOTAL	1 103,371		
AMERICAN SOCIETY OF ALLIED HEALTH PROFESSIONS ZIP CODE 20036			
BURKE, JOHN.....	INDEX OF GRADUATE THESES AND PROJECTS IN ALLIED HEALTH.....	5R01 LM03193-03	6,268
ORGANIZATION TOTAL	1 6,268		
AMERICAN UNIVERSITY ZIP CODE 20016			
SLOTNICK, BURTON M.....	ANATOMICAL BASIS OF OLFACTORY DISCRIMINATION.....	3R01 NS13057-02S1	9,096
ORGANIZATION TOTAL	1 9,096		
ASSOCIATED UNIVERSITIES ZIP CODE 20036			
BURR, BENJAMIN.....	STRUCTURE OF ZEIN GENES AND MESSENGER RNAS.....	1R01 GM28302-01	98,545
VASWANI, ASHOK N.....	AN ASSESSMENT OF PROTEIN DIETS BY NEUTRON ACTIVATION.....	1R01 AM27533-01	157,096
ORGANIZATION TOTAL	2 255,641		
CATHOLIC UNIVERSITY OF AMERICA ZIP CODE 20064			
HUNT, JOHN B.....	SPIN-LABELLED PURINE NUCLEOSIDES AND NUCLEOTIDES.....	5R01 GM24664-03	47,485
MARTIN, W WADE.....	THE ACQUISITION PROCESS OF ADOLESCENT CIGARETTE SMOKING.....	1R01 HD13531-01	18,390
MC MANUS, FREDERICK R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07123-12	22,871
MULLINS, JAMES M.....	STRUCTURAL AND CHEMICAL ANALYSIS OF THE MIDBODY.....	5R01 GM26802-02	26,290
SCHWAB, JOHN M.....	STEREOCHEMISTRY AND MECHANISMS OF ENZYME REACTIONS.....	5R01 GM26074-02	48,516
SCHWAB, JOHN M.....	STEREOCHEMISTRY OF ENZYMATIC RING CLEAVAGE REACTIONS.....	1R01 GM27610-01	96,535
TODHUNTER, JOHN A.....	IN VITRO TRANSCRIPTION IN RESPONSE TO IN VIVO EFFECTORS.....	1R01 GM27199-01	59,184
ZON, GERALD.....	4-HYDROXYCYCLOPHOSPHAMIDE/ALDOPHOSPHAMIDE CHEMISTRY.....	5R01 CA21345-03	61,207
ORGANIZATION TOTAL	8 380,478		
CHILDREN'S HOSPITAL NATIONAL MEDICAL CENTER ZIP CODE 20010			
LEIKIN, SANFORD L.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R01 CA03888-23	130,752
LEIKIN, SANFORD L.....	CLINICAL CANCER EDUCATION PROGRAM--PEDIATRICS.....	5R25 CA21241-03	87,508
ORGANIZATION TOTAL	2 218,260		
GALLAUDET COLLEGE ZIP CODE 20002			
PICKETT, JAMES M.....	PERCEPTION OF COMPLEX AUDITORY STIMULI BY THE DEAF.....	2R01 NS05464-16	130,838
ORGANIZATION TOTAL	1 130,838		
GEORGE WASHINGTON UNIVERSITY ZIP CODE 20052			
ABRAMSON, FRED P.....	MASS SPECTROMETRIC INVESTIGATION OF DES DISPOSITION.....	5R01 CA20753-03	57,270
ABRAMSON, FRED P.....	CARDIOVASCULAR DRUG INTERACTIONS: METABOLISM MODELS.....	5R01 HL22718-03	53,598
ABRAVANEL, EUGENE.....	THE COURSE OF EARLY IMITATION DURING INFANCY.....	5R01 HD12075-02	35,017
ANDERSON, REBECCA J.....	DETECTION OF NEUROTOXICITY OF ENVIRONMENTAL AGENTS.....	5R01 ES01951-03	40,010
BAILEY, J MARTYN.....	PROSTAGLANDIN SYNTHESIS IN TRANSFORMED CELLS.....	3R01 CA15356-05S1	15,782
BAILEY, J MARTYN.....	PROSTACYCLIN-THROMBOXANES IN THE CARDIOVASCULAR SYSTEM.....	5R01 HL22527-03	103,447
BAILEY, J MARTYN.....	PHARMACOKINETICS OF ANTIATHEROGENIC DRUGS.....	1R01 HL24838-01	100,622
BERNSTEIN, JERALD J.....	REGENERATION IN THE CENTRAL NERVOUS SYSTEM.....	7R01 NS16979-01	69,441
BRADLEY, EILEEN W.....	LATE EFFECTS OF FAST NEUTRONS ON CORD-BRAIN-LUNG.....	5R01 CA18143-06	280,416
BRYANT, ROBERT W.....	SELENIUM DEFICIENCY IN ESSENTIAL FATTY ACID METABOLISM.....	1R01 HL25645-01	62,951
CROSBY, WILLIAM H.....	STUDY OF IRON METABOLISM.....	1R01 AM27642-01	87,946

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
DRUM, BRUCE A.	ROLES OF TONIC AND PHASIC NEURAL SYSTEMS IN VISION	5R01 EY01672-05	84,505
ECKELMAN, WILLIAM C.	BIOLOGIC TRACERS LABELED WITH GAMMA EMITTING ISOTOPES	5R01 CA18675-06	163,419
ECKELMAN, WILLIAM C.	RADIOLABELING OF TUMOR ANTIBODIES	1R01 CA28462-01	101,419
GALLO, LINDA L.	CHOLESTEROL ABSORPTION: ESTERIFICATION AND TRANSPORT	1R01 AM26346-01	44,383
GOLDSTEIN, ALLAN L.	THE ROLE OF THE ENDOCRINE THYMUS IN THE AGING PROCESS	5R01 AG01531-02	135,544
GOLDSTEIN, ALLAN L.	CHEMICAL & IMMUNOLOGICAL CHARACTERISTICS OF THYMOSIN	5R01 CA24974-02	198,049
GOLDSTEIN, ALLAN L.	ROLE OF THYMOSIN PEPTIDES IN T-CELL DIFFERENTIATION	1R01 CA29943-01	70,596
IRWIN, DAVID	RIBONUCLEOPROTEIN COMPLEXES IN RENAL CARCINOMA	3R01 CA27553-01S1	4,488
JACKSON, MICHAEL J.	DRUG TRANSPORT IN THE GI TRACT AND OTHER EPITHELIA	5R01 GM22369-05	92,779
JOHNSON, KURT E.	ROLE OF EXTRACELLULAR MATRIX IN FROG GASTRULATION	5R01 HD11634-03	40,613
KERNS, JAMES M.	DEVELOPMENT AND STRUCTURE OF EXTRAOCULAR MOTOR UNITS	5R01 NS13606-02	46,169
KLUBES, PHILIP	SYNERGISM DURING COMBINATION CANCER CHEMOTHERAPY	5R01 CA17601-06	79,460
KUMAR, AJIT	MESSANGER RNA METABOLISM IN MAMMALIAN CELLS	5R01 CA27358-02	92,974
LEONARD, FRED	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05359-19	147,304
LEVINE, RICHARD F.	PHYSIOLOGY OF PLATELET PRODUCTION	5R01 HL23399-02	33,928
MANTEL, NATHAN	CANCER EPIDEMIOLOGY: STATISTICAL METHODS	3R01 CA15686-05S1	28,931
MESCHER, ANTHONY L.	INJURY-INDUCED GROWTH AND MYELIN-DERIVED GROWTH FACTORS	1R01 GM27735-01	40,392
PARSONS, DIANE B.	SCOLIOSIS: COLLAGEN DEFECT IN THE INTERVERTEBRAL DISC	1R01 AM27248-01	41,461
PIPBERGER, HUBERT V.	ECG LEADS TO ESTIMATE EXTENT OF MYOCARDIAL INJURY	5R01 HL23715-02	43,533
REBA, RICHARD C.	SYNTHESIS OF MOLECULES FOR MYOCARDIAL IMAGING	5R01 HL19127-05	152,813
ROTHBLAT, LAWRENCE A.	EARLY VISUAL EXPOSURE: BRAIN MORPHOLOGY AND BEHAVIOR	5R01 EY03304-05	36,247
RZESZOTARSKI, WACLAW J.	CARDIOSELECTIVITY OF BETA-ADRENOCEPTOR ANTAGONISTS	5R01 HL25222-03	86,781
SIDRANSKY, HERSCHEL	DIETARY TRYPTOPHAN IN CONTROLLING PROTEIN SYNTHESIS	1R01 AM27339-01	109,572
SIDRANSKY, HERSCHEL	NUTRITIONAL INFLUENCE ON CHEMICAL CARCINOGENESIS	1R01 CA26557-01A1	75,332
SLABY, FRANK J.	ROLE OF MYOINOSITOL METABOLISM IN PANCREAS SECRETION	5R01 HL25865-03	62,975
SNELL, RICHARD S.	TISSUE INTERACTIONS IN DRUG INDUCED LIMB TERATOGENESIS	5R01 HD13419-02	38,662
SOLOMON, HENRY	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07019-15	23,806
STRAW, JAMES A.	PHARMACOKINETICS OF RESCUE FROM ANTIFOLATE TOXICITY	5R01 CA22866-03	73,693
VAHOOUNY, GEORGE V.	SYNTHESIS AND ROLE OF PROSTAGLANDINS IN ADRENAL CELLS	2R01 AM20014-04	86,291
VAHOOUNY, GEORGE V.	REGULATION OF CHOLESTEROL ESTER LEVELS IN BLOOD & TISSUE	5R01 HL02033-25	128,885
VAHOOUNY, GEORGE V.	MYOCARDIAL LIPID METABOLISM AND REGULATION	5R01 HL09489-15	84,923
VAHOOUNY, GEORGE V.	PROSTAGLANDIN SYNTHESIS/FUNCTION IN ADULT CARDIAC CELLS	5R01 HL24138-02	48,960
WALSH, RAYMOND J.	PROLACTIN BINDING SITES IN THE CNS	5R01 NS15609-02	44,894
WILLIAMS, JERRY R.	NATURAL HISTORY OF SENESCING, TRANSFORMING & DYING CELLS	5R01 AG01735-02	64,863
WILLIAMS, JERRY R.	DNA METABOLISM AND HUMAN AGING	5R01 AG01736-03	114,079
YAMAMOTO, WILLIAM S.	USING A PHYSIOLOGICAL MODEL AS A RELATIONAL DATA BASE	1R01 LM03658-01	107,481
ORGANIZATION TOTAL	47 3,736,704		
GEORGETOWN UNIVERSITY ZIP CODE 20057			
ANDREWS, PETER M.	THE CELL BIOLOGY OF NORMAL AND NEPHROTIC KIDNEYS	5R01 AM25417-02	58,483
BASH, JERRY A.	SUPPRESSOR MACROPHAGE-MEDIATED IMMUNOSENESCENCE	5R23 AG02291-02	38,226
BATES, RICHARD D. JR.	MOLECULAR DYNAMICS OF HYDROGEN BONDING IN FLUIDS	2R01 GM23670-04	57,615
BELLANTI, JOSEPH A.	INTERDISCIPLINARY RESEARCH IN IMMUNOLOGIC DISEASES	5P50 AI15321-03	199,163
BITTER-SUERMANN, HINRICH	IMMUNE REACTIONS IN SPLEEN GRAFTED HOSTS	5R01 AI16106-02	74,942
BITTER-SUERMANN, HINRICH	PANCREATIC BETA CELL GRAFTS IN ANIMALS	1R01 AM27469-01	75,308
BLECHER, MELVIN	MECHANISMS OF ACTION OF HORMONES AND CYCLIC NUCLEOTIDES	5R01 AM05475-19	111,053
CALDERONE, RICHARD A.	EXPERIMENTAL CANDIDA ALBICANS ENDOCARDITIS	5R23 HL21370-03	28,498
CAPORALE, LYNN H.	COMPLEMENT AND INFLAMMATION: A BIOCHEMICAL APPROACH	5R01 AI15591-02	68,319
CHIRIKJIAN, JACK G.	RNA MODIFYING ENZYMES IN NORMAL AND NEOPLASTIC CELLS	5R01 CA16914-05	84,683
CHIRIKJIAN, JACK G.	SITE SPECIFIC ENDONUCLEASE CATALYSIS OF DNA	1R01 GM27701-01	60,560
CRISP, THOMAS M.	PROLACTIN RECEPTOR: LOCALIZATION AND CHARACTERIZATION	1R01 HD11832-01A1	71,705
CUTLER, SIDNEY J.	EVALUATION & MANAGEMENT OF BLADDER CANCER PATIENTS	2R26 CA23078-04	358,568
CUTLER, SIDNEY J.	EXPLORATORY STUDIES OF CANCER PATIENT DATA CONTROL	5R10 CA25146-02	49,088
DELGADO, GREGORIO	GYNECOLOGIC ONCOLOGY GROUP	2R10 CA16938-03A2	65,117
DOUKAS, HARRY M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05306-19	15,585
DOUKAS, HARRY M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05360-19	126,228
DRITSCHLO, ANATOLY	RADIATION DOSE RATE EFFECT ON REPAIR DEFICIENT CELLS	5R23 CA27545-02	32,463
FLEMING, PATRICK J.	ELECTRON TRANSPORT ENZYMES IN CATECHOLAMINE GRANULES	1R01 GM27695-01	63,653
GRAY, IRVING	TRACE METAL EFFECTS ON IMMUNOCOMPETENCE	1R01 ES02064-01A2	87,343
HAMOSH, MARGIT	FAT DIGESTION BY LINGUAL LIPASE IN CYSTIC FIBROSIS	1R01 AM26641-01	68,995
HAMOSH, MARGIT	PERINATAL FAT DIGESTION, ROLE OF OROPHARYNGEAL LIPASE	3R01 HD10823-03S1	24,683

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
HAMOSH, MARGIT.....	BLOOD TRIGLYCERIDE AND LIPOPROTEIN LIPASE IN THE LUNG.....	5R01 HL19056-05	67,510
HAMOSH, PAUL.....	EFFECT OF PROLACTIN ON LUNG MATURATION.....	5R01 HD11353-03	64,851
HENDERSON, ELLEN J.....	PROTEIN TOPOGRAPHY OF DISCOIDEUM PLASMA MEMBRANES.....	1R01 GM28887-01	68,691
HERZBERG, DONALD.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07136-09	39,025
HORNER, WILLIAM H.....	GUANIDINE METABOLISM IN MAMMALS.....	1R01 GM26834-01A1	57,360
HOWARD, DARLENE V.....	AGING AND SEMANTIC STRUCTURE.....	5R23 AG00713-03	41,530
JOSE, PEDRO A.....	ONTOGENY OF RENAL AND VASCULAR ADRENERGIC RECEPTORS.....	5R01 HL23081-02	71,329
KUMAR, SOMA.....	SYNTHESIS OF FATTY ACIDS IN MAMMALIAN TISSUES.....	5R01 AM16086-08	67,715
LEMP, MICHAEL A.....	EFFECT OF SYSTEMIC DRUGS ON TEAR PRODUCTION.....	5R01 EY02228-03	46,991
MAGREGOR, CAROLYN H.....	CELL MEMBRANE PROTEASES.....	5R01 GM25153-04	75,304
MARAK, GEORGE E, JR.....	LENS-INDUCED UVEITIS AND SYMPATHETIC OPHTHALMIA.....	5R01 EY00887-08	78,032
MC GEE, RICHARD, JR.....	FUNCTIONAL REGULATION OF CLONAL NEURONAL CELLS.....	5R01 NS14975-02	57,002
NEALE, JOSEPH H.....	ANALYSIS OF RAPIDLY TRANSPORTED AXONAL PROTEIN.....	5R01 NS14933-02	23,218
NEEFE, JOHN R.....	DEFECTIVE SELF-RECOGNITION AS A CAUSE OF CANCER.....	5R01 CA23882-02	69,809
NEEFE, JOHN R.....	MURINE T LYMPHOCYTE RECEPTORS FOR ALLOANTIGENS.....	5R01 CA25041-02	74,880
OESCHGER, MAX P.....	POTENTIAL VACCINE STRAIN FOR H. INFLUENZAE.....	1R01 AI15735-01A1	80,526
OESCHGER, MAX P.....	TS NONSENSE SUPPRESSORS OF E. COLI K-12.....	1R01 GM27902-01	85,030
POPE, MICHAEL T.....	STABLE ORGANIC DERIVATIVES OF HETEROPOLY ACIDS.....	5R01 GM23263-05	48,802
POPPER, ARTHUR N.....	PROCESSING OF ACOUSTIC INFORMATION.....	5R01 NS15090-03	45,833
POTTER, JOHN F.....	VINCENT T. LOMBARDI CANCER RESEARCH CENTER SUPPORT.....	2P30 CA14626-07	740,733
POTTER, JOHN F.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19028-05	115,298
RAMWELL, PETER W.....	ROLE OF ANDROGEN AS A RISK FACTOR IN ATHEROGENESIS.....	5R01 HL17516-06	190,995
RAMWELL, PETER W.....	PROSTAGLANDIN PRECURSORS AND VASCULAR REACTIVITY.....	5R01 HL18718-06	233,499
RAO, NARSING A.....	PATHOLOGY AND PATHOGENESIS OF OPTIC NEURITIS.....	5R01 EY02155-02	70,969
RECENT, LILLIAN.....	PANCREATIC AND INTESTINAL GLUCAGONS IN RATS AND MAN.....	2R01 AM19610-04	51,544
ROSENTHAL, LEONARD J.....	ANALYSIS OF DEFECTIVE HUMAN CYTOMEGALOVIRUS.....	5R01 AI15992-02	55,859
SCHEIN, PHILIP S.....	PHARMACOLOGY OF NONMYELOSUPPRESSIVE ANTITUMOR AGENTS.....	5R01 CA17583-05	60,204
SCHEIN, PHILIP S.....	PHASE II COMBINATION STUDIES IN PANCREATIC CANCER.....	5R01 NS15099-02	14,878
SCHEIN, PHILIP S.....	CANCER & LEUKEMIA GROUP B.....	1R10 CA27587-01	83,508
SINKS, LUCIUS F.....	MULTIMODALITY THERAPY OF CHILDREN AND ADOLESCENTS.....	1R10 CA28268-01	32,724
SMULSON, MARK E.....	HISTONE ADP-RIBOSYLATION AND HELA CELL REPLICATION.....	5R01 CA13195-08	70,734
SMULSON, MARK E.....	CARCINOGENS AND CHROMATIN STRUCTURE AND FUNCTION.....	5R01 CA25344-02	84,494
STEINHARDT, JACINTO.....	HYDROLYSIS OF AMIDE AND PEPTIDE BONDS IN PEPTIDES.....	5R01 GM23663-02	44,420
STEINHARDT, JACINTO.....	POLYMERIZATION OF SICKLE-CELL HEMOGLOBIN.....	5R01 HL12256-17	101,321
SULIK, KATHLEEN K.....	FACIAL DEVELOPMENT, MAXILLARY PROCESS AND CLEFT PALATE.....	5R23 DE05342-02	35,350
WALTERS, LEROY B.....	REFINING THE INFORMATION SYSTEM FOR BIOETHICS.....	1R01 LM03545-01	147,778
WOOLLEY, PAUL V.....	BINDING OF N-NITROSO CARCINOGENS TO PANCREATIC TISSUE.....	2R26 CA19744-04	74,850
YANG, DAVID C.....	EMBRYONIC CELL ASSOCIATION & DEVELOPMENT.....	5R01 GM25363-03	57,384
YANG, DAVID C.....	INTERACTION OF TRANSFER RNA AND SYNTHETASES.....	5R01 GM25848-02	53,895
ORGANIZATION TOTAL	61 5,303,793		
GERONTOLOGICAL SOCIETY ZIP CODE 20006			
BAKER, GEORGE T, III.....	CURRENT TOPICS IN BIOMEDICAL GERONTOLOGY—SYMPOSIA.....	1R13 AG02689-01	12,000
BUSSE, EWALD W.....	TRAVEL FOR 12TH INTERNATIONAL CONGRESS OF GERONTOLOGY.....	5R13 AG02194-02	55,538
ORGANIZATION TOTAL	2 67,538		
GORGAS MEMORIAL INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE ZIP CODE 20006			
BENENSON, ABRAM S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05769-05	24,333
GALINDO, PEDRO.....	ST. LOUIS ENCEPHALITIS VIRUS IN TROPICAL ECOSYSTEMS.....	1R01 AI16433-01	149,210
REEVES, WILLIAM C.....	CERVICAL CANCER EPIDEMIOLOGY IN PANAMA.....	5R01 CA25419-02	108,789
ORGANIZATION TOTAL	3 282,332		
HOWARD UNIVERSITY ZIP CODE 20059			
AHLUWALIA, BALWANT S.....	VITAMIN A AND SPERMATOGENESIS.....	1R01 HD13641-01	75,700
ARCHER, JUANITA A.....	HUMAN FETAL ISLETS: PRESERVATION AND INSULIN RECEPTOR.....	5R01 AM21050-03	71,120
ASHE, WARREN K.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05361-19	100,855
BAROFSKY, ANNA-LISA.....	SEROTONINERGIC MECHANISMS IN OVULATION INHIBITION.....	5R01 HD10676-04	70,733
BOWEN, DONNELL.....	CELLULAR PHARMACOKINETICS OF MTX AND FLUOROPYRIMIDINES.....	1R01 CA28261-01	39,783
CASTRO, OSWALDO L.....	STUDY OF HUMAN SICKLE ERYTHROCYTES IN PRIMATE ANIMALS.....	5R01 HL25392-02	100,878
CRISS, WAYNE E.....	PROTEIN KINASE SYSTEM IN RAPIDLY GROWING HEPATOMAS.....	1R01 CA26102-01A1	75,644
GOLDSON, ALFRED L.....	INTRAOPERATIVE RADIATION THERAPY FOR PANCREAS CANCER.....	5R26 CA26658-02	13,937

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
DIST OF COL—Continued			
HOLLOWAY, JAMES A.....	ELECTROPHYSIOLOGY OF THE SPINOTHALAMIC TRACT.....	1R01 NS15802-01	92,863
KOVI, JOSEPH.....	PROSTATIC CARCINOMA IN AMERICAN BLACKS.....	5R26 CA26679-02	101,677
LAING, CALBERT A.....	STUDIES ON SOLUBLE ANTIGENS ON MTV INDUCED MAMMARY TUMOR.....	5R01 CA23372-03	75,855
LEAK, LEE V.....	THE LYMPHATIC SYSTEM IN HEALTH AND IN INFLAMMATION.....	5R01 AI10639-10	95,585
LEAK, LEE V.....	ONTOGENY, ULTRASTRUCTURE, FUNCTION IN LYMPHATIC SYSTEM.....	5R01 HL13901-10	76,186
LITTLETON, GEORGE K.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08016-10	1,510,518
MALVEAUX, FLOYD J.....	IGE RECEPTORS ON HUMAN BASOPHILS AND LUNG MAST CELLS.....	5R01 AI16247-02	48,171
MORRIS, HAROLD P.....	INDUCTION-CONTINUATION-GENETICS OF EXPERIMENTAL TUMOR.....	5R01 CA24621-02	177,408
RAPISARDI, SALVATORE C.....	FINE STRUCTURE OF LABELED CELLS IN LATERAL GENICULATE.....	5R01 EY02953-02	66,394
RHOADS, ALLEN R.....	REGULATION OF CYCLIC 3',5'-NUCLEOTIDE PHOSPHODIESTERASES.....	2R01 AM19364-03	43,437
ROSENBERG, ROBERT C.....	DBH INHIBITION BY ANTIHYPERTENSIVE AND OTHER COMPOUNDS.....	1R01 HL25525-01	66,769
SCOTT, ROLAND B.....	SUPPORT FOR CENTER FOR SICKLE CELL DISEASE.....	5P60 HL15160-09	1,127,800
SILVA, OMEGA L.....	CALCITONIN AS A MARKER FOR CANCER OF THE BREAST.....	3R01 CA22137-03S1	19,248
SMITH, THOMAS E.....	KINETICS AND CHEMISTRY OF ALLOSTERIC INTERACTIONS.....	7R01 GM28373-01	61,203
SOUTHERLAND, WILLIAM M.....	A STRUCTURAL AND ENZYMIC ANALYSIS OF SULFITE OXIDASES.....	1R01 GM27975-01	91,580
WHITE, JACK E.....	CANCER CENTER SUPPORT GRANT (COMPREHENSIVE).....	3P30 CA14718-06S3	335,313
WHITE, JACK E.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19376-05	134,387
WHITE, JACK E.....	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	2R10 CA21185-04	79,334
YOUNG, JOHN K.....	INSULIN AND THE NUTRITIONAL CONTROL OF PUBERTY.....	1R01 HD14378-01	73,072
ORGANIZATION TOTAL	27 4,825,450		
NATIONAL BIOMEDICAL RESEARCH FOUNDATION ZIP CODE 20007			
BARKER, WINONA C.....	HOMOLOGOUS PHYSIOLOGICAL SYSTEMS IN HUMAN DEVELOPMENT.....	5R01 HD09547-06	84,405
DAYHOFF, MARGARET O.....	COMPUTER STUDY OF SEQUENCES OF AMINO ACIDS IN PROTEINS.....	5R01 GM08710-20	273,820
ORGANIZATION TOTAL	2 358,225		
U.S. DEPARTMENT OF THE ARMY—WALTER REED ARMY MEDICAL CENTER ZIP CODE 20012			
BERENBERG, JEFFREY L.....	SUPPORT OF CANCER AND LEUKEMIA GROUP B STUDIES.....	1R10 CA26806-01	76,489
PARK, ROBERT C.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA23501-03	24,100
ORGANIZATION TOTAL	2 100,589		
UNIVERSITIES RESEARCH ASSOCIATION ZIP CODE 20037			
COHEN, LIONEL.....	NUCLEON THERAPY FACILITY.....	2P01 CA18081-06	964,994
ORGANIZATION TOTAL	1 964,994		
UNIVERSITY OF THE DISTRICT OF COLUMBIA ZIP CODE 20008			
KONDO, NORMAN S.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08005-10	210,029
ORGANIZATION TOTAL	1 210,029		
URBAN INSTITUTE ZIP CODE 20037			
GOODMAN, JOHN L, JR.....	URBAN RESIDENTIAL MOBILITY IN THE 1970'S.....	5R01 HD13442-02	111,532
ORGANIZATION TOTAL	1 111,532		
WASHINGTON HOSPITAL CENTER ZIP CODE 20010			
MAUGER, ANTHONY B.....	ACTINOMYCINS—CONFORMATION & ACTIVITY.....	5R01 CA11627-14	93,692
ORGANIZATION TOTAL	1 93,692		
STATE TOTAL	173 17,848,536		

FLORIDA

CORAL GABLES

UNIVERSITY OF MIAMI ZIP CODE 33124			
CORBETT, MICHAEL D.....	HYDROXAMIC ACID PRODUCTION BY MARINE ORGANISMS.....	2R01 CA21992-04	80,438
CORBETT, MICHAEL D.....	HYDROXAMIC ACID PRODUCTION IN MICROBIAL ECOSYSTEMS.....	5R01 CA23492-03	60,043
ECKSTEIN, EUGENE C.....	PLATELET CONCENTRATION IN THE MARGINAL LAYER.....	2R01 HL22455-03	69,384
FALETTI, MARTIN V.....	HUMAN FACTORS ANALYSIS OF ELDERLY IMPAIRMENT.....	1R01 AG02263-01	15,805
GRECO, EDWARD C, JR.....	QUANTITATIVE EVALUATION OF EXERCISE HYPERPNEA.....	1R23 HL25413-01A1	46,255

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
LUTZ, PETER L	BRAIN FUNCTION, METABOLISM AND SURVIVAL IN ANOXIA	1R01 NS16655-01	106,622
METZ, CHARLES B.	ISOLATION AND STUDY OF MAMMALIAN SPERM ISOANTIGENS	5R01 HD06663-05	64,426
NEUMANN, PAUL	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07022-13	19,113
ORGANIZATION TOTAL	8 462,086		
CORAL SPRINGS			
INDIVIDUAL AWARD—SHIMANOVSKAYA, KLARA ZIP CODE 33065			
SHIMANOVSKAYA, KLARA	RADIATION THERAPY OF TUMORS AND BONE INJURIES	1R01 LM03361-01	13,800
ORGANIZATION TOTAL	1 13,800		
DAYTONA BEACH			
BETHUNE-COOKMAN COLLEGE ZIP CODE 32015			
COPELAND, RICHARD F.	MINORITY BIOMEDICAL SUPPORT	5S06 RR08119-07	202,623
ORGANIZATION TOTAL	1 202,623		
GAINESVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611			
ABRAMS, ROBERT M.	GLUCOSE CONSUMPTION AND HEAT PRODUCTION OF FETAL BRAIN	5R01 HD11911-02	86,602
ACHEY, PHILLIP M.	BIOLOGICAL AND PHYSICAL ACTION OF RADIATION ON DNA	5R01 CA12447-08	41,493
ALDRICH, HENRY C.	MEMBRANE STRUCTURE, CELL CONTACT AND CELL FUSION	5R01 GM21825-05	45,863
ALLEN, CHARLES M., JR.	MECHANISM AND REGULATION OF UNDECAPRENOL BIOSYNTHESIS	2R01 GM23193-04A1	56,894
ALLEN, DON L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05728-09	16,232
BAZER, FULLER W.	PROGESTERONE-INDUCED PROTEINS IN THE PREGNANT UTERUS	5R01 HD08560-06	50,409
BELL, JOHN U.	ROLE OF FETAL METALLOTHIONEIN IN HEAVY METAL TOXICITY	7R01 HD15447-01	46,309
BERNS, KENNETH I.	MOLECULAR BIOLOGY OF ADENO-ASSOCIATED VIRUS	1R01 AI16326-01	99,974
BIDLINGMAYER, WILLIAM L.	MOSQUITO FLIGHT PATHS IN RELATION TO THE ENVIRONMENT	5R01 AI17346-02	60,152
BIRDSELL, DALE C.	MECHANISMS OF VIRULENCE OF ORAL PERIODONTOPATHOGENS	2R01 DE04617-04	97,327
BLEIWEIS, ARNOLD S.	CELL-WALL ANTIGENS OF CARIOGENIC STREPTOCOCCI	5R01 DE02901-12	60,220
BLOCK, A JAY	SLEEP APNEA AND DESATURATION-MECHANISMS AND INCIDENCE	5R01 HL22622-03	51,826
BODOR, NICHOLAS S.	REDOX SYSTEMS FOR DELIVERY OF DRUGS TO THE BRAIN	1R01 GM27167-01	56,892
BOROVSKY, DOV	VITELLOGENIN SYNTHESIS IN BITING DIPTERA	5R01 AI17347-02	26,219
BRAYLAN, RAUL C.	FLOW ANALYSIS OF HUMAN MALIGNANT LYMPHOID CELLS	5R01 CA23393-03	106,281
BROWNELL, WILLIAM E.	PHYSIOLOGICAL STUDIES OF HEARING	5R01 NS12209-06	57,058
BURCHARDT, HANS	QUANTITATION OF BONE TRANSPLANT REPAIR	2R01 AM14063-09	68,909
BURCHARDT, HANS	EVALUATION OF ANTICANCER CHEMOTHERAPY ON BONE GRAFTS	5R01 CA22763-03	44,809
CASSIN, SIDNEY	REGULATION OF THE PERINATAL PULMONARY CIRCULATION	5R01 HL10834-11	51,787
CATON, DONALD	FETAL GROWTH AND DEVELOPMENT	5R01 HD05659-10	96,826
CHESROWN, SARAH E.	AIRWAY EFFECTS OF NONADRENERGIC NONCHOLINERGIC NERVES	1R23 HL26321-01	41,862
CLARK, WILLIAM B.	ADHERENCE OF PERIODONTAL DISEASE-ASSOCIATED BACTERIA	5R23 DE05429-02	35,310
CORNELIUS, C E	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05788-04	18,647
CRANDALL, RICHARD B.	IMMUNE RESPONSES TO BRUGIA MALAYI IN THE PATAS MONKEY	1R22 AI16516-01A1	56,234
CUNNINGHAM, WALTER R.	INTELLIGENCE AND MEMORY IN YOUNG AND OLD ADULTS	5R23 AG01162-02	44,714
DAWSON, WILLIAM W.	APPLICATION OF LASER SPECKLE TO MACULAR EVALUATION	5R01 EY02985-02	47,089
DEAL, WILLIAM B.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00082-18	497,504
DELL, PAUL C.	REPARATIVE PROCESS IN FREE, VASCULARIZED BONE GRAFTS	1R01 AM26241-01	80,162
DOCKERY, J LEE	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05362-19	177,929
DRUMMOND, WILLA H.	MECHANISMS OF FETAL & NEONATAL ASPHYXIC SYNDROMES	5R01 HD12987-03	93,289
DUCKWORTH, DONNA H.	EXTRA-CHROMOSOMAL GENETIC ELEMENTS AND THE CELL SURFACE	5R01 AI12056-06	69,137
DUNN, BEN M.	PEPSIN INHIBITOR: STRUCTURE-FUNCTION MANIPULATIONS	5R01 AM18865-06	67,434
ENNEKING, WILLIAM F.	ELECTROMAGNETIC STIMULATION OF BONE GRAFTS	5R01 AM22197-02	56,208
ENNEKING, WILLIAM F.	RADICAL LOCAL RESECTION IN MUSCULOSKELETAL SARCOMA	5R01 CA16559-07	129,514
ENOCH, JAY M.	THE ETIOLOGY OF REDUCED VISUAL FUNCTION	5R01 EY01418-06	104,158
FINLAYSON, BIRDWELL	UROLITHIASIS CENTER	3P01 AM20586-03S2	5,112
FINLAYSON, BIRDWELL	UROLITHIASIS CENTER	5P01 AM20586-04	440,377
FISHER, WALDO R.	STRUCTURE OF LOW DENSITY LIPOPROTEIN	5R01 HL10316-15	184,944
FLANEGAN, JAMES B.	MOLECULAR BIOLOGY OF POLIOVIRUS RNA REPLICATION	5R01 AI15539-02	16,971
FREGLY, MELVIN J.	ORAL CONTRACEPTIVES AND HYPERTENSION	5R01 HL14526-09	77,357

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
GARNICA, ADOLFO D.....	TISSUE CUPROPROTEINS IN THE MURINE MUTANT BRINDLED.....	5R01 NS14927-02	34,618
GEISER, EDWARD A.....	3-D ANALYSIS OF VENTRICULAR CONTRACTILE PERFORMANCE.....	1R23 HL25621-01	45,278
GELATT, KIRK N.....	INHERITED GLAUCOMA.....	5R01 EY01932-04	79,779
GELATT, KIRK N.....	CONGENITAL CATARACTS.....	5R01 EY02199-03	49,283
GIBBS, CHARLES H.....	INVESTIGATION OF FUNCTIONAL MANDIBULAR MOVEMENTS.....	5R01 DE04157-07	65,962
GIFFORD, GEORGE E.....	NUTRITIONAL ASPECTS OF VITAMIN A AND CANCER.....	5R01 CA22183-02	61,539
GOLDBERG, EUGENE P.....	INTRAOCULAR LENS COATINGS TO PREVENT CORNEA DAMAGE.....	5R01 EY02063-03	39,362
GREGG, JAMES H.....	CELL SLIME MOLD INTERACTION/REGULATION/DIFFERENTIATION.....	5R01 GM10138-18	49,931
GURIN, SAMUEL.....	HOMARINE AND PYRIDINE CARBOXYLIC ACIDS IN CRUSTACEA.....	5R01 GM22744-05	25,645
HEATON, MARIETA B.....	ANALYSES OF NEUROBLAST MIGRATION.....	5R01 NS14886-02	47,964
HEILMAN, KENNETH M.....	GESTURE AND ACQUISITION OF MOTOR SKILL IN APRAXIA.....	5R01 NS15229-02	47,798
HENCH, LARRY L.....	INTERFACIAL BEHAVIOR OF BIOMATERIALS.....	5R01 GM24858-03	107,174
HOLLINGER, THOMAS G.....	THE ORIGIN OF CHROMOSOMAL ABNORMALITIES.....	5R01 HD13228-02	39,909
HOLLOMAN, WILLIAM K.....	ENZYMOLGY OF GENETIC RECOMBINATION.....	1R01 GM27103-01	90,759
HOWARD, RICHARD J.....	CELL-MEDIATED IMMUNITY TO CMV IN TRANSPLANT PATIENTS.....	1R01 AM27217-01	36,841
INGRAM, LONNIE O.....	PHOSPHOLIPID METABOLISM DURING SYNCHRONOUS DIVISION.....	5R01 GM24059-03	26,027
KADZIELAWA, KRZYSZTOF.....	A-METHYL-NE INHIBITION OF CENTRAL SYMPATHETIC NEURONS.....	5R01 NS15613-02	35,089
KALLENBACH, ERNST A.....	TRACER AND FINE STRUCTURE STUDIES OF THE ENAMEL ORGAN.....	5R01 DE02241-15	25,728
KALRA, PUSHPA S.....	STERIODS AND HYPOTHALAMIC INTERACTIONS IN MALE RATS.....	5R01 HD11362-03	48,248
KALRA, SATYA P.....	OVARIAN STEROIDS IN THE GONADOTROPIN RELEASE MECHANISM.....	5R01 HD08634-05	83,443
KALRA, SATYA P.....	FEEDBACK ACTION OF PROGESTERONE ON THE HYPOTHALAMUS.....	1R01 HD14006-01	43,753
KEM, WILLIAM R.....	STRUCTURE AND MEMBRANE ACTION OF PROTEIN CYTOTOXINS.....	5R01 GM25849-02	55,269
KING, GREGORY J.....	STRESS-RELATED BONE RESORPTION.....	5R23 DE04844-03	16,837
KITZMILLER, JAMES B.....	GENETICS OF ANOPHELINE MOSQUITOES.....	5R01 AI15015-03	34,939
KLEIN, PAUL A.....	ANTIBODY RESPONSES OF TUMOR BEARERS TO THEIR TUMORS.....	1R01 CA26882-01	64,444
LAIPI, PHILIP J.....	AGING EFFECTS ON MITOCHONDRIAL DNA VARIATION.....	1R01 AG01636-01	72,188
LARKIN, LYNN H.....	ROLE OF RELAXIN IN GESTATION AND PARTURITION.....	5R01 HD08552-06	40,857
LEONARD, CHRISTIANA M.....	NEURAL SUBSTRATE OF BEHAVIORAL DEVELOPMENT.....	2R01 NS13516-04	84,923
LINLEY, JOHN R.....	THE BIOLOGY OF CULICOIDES.....	5R01 AI17349-02	41,652
MACLAREN, NOEL K.....	FACTORS AFFECTING CHEMICALLY INDUCED MURINE DIABETES.....	5R01 AM25403-03	71,221
MANSCHEIM, BERNARD J.....	IMMUNOCHEMICAL STUDIES IN PERIODONTAL DISEASE.....	5R01 DE05352-02	59,631
MAREN, THOMAS H.....	NEW APPROACHES TO GLAUCOMA AND LENS PHARMACOLOGY.....	5R01 EY02227-03	141,336
MAREN, THOMAS H.....	NEW PHARMACOLOGY ASPECTS RELATED TO CARBONIC ANHYDRASE.....	5R01 HL22258-03	71,842
MC GUIGAN, JAMES E.....	IMMUNOLOGY AND DISEASES OF THE GASTROINTESTINAL TRACT.....	5R01 AM13711-11	123,879
MC GUIRE, PETER M.....	THE GENETIC TOXICOLOGY OF TWO S-TRIAZINE HERBICIDES.....	5R01 ES01652-03	62,161
MC GUIRE, PETER M.....	CHARACTERIZATION OF PLACENTAL RNA POLYMERASE II.....	1R01 GM27970-01	51,416
MC NAB, BRIAN K.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07021-15	67,417
MELAMED, BARBARA G.....	BEHAVIORAL APPROACHES TO PAIN RESPONSES IN PEDODONTICS.....	1R01 DE05305-01	110,962
MERIMEE, THOMAS J.....	INSULIN AND HGH: SECRETION AND METABOLIC ACTIONS.....	5R01 AM18130-07	93,020
METCALF, JOSEPH F.....	IMMUNOCYTOCHEMICAL STUDIES OF HERPETIC KERATITIS.....	5R01 EY01580-05	66,782
MOSCOVICI, CARLO.....	SPECIFICITY OF AVIAN MYELOBLASTOSIS VIRUS.....	5R01 CA10697-14	81,031
MUNSON, JOHN B.....	FUNCTIONAL SPINAL CORD REGENERATION.....	1R01 NS15913-01	56,916
NEILSON, JOHN T.....	BRUGIAN FILARIASIS, ANTIGEN CHARACTERIZATION.....	1R22 AI16405-01A1	24,985
NOONAN, KENNETH D.....	CONTROL OF LECTIN RECEPTOR MOBILITY.....	5R01 GM23227-05	60,109
NORMANN, SIGURD J.....	MONOCYTE FUNCTION IN NEOPLASIA.....	2R01 CA22517-04	59,391
NOTELOVITZ, MORRIS.....	PSYCHOSOCIAL & BIOLOGICAL ADAPTATION TO AGING IN WOMEN.....	5R01 AG00796-02	103,631
O'BRIEN, THOMAS W.....	CHARACTERIZATION OF MAMMALIAN MITOCHONDRIAL RIBOSOMES.....	5R01 GM15438-12	51,845
O'BRIEN, THOMAS W.....	IMMUNOCHEMISTRY OF MAMMALIAN MITOCHONDRIAL RIBOSOMES.....	5R01 GM23322-02	55,313
O'BRIEN, THOMAS W.....	CHLORAMPHENICOL-INDUCED APLASTIC ANEMIA.....	5R01 GM25888-02	55,837
OTIS, ARTHUR B.....	PRESSURE-FLOW RELATIONSHIPS IN BREATHING.....	5R01 HL23515-02	37,400
PECK, AMMON B.....	ALPHA-FETOPROTEIN: REAGENT TO ISOLATE T CELL SUBSETS.....	1R01 HD13794-01	56,228
PETTY, ROY W.....	INFLUENCE OF SKELETAL IMPLANT MATERIALS ON INFECTION.....	5R01 AM24007-02	59,868
PHILLIPS, M IAN.....	CENTRAL ANGIOTENSIN IN HYPERTENSION AND WATER BALANCE.....	1R01 HL27334-01	102,845
PIOTROWSKI, GEORGE.....	STUDIES OF SYNOVIAL JOINTS.....	5R01 AM20339-03	42,157
POLACK, FRANK M.....	ULTRAMICROSCOPIC CHANGES IN CORNEA AND CORNEAL GRAFTS.....	5R01 EY00415-12	50,999
PRESTON, JAMES F.....	AMANTININ-PROTEIN CONJUGATES AS POTENTIAL INHIBITORS.....	5R01 CA19043-05	32,141
RASBURY, WILEY C.....	BEHAVIORAL CORRELATES OF RENAL FAILURE IN CHILDREN.....	5R01 AM19095-03	57,917
RHOTO, ALBERT L, JR.....	BRAIN STEM SENSORY CONNECTIONS.....	5R01 NS10978-07	23,090
ROBERTS, R MICHAEL.....	INTERACTION BETWEEN BLASTOCYST AND UTERINE EPITHELIUM.....	2R01 HD10436-04	62,170
ROMRELL, LYNN J.....	SPERM SPECIFIC MEMBRANE PROTEINS IN SPERMATOGENESIS.....	5R01 HD10852-03	36,948
ROSS, WARREN E.....	STUDIES OF DNA DAMAGE AND REPAIR BY ANTITUMOR AGENTS.....	5R01 CA24586-02	30,080

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
RUBIN, MELVIN L.....	VISION RESEARCH CENTER (CORE).....	5P30 EY02681-02	137,382
SAVITT, TODD L.....	MEDICINE AFTER EMANCIPATION: BLACK HEALTH 1865-1895.....	1R01 LM03413-01	25,127
SCHWARTZ, MICHAEL A.....	BIO MEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09077-03	73,900
SHARP, DAN C.....	PINEAL-HYPOTHALAMIC ROLE IN SEASONAL REPRODUCTION.....	5R01 HD10862-02	32,822
SHIVERICK, KATHLEEN T.....	ROLE OF CATECHOL ESTROGENS IN HYPERTENSION.....	1R23 HL26169-01	42,048
SILVERMAN, DAVID N.....	CATALYTIC MECHANISM OF CARBONIC ANHYDRASE.....	5R01 GM25154-03	64,735
SILVERMAN, DAVID N.....	MEMBRANE DIFFUSION OF BICARBONATE & CO2 USING OXYGEN 18.....	5R01 HL18671-05	56,509
SIMPKINS, JAMES W.....	HYPOTHALAMIC CATECHOLAMINES AND REPRODUCTIVE AGING.....	1R01 AG02021-01	60,325
SIMPKINS, JAMES W.....	PLACENTAL TRANSPORT OF DOXEPIN: DELAYED CNS EFFECTS.....	1R01 HD14075-01	49,890
SMALL, PARKER A, JR.....	HOST DEFENSE AGAINST INFLUENZA.....	2R01 AI07713-14	96,574
SMITH, RICHARD T.....	CELLULAR MECHANISMS IN TUMOR-SPECIFIC IMMUNITY.....	5R01 CA15334-07	68,197
SMITH, RICHARD T.....	ONTOGENY OF IMMUNE MECHANISMS.....	5R01 HD00384-23	113,122
THOMPSON, FLOYD J.....	VENOUS AFFERENT ELICITED SKELETAL MUSCLE PUMPING.....	1R01 HL25619-01	46,948
TISHER, C CRAIG.....	WATER AND ELECTROLYTE MOVEMENT IN RENAL TUBULES.....	7R01 AM28330-01	47,516
TOSKES, PHILLIP P.....	RETINAL CHANGES IN MALABSORPTION.....	5R01 EY02831-02	85,413
VIERCK, CHARLES J, JR.....	SPINAL SOMESTHETIC PATHWAYS.....	5R01 NS07261-14	77,049
WAGNER, PATRICIA A.....	SUPPLEMENTAL ZINC, TASTE & HEALTH IN AGING WOMEN.....	5R01 AG00833-03	40,338
WEBB, WILSE B.....	CHANGES OF SLEEP PATTERNS IN THE AGING.....	2R01 AG00805-03	68,681
WEINER, ROY S.....	EFFECTIVE CANCER THERAPY WITH NUTRITIONAL SUPPORT.....	5R01 CA26628-02	130,415
WEINER, ROY S.....	SOUTHEASTERN CANCER STUDY GROUP.....	1R10 CA28143-01	172,545
WELTNER, WILLIAM, JR.....	BIO PHYSICAL PROPERTIES OF CELL SURFACE CARBOHYDRATES.....	5R01 GM21920-04	50,645
WINEFORDNER, JAMES D.....	MOLECULAR SPECTROMETRIC METHODS FOR DRUGS.....	5R01 GM11373-18	73,329
YOUNG, DAVID M.....	NERVE GROWTH FACTOR: SECRETION BY CANCER CELLS.....	5R01 CA28110-02	91,980
YOUNG, DAVID M.....	SALIVA NERVE GROWTH FACTOR: THE NATURALLY OCCURRING FORM.....	5R01 NS16321-02	55,295
ZOLTOWICZ, JOHN A.....	ENZYMATIC AND NON-ENZYMATIC DESTRUCTION OF THIAMINE.....	5R01 AM17442-05	33,579
ORGANIZATION TOTAL	126	8,816,205	
JACKSONVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF NORTH FLORIDA ZIP CODE 32216			
HUEBNER, JAY S.....	PHOTO-ELECTRIC MEMBRANE PROBES: PHYSICAL STUDIES.....	2R01 GM23250-04A1	48,234
ORGANIZATION TOTAL	1	48,234	
MELBOURNE			
FLORIDA INSTITUTE OF TECHNOLOGY ZIP CODE 32901			
JAMDAR, SUBHASH C.....	REGULATION OF ADIPOSE LIPID METABOLISM.....	5R01 AM26181-02	59,644
JONES, RONALD H.....	BIO MEDICAL RESEARCH SUPPORT.....	1S07 RR07190-01	20,226
STORRS, ELEANOR E.....	COMPARATIVE SUSCEPTIBILITY OF ARMADILLOS TO LEPROSY.....	5R22 AI15249-02	92,043
ORGANIZATION TOTAL	3	171,913	
MIAMI			
MIAMI JEWISH HOME AND HOSPITAL FOR AGED ZIP CODE 33137			
FALETTI, MARTIN V.....	HUMAN FACTORS ANALYSIS OF ELDERLY IMPAIRMENT.....	7R01 AG02727-01	39,970
ORGANIZATION TOTAL	1	39,970	
PAPANICOLAOU CANCER RESEARCH INSTITUTE ZIP CODE 33136			
AHMAD, FAZAL.....	BACTERIAL LIPOGENESIS STUDIES.....	5R01 AI15894-02	61,129
AHMAD, FAZAL.....	REGULATION OF FATTY ACID BIOSYNTHESIS IN MAMMARY TUMORS.....	5R01 CA15196-06	81,260
AHMAD, FAZAL.....	BIOCHEMICAL STUDIES ON CENTRAL NERVOUS SYSTEM MYELIN.....	5R01 NS13646-03	30,788
AHMAD, FAZAL.....	STUDIES OF NEURONAL PHOSPHOPROTEIN PHOSPHATASE.....	5R01 NS14947-02	43,893
ALTMAN, NORMAN H.....	PRODUCTION OF RATS WITH ISOLOGOUSLY TRANSPLANTED R3327.....	5R26 CA18625-06	60,342
BLOCK, RONALD E.....	CHARACTERIZATION OF BIOLOGICAL TISSUES BY NMR.....	5R01 CA13056-07	53,928
BRADA, ZBYNEK.....	ETHIONINE METABOLISM IN HYPERPLASTIC NODULES IN LIVER.....	5R01 CA23516-03	98,177
KOHEN, ELLI.....	MICROFLUOROMETRY OF CULTIVATED PANCREATIC ISLETS.....	2R01 AM21330-03	84,985
MELOCHE, H PAUL.....	NIGMS SHARED INSTRUMENTATION PROGRAM.....	5P41 GM27572-02	20,551
SCHULTZ, JULIUS.....	BIO MEDICAL RESEARCH SUPPORT.....	2S07 RR05690-10	43,603
ZUCKER, ROBERT M.....	HEMOGLOBIN STUDIES IN FRIEND LEUKEMIA.....	1R01 CA24165-01A2	67,917
ORGANIZATION TOTAL	11	646,573	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
UNIVERSITY OF MIAMI	ZIP CODE 33101		
ADACHI, KENJI	ROLE OF CYCLIC NUCLEOTIDES IN PATHOGENESIS OF PSORIASIS	5R01 AM17179-07	128,832
AHN, YEON-SOONG	INJURY TO MACROPHAGES IN AUTOIMMUNE DISORDERS	5R01 AM25485-02	64,575
ANDERSON, DOUGLAS R.	EXPERIMENTAL PATHOLOGY OF THE OPTIC NERVE	5R01 EY00031-10	172,668
ANDERSON, DOUGLAS R.	OPHTHALMIC RESEARCH CORE FACILITY	5P30 EY02180-03	114,918
AWAD, WILLIAM M. JR.	CHARACTERIZATION OF PRONASE ENZYMES	5R01 GM22468-05	73,971
BADEN, DANIEL G.	STRUCTURE AND TOXICITY OF GYMNO DINIUM BREVE TOXINS	1R23 ES02299-01	43,616
BARRETT, ELLEN F.	NEUROTRANSMITTER RELEASE KINETICS	5R01 NS12404-06	45,529
BARRETT, JOHN N.	PACEMAKER MECHANISMS IN NEURONS AND HEART CELLS	5R01 NS12207-06	91,375
BASSETT, ARTHUR L.	EFFECT OF DRUGS ON DEVELOPMENT OF CARDIAC FAILURE	5R01 HL19044-05	98,689
BOUCEK, ROBERT J. JR.	STUDIES ON AGING: EFFECTS OF SEX HORMONES	5R01 HL17865-06	104,798
BOUCEK, ROBERT J. JR.	DRUG TREATMENT OF VASCULAR SCLEROPROTEIN DEFECTS	5R01 HL17909-06	130,107
BOUCEK, ROBERT J. JR.	REGULATION OF LYSYL-CROSS-LINKING IN VASCULAR TISSUE	5R01 HL22040-03	148,760
BOURGIGNIE, JACQUES J.	RENAL FAILURE: PATHOPHYSIOLOGY AND POSSIBLE PREVENTION	5R01 AM19822-05	185,081
BREW, KEITH	CHEMICAL STUDIES OF ENZYMES AND PROTEINS	2R01 GM21363-07	168,748
BRILL, EARL	AROMATIC AMINE N-OXIDATION IN BLADDER CANCER	5R26 CA16900-06	57,960
CANTERBURY, JANET M.	RADIOIMMUNOASSAY OF PARATHYROID HORMONE IN MAN	5R01 AM16768-09	179,285
CASTRO, ALBERT	DETECTION OF LEGIONNAIRES DISEASE ANTIGEN	1R01 AI16739-01	49,302
CASWELL, ANTHONY H.	ISOLATED T TUBULES AND TRIADS OF MUSCLE	5R01 AM21601-03	98,342
CHRISTAKIS, GEORGE	CROSS CULTURE & ADOLESCENT CHD RISK FACTORS	3R01 HL23356-01S1	2,558
CHRISTAKIS, GEORGE	DETERMINANTS OF CHD RISK FACTORS IN ADOLESCENCE	5R01 HL23356-02	414,823
CLAFLIN, ALICE J.	MEMBRANE ANTIGENS OF RAT PROSTATE ADENOCARCINOMA	5R26 CA21696-03	84,658
CLARK, MARTIN R.	HORMONAL REGULATION OF PROSTAGLANDIN SYNTHESIS	5R01 HD13073-02	85,547
COWMAN, RICHARD A.	HUMAN SALIVA-STREPTOCOCCAL METABOLIC INTERACTIONS	5R01 DE04278-05	48,095
DOWNEY, KATHLEEN M.	FIDELITY OF DNA SYNTHESIS WITH DNA POLYMERASE	5R01 GM25394-02	46,916
FENNA, ROGER E.	STRUCTURAL STUDIES OF LACTOSE SYNTHETASE	3R01 GM26767-01S1	6,139
FITZGERALD, DOROTHEA B.	CARIOGENESIS OF PLAQUE BACTERIA IN TEST MODELS	5R01 DE04265-06	119,418
FLETCHER, MARY A.	IMMUNOCHEMICAL STUDIES OF MONONUCLEOSIS ANTIBODIES	5R01 AM16763-09	125,218
FORSTER, RICHARD K.	MANAGEMENT OF FUNGAL KERATITIS AND ENDOPHTHALMITIS	5R01 EY00674-09	89,503
FRANK, LEE	OXYGEN TOXICITY: ENDOGENOUS/EXOGENOUS LUNG PROTECTANTS	1R01 HL26029-01	96,935
GASS, DONALD M.	MACULAR PHOTOCOAGULATION STUDY	5R10 EY02549-02	60,852
GELBAND, HENRY	A PROSPECTIVE STUDY: BLOOD PRESSURE IN NEWBORN TWINS	5R01 HL19930-05	178,562
GINSBERG, MYRON D.	BRAIN BLOOD FLOW AND METABOLISM IN HYPOXIA-ISCHEMIA	5R01 NS15883-02	80,914
GOLDBERG, STEPHEN J.	INDUCTION OF MAMMALIAN RETINAL REGENERATION	5R01 EY01981-04	60,429
GOLDBERG, STEPHEN J.	MAMMALIAN RETINAL REGENERATION	5R01 EY02579-02	91,723
GREEN, BARTH A.	OUTCOME VS EMERGENCY CARE IN SPINAL CORD INJURY	5R01 NS14468-03	225,993
HAMASAKI, DUCO I.	EFFECT OF VISUAL DEPRIVATION ON VISION	5R01 EY00376-11	120,645
HARDY, MARCOS A.	OSMOTIC WATER MOVEMENT: IONIC-HORMONAL INTERACTIONS	1R01 AM26569-01	93,088
HARIK, SAMI I.	NORADRENERGIC CONTROL OF CEREBRAL OXIDATIVE METABOLISM	1R01 NS16617-01	118,654
HARRIS, RACHEL J.	PROJECT CID: COMPLIANCE INTERVENTION FOR DIABETES	5R23 AM26001-02	49,771
HAYNES, DUNCAN H.	SARCOPLASMIC RETICULUM: CA2 + TRANSPORT AND RELEASE	5R01 GM23990-03	81,277
HAYNES, DUNCAN H.	BINDING, TRANSPORT OF CALCIUM AND POTASSIUM IONOPHORES	5R01 HL23392-03	39,736
HOLADAY, DUNCAN A.	METABOLISM OF VOLATILE FLUORINATED ANESTHETICS	5R01 GM16498-12	21,419
HOWELL, DAVID S.	ROLE OF PHOSPHOLIPIDS IN MINERALIZATION OF OSTEOID	5R01 AM08662-17	118,222
HOWELL, DAVID S.	CHARACTERIZATION OF PREDENTINAL EXTRACELLULAR FLUID	1R01 DE05483-01	97,298
ISAACKS, RUSSELL E.	REGULATION OF 2,3 DIPHOSPHOGLYCERATE IN ERYTHROCYTES	5R01 AM20815-03	30,696
LANDOWNE, DAVID	NERVE MEMBRANE ASYMMETRY	5R01 NS13789-02	61,938
LEE, ERNEST Y.	PHOSPHOPROTEIN PHOSPHATASES—PROPERTIES & REGULATION	5R01 AM18512-06	122,477
LEMAIRE, WILLIAM J.	MECHANISM OF OVULATION	5R01 HD08747-06	71,480
LESSNER, HOWARD E.	SOUTHEASTERN CANCER STUDY GROUP	2R10 CA05641-20	197,554
LOCKWOOD, ALAN H.	HYPOXIC AND HEPATIC COMA: MECHANISMS AND THERAPY	5R01 NS14996-02	87,001
LOCKWOOD, ALAN H.	CEREBRAL METABOLISM & FUNCTION—P. EMISSION TOMOGRAPHY	3P01 NS15639-01S1	37,475
LOCKWOOD, ALAN H.	CEREBRAL METABOLISM & FUNCTION—P. EMISSION TOMOGRAPHY	5P01 NS15639-02	625,232
LOEWENSTEIN, WERNER R.	A PROGRAM ON THE ETIOLOGY AND DIAGNOSIS OF CANCER	5R01 CA14464-07	232,229
LOPEZ, DIANA M.	CELL MEDIATED IMMUNITY IN MOUSE MAMMARY TUMOR MODELS	5R01 CA25583-02	127,055
LUBS, HERBERT A.	FURTHER STUDIES OF THE MARKER X AND MENTAL RETARDATION	5R01 HD13898-02	50,998
LUBS, HERBERT A.	GENETICS OF SPECIFIC DYSLLEXIA	5R01 HD13899-02	102,391
MAGLEBY, KARL L.	MECHANISMS OF VARIABLE SYNAPTIC EFFICACY	2R01 NS10277-08	106,088
MALININ, THEODORE I.	PROSTATE CANCER TISSUE COLLECTION CENTER	2R26 CA15480-07	197,889
MANSSELL, PETER W.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA17912-06	109,876

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
MARSH, JOHN M.....	MECHANISM OF GONADOTROPIN ACTION.....	5R01 HD03142-14	141,582
MARSHALL, JAMES J.....	SYNTHETIC CARBOHYDRATE-PROTEIN CONJUGATES.....	5R01 GM21258-05	47,673
MASSARO, DONALD J.....	PROTEIN TURNOVER AND AMINO ACID TRANSPORT BY LUNG.....	5R01 HL20366-05	89,427
MASSARO, GLORIA D.....	CELLULAR BASIS OF SMALL AIRWAYS FUNCTION.....	5R01 HL22333-03	96,620
MC CABE, MEAD M.....	CELL ADHERENCE OF DENTAL PLAQUE FORMING STREPTOCOCCI.....	5R01 DE04321-06	95,706
MC KINNEY, E CHURCHILL.....	INHIBITOR OF CELL MEDIATED IMMUNITY FROM SKIN.....	1R23 AI16363-01	44,664
MILLER, JOSHUA.....	IMMUNOREGULATION & ADAPTATION IN ORGAN TRANSPLANTATION.....	2R01 AM25243-04	158,439
MINTZ, DANIEL H.....	PANCREATIC TRANSPLANTATION AND DIABETES MELLITUS.....	1R01 AM25802-01A1	134,945
MUENCH, KARL H.....	STRUCTURE OF TRYPTOPHANYL-TRNA SYNTHETASE OF E. COLI.....	5R01 GM23188-05	121,280
MYERBURG, ROBERT J.....	STUDIES OF SURVIVORS OF PREHOSPITAL CARDIAC ARREST.....	5R01 HL18769-06	144,084
MYERBURG, ROBERT J.....	ELECTROPHYSIOLOGY AFTER HEALED MYOCARDIAL INFARCTION.....	5R01 HL21735-03	80,244
PALMBERG, PAUL F.....	STUDIES IN GLAUCOMA AND RELATED DISEASES.....	7R01 EY03773-01	44,282
PAPPER, EMANUEL M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05363-19	195,787
PARKS, WADE P.....	MMTV IN SPLEEN LYMPHOID CELLS: IMMUNOLOGIC EFFECT.....	1R01 CA27890-01	108,485
POTTER, LINCOLN T.....	ACETYLCHOLINE RECEPTOR-CHANNEL MOLECULES.....	5R01 NS14651-03	99,737
POWELL, JANET T.....	BETA-GALACTOSIDE BINDING PROTEIN OF RAT LUNG.....	5R01 HL24261-02	63,171
PRESSMAN, BERTON C.....	CHROMAFFIN GRANULES, IONOPHORES AND THE HEART.....	5R01 HL23931-02	93,945
PRESSMAN, BERTON C.....	CARDIOVASCULAR PROPERTIES OF CARBOXYLIC IONOPHORES.....	5R01 HL23932-02	114,387
RABINOVITCH, ALEXANDER.....	PANCREATIC ISLET CELL STUDIES.....	5R01 AM25832-02	55,240
RADOMSKI, JACK L.....	ENVIRONMENTAL BLADDER CARCINOGENS.....	5R26 CA14927-07	139,236
RAMSAY, R EUGENE.....	PHARMACOKINETICS & TERATOGENICITY OF ANTICONVULSANTS.....	5R01 HD12740-02	40,104
RIBBONS, DOUGLAS W.....	ENZYMES OF AROMATIC OXIDATIONS FROM MICROORGANISMS.....	5R01 GM20172-06	96,336
ROSENTHAL, MYRON.....	IN SITU STUDIES OF DRUG ACTIONS ON CNS METABOLISM.....	5R01 NS14319-04	96,640
ROSENTHAL, MYRON.....	CEREBRAL ISCHEMIA, VIABILITY AND OXIDATIVE METABOLISM.....	5R01 NS14325-04	111,908
ROWE, MARC I.....	SHOCK IN INFANCY: METABOLIC AND HEMODYNAMIC ASPECTS.....	5R01 HD04154-12	79,287
RYAN, JAMES W.....	HUMORAL MEDIATORS OF PULMONARY INFLAMMATION.....	5R01 HL22087-04	153,603
RYAN, JAMES W.....	IMMEDIATE METABOLIC FATES OF KININS AND ANGIOTENSINS.....	5R01 HL22896-03	143,348
RYAN, UNA S.....	CELL BIOLOGY OF THE ALVEOLAR-CAPILLARY UNIT.....	2R01 HL21568-04	216,766
SCHEINBERG, PERITZ.....	RESEARCH CENTER FOR CEREBRAL VASCULAR DISEASE.....	3P50 NS05820-14S2	157,421
SCHEINBERG, PERITZ.....	RESEARCH CENTER FOR CEREBRAL VASCULAR DISEASE.....	5P50 NS05820-15	851,055
SCOTT, MARCIA S.....	MEMORY IN YOUNG CHILDREN.....	5R01 HD09819-05	59,054
SCOTT, WALTER A.....	ORGANIZATION OF HISTONES ON SV40 AND VARIANT DNA.....	5R01 AI12852-06	59,036
SEIBERT, G BURTON, JR.....	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	2R10 CA21186-04	93,390
SELAWRY, HELENA P.....	THE TRANSPLANTATION OF PANCREATIC ISLETS.....	2R01 AM20346-03A1	50,518
SMITH, DAVID S.....	STRUCTURE AND FUNCTION IN EXCITABLE CELLS.....	5R01 NS10447-08	99,283
SMITH, ERIC E.....	INHIBITION OF DEXTRANSUCRASES OF CARIOGENIC ORGANISMS.....	5R01 DE03118-10	70,879
SO, ANTERO G.....	FIDELITY OF DNA SYNTHESIS IN HEMATOPOIETIC TISSUES.....	5R01 AM26206-02	182,671
THOMAS, VERA F.....	KINETICS OF UPTAKE AND EXCRETION OF VAPORS IN MAN.....	5R01 ES01029-06	55,912
TUCKER, GAIL S.....	ANATOMIC CHANGES IN THE AGING MAMMALIAN RETINA.....	1R01 EY03344-01	58,390
VAN BREEMEN, CORNELIS.....	NA-CA INTERACTIONS IN SMOOTH MUSCLE.....	5R01 HL23559-02	72,723
VAN BREEMEN, CORNELIS.....	NA-CA INTERACTIONS IN THE ETIOLOGY OF HYPERTENSION.....	5R01 HL25359-02	43,477
WERNER, RUDOLF K.....	MECHANISM OF DNA CHAIN GROWTH IN MAMMALIAN CELLS.....	5R01 GM22510-03	78,315
WHELAN, WILLIAM J.....	SYNTHESIS AND STRUCTURE OF MAMMALIAN LIVER GLYCOGEN.....	5R01 AM12532-13	173,712
WHELAN, WILLIAM J.....	THE MECHANISM OF STARCH DIGESTION IN MAMMALS.....	5R01 AM17733-06	86,216
WIESER, PAUL B.....	CARNITINE AND ADIPOSE TISSUE METABOLISM.....	5R01 AM21251-03	75,711
WILSON, DAVID L.....	AXOPLASMIC TRANSPORT OF PROTEINS.....	5R01 NS14328-03	62,344
WOESSNER, J FREDERICK, JR.....	HUMAN CARTILAGE PROTEASES IN ARTHRITIS.....	5R01 AM16940-08	92,776
WOESSNER, J FREDERICK, JR.....	TISSUE COLLAGENASE AND ITS CONTROL BY STEROIDS.....	2R01 HD06773-09	99,936
WU, MING-CHI.....	COLONY STIMULATING FACTOR AND MODULATORS OF MYELOPOIESIS.....	5R01 AM26207-02	77,726
YUNIS, ADEL A.....	DRUG-INDUCED BONE MARROW INJURY.....	5R01 AM26218-02	112,510
YUNIS, ADEL A.....	PANCREATIC CARCINOMA IN CONTINUOUS CULTURE.....	5R26 CA19182-05	98,026
ZIBOH, VINCENT A.....	BIOCHEMICAL BASIS OF PROSTAGLANDIN ACTION IN THE SKIN.....	5R01 AM14941-08	143,315
ZIBOH, VINCENT A.....	ROLE OF PROSTAGLANDINS IN HEMOPOIESIS.....	1R01 GM28892-01	69,314
ZUBROD, C GORDON.....	COMPREHENSIVE CANCER CENTER FOR THE STATE OF FLORIDA.....	5P30 CA14395-08	1,223,888
ORGANIZATION TOTAL	113 13,929,852		

MIAMI BEACH

MIAMI HEART INSTITUTE ZIP CODE 33140

MAYNARD, JAMES R.....	CELLULAR PROCOAGULANT AND FIBRINOLYTIC SYSTEMS.....	1R01 HL25864-01	55,143
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
MAYROVITZ, HARVEY N.....	HUMAN MICROCIRCULATORY EFFECTS OF BETA-BLOCKADE	5R01 HL23477-02	29,066
ORGANIZATION TOTAL	2 84,209		
MOUNT SINAI MEDICAL CENTER ZIP CODE 33140			
SACKNER, MARVIN A.....	VOLUMES AND COMPLIANCE OF PULMONARY CIRCULATION	5R01 HL10622-14	56,134
WANNER, ADAM.....	PATHOPHYSIOLOGY OF BRONCHIAL ASTHMA	5R01 HL20989-03	52,797
WOODSIDE, KENNETH H.....	STUDIES OF PULMONARY ALVEOLAR MACROPHAGE FUNCTION	5R01 HL24787-02	54,241
ORGANIZATION TOTAL	3 163,172		
ORLANDO			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF CENTRAL FLORIDA ZIP CODE 32816			
KUHN, DAVID T.....	DEVELOPMENTAL STUDY OF HOMOEOSIS IN D MELANOGASTER.....	5R01 AG01846-02	60,348
ORGANIZATION TOTAL	1 60,348		
SAINT PETERSBURG			
ECKERD COLLEGE ZIP CODE 33733			
DEMBSOSKI, THEODORE M.....	CORONARY-PRONE BEHAVIOR AND CARDIOVASCULAR REACTIVITY	5R01 HL22809-03	74,515
ORGANIZATION TOTAL	1 74,515		
LIFE SCIENCES, INC.—BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 33710			
NONOYAMA, MEIHAN.....	ONCOGENICITY OF EPSTEIN-BARR VIRUS.....	5R01 CA21665-05	92,983
NONOYAMA, MEIHAN.....	MAREK'S DISEASE VIRUS: TRANSFORMATION AND ONCOGENESIS.....	1R01 CA29353-01	100,124
ORGANIZATION TOTAL	2 193,107		
SARASOTA			
MOTE MARINE LABORATORY ZIP CODE 33577			
TAVOLGA, WILLIAM N.....	ECHOLLOCATION AND ACOUSTIC ORIENTATION	2R01 NS13746-04	37,626
ORGANIZATION TOTAL	1 37,626		
TALLAHASSEE			
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY ZIP CODE 32307			
EARLY, JOHNNIE L, JR.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08111-09	363,914
LEE, HENRY J.....	NEW LOCAL ANTI-INFLAMMATORY STEROIDS.....	5R01 AM21627-02	15,479
ORGANIZATION TOTAL	2 379,393		
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306			
BAKER, HOWARD D.....	HUMAN VISUAL SENSITIVITY AND VISUAL PIGMENT LEVELS.....	5R01 EY01394-06	34,200
BEIDLER, LLOYD M.....	HETEROGENEITY OF NERVE RECEPTOR SITES OF SWEET CELLS.....	5R01 NS15407-02	58,038
BERKLEY, KAREN J.....	CONVERGENCE OF SOMATOSENSORY PATHWAYS IN THALAMUS.....	2R01 NS11892-07	60,922
BERKLEY, MARK A.....	NEURAL MECHANISMS IN SPATIAL VISION.....	5R01 EY00953-09	76,012
BILLARD, LYNNE.....	EPIDEMIC PROCESSES, ESTIMATION AND SEQUENTIAL ANALYSIS.....	5R01 GM26851-02	19,533
CANCALON, PAUL.....	ISOLATION AND IDENTIFICATION OF OLFACTORY RECEPTORS.....	5R01 NS14912-02	36,114
ELAM, JOHN S.....	STUDY OF AXONAL GLYCOPROTEINS AND GLYCOSAMINOGLYCANS.....	5R01 NS11456-08	53,372
FREEMAN, MARC E.....	CONTROL OF PROLACTIN SECRETION.....	5R01 HD11669-03	43,857
FREEMAN, MARC E.....	CONTROL OF LUTEINIZING HORMONE SECRETION.....	5R01 HD12233-03	38,911
FRIEDEN, EARL.....	THE BIOCHEMISTRY OF CERULOPLASMIN.....	5R01 AM25451-02	46,484
FRIEDEN, EARL.....	AMPHIBIAN DEVELOPMENT; THYROID INDUCED METAMORPHOSIS.....	5R01 HD01236-25	116,263
GILMER, PENNY J.....	HISTOCOMPATIBILITY ANTIGENS IN DEFINED MEMBRANES.....	5R01 CA25747-02	39,350
GOEDKEN, VIRGIL L.....	STRUCTURAL AND REACTIVITY OF IRON AND COBALT COMPLEXES.....	5R01 HL20996-04	83,228
GRAZIADEI, PASQUALE P.....	FUNCTIONAL ANATOMY OF OLFACTORY AND TASTE RECEPTORS.....	5R01 NS08943-10	47,430
GRAZIADEI, PASQUALE P.....	BRAIN TRANSPLANTATION: A STUDY OF NEURONAL INTERACTION.....	1R01 NS16421-01	106,185
GREENBERG, MICHAEL J.....	PHARMACOLOGY OF MOLLUSCAN HEARTS.....	5R01 HL09283-16	49,913
HERZ, WERNER.....	ANTITUMOR LACTONES—PHYTOCHEMISTRY.....	5R01 CA13121-22	85,118
HOER, KURT G.....	TUMOR CELL HYPOXIA AS A FACTOR IN CANCER THERAPY.....	5R01 CA21673-03	63,656
JOHNSON, ROBERT M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07020-15	101,920
KENSHALO, DANIEL R.....	AGING AND SOMESTHETIC ACUITY.....	1R01 AG02085-01	62,844

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
KENSHALO, DANIEL R.....	PSYCHOPHYSICAL AND NEURAL RESPONSE TO THERMAL STIMULI.....	5R01 NS02992-20	76,616
LEVY, GEORGE C.....	13C AND OTHER NUCLEI NMR OF DNA AND DNA INTERACTIONS.....	1R01 GM28263-01	69,563
LIEBESKIND, LANNY S.....	AN ORGANOTRANSITION METAL ENTRY TO ANTITUMOR QUINONES.....	5R01 CA26374-02	53,170
LIGHT, ROBLEY J.....	METABOLISM OF HYDROXY FATTY ACIDS AND GLYCOLIPIDS.....	5R01 AM15150-09	59,991
LINDER, BRUNO.....	ATTRACTION OF INTERMEDIATE TO LARGE MOLECULES.....	5R01 GM23223-05	46,799
LIPNER, HARRY J.....	THE PHYSIOLOGY OF INHIBIN.....	1R01 HD14032-01	68,793
MANDELKERN, LEO.....	CONFORMATIONAL AND OPTICAL PROPERTIES OF POLYPEPTIDES.....	5R01 GM20860-06	41,903
MARZLUFF, WILLIAM F, JR.....	TRANSCRIPTION OF LMW NUCLEAR RNA GENES IN DEVELOPMENT.....	1R01 GM27789-01	94,590
MASTERTON, R BRUCE.....	SENSORY CORTEX.....	5R01 NS07726-14	101,781
RABUSSAY, DIETMAR P.....	REGULATION OF DNA REPLICATION-DEPENDENT TRANSCRIPTION.....	1R01 GM28259-01	64,023
REED-MILLER, CHARLENE.....	CONTROL OF BIOMINERALIZATION IN TWO SPECIES.....	1R23 DE05491-01	27,980
REEVES, ROBERT H.....	GENETICALLY ALTERED PROLINE TRANSFER RNAS.....	1R01 GM28354-01	31,850
RHODES, WILLIAM C.....	ELECTRONIC RESPONSE PROPERTIES OF BIOMOLECULES.....	5R01 GM23942-02	40,524
RILL, RANDOLPH L.....	CHARACTERIZATION OF CHROMATIN SUBUNITS.....	5R01 GM21126-06	68,635
ROUX, KENNETH H.....	GENETICS AND REGULATION OF THE IG VH REGION.....	1R01 AI16596-01	49,976
SCHATTEN, GERALD P.....	THE EGG SURFACE DURING FERTILIZATION.....	5R01 HD12913-02	45,720
SMITH, JAMES C.....	TASTE AVERSION AS A FACTOR IN CANCER THERAPY.....	5R01 CA22768-02	66,334
TAYLOR, J HERBERT.....	DNA METHYLATION: PATTERNS AND POSSIBLE REGULATORY ROLES.....	5R01 AG01807-02	58,671
TUNKL-BLUMSACK, JUDITH E.....	TECTAL FUNCTION IN VISION: A BEHAVIORAL ANALYSIS.....	5R01 EY02259-03	34,384
VAN WART, HAROLD E.....	METALLOENZYME DYNAMICS AND MECHANISM.....	1R01 GM27276-01	101,313
VAN WART, HAROLD E.....	METALLOENZYMES AND CONNECTIVE TISSUE METABOLISM.....	1R01 GM27939-01	69,514
WILLIAMS, THEODORE P.....	DAMAGING EFFECTS OF VISIBLE LIGHT.....	5R01 EY02250-03	74,240
WILLIAMS, THEODORE P.....	13C RETINALS AS PROBES FOR THE RHODOPSIN SPECTRUM.....	1R01 EY03501-01	73,452
ORGANIZATION TOTAL	43 2,643,772		
TAMPA			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA ZIP CODE 33620			
ADAIR, WINSTON L, JR.....	DOLICHL PHOSPHATE BIOSYNTHESIS IN TUMOR CELLS.....	1R01 CA28781-01	64,305
BAKER, CARLETON H.....	MICROVASCULAR FLOW, VOLUME, AND REACTIVITY.....	5R01 HL18866-03	36,417
BAKER, CARLETON H.....	CUTANEOUS MICROVASCULAR AND MACROVASCULAR RESPONSES.....	1R01 HL24151-01A1	58,362
BALIS, JOHN U.....	THE SURFACTANT SYSTEM IN DIFFUSE ALVEOLAR DAMAGE.....	5R01 HL23320-02	72,871
BOREN, HOLLIS G.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05749-08	64,819
CARLSON, GERALD M.....	PHOSPHORYLASE KINASE: ROLE OF AUTOPHOSPHORYLATION.....	1R01 AM26591-01A1	83,410
CHEN, LI-TSUN.....	MICROCIRCULATION OF HEMATOPOIETIC TISSUE.....	7R01 AM28550-01	60,986
CORY, JOSEPH G.....	CYTOTOXICITY AND RIBOSOMAL RNA MATURATION.....	5R01 CA14762-06	54,840
CORY, JOSEPH G.....	A NEW APPROACH TO COMBINATION CHEMOTHERAPY.....	5R01 CA27398-02	59,503
CORY, JOSEPH G.....	RIBONUCLEOTIDE REDUCTASE OF TUMOR CELLS.....	1R01 CA27572-01	69,271
FITZPATRICK, DAVID F.....	CALCIUM AND PHOSPHOINOSITIDES IN VASCULAR FUNCTION.....	5R01 HL24605-02	55,855
GOMEZ-SANCHEZ, CELSO E.....	ROLE OF MINERALOCORTICIDS IN LOW RENIN HYPERTENSION.....	7R01 HL27255-01	66,911
HACKNEY, JOHN F.....	GLUCOCORTICOID RECEPTORS AND CLEFT PALATE.....	5R01 DE05168-02	46,057
HARTMANN, ROBERT C.....	CELLULAR DEFECTS IN NOCTURNAL HEMOGLOBINURIA.....	5R01 HL18012-06	38,856
KELLER, RONALD K.....	REGULATION OF GLYCOPROTEIN SYNTHESIS.....	5R01 GM25364-03	27,173
KLEIN, THOMAS W.....	PERTUSSIS VACCINE ANTIGENS MODULATING MACROPHAGES.....	5R01 AI15108-02	43,505
KRZANOWSKI, JOSEPH J.....	HISTAMINE TACHYPHYLAXIS IN AIRWAY SMOOTH MUSCLE.....	5R01 HL24658-02	54,785
LINDSEY, BRUCE G.....	ENSEMBLE NEURAL CODING.....	5R01 NS14934-02	11,477
NESS, GENE C.....	REGULATION OF CHOLESTEROL BIOSYNTHESIS.....	5R01 HL18094-06	39,923
O'MALLEY, BRENDAN C.....	PLATELET MEMBRANE GLYCOPROTEINS IN DIABETES MELLITUS.....	1R01 AM27461-01	33,832
OLSSON, RAY A.....	CORONARY FLOW REGULATION BY ADENOSINE.....	5R01 HL20782-03	57,242
PHELPS, CHRISTOPHER P.....	FUNCTIONAL RESPONSES TO HYPOTHALAMIC DAMAGE.....	5R01 HD11345-03	38,292
POLLET, ROBERT J.....	CHARACTERIZATION OF HUMAN INSULIN RECEPTORS.....	5R01 AM18608-06	62,833
PRICE, JOEL M.....	PARAMETRIC MECHANICAL STUDIES OF HYPERTENSIVE ARTERIES.....	5R01 HL21103-03	38,343
RODRICK, GARY E.....	COMPARATIVE STUDY OF ASCARID SUCCINATE DEHYDROGENASE.....	5R01 AI16163-02	12,728
RODRICK, GARY E.....	SCHISTOSOME SUSCEPTIBILITY STUDY OF BRAZILIAN SNAILS.....	5R21 AI16287-02	25,827
SCHIMMEL, STEVEN D.....	MEMBRANE DEVELOPMENT IN NORMAL VS DYSTROPHIC MUSCLE.....	5R01 NS12558-05	43,909
SCHNELLER, STEWART W.....	THE BIOLOGICAL ROLE OF FORMYCIN'S HETEROCYCLIC BASE.....	1R01 CA26290-01A1	55,934
SHANNON, ROGER.....	RESPIRATORY MUSCLE AFFERENTS IN RESPIRATORY CONTROL.....	2R01 HL17715-06	44,481
SHELLEY, SUE A.....	COMPOSITIONAL CHANGES OF AMNIOTIC FLUID SURFACTANT.....	5R01 HD13278-02	52,936
SOLOMONSON, LARRY P.....	NITRATE REDUCTASE: REGULATION AND PROPERTIES.....	5R01 GM23407-05	66,214
SOLOMONSON, LARRY P.....	NIHGS SHARED INSTRUMENTATION PROGRAM.....	5P41 GM27495-02	6,548

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FLORIDA—Continued			
VINCENT, ALBERT L.....	LEWIS RAT IN FILARIASIS RESEARCH.....	1R22 AI16639-01	19,457
WEBER, LEE A.....	REGULATION OF MRNA TRANSLATION IN ANIMAL CELLS.....	2R01 CA26847-02	119,661
WHEELER, WILLIAM.....	VISION: SPATIAL, TEMPORAL AND ADAPTING EFFECTS.....	5R01 EY02921-03	37,156
WIGGINS, JAY R.....	DRUGS AND EXCITATION-CONTRACTION COUPLING IN HEART.....	5R01 HL22685-03	38,714
ORGANIZATION TOTAL	36 1,763,433		
STATE TOTAL	356 29,730,831		
GEORGIA			
ALBANY			
UNIVERSITY SYSTEM OF GEORGIA—ALBANY STATE COLLEGE ZIP CODE 31705			
SMITH, CLIFFORD L.....	MINORITY BIOMEDICAL SUPPORT.....	3S06 RR08023-09S2	5,275
ORGANIZATION TOTAL	1 5,275		
ATHENS			
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602			
AGOSIN, MOISES.....	MICROSOMAL HEMOPROTEINS IN TRYPANOSOMATIDAE.....	7R01 AI16933-01	41,959
AGOSIN, MOISES.....	GENETIC CONTROL OF CYTOCHROME P-450 IN DROSOPHILA.....	7R01 AI17133-01	52,410
ANDERSON, ROBERT C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07025-15	120,429
BALDWIN, JACK N.....	A COMPARATIVE STUDY OF STAPHYLOCOCCAL PLASMIDS.....	7R01 AI17715-01	28,907
BERDANIER, CAROLYN D.....	CHARACTERIZATION OF THE LIPEMIC/GLYCEMIC BHE RAT STRAIN.....	1R01 AM21667-01A2	85,023
BLANTON, C DE WITT, JR.....	SYNTHESIS OF DIHYDROQUINAZOLINES AS ANTICONSULSANTS.....	5R01 NS15460-02	28,160
BLANTON, C DE WITT, JR.....	SYNTHESIS OF DIHYDROQUINAZOLINES AS ANTICONSULSANTS.....	7R01 NS16988-01	28,160
BREWER, JOHN M.....	MECHANISM OF METAL ACTIVATION OF YEAST ENOLASE.....	1R01 GM27742-01	58,548
CANOLTY, NANCY L.....	UTILIZATION OF PROTEIN AND ENERGY.....	7R22 AM28544-01	67,260
DAMIAN, RAYMOND T.....	SCHISTOSOME IMMUNITY MECHANISMS.....	5R22 AI16929-02	89,302
DERTVARTANIAN, DANIEL V.....	HIGH-ENERGY INTERACTIONS IN MULTI-HEME SYSTEMS.....	7R01 GM28879-01	78,106
DURE, LEON S, III.....	REGULATION OF TRANSLATION IN A DEVELOPMENT SYSTEM.....	7R01 GM28334-01	52,682
EITENMILLER, RONALD R.....	MICRONUTRIENTS AND PROTECTIVE AGENTS IN HUMAN MILK.....	7R01 HD14880-01	55,315
FOSTER, JUDITH A.....	BLASTIN STRUCTURE, FIBROGENESIS AND DISEASE.....	7R01 HL27136-01	104,252
GILES, NORMAN H.....	GENETIC REGULATORY MECHANISMS IN NEUROSPORA.....	7R01 GM28777-01	166,169
HILL, RICHARD K.....	STEREOCHEMICAL STUDIES OF BIOSYNTHETIC REACTIONS.....	1R01 GM28236-01	61,346
HIMEL, CHESTER M.....	CHOLINERGIC NEURAL SYSTEMS.....	1R01 NS16478-01	64,166
HOLL, JAMES E.....	ADRENOCEPTOR INTERCONVERSION AND HORMONE HOMEOSTASIS.....	5R01 HL22873-03	27,099
IVARIE, ROBERT D.....	MUTATIONS AFFECTING GENE EXPRESSION IN TUMOR CELLS.....	7R01 CA28826-01	78,149
KADIS, SOLOMON.....	ROLE OF DIETARY IRON IN PYELONEPHRITIS.....	7R01 AI17985-01	27,568
KEY, JOE L.....	RNA METABOLISM IN DEVELOPMENT AND HORMONAL REGULATION.....	7R01 CA29533-01	105,532
KLEINMAN, RAPHAEL.....	CELL-MEDIATED IMMUNE RESPONSES IN HUMANS.....	1R01 AI16209-01A1	68,041
KLOWDEN, MARC J.....	PHYSIOLOGY OF MOSQUITO HOST-SEEKING.....	7R01 AI17984-01	43,175
KUSHNER, SIDNEY R.....	A BIOCHEMICAL ANALYSIS OF GENETIC RECOMBINATION.....	7R01 GM27997-01	66,392
KUSHNER, SIDNEY R.....	FUNCTIONAL EXPRESSION OF EUKARYOTIC DNA IN E COLI.....	7R01 GM28760-01	68,741
LANSMAN, ROBERT A.....	A GENETIC ANALYSIS OF MAMMALIAN MITOCHONDRIAL DNA.....	1R01 GM28147-01	78,821
LEE, ARDEN O.....	ENDOCRINOLOGY OF MOSQUITO REPRODUCTION.....	1R01 AI17297-01	75,778
LEE, JOHN W.....	BACTERIAL BIOLUMINESCENCE: A BLUE FLUORESCENCE PROTEIN.....	7R01 GM28139-01	48,886
LIUNGAHL, LARS G.....	BIOCHEMISTRY OF VITAMIN B12 AND FOLIC ACID COMPOUNDS.....	7R01 AM27323-01	86,453
MARTIN, ROY J.....	GESTATIONAL DIABETES.....	7R01 AM27552-01	60,076
MARTIN, ROY J.....	METABOLIC REGULATION OF GROWTH AND DEVELOPMENT.....	7R01 HD15064-01	95,257
MATHESON, NANCY R.....	OXIDATIVE INACTIVATION OF PROTEASE INHIBITORS.....	7R23 HL26884-01	40,443
MENDICINO, JOSEPH F.....	ENZYME INTERACTIONS IN METABOLIC REGULATION.....	7R01 AM28141-01	84,695
MENDICINO, JOSEPH F.....	BIOSYNTHESIS OF CARCINOEMBRYONIC ANTIGEN.....	7R01 CA28815-01	57,611
MENDICINO, JOSEPH F.....	REGULATION OF GLYCOPROTEIN BIOSYNTHESIS IN LUNG.....	7R01 HL26858-01	31,085
MENDICINO, JOSEPH F.....	CONTROL & DIFFERENTIATION OF MUCUS-PRODUCING CELLS.....	7R01 HL26864-01	46,269
OWENS, WILLIAM A.....	A DEVELOPMENTAL INTEGRATIVE INVESTIGATION.....	7R01 HD14244-01	59,209
PATEL, GORDHAN L.....	STUDY OF A LIVER HELIX DESTABILIZING PROTEIN IN VIVO.....	5R01 CA26360-02	57,398
PATTON, JOHN S.....	DISPERSION OF NONPOLAR LIPIDS DURING FAT DIGESTION.....	1R01 AM27304-01	88,388
PELLETIER, S WILLIAM.....	TUMOR-INHIBITORY AGENTS IN PLANTS OF SOUTHEASTERN U.S.....	7R01 CA29520-01	98,247

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
PRESTWOOD, ANNIE K	ANGIOSTRONGYLOSIS: MODEL FOR PULMONARY THROMBOEMBOLISM	1R01 HL26118-01	79,040
PROENZA, LUIS M.	ELECTROPHYSIOLOGY OF RETINAL CELLS IN VISION	7R01 EY03526-01	28,872
PRZYBYLA, ALAN E.	THE ROLE OF GLUCOCORTICOIDS IN MUSCLE DEVELOPMENT	7R01 AM28536-01	29,422
SCHIERMAN, LOUIS W.	IMMUNOGENETIC STUDY OF A HERPESVIRUS INDUCED LYMPHOMA	1R01 CA30109-01	98,111
SRIVASTAVA, PRAKASH N.	ACROSOMAL ENZYMES AND THEIR ROLE IN FERTILIZATION	7R01 HD14947-01	114,141
SUMMERS, ANNE O.	EFFECT OF HG TRANSFORMING GUT FLORA ON HG TOXICITY	7R01 ES02619-01	46,348
SUMMERS, ANNE O.	REGULATION AND STRUCTURE OF THE MER OPERON	1R01 GM28211-01	66,556
TRAVIS, JAMES.	PROTEOLYTIC ENZYMES AND INHIBITORS IN LUNG DISEASE	7R01 HL26148-01	68,834
TRAVIS, JAMES.	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS	7R01 HL26887-01	46,737
VAPNEK, DANIEL.	PLASMID REPLICATION AND RECOMBINATION IN E. COLI	7R01 AI17538-01	96,223
VAPNEK, DANIEL.	REGULATION OF R PLASMID GENES IN ESCHERICHIA COLI	1R01 GM27973-01	105,407
WADE, ADELBERT E.	EFFECT OF DIETARY FATS ON CHEMICAL CARCINOGENESIS	7R01 CA29583-01	38,894
WAMPLER, JOHN E.	A UNIQUE LOW-LIGHT IMAGE PROCESSING MICROSCOPE SYSTEM	1R01 GM28209-01	30,823
ORGANIZATION TOTAL	53	3,524,915	
ATLANTA			
ATLANTA UNIVERSITY CENTER ZIP CODE 30310			
JOHNSON, JOE, JR.	BIOCHEMICAL CHARACTERIZATION OF MESSENGER RNA	5R01 GM26202-02	55,248
JOHNSON, JOE, JR.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08006-10	1,474,060
ORGANIZATION TOTAL	2	1,529,308	
EMORY UNIVERSITY ZIP CODE 30322			
ARTIS, WILLIAM M.	HOST DEFENSE TO FUNGI MEDIATED BY IRON RESTRICTION	1R01 AI15779-01A1	70,655
BESHARSE, JOSEPH C.	DISK RENEWAL IN RETINAL VISUAL CELLS	5R01 EY02414-03	33,951
BESHARSE, JOSEPH C.	VISUAL CELL-PIGMENT CELL INTERFACE AND DISC TURNOVER	5R01 EY03222-02	67,115
BINKLEY, FRANCIS.	MIXED DISULFIDES AND METABOLIC CONTROL	5R01 AM20979-03	39,669
BINKLEY, FRANCIS.	MILK, MAMMARY TISSUE AND GLUTAMYL TRANSFERASE	5R01 HD11431-03	38,779
CAMPBELL, DAVID G.	PIGMENTARY GLAUCOMA THERAPY: THYMOXAMINE, MACROPHAGES	5R01 EY03230-02	103,728
CAVANAGH, H DWIGHT.	BIOCHEMICAL CONTROL OF GROWTH IN CORNEAL EPITHELIUM	5R01 EY01920-05	117,412
COLLINS, DELWOOD C.	ESTRONE SULFATE: ITS ROLE IN ESTROGEN ACTION	5R01 HD13503-02	83,530
DANNER, DEAN J.	BRANCHED-CHAIN ALPHA KETOACID METABOLISM	5R01 HD08388-06	75,623
DE HAAN, ROBERT L.	DIFFERENTIATION OF THE HEART-CELL MEMBRANE	5R01 HL16567-06	161,319
DI GIROLAMO, MARIO.	AGING, NUTRITION AND TISSUE RESPONSIVENESS TO HORMONES	5R01 AG00789-02	67,933
DUSENBERY, RUTH L.	BIOCHEMISTRY OF DNA REPAIR AND MUTATION IN DROSOPHILA	5R23 ES02037-02	42,367
ELMER, WILLIAM A.	EARLY NORMAL AND ABNORMAL LIMB DEVELOPMENT	5R01 HD10945-03	38,648
ENGLISH, ARTHUR W.	MEDIAL GASTROCNEMIUS MUSCLE FUNCTION IN LOCOMOTION	5R01 AM19916-03	34,077
ENGLISH, ARTHUR W.	INTERLIMB COORDINATION DURING STEPPING	5R01 NS15452-02	43,156
FARAJ, BAHJAT A.	THE ROLE OF TYROSINE METABOLISM IN LIVER DISEASE	5R01 AM21646-03	66,722
FINNERTY, VICTORIA M.	FINAL EXPRESSION OF BETA-GLUCURONIDASE IN DROSOPHILA	5R01 AG02113-02	27,157
FINNERTY, VICTORIA M.	REGULATION OF GENE EXPRESSION IN DROSOPHILA	5R01 GM23736-04	69,752
FRITZ, ROBERT B.	IMMUNE FUNCTION IN ALLERGIC ENCEPHALOMYELITIS	2R01 NS10721-07	80,359
GLASS, DAVID B.	SUBSTRATES AND INHIBITORS OF PROTEIN KINASES	1R01 GM28144-01	83,242
GLENN, JAMES F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05364-19	181,308
GOLDSMITH, DAVID J.	THE SYNTHESIS OF ANTIFEEDING AGENTS	2R01 ES01615-04	57,107
GOULD, KENNETH G.	ALTERATION OF CERVICAL MUCUS COMPOSITION	5R01 HD10943-03	57,544
GOULD, KENNETH G.	PRIMATE MODELS: IN VITRO FERTILIZATION & IMPLANTATION	1R01 HD13083-01A1	96,281
GUYTON, ROBERT A.	MYOCARDIAL FUNCTION IN CARDIAC SURGERY	1R01 HL25640-01	76,235
HARTZELL, H CRISS, JR.	INNERVATION OF THE HEART: ACETYLCHOLINE RECEPTORS	2R01 HL21195-04	99,087
HARTZELL, H CRISS, JR.	ADENOSINE RECEPTORS IN FROG CARDIAC MUSCLE	1R01 HL25090-01	79,510
HERSEY, STEPHEN J.	INTRACELLULAR REACTIONS IN GASTRIC MUCOSA	2R01 AM14752-10	148,908
HUGULEY, CHARLES M, JR.	CLINICAL CANCER EDUCATION PROGRAM (GENERAL)	2R25 CA17998-06	126,486
HUMPHREY, DONALD R.	CORTICAL NEURONAL MECHANISMS OF MOTOR CONTROL	5R01 NS10183-09	79,447
HUNT, LINDSAY M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05308-19	24,598
ISRALLI, ZAFAR H.	AGE-RELATED PHARMACOKINETICS OF ANTI-TB DRUGS IN MAN	1R01 AG01928-01	98,632
JONES, DEAN P.	MECHANISMS OF HYPOXIC PATHOLOGY	1R01 GM28176-01	86,032
KELLER, JAMES W.	SOUTHEASTERN CANCER STUDY GROUP	2R10 CA03227-24	350,070
KIBLER, ROBERT F.	DEMYELINATING DISEASES	5P50 NS11418-07	352,292
KINKADE, JOSEPH M, JR.	QUANTITATIVE STUDIES ON GRANULOCYTE DIFFERENTIATION	5R01 CA22294-04	64,818
KUCK, JOHN F, JR.	LENS METABOLISM IN NORMAL AND PRECATARACTOUS STATES	5R01 EY00260-18	107,672

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
KUO, JYH-FA	MECHANISM AND ROLE OF CYCLIC GMP IN HEART	5R01 HL15696-08	89,518
LAMBETH, J. DAVID	ADRENAL CORTEX STEROIDOGENESIS. ENZYMOLOGY AND CONTROL	1R01 AM27373-01	78,558
LERMAN, SIDNEY	AGING BIOPHYSICAL AND MORPHOLOGICAL STUDIES	5R21 AG01309-02	42,752
LERMAN, SIDNEY	LENS PROTEINS & FLUORESCENCE. IN VIVO & IN VITRO STUDY	5R01 EY01575-06	133,222
LESTER, CHARLES T	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07023-15	102,230
LEVIN, MARTIN L	CONSEQUENCES OF BEING BORN TO AN ADOLESCENT MOTHER	5R01 HD12397-02	70,339
LIOTTA, DENNIS C	IMPORTANT COMPOUNDS VIA ORGANOSELENIUM REAGENTS	5R01 GM26908-02	50,102
MANDELL, LEON	NMR SPECTROSCOPY OF BIOLOGICALLY IMPORTANT COMPOUNDS	5R01 GM10848-24	76,812
MANNING, JOHN W.	INTEGRATED CONTROL OF CARDIOVASCULAR ACTIVITY	5R01 HL16648-18	74,256
MARTIN, DAVID E	ARTIFICIAL BREEDING OF CHIMPANZEES	2R24 RR00992-03A1	41,662
MARZILLI, LUIGI G.	STRUCTURE OF NUCLEIC ACID AND NUCLEOTIDE METAL SPECIES	7R01 GM29222-01	105,378
MARZILLI, LUIGI G.	METAL COMPLEXES AS MUTIFUNCTIONAL CATALYSTS	7R01 GM29225-01	39,954
MC BRIDE, RUSSELL L	SOMATO-VISCERAL INTEGRATION IN LATERAL HABENULA	5R01 NS13945-03	30,961
MC CORMICK, DONALD B	INVESTIGATIONS OF FLAVIN SYSTEMS	5R01 AM26746-02	89,053
MENGER, FREDRIC M	INVESTIGATION OF BIO-ORGANIC SYSTEMS BY DYNAMIC NMR	5R01 GM21457-06	59,018
MOFFITT, STEVEN D	COORDINATING OFFICE FOR RADIAL KERATOMY (CORK)	1R10 EY03752-01	78,131
MORRISON, DAVID C	MECHANISMS OF ENDOTOXIN PLATELET INTERACTIONS	1R01 AI17225-01	109,028
MORRISON, DAVID C	BIOCHEMICAL PARAMETERS OF LPS-INITIATED HOST RESPONSE	7R01 AI17304-01	76,433
MUSEY, PAUL J	EFFECT OF DIET ON ESTROGEN BIOSYNTHESIS & METABOLISM	5R01 CA24616-02	73,783
MYERS, ORIE E, JR.	SUPPORT FOR YERKES REGIONAL PRIMATE RESEARCH CENTER	5P51 RR00165-20	2,220,409
NAMHIAS, ANDRE J.	LATENCY OF HERPES SIMPLEX IN ORO-FACIAL INFECTIONS	5R01 DE05194-02	64,099
NAMHIAS, ANDRE J.	ELECTRON MICROSCOPY IN CONGENITAL VIRAL INFECTIONS	5R01 HD12358-02	88,549
NOE, BRYAN D	ROLE OF PROGLUCAGON IN GLUCAGON BIOSYNTHESIS	5R01 AM16921-06	39,327
NOE, BRYAN D	ISOLATION AND CHARACTERIZATION OF PROSOMATOSTATIN	1R01 AM26378-01	62,685
PADWA, ALBERT	SYNTHESIS OF FUSED HETEROCYCLIC COMPOUNDS	5R01 CA26750-02	62,313
PADWA, ALBERT	HETEROCYCLIC SMALL RING COMPOUNDS	2R01 CA26751-02	98,906
POOLER, JOHN P	CELL PHOTOSENSITIZATION BY DYES, COLORANTS, AND DRUGS	2R01 NS09040-10A1	88,117
PRIEST, ROBERT E	BASEMENT MEMBRANE COMPOSITION AND PATHOLOGY	5R01 AM25584-02	55,987
PRIEST, ROBERT E	DIFFERENTIATION IN HUMAN AMNIOTIC FLUID CELLS	5R01 HD11379-03	52,493
RAGAB, ABDELSALAM H.	SOUTHWEST ONCOLOGY GROUP (CLINICAL)	2R10 CA20549-04	153,361
RICHARDSON, ARTHUR P	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00039-20	920,004
RINARD, GILBERT A.	BIOCHEMICAL ASTHMA MECHANISMS IN AIRWAY SMOOTH MUSCLE	5R01 HL24621-02	75,800
RUBIN, BYRON H	THREE-DIMENSIONAL STRUCTURE OF CHLOROPEPOXIDASE	5R01 GM26905-02	37,033
RUBIN, BYRON H	STRUCTURE STUDIES OF PROTEINS GLYCOPROTEINS AND ENZYMES	1R01 GM27907-01	55,710
RUDMAN, DANIEL	PITUITARY ADIPOKINETIC SUBSTANCES	2R01 AM13129-14	123,459
RUDMAN, DANIEL	ABNORMAL METABOLISM OF CANCER PATIENTS	5R01 CA12646-09	93,044
RUMBAUGH, DUANE M.	LANGUAGE FORMATION STUDIES	2P01 HD06016-10	456,810
SCOTT, JOHN W, JR.	PHYSIOLOGICAL ANALYSIS OF THE OLFACATORY PROJECTIONS	5R01 NS12400-03	47,605
SCOTT, JUNE R	LYSOGENY AND BACTERIOPHAGE P1	5R01 CA11673-11	135,830
SHAPIRA, RAYMOND	STRUCTURE, METABOLISM & FUNCTION OF MYELIN PROTEINS	5R01 NS08278-11	65,533
SHOJI, MAMORU	CYCLIC GMP SYSTEM IN CELL PROLIFERATION	5R01 CA23391-02	63,148
SILBERMAN, MORTON S.	ANIMAL CARE PROGRAM AND FACILITY IMPROVEMENT	5P40 RR01149-03	20,021
SMITH, P DENNIS	ENVIRONMENTAL MUTAGENESIS AND DNA REPAIR	5R01 ES01101-06	99,600
SPITZNAGEL, JOHN K	PHAGOCYTES, STREPTOCOCCAL CELL WALLS AND INFLAMMATION	5R01 AI16624-01	100,655
SPITZNAGEL, JOHN K	METABOLIC ASPECTS OF BACTERIAL ECOLOGY IN HOST TISSUE	1R01 AI17662-01	129,091
SUTIN, JEROME	PLASTICITY AND REGENERATION IN A NORADRENERGIC SYSTEM	5R01 NS14778-03	34,317
TIGGES, JOHANNES W	THE EFFERENT FIBERS OF THE VISUAL CORTICES	5R01 EY00638-09	69,334
TSOU, RICHARD C	EFFECTS OF CATECHOLAMINES ON GONADOTROPHS	5R01 HD14236-02	56,076
WARING, GEORGE O, III	ANIMAL MODELS OF CORNEAL DYSTROPHIES AND DEGENERATIONS	5R01 EY03302-02	57,430
WARING, GEORGE O, III	PROSPECTIVE TRIAL OF RADIAL KERATOTOMY (PERK) STUDY	1R10 EY03761-01	132,653
WARREN, W DEAN	CIRRHOSIS, SHUNT SURGERY, AND NITROGEN METABOLISM	5R01 AM15736-10	171,402
WEATHERS, DWIGHT R	CLINICAL CANCER EDUCATION (DENTAL)	5R25 CA19253-05	42,501
WHITE, JOHN F.	GUT SUGAR TRANSPORT: ELECTROPHYSIOLOGY AND ENERGETICS	2R01 AM17361-07	62,831
WHITE, JOHN F.	BASE SECRETION BY AMPHIBIAN SMALL INTESTINE	1R01 AM26870-01	48,169
WILLIS, ISAAC	PHOTOAUGMENTATION AND CARCINOGENESIS	5R01 CA17555-06	48,690
WU, GUANG-JER	REGULATION OF TRANSCRIPTION	5R01 CA25270-02	81,709
ORGANIZATION TOTAL	93 11,067,112		
MOREHOUSE COLLEGE ZIP CODE 30314			
BAILEY, GORDON B	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09081-03	64,280

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
WEBER-LEVINE, MARGARET L.....	VISUAL EVOKED POTENTIAL CHANGES WITH AGE IN THE RAT.....	5R23 AG01583-02	38,399
ORGANIZATION TOTAL	2 102,679		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY ZIP CODE 30332			
BALE, WILLIAM F.....	ORGAN SPECIFIC TUMOR LOCALIZING ANTIBODY.....	5R01 CA25958-02	114,839
BURDETTE, EVERETTE C.....	DIELECTRIC MEASUREMENTS OF NORMAL & NEOPLASTIC TISSUE.....	3R01 CA22771-02S1	58,355
BURGESS, EDWARD M.....	THE CHEMISTRY OF NEW FUNCTIONAL GROUPS IN ENZYMES.....	5R01 GM12672-10	87,722
CRENSHAW, JOHN W. JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR07024-15	81,771
DUSENBERRY, DAVID B.....	GENETICS OF THERMAL ACCLIMATION, MEMBRANES AND AGING.....	5R01 AG00942-03	76,310
FELTON, RONALD H.....	PORPHYRIN IONS IN METABOLISM: PHYSICAL PROPERTIES.....	5R01 AM14344-11	90,857
HALL, CAROLE L.....	FATTY ACYL COA DEHYDROGENASE/ELECTRON TRANS FLAVOPROTEIN.....	5R01 GM25494-03	59,372
HALL, DWIGHT H.....	ORGANIZATION AND EXPRESSION OF THE GENOME OF PHAGE T4.....	2R01 GM24455-04	79,019
HOUSE, HERBERT O.....	ENHANCING THE SPECIFICITY OF SYNTHETIC PROCEDURES.....	5R01 GM20197-10	143,286
KOBLASZ, ARTHUR.....	NONLINEAR ANALYSIS OF THE ELECTRORETINOGRAM.....	5R23 EY03022-02	16,055
MAREK, MIROSLAV.....	EFFECT OF CORROSION ON DENTAL AMALGAMS.....	5R01 DE03601-08	37,727
MAY, SHELTON W.....	NON-HEME IRON OXYGENASE CATALYSIS.....	2R01 GM23474-04	98,358
POWERS, JAMES C.....	TRITRATION OF PROTEINS AND OTHER BIOMOLECULES.....	5R01 GM25181-03	108,441
POWERS, JAMES C.....	SYNTHETIC PROTEASE INHIBITORS.....	5R01 HL18679-06	51,582
POWERS, JAMES C.....	ACTIVE SITE STUDIES ON BLOOD PROTEASES.....	5R01 HL22530-03	41,891
SMITH, ANDERSON D.....	INTERACTION BETWEEN HUMAN AGING AND MEMORY.....	2R01 AG00445-07A1	37,333
WARTELL, ROGER M.....	INTERACTION OF RNA POLYMERASE WITH DNA.....	1R01 AI16874-01	57,098
WARTELL, ROGER M.....	CONFORMATIONS OF LIGAND-DNA COMPLEXES AND DNA OLIGOMERS.....	5R01 GM24734-03	16,057
YOUNG, ROBERT A.....	TOOTH ENAMEL APATITE AT THE ATOMIC LEVEL.....	5R01 DE01912-17	145,101
YU, NAI-TENG.....	COMPARATIVE RAMAN STUDIES OF HUMAN AND ANIMAL LENSES.....	5R01 EY01746-05	45,006
YU, NAI-TENG.....	LASER-EXCITED RAMAN SPECTROSCOPY OF BIOPOLYMERS.....	5R01 GM18894-10	78,384
ZALKOW, LEON H.....	NATURAL ANTITUMOR AGENTS FROM THE SENECIONEAE.....	5R01 CA23277-03	43,226
ZALKOW, LEON H.....	ANTIGLAUCOMA COMPOUNDS FROM CANNABIS SATIVA.....	1R01 EY03342-01	94,200
ORGANIZATION TOTAL	23 1,661,990		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA STATE UNIVERSITY ZIP CODE 30303			
CHERNIAK, ROBERT.....	COMMON ANTIGEN OF CLOSTRIDIUM PERFRINGENS.....	5R01 AI15453-02	40,379
WILSON, W DAVID.....	INTERACTION OF ANTHRACYCLINE DRUGS WITH DNA.....	5R01 CA24454-03	27,564
WILSON, W DAVID.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1508 RR09201-01	137,664
ORGANIZATION TOTAL	3 205,607		
AUGUSTA			
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901			
ABDEL-LATIF, ATA A.....	METABOLISM AND FUNCTION OF GLYCEROLIPIDS IN THE IRIS.....	5R01 EY02181-03	47,122
ABDEL-LATIF, ATA A.....	NEUROTRANSMITTERS & POLYPHOSPHOINOSITIDE TURNOVER.....	5R01 EY02918-11	45,636
ABRAHAM, EDATHARA C.....	MINOR FETAL HEMOGLOBIN COMPONENTS.....	5R01 AM25265-02	38,958
ALLEN, MARSHALL B. JR.....	ISOLATED PITUITARY RESPONSE TO LHRH AND ESTROGENS.....	5R01 HD09445-05	68,083
ANUSAVICE, KENNETH J.....	OPTIMIZATION OF METAL-CERAMIC RESTORATION DESIGN.....	1R01 DE05441-01	47,605
BAYS, ROBERT A.....	STABILITY OF ORTHOGNATHIC SURGICAL PROCEDURES.....	5R01 DE05542-02	22,202
BEST, GARY K.....	STAPHYLOCOCCAL TOLERANCE AND GRANULOCYTIC FUNCTION.....	5R01 AI14656-03	59,729
BHALLA, VINOD K.....	INTERACTION OF GONADOTROPINS WITH TESTIS.....	5R01 HD08910-05	67,262
BLACK, OWEN, JR.....	EFFECTS OF CARCINOGENS ON MACROMOLECULAR EVENTS.....	5R26 CA16263-03	35,403
BOCKMAN, DALE E.....	ANTIGEN ABSORPTION AND B CELL RESPONSE IN GUT.....	5R01 AI14222-03	38,806
BOCKMAN, DALE E.....	EXPERIMENTALLY-INDUCED PANCREATIC ADENOCARCINOMA.....	5R26 CA22063-04	45,113
BOINEAU, JOHN P.....	DELAYED & ASYMMETRIC VENTRICULAR CONDUCTION MECHANISMS.....	5R01 HL18398-06	60,487
BOND, GARY C.....	ARTERIAL BARORECEPTORS AND RENAL FUNCTION.....	5R01 HL21094-03	55,710
BOSHELL, JERRY L.....	STIMULATION OF REGENERATING RAT SUBMANDIBULAR GLANDS.....	5R23 DE05072-02	22,939
BULKACZ, JAIME.....	PHOSPHOLIPASE ACTIVITY OF PLAQUE MICROORGANISMS.....	5R01 DE04799-03	56,887
CHANG-WAI-LING, BARBARA K.....	EXPERIMENTAL CHEMOTHERAPEUTICS OF PANCREATIC CANCER.....	1R26 CA28715-01	32,273
CIARLONE, ALFRED E.....	CHANGES IN BRAIN AMINES BY DENTAL LOCAL ANESTHETICS.....	5R23 DE04824-03	33,805
COSTOFF, ALLEN.....	MORPHOMETRY OF PITUITARY GONADOTROPES AND MAMMOTROPES.....	5R01 HD11571-02	38,235
DIRKSEN, THOMAS R.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05795-03	34,980
FAIRHURST, CARL W.....	BONDING OF PORCELAIN TO SEMI- AND NON-PRECIOUS METALS.....	5R01 DE04252-06	92,165
FAIRHURST, CARL W.....	PIN AND SLOT RETENTION IN AMALGAM AND COMPOSITE MATERIAL.....	5R01 DE04394-04	12,529
FELDMAN, ELAINE B.....	CLINICAL NUTRITION RESEARCH UNIT CORE.....	1P30 AM26658-01A1	257,113

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
GARVER, FREDERICK A.....	STRUCTURAL STUDIES OF UNIQUE MYELOMA IMMUNOGLOBULINS.....	3R01 CA15215-05S1	7,343
GILMAN, JOHN G.....	GENETIC CONTROL OF DIPHOSPHOGLYCERATE IN FETAL BLOOD.....	5R23 HL25803-02	38,400
GODT, ROBERT E.....	CA + +, LENGTH & FORCE VS VELOCITY IN ASTRIATED MUSCLE.....	5R01 AM25851-02	52,614
GOODALE, FAIRFIELD.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05365-19	118,325
GREEN, KEITH.....	ROLE OF DRUGS ON THE COMPONENTS OF AQUEOUS FORMATION.....	5R01 EY01329-05	75,321
GREEN, KEITH.....	ION AND WATER MOVEMENT IN OCULAR TISSUES.....	5R01 EY01413-07	74,228
GREENBAUM, LOWELL M.....	ANTI-PROTEASES AS POTENTIAL ASCITES RETARDANTS.....	5R01 CA28065-02	71,926
HENDRICH, CHESTER E.....	MENTAL DEFICIENCY IN PROGENY OF HYPOTHYROID MOTHERS.....	5R01 HD11411-02	48,766
HILL, JAMES M.....	IONTOPHORESIS OF ARA-AMP TO HERPES VIRUS LESIONS.....	5R01 DE04917-03	77,817
HILL, JAMES M.....	IONTOPHORESIS OF ANTIVIRALS TO HERPES EYE INFECTIONS.....	1R01 EY03331-01	71,545
HODGE, LOW D.....	BIOCHEMISTRY OF LATE MITOTIC EVENTS IN CULTURED CELLS.....	2R01 CA25735-03	58,767
HSIA, SHYUAN.....	HUMAN MHC ROLE IN VIRAL IMMUNE REACTIONS.....	5R01 AI16180-02	76,384
HUISMAN, TITUS H.....	INHOMOGENEITY OF HEMOGLOBIN TYPES.....	2R01 HL05168-21	146,045
HUISMAN, TITUS H.....	COMPREHENSIVE SICKLE CELL CENTER.....	5P60 HL15158-09	1,362,337
HULL, DAVID S.....	DRUGS, PATHOLOGIC CONDITIONS AND CORNEA ENDOTHELIUM.....	5R01 EY02386-03	27,628
JAY, WALTER M.....	MARIJUANA AND GLAUCOMA.....	5R01 EY01590-03	24,071
LAUSE, DAVID B.....	COLD INSOLUBLE GLOBULIN IN LYMPHOCYTE RESPONSIVENESS.....	1R01 AI17173-01	57,761
MAHESH, VIRENDRA B.....	EFFECT OF PROGESTERONE ON GONADOTROPIN SECRETION.....	5R01 HD10795-03	66,725
MAHESH, VIRENDRA B.....	ANDROGEN EFFECTS ON OVULATION AND FOLLICULAR ATRESIA.....	1R01 HD14196-01	66,450
MILLS, THOMAS M.....	REGULATION OF OVARIAN FOLLICLE GROWTH BY FSH.....	1R01 HD12290-01A1	35,055
MULDOON, THOMAS G.....	REGULATION OF STEROID HORMONE RECEPTOR ACTIVITY.....	5R01 AM17650-06	46,367
O'CONNOR, JAMES L.....	HYPOTHALAMIC LHRH DEGRADING ENZYMES AND THE ESTRUS CYCLE.....	5R01 HD13100-02	48,676
OGLE, THOMAS F.....	INTERACTIONS BETWEEN ADRENAL-PLACENTAL FUNCTION.....	5R01 HD12139-03	24,530
OKABE, TORU.....	AMALGAMATION KINETICS ON AG-SN (+X) ALLOYS.....	5R01 DE04262-06	77,739
PASHLEY, DAVID H.....	PERMEABILITY CHARACTERISTICS OF DENTIN.....	5R01 DE03780-08	83,057
REESE, ANDY C.....	CIG FUNCTION: INTERACTION WITH FREE MACROPHAGES.....	1R01 GM28272-01	55,673
SCHUSTER, GEORGE S.....	TRANSFORMATION OF ORAL MUCOSA BY HERPES SIMPLEX VIRUS.....	1R01 DE05449-01	70,393
SMITH, LINDA L.....	IMMUNOGLOBULINS ASSOCIATED WITH SERUM HYPERVISCOSITY.....	2R01 HL19456-04	52,698
SPRINKLE, TERRY J.....	2',3'CYCLOC NUCLEOTIDE-3'PHOSPHOHYDROLASE BIOCHEMISTRY.....	5R01 NS15307-03	56,922
STOMING, TERRANCE A.....	METABOLISM OF 3-METHYLCOLANTHRENE IN LIVER AND LUNG.....	2R01 CA21481-04	62,404
SULLIVAN, HUMBERT G.....	INTRACRANIAL PRESSURE DYNAMICS.....	5R01 NS15995-02	77,341
TISCHFIELD, JAY A.....	GENETICS OF RESISTANCE TO ADENINE ANALOGS IN VITRO.....	3R01 GM26917-01S1	48,133
WHITFORD, GARY M.....	INFLUENCE OF ACID-BASE STATUS ON FLUORIDE METABOLISM.....	5R01 DE04332-05	32,717
WHITFORD, GARY M.....	DETERMINANTS OF FLUORIDE IN THE ORAL ENVIRONMENT.....	5R01 DE04832-03	29,839
WILSON, JOHN T.....	FINE STRUCTURAL ANALYSIS OF HUMAN HEMAGLOBIN GENES.....	5R01 HL23294-02	83,742
ORGANIZATION TOTAL	57	4,620,781	
CLAXTON			
GEORGIA DEPARTMENT OF HUMAN RESOURCES—EVANS COUNTY HEALTH DEPARTMENT ZIP CODE 30417			
HAMES, CURTIS G.....	EPIDEMIOLOGICAL STUDY OF ATHEROSCLEROSIS IN EVANS COUNTY.....	5R01 HL03341-24	48,627
ORGANIZATION TOTAL	1	48,627	
FORT VALLEY			
UNIVERSITY SYSTEM OF GEORGIA—FORT VALLEY STATE COLLEGE ZIP CODE 31030			
BLACK, DAN T.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08084-07	91,052
CHENNAULT, MADELYN.....	MIDDLE GEORGIA COMMUNITY HYPERTENSION INTERVENTION PROG.....	5R01 HL24004-02	246,271
ORGANIZATION TOTAL	2	337,323	
SAVANNAH			
UNIVERSITY SYSTEM OF GEORGIA—SAVANNAH STATE COLLEGE ZIP CODE 31404			
EMEH, CHUKWUDI O.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08144-06	249,912
ORGANIZATION TOTAL	1	249,912	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
GEORGIA—Continued			
STATESBORO			
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA SOUTHERN COLLEGE ZIP CODE 30458			
OLIVER, JAMES H. JR.	REPRODUCTION IN TICKS AND MITES	5R01 AI09556-11	59,104
ORGANIZATION TOTAL	1 59,104		
STATE TOTAL	239 23,412,633		
HAWAII			
HONOLULU			
BERNICE P. BISHOP MUSEUM ZIP CODE 96819			
GOFF, MADISON L.	LARVAL TROMBICULIDAE (ACARINA) OF PAPUA NEW GUINEA	2R01 AI13893-04	46,157
STEFFAN, WALLACE A.	BIOSYSTEMATICS OF TOXORHYNCHITES	2R01 AI12168-04	98,052
STEFFAN, WALLACE A.	BIBLIOGRAPHY OF TOXORHYNCHITES	1R01 AI17423-01	15,285
ORGANIZATION TOTAL	3 159,494		
EAST-WEST CENTER ZIP CODE 96848			
FAWCETT, JAMES T.	A PHILIPPINE/US MIGRATION SYSTEM—MOTIVES AND ADJUSTMENT	1R01 HD13115-01A1	65,459
RETFERFORD, ROBERT D.	OWN-CHILDREN FERTILITY ESTIMATES BY MARITAL DURATION	5R01 HD12634-02	21,372
ORGANIZATION TOTAL	2 86,831		
KAPIOLANI-CHILDREN'S MEDICAL CENTER ZIP CODE 96826			
MELISH, MARIAN E.	ETIOLOGY AND PATHOGENESIS OF KAWASAKI SYNDROME	5R01 HL23824-02	90,070
SETO, DEXTER S.	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05833-01	15,548
ORGANIZATION TOTAL	2 105,618		
KUAKINI MEDICAL CENTER ZIP CODE 96817			
WASNICH, RICHARD D.	EPIDEMIOLOGY OF OSTEOPOROSIS IN A JAPANESE POPULATION	1R01 AG02483-01	265,975
ORGANIZATION TOTAL	1 265,975		
QUEEN'S MEDICAL CENTER ZIP CODE 96813			
MC NAMARA, J. JUDSON	MYOCARDIAL PRESERVATION AND CORONARY REPERFUSION	5R01 HL14571-07	102,302
MC NAMARA, J. JUDSON	INFARCT SIZING AND MYOCARDIAL PRESERVATION	5R01 HL23154-02	88,674
ORGANIZATION TOTAL	2 190,976		
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
ALLEN, RICHARD D.	CELLULAR MEMBRANE RECYCLING	1R01 GM27283-01	25,686
BEARDEN, JAMES C. JR.	RDNA-BINDING PROTEINS AND CONTROL OF RRNA IN TUMORS	5R01 CA25618-02	63,651
BENEDICT, ALBERT A.	IMMUNOGLOBULINS AND IMMUNE RESPONSES	5R01 AI05660-17	82,987
BENEDICT, ALBERT A.	INHERITED IMMUNODEFICIENCY-AUTOIMMUNITY IN CHICKENS	5R01 AI15687-02	73,054
BRETT, LINDA L.	PSYCHOLOGICAL MODULATION OF STRESS IN AGING	1R01 AG02210-01	20,039
BRYANT-GREENWOOD, GILLIAN D.	THE RADIOIMMUNOASSAY OF RELAXIN AND ITS APPLICATIONS	5R01 HD06633-08	80,923
CHING, CLARA Y.	HUMAN NATURAL KILLER CELL IN RECURRENT VIRUS INFECTION	1R01 AI17403-01	60,209
CLAYBAUGH, JOHN R.	INFLUENCE OF ANGIOTENSIN ON VASOPRESSIN CONTROL	5R01 HL23434-02	28,462
COOKE, IAN M.	CARDIAC PACEMAKER: BIOPHYSICAL INTEGRATIVE MECHANISMS	5R01 NS11808-06	62,400
COOKE, IAN M.	ELECTRICAL ACTIVITY AND NEUROSECRETION IN VITRO	5R01 NS15453-02	64,559
FURUSAWA, EIICHI	STUDIES OF NARCISSUS ALKALOID WITH ANTILEUKEMIC ACTIVITY	3R01 CA12733-08S1	12,496
GIBBONS, BARBARA H.	STRUCTURAL BASIS OF SPERMATOZOAN MOTILITY	5R01 HD06565-14	109,134
GIBBONS, IAN R.	PROPERTIES OF DYNEIN ISOENZYMES	5R01 HD10002-05	67,934
GILLARY, HOWARD L.	VISUAL MECHANISMS IN A REGENERATING GASTROPOD RETINA	5R01 EY01531-05	41,911
GREENWOOD, FREDERICK C.	HAUIMANA BIOMEDICAL SCIENCES	5S06 RR08125-07	241,561
GUILLORY, RICHARD J.	MEMBRANE LINKED REACTIONS: COUPLING FACTOR ATPASE	1R01 GM27857-01	59,941
HADFIELD, MICHAEL G.	DEVELOPING OPSTHOBRANCH MODELS FOR MEDICAL RESEARCH	3P40 RR01057-03S1	8,609
HALSTEAD, SCOTT B.	INFECTION ENHANCEMENT—AN EXPERIMENTAL MODEL OF SIDS	5R01 HD08693-07	76,786
HARTLINE, DANIEL K.	QUANTITATIVE SIMULATION OF SIMPLE NEURONAL NETS	3R01 NS15314-02S1	45,382
HARTLINE, DANIEL K.	QUANTITATIVE SIMULATION OF SIMPLE NEURONAL NETS	5R01 NS15314-03	87,547
HARTLINE, DANIEL K.	CELLULAR MECHANISMS IN NEURAL NETWORK FUNCTION	1R01 NS16235-01	41,668

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
HAWAII—Continued			
HELFRICH, PHILIP	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07026-15	109,152
HUMPHREYS, TOM D.	DEVELOPMENTAL REGULATION OF MACROMOLECULAR SYNTHESIS	5R01 HD06574-10	54,420
JACOBS, PATRICIA A	RESEARCH IN POPULATION CYTOGENETICS	5R01 HD07879-07	280,431
KANE, ROBERT E	CELL PROTEINS IN DIVISION AND EARLY DEVELOPMENT	5R01 GM14363-15	32,236
KOLONEL, LAURENCE N	CASE-CONTROL STUDY OF LUNG CANCER AND DIETARY VITAMIN A	5R01 CA26515-02	74,828
KOLONEL, LAURENCE N	CASE-CONTROL STUDY OF DIET AND PROSTATE CANCER IN HAWAII	1R26 CA28943-01	88,965
LIND, NANCY K	MECHANISM OF ACTION OF FIRE ANT VENOM	5R01 ES01687-03	31,364
LIU, ROBERT S	ISOMERS OF VITAMIN A, CAROTENE AND VISUAL PIGMENT	5R01 AM17806-06	83,161
LYTTLE, TERRENCE W	POPULATION GENETICS OF DROSOPHILA Y-CHROMOSOME DRIVE	5R01 GM24083-03	31,553
MI, MING-PI	PREGNANCY OUTCOMES IN HUMAN POPULATIONS	5R01 HD12142-02	86,424
MI, MING-PI	MYOCARDIAL INFARCTION AND DIGITAL DERMATOGLYPHICS	1R01 HL23386-01A2	50,220
MOORE, RICHARD E	ANTICANCER COMPOUNDS FROM MARINE ORGANISMS	2R01 CA12623-08	97,982
MORISHIGE, WALTER K	HORMONAL REGULATION OF LUNG FUNCTION	5R01 HL19195-05	38,897
MORTON, NEWTON E	A RESEARCH PROGRAM IN GENETIC EPIDEMIOLOGY	2R01 GM17173-11	195,103
NOMURA, ABRAHAM M	EPIDEMIOLOGY OF UROTHELIAL CANCER IN HAWAII	5R26 CA25903-02	66,158
NORTON, TED R	EVALUATION OF HEART STIMULANTS IN SEA ANEMONES	3R01 HL15991-06S1	3,082
OISHI, NOBORU	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17984-06	136,977
PIETTE, LAWRENCE H	ESR STUDIES OF BIOLOGICAL FREE RADICAL MECHANISMS	2R01 CA10977-16	85,126
PIETTE, LAWRENCE H	CANCER CENTER SUPPORT GRANT	5P30 CA15655-05	524,850
RAYNER, MARTIN D	NA + - PORES: PHOTOAFFINITY LABELS FOR SUB-UNIT FUNCTION	1R01 GM29263-01	65,441
ROGERS, BEVERLY J	ANALYSIS OF HUMAN SPERM FERTILIZING ABILITY	2R01 HD11555-03	56,221
ROGERS, BEVERLY J	FACTORS AFFECTING ACROSOME REACTION AND FERTILIZATION	5R01 HD12890-02	35,399
ROSEN, LEON	TRANSOVARIAL TRANSMISSION OF ENCEPHALITIS VIRUSES	1R01 AI17952-01	81,765
ROSEN, LEON	AEDINE EGGS, TOXORHYNCHITES AND ARBOVIRUSES	1R22 AI17953-01	49,611
ROSEN, LEON	TRANSOVARIAL TRANSMISSION OF DENQUE VIRUSES	1R22 AI17995-01	129,467
SCHATZ, IRWIN J	MULTIPURPOSE ARTHRITIS CENTER OF HAWAII	5P60 AM22060-03	223,497
SIDIQUI, WASIM A	IN-VITRO CULTIVATION OF HUMAN MALARIAL PARASITES	5R21 AI16273-02	55,850
SOOD, SATYA P	MINORITY BIOMEDICAL SUPPORT	3S06 RR08073-09S2	28,480
WELLINGTON, JOHN S	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05599-14	71,969
YANAGIMACHI, RYUZO	ANALYSIS OF FERTILIZATION MECHANISMS IN MAMMALS	2R01 HD03402-13	96,263
YASUHOKU, KERRY T	STUDIES OF CYTOCHROME P-450 AND CYTOCHROME OXIDASE	5R01 GM22556-05	49,414
ORGANIZATION TOTAL	52	4,369,245	
STATE TOTAL	62	5,178,139	
IDAHO			
BOISE			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 83702			
VESTAL, ROBERT E	GERIATRIC CLINICAL PHARMACOLOGY OF METHYLXANTHINES	1R01 AG02901-01	73,766
ORGANIZATION TOTAL	1	73,766	
MOSCOW			
UNIVERSITY OF IDAHO ZIP CODE 83843			
EROSCHENKO, VICTOR P	EFFECT OF KEPONE ON QUAIL OVIDUCT EGGSHELL STRUCTURE	5R01 ES01642-03	24,649
HASS, GEORGE M	PROTEINASE INHIBITORS IN POTATOES	2R01 GM22748-04	58,506
KOLLER, LOREN D	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1S08 RR09073-01A2	132,620
LAURENCE, KENNETH A	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07170-04	18,714
MEAD, RODNEY A	HORMONAL CONTROL OF DELAYED IMPLANTATION	5R01 HD06556-09	50,974
MILLER, LOIS K	A GENETIC CHARACTERIZATION OF BACULOVIRUSES	9R01 AI17338-04	47,319
RITTER, ROBERT C	BEHAVIORAL BIOLOGY OF GLUCOPRIVIC FEEDING	5R01 AM20035-03	34,411
ORGANIZATION TOTAL	7	367,193	
STATE TOTAL	8	440,959	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS			
CARBONDALE			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM—SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE ZIP CODE 62901			
BE MILLER, JAMES N	POTENTIAL GLYCOSYLTRANSFERASE INHIBITORS	5R01 GM26193-02	66,491
BOLLEN, DAVID W.	ELEMENTARY STEPS IN ENZYME CATALYSIS	5R01 GM22300-06	39,284
BONE, LEON W.	PHEROMONES AND REGULATION OF NEMATODE MATING BEHAVIOR	2R01 AI16763-02	65,790
BORGIA, PETER T.	REGULATORY ROLE OF CYCLIC NUCLEOTIDES IN MUCOR	5R01 GM25176-03	29,294
BORGIA, PETER T.	NIGMS SHARED INSTRUMENTATION PROGRAM	5P41 GM27425-02	13,823
DINGERSON, MICHAEL R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07118-11	44,780
HARGRAVE, PAUL A.	RHODOPSIN STRUCTURE AND FUNCTION	2R01 EY01275-07	112,128
HARGRAVE, PAUL A.	RHODOPSIN TOPOGRAPHY IN THE ROD CELL DISC MEMBRANE	5R01 EY02875-02	75,740
LIT, ALFRED	EFFECTS OF ILLUMINATION ON BINOCULAR SPACE PERCEPTION	5R01 EY00383-16	55,450
PARKER, JACK M.	HIGH LEVEL MISTRANSLATION—PROKARYOTIC/EUKAROTIC CELLS	5R01 GM25855-02	32,276
PETERSON, RUDOLPH N.	ISOLATE SPERMATOZOAN RECEPTORS INVOLVED IN FERTILIZATION	5R01 HD13094-02	59,318
SUNG, MICHAEL T.	MOLECULAR BIOLOGY OF ADENOVIRUS PROTEINS	1R01 AI16571-01	83,348
ORGANIZATION TOTAL	12 677,722		
CHICAGO			
AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS ZIP CODE 60611			
AKESON, WAYNE H.	CONFERENCE ON HERITABLE CONNECTIVE TISSUE DISORDERS	1R13 AM27562-01	9,943
WHITE, AUGUSTUS A. III	CONFERENCE ON IDIOPATHIC LOW BACK PAIN	1R13 AM28138-01	30,000
ORGANIZATION TOTAL	2 39,943		
AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE ZIP CODE 60601			
SMITH, ALFRED R.	AAPM CHARGED PARTICLE BEAM DOSIMETRY TASK GROUP	2R01 CA22286-04	61,817
ORGANIZATION TOTAL	1 61,817		
AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS ZIP CODE 60601			
LEWIS, GEORGE C. JR.	GYNECOLOGIC ONCOLOGY GROUP—HEADQUARTERS	1R10 CA27469-01	1,147,753
ORGANIZATION TOTAL	1 1,147,753		
AMERICAN DENTAL ASSOCIATION HEALTH FOUNDATION ZIP CODE 60611			
BOWEN, RAFAEL L.	IMPROVEMENT OF PREVENTIVE AND RESTORATIVE MATERIALS	5R01 DE05129-03	107,797
BROWN, WALTER E.	MECHANISM OF DENTAL CARIES	5R01 DE04385-05	46,096
BROWN, WALTER E.	CHEMISTRY OF CALCIUM PHOSPHATES	5R01 DE05030-04	161,707
BROWN, WALTER E.	PREVENTION OF DENTAL CARIES	5R01 DE05354-03	115,554
GRABER, THOMAS M.	ORTHODONTIC TREATMENT WITH REMOVABLE APPLIANCES	5R01 DE05307-02	82,549
HEFFERREN, JOHN J.	EVANSTON-OAK PARK FLUORIDATION STUDY AFTER 25 YEARS	1R01 DE05511-01	104,983
MABIE, CURTIS P.	DENTAL PORCELAIN IMPROVEMENT WITH INORGANIC POLYMERS	5R01 DE05353-03	27,355
STANFORD, JOHN W.	IMPROVED DENTAL INSTRUMENTS AND MATERIALS	1R01 DE05761-01	129,384
STANFORD, JOHN W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05689-12	43,871
ORGANIZATION TOTAL	9 819,296		
CHICAGO HEART ASSOCIATION ZIP CODE 60606			
SCHOENBERGER, JAMES A.	CHICAGO HEART HEALTH CURRICULUM PROGRAM	5R01 HL21892-02	345,399
ORGANIZATION TOTAL	1 345,399		
CHICAGO STATE UNIVERSITY ZIP CODE 60628			
MYLROIE, AUGUSTA A.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08043-10	380,999
SHERMAN, WARREN V.	LIGHT RESPONSE OF THE PURPLE MEMBRANE OF H. HALOBIMUM	5R01 EY02219-03	33,383
ORGANIZATION TOTAL	2 414,382		
CHILDREN'S MEMORIAL HOSPITAL ZIP CODE 60614			
HONIG, GEORGE R.	REGULATION OF HEMOGLOBIN SYNTHESIS	5R01 AM19046-05	70,950
HONIG, GEORGE R.	CHILDRENS CANCER STUDY GROUP A	5R10 CA07431-17	160,763
HUNT, CARL E.	PULMONARY EFFECTS OF INFUSED PROSTAGLANDIN PRECURSORS	5R01 HL24607-02	53,681
NADLER, HENRY L.	2-MACROGLOBULIN-PROTEASE COMPLEX IN CYSTIC FIBROSIS	5R01 AM18462-06	117,309
NADLER, HENRY L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05475-18	32,263
ORGANIZATION TOTAL	5 434,966		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
DE PAUL UNIVERSITY ZIP CODE 60604			
GIBBS, DANIEL.....	NEUROENDOCRINE CONTROL OF INSECT DEVELOPMENT	5R01 AI15139-02	51,111
ORGANIZATION TOTAL	1 51,111		
FIELD MUSEUM OF NATURAL HISTORY ZIP CODE 60605			
HERSHKOVITZ, PHILIP	LIVING NEW WORLD MONKEYS (PLATYRRHINA)—VOLUME 2.....	5R24 RR01226-02	80,435
ORGANIZATION TOTAL	1 80,435		
HEALTH AND HOSPITALS GOVERNING COMMISSION OF COOK COUNTY—COOK COUNTY HOSPITAL ZIP CODE 60612			
BURKE, GERALD.....	THYROID STIMULATORS AND THYROID STIMULATION	2R01 AM17561-07	118,892
ORGANIZATION TOTAL	1 118,892		
HEKTOEN INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 60612			
LEV, MAURICE.....	CONGENITAL HEART DISEASE RESEARCH PROGRAM.....	2R01 HL07605-18	85,125
ORGANIZATION TOTAL	1 85,125		
IIT RESEARCH INSTITUTE ZIP CODE 60616			
EHRlich, RICHARD	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05744-05	40,109
EISENBERG, WALTER C.....	SINGLET MOLECULAR OXYGEN AND LUNG PATHOGENESIS.....	2R01 ES01524-03	133,878
MEHTA, RAJENDRA G.....	RETINOIDS AND MAMMARY CARCINOGENESIS	5R01 CA26030-02	66,687
RAJAN, KRISHNASWAMY S.....	METAL CHELATES OF L-DOPA FOR PARKINSONISM.....	5R01 NS11556-06	90,396
RYAN, JON M.....	A STUDY OF LENS CELL DIVISION AND DIFFERENTIATION.....	5R01 EY02298-03	72,057
UCHIC, JOHN T.....	ANTICONSULSANT DRUGS: INHIBITORS OF GABA TRANSAMINASE.....	5R01 NS15445-02	83,813
ORGANIZATION TOTAL	6 486,940		
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
STEINER, JAN W.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA21742-02	359,590
WARNECKE, RICHARD B.....	CANCER PATIENT DATA CONTROL.....	2R10 CA21898-04	142,717
WILBANKS, GEORGE D, JR.....	ILLINOIS CANCER COUNCIL GYNECOLOGIC ONCOLOGY GROUP.....	1R10 CA27806-01	205,237
ORGANIZATION TOTAL	3 707,544		
ILLINOIS INSTITUTE OF TECHNOLOGY ZIP CODE 60616			
BUSH, C ALLEN.....	CARBOHYDRATE STRUCTURE OF BAND 3 MEMBRANE PROTEIN.....	5R01 GM26336-02	72,786
GROSSWEINER, LEONARD I.....	FAST PHOTOSENSITIZED REACTIONS OF AROMATIC COMPOUNDS.....	5R01 GM20117-17	40,327
GURALNICK, SIDNEY A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07027-15	32,960
HUDLUCKY, TOMAS.....	SYNTHETICS OF CEPHALOTAXINE/HARRINGTONINE ALKALOIDS	1R01 CA25379-01A1	28,142
KOPPLE, KENNETH D.....	INFLUENCE OF SOLVATION ON PEPTIDE CONFORMATION	5R01 GM26071-02	305,964
KUSANO, KIYOSHI.....	ELECTROPHYSIOLOGY OF SYNAPTIC TRANSMISSION.....	2R01 NS12275-06	93,505
TIMKOVICH, RUSSELL.....	ENZYMIC REACTIONS OF DISSIMILATORY NITRITE REDUCTASES.....	2R01 GM23869-04	77,574
WEBSTER, DALE A.....	A MODEL FOR COMPLEX ELECTRON TRANSPORT CHAINS.....	1R10 GM27085-01	76,633
ORGANIZATION TOTAL	8 727,891		
INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH ZIP CODE 60611			
BAILIT, HOWARD L.....	DENTAL CONFERENCE ON BEHAVIORAL/SOCIAL SCIENCES.....	5R13 DE05319-02	1,804
ORGANIZATION TOTAL	1 1,804		
LOYOLA UNIVERSITY OF CHICAGO ZIP CODE 60611			
FAY, RICHARD R.....	MECHANISMS OF AUDITORY ANALYSIS BY NERVOUS SYSTEMS.....	5R01 NS15268-02	25,641
FRY, CHRISTINE L.....	CONFERENCE: CROSS-CULTURAL RESEARCH ON OLD AGE.....	1R13 AG02268-01	6,370
ORGANIZATION TOTAL	2 32,011		
MERCY HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
HAWRYLEWICZ, ERVIN J.....	EFFECT OF DIET ON THE HYPOTHALAMUS AND BREAST TUMORS.....	5R01 CA26547-02	95,038
ORGANIZATION TOTAL	1 95,038		
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
BERELOWITZ, MICHAEL.....	SOMATOSTATIN PHYSIOLOGY IN DIABETES AND OBESITY.....	1R23 AM26312-01	41,101
COE, FREDRIC L.....	SPECIALIZED CENTER OF RESEARCH IN UROLITHIASIS.....	5P01 AM20585-04	391,745
COHEN, LIONEL.....	MODELS IN RADIATION ONCOLOGY.....	1R01 LM03593-01	14,200
COHEN, SIDNEY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05476-18	102,230

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
DESSER, RICHARD K.	SURGICAL ADJUVANT PROJECT FOR BREAST AND BOWEL CANCERS	1R10 CA26788-01	22,161
FRIED, WALTER	FACTORS REGULATING HEMATOPOIESIS	5R01 AM19455-04	76,886
FROHMAN, LAWRENCE A.	NEUROENDOCRINE CONTROL OF ANTERIOR PITUITARY HORMONES	5R01 AM18722-05	135,225
GOLDMAN, MARGARET B.	IMMUNE REGULATION OF HUMORAL PROTEINS	5R01 A115869-02	67,262
GOTOFF, SAMUEL P.	PERINATAL IMMUNITY—GROUP B BETA HEMOLYTIC STREPTOCOCCI	5R01 HD11576-03	88,386
HOFFMAN, WILLIAM E.	CEREBROVASCULAR CHANGES IN AGE AND HYPERTENSION	5R01 HL25399-02	83,052
LEVITSKY, LYNN L.	METABOLISM IN THE SUBHUMAN PRIMATE AND OVINE FETUS	5R01 HD13138-02	93,398
MC LEOD, RIMA	IMMUNE RESPONSE TO INGESTED TOXOPLASMA	1R01 A116945-01	65,052
MOORE, EDDIE S.	COMPENSATORY RENAL HYPERTROPHY IN FETAL ANIMALS	5R01 HD11821-02	67,465
ROBBINS, KENNETH C.	PLASMINOGEN: ACTIVATION & STRUCTURE-FUNCTION RELATIONS	5R01 HL04366-22	120,186
ROBBINS, KENNETH C.	PLASMINOGEN-DERIVED ACTIVATORS IN THROMBOLYTIC THERAPY	5R01 HL24845-02	92,717
SCHNEIDER, ARTHUR B.	RADIATION-INDUCED THYROID CANCER	2R01 CA21518-04	92,297
SHERWOOD, LOUIS M.	CHEMISTRY AND PHYSIOLOGY OF PLACENTAL LACTOGEN	5R01 HD08225-07	84,225
STACHURA, MAXIMILLIAN E.	SYNTHESIS, STORAGE AND RELEASE OF PITUITARY GH AND PRL	2R01 AM19640-04	73,182
ORGANIZATION TOTAL	18	1,710,770	
NATIONAL OPINION RESEARCH CENTER ZIP CODE 60637			
MICHAEL, ROBERT T.	ECONOMIC ANALYSIS OF THE FAMILY & DEMOGRAPHIC CHANGE	1P50 HD14256-01	292,015
ORGANIZATION TOTAL	1	292,015	
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
ATKINSON, ARTHUR J, JR.	CLINICAL PHARMACOLOGY OF COMMONLY USED DRUGS	5P01 GM22371-05	227,076
BAUMANN, GERHARD	HUMAN GROWTH HORMONE ISOHORMONES, ORIGIN, AND FUNCTIONS	1R01 AM27047-01	69,930
BENVENISTE, KATHY B.	COLLAGEN SYNTHESIS IN DILANTIN GINGIVAL HYPERPLASIA	5R01 DE05547-03	55,901
BERLIN, NATHANIEL I.	CANCER CENTER SUPPORT GRANT	5P30 CA15145-06	644,468
BERRY, ROBERT W.	REGULATION OF NEURONAL PROTEIN SYNTHESIS	2R01 NS11519-07A1	55,533
BOUCK, NOEL P.	GENETIC ANALYSIS OF MALIGNANT TRANSFORMATION	5R01 CA27306-02	83,188
BRAUN, THEODOR	SPERM ADENYLATE CYCLASE: MOLECULAR NATURE AND FUNCTION	5R01 HD10006-04	46,236
CARONE, FRANK A.	RENAL HANDLING OF PROTEINS AND PEPTIDES	5R01 AM14610-10	64,956
CARRUTHERS, MARY M.	ROLE OF CAPSULAR POLYSACCHARIDE IN ENTERIC VIRULENCE	5R01 A115521-02	34,662
CHATTERTON, ROBERT T, JR.	PROGESTIN-GLUCOCORTICOID INTERACTIONS IN LACTOGENESIS	5R01 HD13975-02	30,963
CHILDS, GWEN V.	HORMONE STORAGE AND SECRETION IN GONADOTROPS	5R01 HD10930-03	38,550
COHEN, ISAAC	EFFECTS OF PLATELET ACTIVATION ON MEMBRANE COMPONENTS	5R01 HL23479-02	45,709
COOPER, RICHARD S.	ASSESSMENT OF HABITUAL SALT INTAKE IN SCHOOL CHILDREN	5R01 HL23468-02	29,247
DAL CANTO, MAURO C.	VIRUS-INDUCED DEMYELINATION	5R01 NS13011-05	51,610
DUNCAN, JAMES L.	STREPTOLYSIN O ACTION ON MAMMALIAN CELL MEMBRANES	5R01 A11644-08	57,917
ECKENHOFF, JAMES E.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00048-19	677,399
ECKENHOFF, JAMES E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05370-19	186,760
EISENSTEIN, REUBEN	BIOLOGY OF AORTIC GROUND SUBSTANCE	5R01 HL18625-05	8,999
EKSTEDT, RICHARD D.	TUMOR ENHANCEMENT IN LECTIN TREATED MICE	1R01 CA28167-01	61,945
FAHL, WILLIAM E.	HYDROCARBON CARCINOGENESIS IN MOUSE AND HUMAN CELLS	5R01 CA25189-02	41,022
FARBMAN, ALBERT I.	DIFFERENTIATION OF ORAL EPITHELIUM	5R01 DE03934-06	82,175
FARBMAN, ALBERT I.	CYTOLOGICAL STUDIES OF INDUCTION DURING DEVELOPMENT	5R01 NS06181-13	89,867
FELDMAN, JACK L.	NEURAL BASIS OF RESPIRATORY RHYTHM	5R01 HL23820-02	47,844
FLOURET, GEORGE R.	SYNTHETIC ANTIOVULATORY AGENTS	5R01 HD08869-06	84,195
FREINKEL, NORBERT	CONTROL MECHANISMS IN DIABETES AND NORMAL METABOLISM	5R01 AM10699-16	255,106
FREINKEL, RUTH K.	ROLE OF DEGRADATIVE EVENTS IN KERATINIZATION	5R01 AM16441-14	81,818
GANOTE, CHARLES E.	MITOCHONDRIA AND HEART CELL INJURY	1R01 HL24773-01	85,745
GHOSH, SANTIBRATA	ARTERIAL UPTAKE OF LIPOPROTEIN: KINETIC ANALYSIS	3R01 HL16419-03S1	1,466
GHOSH, SANTIBRATA	VASOACTIVE AGENT AND BIOPHYSICS OF ARTERIAL TRANSPORT	5R01 HL18004-04	45,821
GRAYHACK, JOHN T.	PROSTATIC FLUID IN DIAGNOSIS OF PROSTATIC CANCER	5R26 CA16736-07	72,359
HARRIS, STANLEY C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05311-19	61,923
HAST, MALCOLM H.	CEREBRAL REPRESENTATION OF THE LARYNGEAL MUSCLE	5R01 NS14103-03	68,609
HECHTER, OSCAR M.	STERIOD RECEPTORS IN SPECIFIC CELL TYPES IN BPH	5R01 AM25369-02	112,615
HOLLENBERG, PAUL F.	HEMOPROTEIN-CATALYZED OXYGENATIONS OF CARCINOGENS	5R01 CA16954-05	58,728
HOUK, JAMES C.	NEURAL MECHANISMS FOR SENSORIMOTOR INTEGRATION	5R01 NS14703-02	65,160
HSUEH, WEI	PROSTAGLANDIN BIOSYNTHESIS IN LUNG MACROPHAGES	5R23 A116147-02	33,900
HUNZICKER-DUNN, MARY E.	GONADOTROPHIN ACTION IN FOLLICLES AND CORPORA LUTEA	5R01 HD11356-03	57,602
JANIS, RONALD A.	ROLE OF PHOSPHOPROTEINS IN MYOMETRIAL CONTRACTION	5R01 HD11028-02	24,462
JUNGSMANN, RICHARD A.	PROTEIN KINASE TRANSLLOCATION AND GENE EXPRESSION	5R01 GM23895-03	61,701
JUNGSMANN, RICHARD A.	GONADOTROPIN REGULATION OF OVARIAN DIFFERENTIATION	5R01 HD12046-02	63,373

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
KARLAN, MARC S.	PATHOPHYSIOLOGY OF EAR.....	3R01 NS17329-01S1	7,995
KIM, BYUNG S.	MECHANISMS OF IDIOTYPE SUPPRESSION.....	5R01 AI15446-02	47,453
KOENIG, HAROLD	DRUG-INDUCED PHOSPHOLIPIDOSIS IN BRAIN.....	5R01 NS14700-03	56,322
KOUSHANPOUR, ESMAIL	MECHANISMS OF BARORECEPTOR ADAPTATION IN HYPERTENSION.....	5R01 HL22667-03	43,077
KURAMITSU, HOWARD K.	STREPTOCOCCUS MUTANS: DENTAL CARIES MECHANISMS.....	2R01 DE03258-09	64,389
KURAMITSU, HOWARD K.	CARIOGENIC MECHANISMS OF GINGIVAL PLAQUE BACTERIA.....	5R01 DE05141-02	78,692
LEE, CHUNG	GROWTH AND REGRESSION IN RAT MAMMARY TUMORS.....	5R01 CA14727-07	51,662
LEE, CHUNG	CASTRATION-INDUCED REGRESSION IN RAT PROSTATE.....	5R01 HD11611-03	43,340
LESCH, MICHAEL	MYOCARDIAL PROTEIN DEGRADATION.....	5R01 HL19648-05	107,304
LIPTON, HOWARD L.	THEILER'S VIRUS-INDUCED DEMYELINATING DISEASE.....	2R01 AI14139-04	70,241
MARSHALL, SALLY J.	X-RAY AND SEM ANALYSIS OF CU RICH DENTAL AMALGAM.....	2R01 DE04704-04	54,808
MELVOLD, ROGER W.	PRODUCTION AND ANALYSIS OF HISTOCOMPATIBILITY MUTANTS.....	5R01 AI16919-02	94,435
MERRILL, JOHN M.	CLINICAL TRIALS—EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA17145-06	227,237
MERRILL, JOHN M.	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18004-06	104,377
NARAHASHI, TOSHIO	ENVIRONMENTAL NEUROTOXICOLOGY OF HEAVY METALS.....	1R01 ES02330-01	135,812
NARAHASHI, TOSHIO	MODE OF ACTION OF INSECTICIDES: ELECTROPHYSIOLOGICAL.....	5R01 NS14143-04	114,173
NARAHASHI, TOSHIO	CELLULAR NEUROPHARMACOLOGICAL STUDY OF DRUG ACTION.....	5R01 NS14144-04	77,296
NARAHASHI, TOSHIO	CELLULAR PHARMACOLOGY OF NEUROMUSCULAR TRANSMISSION.....	5R01 NS14145-04	38,290
NOVAK, RAYMOND F.	MOLECULAR BASIS OF P450LM SUBSTRATE SPECIFICITY.....	1R01 GM27836-01	82,247
OKITA, GEORGE T.	ROLE OF NA, K-ATPASE INHIBITION ON DIGITALIS ACTION.....	5R01 HL18598-05	57,378
OLINGER, EDWARD J.	CELLULAR REGULATION OF HEPATOCYTE EXCRETORY FUNCTION.....	5R01 AM20366-02	76,505
OYASU, RYOICHI	IN VIVO BLADDER CARCINOGENESIS OF NITROSAMINES.....	5R26 CA14649-07	127,009
PATERSON, PHILIP Y.	IMMUNE BASIS OF DISEASE—ALLERGIC ENCEPHALOMYELITIS.....	5R01 NS06262-16	151,647
PATTERSON, ROY	ALLERGIC DISEASES CENTERS GRANT.....	5P50 AI11403-08	159,890
PATTERSON, ROY	CLINICAL & LABORATORY STUDIES RELATING TO LUNG DISEASE.....	2P01 AI11759-07	144,759
PHILLIPS, LAWRENCE S.	METABOLIC FUELS, DIABETES, AND SOMATOMEDIN ACTIVITY.....	5R01 AM21483-03	71,939
PLATE, CHARLES A.	GENETICS & BIOCHEMISTRY OF ENERGY COUPLING IN E COLI.....	1R01 GM27077-01	50,161
PONZIO, NICHOLAS M.	MODELS OF LYMPHOCYTE MIGRATION AND LOCALIZATION.....	5R01 AI15247-03	38,817
PONZIO, NICHOLAS M.	LYMPHOCYTE RESPONSES TO SYNGENEIC ANTIGENS.....	5R01 CA22544-03	47,567
PSYH, JOSEPH J.	MORPHOLOGY AND CYTOPHYSIOLOGY OF SYNAPTIC TRANSMISSION.....	5R01 NS11325-06	40,589
RABINOWITZ, STANLEY G.	PATHOGENESIS—SLOW VESICULAR STOMATITIS VIRUS INFECTION.....	5R01 NS13045-05	57,259
RAFFERTY, NANCY S.	ETIOLOGY OF CATARACT.....	5R01 EY00698-10	42,934
REDDY, JANARDAN K.	BIOLOGY OF TRANSPLANTABLE PANCREATIC CARCINOMA OF RAT.....	5R26 CA23055-03	54,693
REDDY, JANARDAN K.	BIOLOGIC STUDIES WITH LIVER PEROXISOME PROLIFERATORS.....	5R01 GM23750-05	116,116
RYMER, WILLIAM Z.	INTERNEURONAL CONTRIBUTIONS TO THE CONTROL OF MOVEMENT.....	5R01 NS14959-02	43,738
SCHAEFFER, ANTHONY J.	BACTERIAL ADHERENCE IN URINARY INFECTIONS.....	1R01 AI16014-01A1	53,147
SILINSKY, EUGENE M.	ADENINE NUCLEOTIDE RELEASE FROM MOTOR NERVE ENDINGS.....	5R01 NS12782-05	23,184
SMITH, DAVID W.	TRANSFER RNA OF RED BLOOD CELL PRECURSORS.....	5R01 AM19617-03	100,647
SPELTMANN, RAINER	PHARMACOLOGY OF SYNAPTIC TRANSMISSION IN THE BRAIN.....	5R01 NS06820-12	39,098
STAMLER, JEREMIAH	GLYCEMIA, OTHER TRAITS AND CV DEATH IN 40,000 PERSONS.....	5R01 HL21010-04	124,242
STAMLER, JEREMIAH	PREVENTION OF HYPERTENSION: RANDOMIZED TRIAL.....	5R01 HL21823-02	196,062
STAMLER, JEREMIAH	CONTROL OF HYPERTENSION BY NON-PHARMACOLOGIC MEANS.....	1R01 HL24999-01	210,790
STERN, PAULA H.	EFFECT OF HORMONES ON BONE RESORPTION IN VITRO.....	5R01 AM11262-14	109,351
STUPP, SAMUEL I.	PHYSICOCHEMICAL MODIFICATIONS OF DENTAL RESTORATIVES.....	5R23 DE05152-02	35,358
UPRICHARD, DAVID C.	BRAIN ADRENERGIC RECEPTOR MECHANISMS.....	5R01 NS15595-02	40,370
VATSIS, KOSTAS P.	CYTOCHROME P-450-B5 INTERACTIONS IN DRUG METABOLISM.....	1R01 GM28342-01	79,950
VEIS, ARTHUR	THE STRUCTURE AND ORGANIZATION OF COLLAGEN FIBERS.....	5R01 AM13921-20	136,336
VEIS, ARTHUR	MATRIX COMPONENT INTERACTIONS IN CALCIFIED TISSUES.....	2R01 DE01374-20	158,015
WARD, WILLIAM F.	MODIFICATION OF RADIATION-INDUCED PULMONARY FIBROSIS.....	5R01 CA26397-02	75,407
WARD, WILLIAM F.	RADIATION INJURY IN THE PULMONARY ENDOTHELIAL CELL.....	1R01 HL25106-01	88,313
WARREN, JOHN R.	CELL SURFACES AND GROWTH OF PANCREATIC CARCINOMA.....	5R26 CA27443-02	64,322
WASHTEN, WENDY L.	FURA METABOLISM IN MAMMALIAN CELLS.....	1R01 CA27721-01	70,931
WILLIAMS, ROBERT M.	STUDIES OF BB RAT DIABETES.....	5R01 AM26733-02	106,050
WILLIAMS, ROBERT M.	GENETIC CONTROL OF RESISTANCE AND IMMUNITY TO P815.....	1R01 CA27599-01	46,214
WU, CHAU H.	MUSCLE IONIC CONDUCTANCES IN EXPERIMENTAL MYOTONIA.....	5R01 AM25454-02	56,776
YEH, JAY Z.	MOLECULAR MECHANISM OF LOCAL ANESTHETIC ACTION.....	5R01 GM24866-03	8,162
ORGANIZATION TOTAL	96	8,569,416	
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER ZIP CODE 60612			
ADLER, SOLOMON S.	HEMOPOIETIC MICROENVIRONMENT VIABILITY STUDIES.....	5R01 CA22736-03	80,861
BACUS, JAMES W.	QUANTIFICATION OF RED CELL MORPHOLOGY AND ANEMIA.....	5R01 HL24293-02	98,298

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
FIDEL, BARRY A	REGULATION OF PLATELET FUNCTION IN THE ACUTE PHASE	5R01 HL23457-02	36,942
KNOSPE, WILLIAM H	SOUTHEASTERN CANCER STUDY GROUP	3R10 CA12640-08S1	39,270
PENN, RICHARD D	STUDIES OF SPASTICITY IN BRAIN-INJURED PATIENTS	5R01 NS15630-02	83,824
ROBERTS, JIMMY L	DNA & ANTIDNA IN NEPHRITIS AND INFLAMMATORY DISEASES	5R01 AM26070-02	32,966
THOMAS, LARRY L	ROLE OF INFLAMMATORY REACTANTS IN ALLERGIC DISEASE	1R01 AI17177-01	71,185
ORGANIZATION TOTAL	7 443,346		
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
ANDERSON, KENNING M	CONTROL OF PROSTATE CELL GROWTH AND CELL DIVISION	5R01 CA22246-03	70,436
ANDRIACCHI, THOMAS P	BIOMECHANICAL STUDY OF TOTAL KNEE REPLACEMENT	5R01 AM20702-03	97,759
CLASEN, RAYMOND A	EXPERIMENTAL CEREBRAL INJURY AND EDEMA	5R01 NS03677-18	74,308
COHEN, FREDRIC S	FUSION OF PHOSPHOLIPID VESICLES WITH PLANAR MEMBRANES	1R01 GM27367-01	59,330
COLE, EDMOND R	STUDY OF PLASMINOGEN ACTIVATORS FROM TISSUES	5R01 HL15817-08	77,012
CUNNINGHAM, CAROLYN M	MEMBRANE ACTIVATION OF ALTERNATIVE COMPLEMENT PATHWAY	5R23 AI16082-02	43,403
DONALDSON, SUE K	CARDIAC CONTRACTILITY: ISCHEMIA AND HYPOXIA	5R01 HL23128-03	47,719
ECONOMOU, STEVEN G	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	2R10 CA20371-04	44,281
EISENBERG, ROBERT S	ELECTRICAL PROPERTIES OF CARDIAC MUSCLE	2R01 HL20230-04	106,047
FLANAGAN, MALACHI J	NATIONAL BLADDER CANCER COLLABORATIVE GROUP A	2R26 CA16886-07	121,983
FOX, JACOB H	CEREBRAL DECLINE IN AGING	5P01 AG00905-03	232,681
GALANTE, JORGE O	TOTAL SURGICAL REPLACEMENT OF THE HUMAN HIP JOINT	5R01 AM16485-09	226,351
GEWURZ, HENRY	C-REACTIVE PROTEINS CHARACTER & COMPLEMENT INTERACTIONS	5R01 AI12870-05	142,836
GOTTLIEB, GERALD L	BIOENGINEERING INVESTIGATION OF THE HUMAN MOTOR SYSTEM	5R01 NS12877-03	77,500
HANSON, WAYNE R	RESPONSE OF INTESTINAL STEM CELLS TO 25 MEV NEUTRONS	1R01 CA27588-01	107,240
HARRIS, JULES E	COLLABORATIVE CLINICAL TRIALS WITH THE ECOG	5R10 CA25988-02	220,308
HARRIS, JULES E	IMMUNE TESTING IN LUNG CANCER DURING IMMUNOTHERAPY	1R01 CA26138-01A1	120,087
HARRIS, JULES E	CANCER DRUG EFFECTS ON PATIENT SUPPRESSOR CELLS	1R01 CA27598-01	131,784
HEGYVARY, CSABA	DIGITALIS-RECEPTOR OF THE HEART	3R01 HL16611-05S1	8,624
HEJNA, WILLIAM F	BIOCHEMISTRY OF BONE AND CONNECTIVE TISSUE	2S07 RR05477-18	141,060
HENDRICKSON, FRANK R	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA12255-07A1	60,120
KNOSPE, WILLIAM H	HEMOPOIESIS & ITS MICROENVIRONMENT	5R01 AM20442-02	92,337
KUETTNER, KLAUS E	BIOCHEMISTRY OF BONE AND CONNECTIVE TISSUE	2R01 AM09132-15	116,263
KUETTNER, KLAUS E	ANTITUMOR INVASION FACTORS DERIVED FROM CARTILAGE	2R01 CA21566-04	119,785
LEWIS, EDMUND J	STUDY OF GLOMERULAR EPITHELIAL CELL FUNCTION	5R01 AM21536-02	70,317
LEWIS, EDMUND J	A SERUM C3 ACTIVATING FACTOR IN GLOMERULONEPHRITIS	5R01 AM25348-02	34,444
MATHIAS, RICHARD T	VOLUME REGULATION IN NORMAL AND CATARACTOUS LENSES	5R01 EY03095-02	45,283
PAULI, BENDICHT U	LOCAL REGULATION OF INVASIVENESS IN BLADDER TUMORS	5R26 CA25034-03	114,766
PENN, RICHARD D	QUANTITATIVE STUDY OF HYDROCEPHALUS	5R01 NS15522-02	35,789
PLATE, JANET M	IMMUNOLOGICAL EFFECTS ON TUMOR GROWTH & REJECTION	5R01 CA25612-02	122,693
RAE, JAMES L	NORMAL AND CATARACTOUS LENS CELL BIOELECTRIC PROPERTIES	5R01 EY03282-02	102,830
SCHAUF, CHARLES L	SOLVENT SUBSTITUTION AS A PROBE OF EXCITABLE CHANNELS	1R01 NS15741-01	48,935
SCHOENBERGER, JAMES A	SYSTOLIC HYPERTENSION IN THE ELDERLY	1R01 HL23913-01A1	285,271
SHEKELLE, RICHARD B	A PROSPECTIVE STUDY OF PERSONALITY AND RISK OF CANCER	5R01 CA22536-03	60,937
SIEGEL, JOAN N	C-REACTIVE PROTEIN & THE GRANULOCYTE IN INFLAMMATION	1R01 AI16560-01	57,952
TAYLOR, SAMUEL G, IV	ADJUVANT CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CANCER	5R01 CA25793-03	101,859
TROBAUGH, FRANK E, JR	STUDIES OF MYELOID LEUKEMIA IN RFM MICE	5R01 CA22011-02	87,982
ZIMMERMAN, ROGER P	NEURONAL CIRCUITRY OF RETINAL INNER PLEXIFORM LAYER	1R01 EY03189-01A1	64,173
ORGANIZATION TOTAL	38 3,772,485		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
AGARWAL, KAN L	BIOSYNTHESIS OF GASTRIN IN GASTRIC AND ISLET CELL TUMOR	5R01 AM21901-02	54,901
AGARWAL, KAN L	NUCLEIC ACID-PROTEIN INTERACTIONS	5R01 GM22199-05	81,647
ALBERTE, RANDALL S	CONTROL OF ORGANELLE MEMBRANE BIOGENESIS	5R01 GM23944-02	59,892
ANTEL, JACK P	IMMUNOREGULATION AND HUMAN AGING	1R01 AG01798-01	102,244
ARNSDORF, MORTON F	ELECTROPHARMACOLOGIC ACTIONS OF ANTIARRHYTHMIC DRUGS	5R01 HL21788-02	40,142
BECKER, MICHAEL A	REGULATION OF PURINE NUCLEOTIDE SYNTHESIS IN MAN	7R01 AM28554-01	61,751
BOGUE, DONALD J	THE CHANGING SOCIO-SPATIAL STRUCTURE OF THE CITY	1R01 HD12865-01A1	53,567
BOWMAN, JAMES E	COMPREHENSIVE SICKLE CELL CENTER	5P60 HL16005-07	1,106,538
BIJLER, ROBERT A	SOUND LOCALIZATION: SPECTRAL AND EXPERIENTIAL FACTORS	2R01 NS11154-05A1	58,078
CHIANG, KWEN-SHENG	MEIOSIS AND REPRODUCTION	5R01 HD05804-10	132,720
COZZARELLI, NICHOLAS R	ENZYMOLOGICAL AND GENETIC STUDIES OF DNA POLYMERASES	2R01 GM21397-06	118,895
COZZARELLI, NICHOLAS R	RNA LIGASE FUNCTION AND USE IN DNA SYNTHESIS	5R01 GM22729-05	76,925

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
CREWE, ALBERT V.....	SCANNING MICROSCOPE LABORATORY FOR GENERAL FACULTY USE.....	5P41 RR00984-05	169,326
DAWSON, GLYN.....	GLYCOPHINGOLIPID METABOLISM AND MENTAL RETARDATION.....	5R01 HD06426-09	99,421
DE BRUYN, PETER P.....	LEUKOPOIETIC MECHANISMS.....	5R01 CA05493-20	156,922
DE GROOT, LESLIE J.....	BIOSYNTHESIS AND ACTION OF THYROID HORMONE.....	5R01 AM13377-13	156,059
DE GROOT, LESLIE J.....	PATHOGENESIS AND THERAPY OF AUTOIMMUNE THYROID DISEASE.....	1R01 AM27384-01	107,849
DE SOMBRE, EUGENE R.....	STUDIES OF MAMMARY TUMOR PEROXIDASE.....	3R01 CA21525-03S1	6,465
DOI, KUNIO.....	RADIOGRAPHIC IMAGING FOR CANCER DIAGNOSIS.....	1R01 CA24806-01A1	201,423
DORFMAN, ALBERT.....	MENTAL RETARDATION RESEARCH CENTER.....	5P30 HD04583-12	402,744
DORFMAN, ALBERT.....	BIOLOGICAL BASIS OF MENTAL RETARDATION.....	2P01 HD09402-06	398,674
DORFMAN, ALBERT.....	GENERAL CLINICAL RESEARCH CENTER FOR CHILDREN.....	2M01 RR00305-14	369,027
EATON, PHILIP E.....	SYNTHESIS OF DODECAHEDRANE AND 16-HEXAQUINACENE.....	5R01 CA12961-08	111,981
ELKIND, MORTIMER M.....	COMPLEMENTATION OF CELLULAR RADIATION REPAIR PATHWAYS.....	5R01 CA25259-02	229,293
EMMANOUEL, DIMITRIOS S.....	ENDOCRINE ABNORMALITIES IN UREMIA.....	5R01 AM19250-05	72,083
EPSTEIN, WOLFGANG.....	REGULATION OF ADENYLATE CYCLASE IN E. COLI.....	2R01 AI12924-04	52,477
EPSTEIN, WOLFGANG.....	BIOCHEMICAL STUDIES OF ATP-DRIVEN BACTERIAL TRANSPORT.....	5R01 GM22323-06	52,018
EPSTEIN, WOLFGANG.....	FUNCTION OF THE RECA PROTEIN OF E. COLI.....	5R01 GM23016-05	61,967
FARBER, ROSANN A.....	GENETIC STUDIES OF HUMAN CHROMOSOME REPLICATION.....	5R01 GM27478-02	49,418
FIELD, MICHAEL.....	HEAT-STABLE E. COLI ENTEROTOXIN: STRUCTURE & FUNCTION.....	5R22 AI15904-02	93,137
FIELD, MICHAEL.....	REGULATION OF INTESTINAL FLUID TRANSPORT.....	5R01 AM21345-04	119,619
FITCH, FRANK W.....	ANTIBODY FORMATION BY LYMPHOID CELLS.....	5R01 AI04197-19	122,994
FITCH, FRANK W.....	SPECIFIC SUPPRESSION OF CELL-MEDIATED IMMUNE RESPONSE.....	5R01 AI09268-12	104,543
FITCH, FRANK W.....	FUNCTION AND BIOCHEMISTRY OF T LYMPHOCYTE CLONES.....	1R01 AI16558-01	61,599
FLEMING, GRAHAM R.....	TIME RESOLVED STUDIES OF PROTEIN DYNAMICS.....	1R01 GM27825-01	93,978
FOZZARD, HARRY A.....	CELL BIOLOGY OF CARDIAC AND SKELETAL MUSCLE.....	5P01 HL20592-04	636,530
FRENKEL, NIZA B.....	REPLICATION & TRANSCRIPTION OF HERPES SIMPLEX VIRUS DNA.....	5R01 CA18375-02	87,601
FRIEDMANN, HERBERT C.....	ENZYME STUDIES ON VITAMIN B12 AND ITS CONSTITUENTS.....	5R01 AM09134-15	77,534
GARTNER, LAWRENCE M.....	PATHOGENESIS OF NEONATAL JAUNDICE AND KERNICTERUS.....	7R01 HD15060-01	75,025
GETZ, GODFREY S.....	LIPIDS AND CONTROL OF MITOCHONDRIAL BIOGENESIS.....	5R01 GM18858-08	118,032
GOLDBERG, JAY M.....	PHYSIOLOGY OF VESTIBULAR SYSTEM.....	5R01 NS01330-24	102,593
GOLDBERG, LEON I.....	CLINICAL PHARMACOLOGY CENTER.....	5P50 GM22220-05	498,210
GOLDWASSER, EUGENE.....	HEMOPOIETIC STEM CELLS AND INDUCED DIFFERENTIATION.....	5R01 CA18375-06	102,463
GOLDWASSER, EUGENE.....	PURIFICATION AND PROPERTIES OF ERYTHROPOIETIN.....	3R01 HL21676-03S1	68,746
GRIEM, MELVIN L.....	RADIATION & CHEMOTHERAPY STUDIES IN VASCULAR TISSUE.....	1R01 CA27307-01	95,328
GROBSTEIN, PAUL.....	DEVELOPMENT OF CONNECTIVITY IN ANURAN VISUAL SYSTEMS.....	5R01 EY01658-05	58,088
GROSS, MARTIN.....	TRANSLATIONAL CONTROL OF PROTEIN SYNTHESIS BY HEMIN.....	5R01 GM24949-03	53,318
GROSSMAN, SEBASTIAN P.....	ROLE OF SUBTHALAMIC MECHANISMS IN INGESTIVE BEHAVIOR.....	5R01 AM25245-05	69,328
GUILLERY, RAINER W.....	ABNORMALITIES IN VISUAL PATHWAYS.....	5R01 EY02374-05	129,928
GUILLERY, RAINER W.....	ARCHITECTONIC AND SYNAPTIC ORGANIZATION IN THE BRAIN.....	5R01 NS14283-04	117,490
GUNN, ROBERT B.....	MECHANISMS AND CELLULAR FUNCTIONS OF ION TRANSPORT.....	9R01 GM28893-04	129,417
GUNN, ROBERT B.....	MOLECULAR MECHANISMS OF ANION TRANSPORT.....	5R01 HL20365-05	90,174
GURNEY, CLIFFORD W.....	HEMATOPOIETIC TOXICOLOGY OF ENVIRONMENTAL POLLUTANTS.....	5R01 ES01969-02	118,776
HALPERN, JACK.....	METAL COMPLEXES RELATED TO VITAMIN B12.....	5R01 AM13339-12	90,325
HAN, ANTUN.....	UV-X-RAY INTERACTION: MUTATION AND TRANSFORMATION.....	1R01 CA26984-01	172,544
HARVEY, RONALD G.....	CHEMISTRY OF CARCINOGENIC HYDROCARBONS.....	5R01 CA11968-09	105,690
HASELKORN, ROBERT.....	PROTEIN SYNTHESIS IN VIRUS-INFECTED BACTERIA.....	2R01 AI09315-16	126,797
HASELKORN, ROBERT.....	DIFFERENTIATION IN NITROGEN-FIXING BLUE-GREEN ALGAE.....	5R01 GM21823-06	97,134
HELLER, ALFRED.....	NEURAL CELL RECOGNITION FACTORS IN BRAIN HISTOGENESIS.....	5R01 NS10714-08	76,835
HELLER, ALFRED.....	ONTOGENESIS AND NEUROCHEMISTRY OF BRAIN FUNCTION.....	3P01 NS12324-05S1	30,000
HERBST, ARTHUR L.....	EXOGENOUS MATERNAL HORMONES AND CANCER IN DAUGHTERS.....	5R01 CA20084-04	89,124
HERBST, ARTHUR L.....	GYNECOLOGICAL CANCER CLINICAL-LABORATORY.....	1P01 CA27476-01	291,565
HOLLYDAY, MARGARET.....	DEVELOPMENT OF SPECIFIC NEURONAL CONNECTIONS.....	5R01 NS14066-03	37,215
HUGGINS, CHARLES B.....	ENDOCRINOLOGY OF EXPERIMENTAL LEUKEMIA.....	5R01 CA11603-11	123,617
HUNTER, ROBERT L.....	SELECTIVE STIMULATION OF CELL-MEDIATED CANCER IMMUNITY.....	5R01 CA14364-08	80,227
HUTCHISON, CLYDE A, JR.....	LOCAL STRUCTURE IN ENZYMES—A NEW APPROACH.....	5R01 GM21668-06	101,633
HUTTENLOCHER, JANELLEN.....	CONCEPTUAL DEVELOPMENT AND LANGUAGE COMPREHENSION.....	5R01 HD09283-07	69,336
JARABAK, JOSEPH W.....	PROSTAGLANDIN METABOLISM IN THE HUMAN PLACENTA.....	5R01 HD07045-09	119,403
JASPAN, JONATHAN B.....	GLUCAGON METABOLISM.....	5R01 AM25913-02	41,736
JENSEN, ELWOOD V.....	STERIODS AND GROWTH.....	2R01 CA02897-24	270,569
JOHNSON, D GALE.....	BIOCHEMICAL RESEARCH SUPPORT.....	2S07 RR07029-15	89,220
JOSEPHS, ROBERT.....	1 MEV SCANNING TRANSMISSION ELECTRON MICROSCOPE.....	5R01 GM19079-09	49,863
JOSEPHS, ROBERT.....	MOLECULAR STRUCTURE OF SICKLE CELL FIBERS.....	5R01 HL22654-03	38,814

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
KAISER, EMIL T.	THE MECHANISM OF CARBOXYPEPTIDASE ACTION	5R01 AM07957-16	64,027
KAISER, EMIL T.	CHEMICAL AND BIOCHEMICAL APPLICATIONS OF OXIMES	5R01 CA17150-06	60,511
KAISER, EMIL T.	PHOSPHATE TRANSFER ENZYMES	5R01 GM19037-07	69,591
KARL, RICHARD C.	ROLE OF CALCIUM AND CYCLIC AMP IN INSULIN RELEASE	5R23 AM26130-02	49,501
KATZ, ADRIAN I.	NA-K-ATPASE AND RENAL TUBULAR TRANSPORT OF SODIUM	5R01 AM13601-09	94,884
KAUFMAN, GARY E.	ULTRASOUND EFFECTS ON MAMMALIAN CELLS IN MONOLAYER	5R23 CA25785-03	32,233
KIEFF, ELLIOTT D.	EBV INTERACTION WITH LYMPHOBLASTS IN VITRO & IN VIVO	5R01 CA17281-06	114,393
KOHLER, HEINZ	ANTIGEN AND ANTIBODY IN THE IMMUNE RESPONSE	5R01 AI11080-08	91,966
KOHLER, HEINZ	ANALYSIS OF IDIOTYPE MUTANTS	5R01 CA22958-03	55,661
KOHLER, HEINZ	STRUCTURE OF THE MAJOR RED CELL MEMBRANE POLYPEPTIDE	5R01 GM25687-03	85,502
KORNHAUSER, DAVID M.	5-FLUOROURACIL: DISPOSITION & DRUG INTERACTIONS	5R01 CA25543-02	60,396
LANDE, RUSSELL S.	CORRELATED CHARACTERS IN COMPLEX GENETIC SYSTEMS	1R01 GM27120-01	25,385
LANZL, LAWRENCE H.	ELECTRON THERAPY DOSIMETRY BASED ON FERMI AGE THEORY	5R01 CA25573-02	71,056
LARRAMENDI, LUIS M.	E.M. STUDIES OF NEUROGENESIS AND SYNAPTOGENESIS	5R01 NS10454-09	77,298
LAW, JOHN H.	STUDY OF LIPID METABOLISM	5R01 GM13863-15	122,952
LEVY, DONALD H.	THE SPECTROSCOPY OF PORPHYRINS IN SUPERSONIC JETS	5R01 GM25907-02	65,321
LEVY, JERRE	VARIATIONS IN CEREBRAL AND MANUAL ASYMMETRY	5R01 HD13010-02	46,774
LEWERT, ROBERT M.	PHILIPPINE SCHISTOSOMIASIS JAPONICA: IMMUNE RESPONSES	5R22 AI07724-14	76,926
LIAO, SHUTSUNG	MACROMOLECULAR SYNTHESIS IN ACCESSORY GENITAL ORGANS	5R01 AM09461-16	151,926
LIEBERMAN, MORTON A.	EFFECTS OF LIFE EVENTS AND CHANGES ON FUNCTIONING	1R01 AG02322-01	80,910
LIM, RAMON	MATURATION FACTORS AND CANCER CELLS	5R01 CA27031-02	34,915
LINDHEIMER, MARSHALL D.	THE KIDNEY AND VOLUME REGULATION IN PREGNANCY	5R01 HD05572-09	89,719
LINDQUIST, SUSAN L.	REGULATION OF GENE EXPRESSION IN DROSOPHILA	5R01 GM25874-02	103,891
LOCKER, JOSEPH	ANALYSIS OF MITRNA AND ITS PROCESSING IN YEAST	1R01 GM27795-01	74,581
LOKEN, MICHAEL R.	B LYMPHOCYTE DIFFERENTIATION AND MATURATION	5R01 HL14872-03	56,039
MAKINEN, MARVIN W.	ENZYME COMPLEXES IN CRYSTALS—A NEW APPROACH	5R01 GM21900-06	79,713
MANASEK, FRANCIS J.	FACTORS REGULATING EMBRYONIC CARDIAC MORPHOGENESIS	5R01 HL13831-10	151,353
MARKOVITZ, ALVIN	CAPSULE SYNTHESIS, DIVISION AND RADIATION SENSITIVITY	5R01 AI06966-15	113,017
MARTIN, TERENCE E.	RNA SYNTHESIS AND TRANSPORT IN MAMMALIAN CELLS	5R01 CA12550-09	95,473
MARTIN, TERENCE E.	MESSANGER RNA: PROTEIN COMPLEXES AND PROTEIN SYNTHESIS	1R01 GM27139-01	67,649
MATHEWS, MARTIN B.	MECHANICAL REGULATION OF CELLULAR SYNTHETIC RESPONSE	5R01 HL23022-02	126,839
MATZ, GREGORY J.	SENSORY DISEASE CLINICAL RESEARCH CENTER	2P50 NS03358-19	581,979
MC CLINTOCK, MARTHA K.	ROLE OF ENVIRONMENT IN REPRODUCTIVE AGING	1R23 AG02408-01	46,300
MERWISSEN, DIEUDONNE J.	CARCINOGENIC AND GENETIC EFFECT OF LOW LEVEL TRITIUM	2R01 CA13080-08A1	179,583
MILLER, J BRUCE	STRUCTURE-FUNCTION RELATIONS OF IMMUNOREGULATORY PROTEIN	5R01 CA25750-02	104,931
MOAWAD, ATEF H.	SYMPOSIUM ON UTERINE AND PLACENTAL BLOOD FLOW	1R13 HL25802-01	16,320
MOLTZ, HOWARD	CHEMICAL CONTROL OF MATERNAL BEHAVIOR	2R01 HD06872-09	76,287
MOSCONA, ARON A.	THE CELL SURFACE IN CELL RECOGNITION AND DIFFERENTIATION	5R01 HD01253-22	216,400
MOULDER, JAMES W.	PHAGOCYTOSIS OF CHLAMYDIAE	5R01 AI13175-06	75,343
NAKAMOTO, TOKUMASA	SELECTION OF MRNA INITIATOR SITE IN BACTERIAL PROTEIN	1R01 GM27263-01	101,811
O'SHEA, MICHAEL R.	FUNCTIONAL ROLE OF THE AMINERGIC NERVOUS SYSTEM	5R01 NS16298-02	40,955
OVERTON, JANE H.	CELL-CELL AND CELL-SUBSTRATE ADHESION	5R01 GM24041-03	59,101
PAGE, ERNEST	CARDIAC ION TRANSPORT AND ULTRASTRUCTURE	5R01 HL10503-15	140,067
PETES, THOMAS D.	YEAST CHROMOSOME STRUCTURE AND REPLICATION	2R01 GM24110-04	117,675
POKORNY, JOEL M.	PSYCHOPHYSICAL STUDIES OF COLOR-DEFECTIVE OBSERVERS	5R01 EY00901-07	101,548
QUINTANS, JOSE	IDIOTYPES, LYMPHOCYTES AND MACROPHAGES	5R01 AI14530-03	53,520
RABINOWITZ, MURRAY	MITOCHONDRIAL ASSEMBLY AND REPLICATION	5R01 HL04442-22	138,651
RABINOWITZ, MURRAY	PROTEIN AND RNA SYNTHESIS IN HEART MUSCLE	5R01 HL09172-17	216,835
RAHMAN, YUEH-ERH	NEW IRON CHLATOR DELIVERY SYSTEM FOR COOLEY'S ANEMIA	5R01 AM21592-03	81,582
RAVIN, ARNOLD W.	DNA-PROTEIN COMPLEXES IN STREPTOCOCCAL TRANSFORMATION	1R01 GM27059-01	85,962
REFETTOFF, SAMUEL	REGULATION AND MECHANISM OF HORMONE ACTION	5R01 AM15070-09	155,352
RICE, STUART A.	WATER: EXPERIMENTAL AND THEORETICAL STUDIES	5R01 GM22728-05	80,426
RICHMAN, DAVID P.	ANTI-IDIOTYPIC ANTIBODIES IN MYASTHENIA	5R01 NS15462-02	67,556
ROBERTSON, GARY L.	VASOPRESSIN SECRETION IN THE HYPEROSMOLAR SYNDROME	1R01 AM26415-01	23,174
ROIZMAN, BERNARD	MECHANISMS OF VIRAL INFECTION IN RELATION TO CANCER	2R01 CA08494-16	152,856
ROSENBERG, IRWIN H.	ABSORPTION OF MONOGLUTAMYL AND POLYGLUTAMYL FOLATES	5R01 AM15351-10	176,681
ROSENBERG, IRWIN H.	VITAMIN D DEFICIENCY IN INTESTINAL AND LIVER DISEASE	1R01 AM26561-01	99,910
ROSENBERG, IRWIN H.	CLINICAL NUTRITION RESEARCH UNIT	5P30 AM26678-02	447,596
ROSENFELD, ROBERT L.	FREE PLASMA SEX HORMONE AND ANDROGEN ACTION	5R01 HD06308-09	91,252
ROSENFELD, ROBERT L.	BIOACTIVE LH IN NORMAL AND ABNORMAL PUBERTY	5R01 HD12355-02	95,121
ROSENFELD, ROBERT L.	ANDROGEN EFFECTS ON LH AND FSH	5R01 HD13502-02	107,383

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
ROTHBERG, RICHARD M.	IMMUNE RESPONSES OF NEWBORNS TO INGESTED ANTIGENS	5R01 AI07854-12	89,265
ROTHMAN-DENES, LUCIA B.	NOVEL TRANSCRIBING ACTIVITIES IN N-4-INFECTED E. COLI	5R01 AI12575-06	74,344
ROWLEY, DONALD A.	PATHOLOGIC STUDIES OF INFLAMMATION AND IMMUNITY	5R01 AI10242-19	91,681
ROWLEY, JANET D.	CHROMOSOME ABERRATIONS IN MYELOPROLIFERATIVE DISEASES	5R01 CA16910-05	91,782
ROWLEY, JANET D.	ACUTE LEUKEMIA AFTER RADIATION AND/OR CHEMOTHERAPY	5R01 CA23954-03	126,687
ROWLEY, JANET D.	LEUKEMIA PROGNOSTIC FACTORS-MULTIDISCIPLINARY STUDY	5R01 CA25568-02	126,849
RUBENSTEIN, ARTHUR H.	PROINSULIN AND C-PEPTIDE: SECRETION AND METABOLISM	2R01 AM13941-11	132,936
RUBENSTEIN, ARTHUR H.	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20595-04	1,367,701
SCANU, ANGELO M.	LIPOPROTEINS—CELL SURFACE INTERACTIONS	5P01 HL18577-05	743,839
SCHRAUT, WOLFGANG H.	FUNCTION AND SURVIVAL OF INTESTINAL ALLOGRAFTS	1R01 AM27332-01	74,798
SCHREIBER, HANS.	PATHOBIOLOGY OF MYELOMA AND ANTI-IDIOTYPIC IMMUNITY	5R01 CA22677-03	46,264
SCHREIBER, HANS.	CANCER DEVELOPMENT OF THE IDIOTYPE NETWORK	1R01 CA27326-01	43,565
SCHUMACHER, GEBHARD F.	BIOCHEMISTRY OF ANTIGENS OF PRIMATE SPERMATOZOA	1R01 HD11427-01A1	111,254
SCHWARTZ, ERIC A.	DEVELOPMENT OF PHOTORECEPTORS IN A VERTEBRATE EYE	5R01 EY02440-03	67,214
SCHWARTZ, NANCY B.	REGULATION OF BIOSYNTHESIS OF PROTEOGLYCAN	2R01 AM19622-04	115,711
SCHWARTZ, STEPHEN A.	MOLECULAR CHARACTERIZATION OF ODONTOGENESIS BY BRDU	5R23 DE04970-03	28,614
SHAPIRO, JAMES A.	DNA INSERTION MECHANISMS: TRANSPOSONS AND CARCINOGENS	5R01 GM24960-03	121,967
SIEGLER, ROBERT S.	THE DEVELOPMENT OF SCIENTIFIC THINKING	7R01 HD15285-01	84,074
SIGLER, PAUL B.	STRUCTURAL ANALYSIS OF BIOLOGICAL MACROMOLECULES	2R01 GM15225-12	103,858
SIGLER, PAUL B.	MOLECULAR INTERACTIONS AT THE CELL SURFACE	5R01 GM22324-06	62,730
SIGLER, PAUL B.	SPECIFIC MOLECULAR INTERACTIONS AT THE CELL SURFACE	2R01 GM25234-04	59,445
SMITH, VIVIANNE C.	TRICHROMACY IN PROTANOPES AND DEUTERANOPES	5R01 EY01876-04	44,739
SPEAR, PATRICIA G.	HERPESVIRUS GENE EXPRESSION IN TRANSFORMED CELLS	2R01 CA21776-04	92,577
STECK, THEODORE L.	MECHANISMS OF MORPHOGENESIS IN CELLULAR SLIME MOLDS	5R01 GM22321-06	108,660
STEINER, DONALD F.	PANCREATIC HORMONES	2R01 AM13914-11	318,365
STOCK, LEON M.	FREE RADICAL REACTIONS IN CHEMICAL CARCINOGENESIS	5R01 CA20049-03	50,817
STRAUSS, BERNARD S.	STUDY MODE OF ACTION OF CHEMICAL MUTAGENS	5R01 GM07816-21	114,882
STRAUSS, BERNARD S.	ELECTRON MICROSCOPY APPLIED TO DNA METABOLISM	5P41 GM27528-02	18,696
STUART, FRANK P.	IMMUNOLOGICAL ENHANCEMENT OF RENAL ALLOGRAFTS	5R01 CA20091-13	161,992
TAGER, HOWARD S.	BIOSYNTHESIS AND SECRETION OF REPTILE HORMONES	5R01 AM18347-07	92,033
THROCKMORTON, LYNN H.	LONGEVITY STUDIES WITH DROSOPHILA	5R01 AG01941-02	64,546
THROCKMORTON, LYNN H.	PROTEIN DIFFERENTIATION IN DROSOPHILA	5R01 GM23007-05	132,380
TOBACK, FREDERICK G.	MEMBRANES AND PHOSPHOLIPIDS IN RENAL HYPERPLASIA	5R01 GM22328-06	131,870
TRIPATHI, RAMESH C.	PHYSIOPATHOLOGY OF AQUEOUS HUMOUR OUTFLOW SYSTEM	5R01 EY02046-03	67,258
ULINSKI, PHILIP S.	REPTILIAN THALAMUS	5R01 NS12518-06	70,054
ULTMANN, JOHN E.	CANCER CENTER SUPPORT PROGRAM	5P30 CA14599-07	947,406
ULTMANN, JOHN E.	VIRAL ONCOLOGY RESEARCH CENTER PROGRAM	5P01 CA19264-05	707,430
ULTMANN, JOHN E.	CANCER BIOLOGY RESEARCH CENTER	2P01 CA19265-04A1	549,083
ULTMANN, JOHN E.	LYMPHOMA AND LEUKEMIA CLINICAL RESEARCH PROGRAM	2P01 CA19266-04A1	523,074
URETZ, ROBERT B.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00055-19	709,602
URETZ, ROBERT B.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05367-19	189,787
VESSELINOVITCH, STAN D.	ROLE OF SEX HORMONES IN HEPATOCARCINOGENESIS	5R01 CA25522-02	158,913
VESSELINOVITCH, STAN D.	SYNTHETIC STEROIDS AND HEPATOCARCINOGENESIS	5R01 CA25549-02	76,002
VILLEREAL, MITCHEL L.	MECHANISMS OF MEMBRANE FUNCTION IN CELL GROWTH	1R01 GM28359-01	85,648
WADE, MICHAEL J.	GENETICAL CONSEQUENCES OF DISPERSAL AND EXTINCTION	5R01 GM22523-05	64,825
WEISS, SAMUEL B.	VIRUS DEVELOPMENT AND TRANSLATIONAL CONTROL	5R01 AI12479-09	106,379
WESTLEY, JOHN L.	SULFANES IN METABOLISM	5R01 GM18939-09	95,414
WESTLEY, JOHN L.	MULTIUSER EQUIPMENT FOR AMINO ACID ANALYSIS	5P41 GM27458-02	20,827
WIED, GEORGE L.	AUTOMATED CANCER CELL DIAGNOSIS BY THE TICAS METHOD	2R01 CA13271-12	269,742
WILSON, HUGH R.	THE SPATIOTEMPORAL BASIS OF GRATING PERCEPTION	5R01 EY02158-03	42,986
WISSLER, ROBERT W.	STUDY OF LIPOPROTEINS, ARTERY WALL, AND ATHEROSCLEROSIS	5P50 HL15062-09	1,557,854
WONG, TING-WA	THIOLATED TRNAs IN RAT LIVER AND MORRIS HEPATOMAS	1R01 CA28053-01	78,922
WOOL, IRA G.	ENDOCRINE REGULATION OF PROTEIN SYNTHESIS	5R01 AM04842-19	67,997
WOOL, IRA G.	PROTEINS OF EUKARYOTIC RIBOSOMES	2R01 GM21769-06	162,410
YANG, NIEN-CHU C.	MOLECULAR MECHANISMS OF MUTAGENESIS AND CARCINOGENESIS	5R01 CA10220-12	87,322
YANG, SEN L.	SPECIFIC ANTIBODIES IN RHESUS MONKEY OVIDUCTAL FLUID	5R01 HD12759-02	107,053
ZAK, RADOVAN H.	DEGRADATION OF CARDIAC MYOFIBRILS AND MITOCHONDRIA	2R01 HL16637-06	120,653
ORGANIZATION TOTAL	191	28,355,880	
UNIVERSITY OF HEALTH SCIENCES/CHICAGO MEDICAL SCHOOL ZIP CODE 60612			
BLIVAIS, BEN B.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05366-19	50,683

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
EZDINLI, EDIZ Z.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA14144-08	183,354
HANSEN, TIMOTHY R.....	VASCULAR SMOOTH MUSCLE IN HYPERTENSION.....	5R01 HL19226-05	32,623
HOSEY, M MARLENE.....	MEMBRANE PHOSPHORYLATION IN THE DEVELOPING MYOCARDIUM.....	5R01 HL23306-02	56,095
KELLER, JOHN M.....	ANIMAL CELL SURFACE HEPARIN SULFATE AND TRANSFORMATION.....	5R01 CA23016-04	82,805
KELLER, JOHN M.....	STRUCTURAL PROTEINS OF HUMAN CELL NUCLEIC ACIDS.....	5R01 GM25785-02	87,497
KELLER, JOHN M.....	BIOCHEMISTRY OF HEPARIN SULFATE.....	5R01 HD11770-03	54,097
KEMP, ROBERT G.....	ALLOSTERIC PROPERTIES OF PHOSPHOFRUCTOKINASE.....	5R01 AM19912-05	72,919
KEMP, ROBERT G.....	STRUCTURE OF CONTROL ENZYMES IN GLUCOSE METABOLISM.....	1R01 AM26564-01	167,484
KEMP, ROBERT G.....	METABOLIC EVENTS IN VIRUS-INDUCED LEUKEMOGENESIS.....	5R01 CA21631-05	80,192
MARCUS, FRANK.....	CONTROL OF ENZYMES OF GLUCONEOGENESIS IN DIABETIC MICE.....	2R01 AM21167-04	85,502
MC CORMACK, CHARLES E.....	FACTORS INFLUENCING THE TIMING OF OVULATION IN RATS.....	5R01 HD13131-02	15,710
OLTMANS, GARY A.....	CNS ABNORMALITIES IN GENETICALLY OBESE-DIABETIC MICE.....	5R01 NS15600-02	44,945
TANG, PEI C.....	NEURAL PROSTHESIS FOR VOIDING NEUROGENIC BLADDER.....	5R01 NS15353-02	44,210
TSE, WARREN W.....	ATRIOVENTRICULAR NODE & ADJACENT TISSUES AUTOMATICITY.....	5R01 HL21574-03	20,419
ORGANIZATION TOTAL	15	1,078,535	
UNIVERSITY OF ILLINOIS AT CHICAGO CIRCLE ZIP CODE 60680			
BARCLAY, STEPHEN L.....	GENETIC ANALYSIS OF A CYCLIC AMP CHEMOSENSORY SYSTEM.....	1R01 AI16498-01	115,011
BHORJEE, JASWANT S.....	HIGH AFFINITY PROTEINS IN CHROMOSOME ORGANIZATION.....	1R01 GM27236-01A1	62,963
BOUCK, GEORGE B.....	STRUCTURAL AND FUNCTIONAL ORGANELLE INTERACTIONS.....	5R01 GM19537-08	56,491
DAVIS, JOHN D.....	CONTROL OF FOOD INTAKE AND BODY WEIGHT BY GLYCEROL.....	5R01 AM26030-02	34,127
GORENSTEIN, DAVID G.....	NMR PROBES OF ENZYMES AND NUCLEIC ACIDS.....	5R01 GM17575-09	69,704
HULETT, F MARION.....	MEMBRANE PROTEIN-PROTEIN SECRETION STUDIES.....	5R01 GM21909-05	57,804
JENSEN, RICHARD J.....	THE DEMOGRAPHY OF MENTAL RETARDATION: USA, 1851-1915.....	5R01 HD11902-02	104,400
KAGAN, JACQUES.....	PHOTOTOXICITY OF A-TERTHIENYL AND RELATED COMPOUNDS.....	2R01 GM24144-03	79,050
LE BRETON, PIERRE R.....	UV PHOTOELECTRON STUDIES OF ELECTRONIC STRUCTURE.....	1R01 GM28878-01	63,264
LIEBMAN, SUSAN W.....	NONSENSE SUPPRESSION AND ANTISUPPRESSION IN YEAST.....	2R01 GM24189-04	69,305
MC CORMICK, BRUCE H.....	IMAGE PROCESSING FOR CLINICAL OPHTHALMOSCOPY.....	5R01 EY01261-06	336,954
MILLER, IRVING F.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07158-05	80,858
MORRISON, DONALD A.....	COMPETENCE-SPECIFIC PROTEINS OF PNEUMOCOCCUS.....	1R01 AI16783-01	48,629
NYBERG, DENNIS W.....	GENETIC ANALYSIS OF METAL TOLERANCE IN PARAMECIUM.....	5R01 ES02003-02	34,029
OSCAI, LAWRENCE B.....	LIPID METABOLISM AND EXERCISE.....	3R01 AM17357-06S1	18,722
OSCAI, LAWRENCE B.....	EFFECTS OF REGULATION OF APPETITE IN THE NEWBORN.....	5R01 HD10987-03	48,922
POLLACK, EMANUEL D.....	TARGET TISSUE INFLUENCES ON NERVE GROWTH IN VITRO.....	5R01 NS13814-02	39,477
SCHULTZ, ALBERT B.....	BIOMECHANICAL STUDIES OF IDIOPATHIC SCOLIOSIS.....	5R01 AM15575-09	121,797
SCHULTZ, ALBERT B.....	BIOMECHANICAL STUDIES OF LOW-BACK SYNDROMES.....	5R01 NS15100-02	153,994
ORGANIZATION TOTAL	19	1,595,501	
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
ANDERSON, EDMUND G.....	PHARMACOL OF CENTRIFUGAL REGULATION OF PRIMARY AFFERENTS.....	5R01 NS14985-02	49,399
BARANY, MICHAEL.....	PROTEIN PHOSPHORYLATION IN MUSCLE.....	5R01 NS12172-06	50,655
BECKER, ROBERT P.....	BIOMEDICAL APPLICATIONS OF BACKSCATTERED IMAGING.....	1R01 GM27763-01	202,976
BENEVENTO, LOUIS A.....	VISUAL, SENSORY, MOTOR AND ASSOCIATIONAL SYSTEMS.....	5R01 EY02940-03	68,002
BLAIR, NORMAN P.....	BLOOD-RETINAL BARRIER IN EXPERIMENTAL DIABETES.....	1R01 EY03227-01	93,576
CHAKRABARTY, ANANDA M.....	PSEUDOMONAS INFECTION IN CYSTIC FIBROSIS.....	1R01 AI16790-01	91,505
CHAUDHURI, PRABIR K.....	THERAPEUTIC IMPLICATIONS OF HORMONE IN NEVI AND MELANOMA.....	1R23 CA28580-01	40,302
COHEN, CARL.....	THE IMMUNOBIOLOGY OF THE LABORATORY RABBIT.....	5R01 GM18350-10	63,419
COHEN, CARL.....	IMMUNOBIOLOGY OF THE LABORATORY RABBIT.....	5P40 RR00627-10	138,824
COHEN, EDWARD P.....	USE OF SYNGENEIC HYBRID CELLS IN LEUKEMIA THERAPY.....	1R01 CA27579-01	93,675
COHEN, ROCHELLE S.....	CELL BIOLOGY OF THE SYNAPSE AND SPECIFIC BRAIN NUCLEI.....	1R01 NS15889-01	41,056
CORDELL, GEOFFREY A.....	ANTITUMOR PRINCIPLES OF CATHARANTHUS & RHAYZA SPECIES.....	5R01 CA20164-04	58,009
CORDELL, GEOFFREY A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05564-02	16,310
CREDITOR, MORTON C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05369-19	189,787
CUNHA-VAZ, JOSE G.....	BLOOD-RETINAL BARRIER IN DIABETES MELLITUS.....	5R01 EY03106-02	116,413
DAS GUPTA, TAPAS K.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17954-06	170,214
DE SIMONE, JOSEPH.....	CONTROL OF HEMOGLOBIN SYNTHESIS.....	5R01 HL20920-03	64,316
DOUGHTY, CLYDE C.....	HUMAN CATARACTS AND ALDOSE REDUCTASE PROPERTIES.....	5R01 EY00449-09	32,672
DOUGHTY, CLYDE C.....	CATARACT ENZYME ALDOSE REDUCTASE ACTIVE SITE.....	5R01 EY03025-02	42,193
DRAY, SHELTON.....	IMMUNOGLOBULIN ALLOTYPES.....	2R01 AI07043-16	222,410
EISENMANN, DALE R.....	CALCIUM TRANSPORT IN DEVELOPING DENTAL TISSUES.....	1R01 DE05323-01	46,078
EPSTEIN, SAMUEL S.....	CHEMICAL CARCINOGENS IN THE PANCREAS.....	3R26 CA20914-03S1	38,629

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
EPSTEIN, SAMUEL S.	QUANTITATIVE CARCINOGENESIS PROJECTION BETWEEN SPECIES	5R01 CA24959-02	43,165
FEINBERG, HAROLD	ADP-INDUCED NA/ION INFLUX LINKED TO PLATELET AGGREGATION	5R01 HL22410-02	38,785
FIAT, DANIEL	BIOFUNCTIONAL CONFORMATION OF PEPTIDE HORMONES	3R01 AM18399-05S1	33,593
FIAT, DANIEL	OXYGEN-17 NMR STUDIES OF PEPTIDE CONFORMATION	5R01 GM24813-03	76,162
FRIEDENSON, BERNARD A.	EXPRESSION OF ANTIBODIES IN INBREEDING RABBITS	5R01 A115907-02	73,507
FULLER, JAMES H.	MUSCULAR CONTROL OF HEAD MOVEMENT	7R01 NS17002-01	32,540
GIBORI, GEULA	REGULATION OF LUTEAL FUNCTION IN THE PREGNANT RAT	5R01 HD11119-03	52,755
GIBORI, GEULA	LUTEOTROPIC FUNCTION OF THE DECIDUAL TISSUE IN THE RAT	5R01 HD12356-02	41,438
GOLDBERG, MORTON F.	OPHTHALMIC RESEARCH CENTER CORE GRANT	5P30 EY01792-03	144,372
GRAFF, GUSTAV	PLATELET FUNCTION CONTROL BY REGULATING PHOSPHOLIPASE C	1R01 GM28894-01	76,156
HO, ANDREW K.	DEVELOPMENTAL DEFECTS IN THE HEART AND 6-HYDROXYDOPAMINE	5R01 HL22429-02	37,423
HORNG, WAYNE J.	REGULATION OF IG VH REGION ALLOTYPES	5R01 A115228-03	61,321
HORWITZ, DAVID L.	ENDOGENOUS AND EXOGENOUS INSULIN IN DIABETES MELLITUS	5R01 AM26695-03	66,312
IQBAL, ZAFAR M.	CHEMICAL CARCINOGENS IN THE PANCREAS	ZR26 CA20914-04A1	45,975
JAFFE, RANDAL C.	THYROID HORMONE REGULATION OF TADPOLE METAMORPHOSIS	5R01 AM18985-05	50,037
JAMPOL, LEE M.	A LONGITUDINAL STUDY OF HYPERTENSIVE RETINOPATHY	5R01 EY02214-03	52,736
JOHNSON, MICHAEL E.	BIOPHYSICAL APPROACHES TO ERYTHROCYTE SICKLING	5R01 HL23697-02	68,840
JONASSON, OLGA	DIABETES AND ISLET CELL STUDIES IN THE PRIMATE	5R01 AM18284-05	256,704
KAUFMAN, STEPHEN J.	IMMUNOCHEMICAL ANALYSIS OF MYOBLAST DIFFERENTIATION	1R01 GM28842-01	65,645
KNIGHT, KATHERINE L.	STRUCTURE AND GENETIC CONTROL OF RABBIT IGA	5R01 A111234-08	112,733
KNIGHT, KATHERINE L.	GENETIC CONTROL OF IMMUNOGLOBULIN VARIABLE REGIONS	1R01 A116611-01	108,763
KURTZMAN, NEIL A.	CONTROL OF RENAL HYDROGEN ION SECRETION	5R01 AM20170-03	59,620
LE BRETON, GUY C.	DIRECT ANTAGONISM OF THE TXA2 BLOOD PLATELET RECEPTOR	5R01 HL24530-02	56,651
LEVITSKY, SIDNEY	INTRAOPERATIVE PROTECTION OF THE MYOCARDIUM	5R01 HL18288-06	170,655
LEVITSKY, SIDNEY	PHRENIC NERVE PACING: NONINVASIVE DIAPHRAGM ANALYSIS	5R01 HL22844-03	121,062
LEVY, RICHARD A.	OPIATE ACTION ON CNS TERMINALS OF TOOTH PULP FIBERS	5R01 DE05390-02	63,218
LEVY, RICHARD A.	CNS SITES OF ACTION OF ANALGESIC DRUGS	5R01 GM25998-01A1	44,889
LOZZI, ROBERT F.	ROLE OF CYCLIC AMP IN MAMMARY GLAND LACTOSE SYNTHESIS	2R01 HD09035-04A2	69,554
LOZZI, ROBERT F.	FILAMENTOUS PROTEINS IN MILK SYNTHESIS AND SECRETION	1R01 HD11601-01A2	58,123
LOURENCO, RUY V.	DEFENSE MECHANISMS IN PATHOGENESIS OF EMPHYSEMA	2R01 HL13824-07A1	121,058
MADISON, VINCENT S.	ROLE OF PEPTIDE-SOLVENT AND PEPTIDE-LIPID COMPLEXES	5R01 GM22514-05	55,194
MAINES, MAHIN D.	TOXICITY OF ORGANIC MERCURY FOR THE FETUS AND NEWBORN	5R01 ES00820-07	97,335
MAINES, MAHIN D.	EFFECT OF TOXIC METALS ON DRUG & HEMOPROTEIN METABOLISM	5R01 ES02180-02	93,352
MAINES, MAHIN D.	METALS AND HEMOPROTEIN METABOLISM IN HEART AND KIDNEY	1R01 ES02228-01A1	81,970
MAYER, EUGENE P.	BACTERIAL ADHERENCE AS A PROBE FOR LYMPHOCYTE SUBSETS	5R01 A114630-02	15,719
MEYER, JULIA	NORMAL AND ALTERED ORAL MUCOSA	5R01 DE02342-11	101,658
MOLNAR, JANOS	BIOCHEMICAL STUDIES OF A MAJOR OPSONIC PROTEIN	5R01 CA25047-06	45,341
MORRIS, PAUL W.	EUKARYOTE RNA POLYMERASE-DNA SITE SELECTION PROCESS	5R01 GM22147-05	59,142
MUHL, ZANE F.	FUNCTIONAL PROPERTIES OF MAMMALIAN MASTICATORY MUSCLES	5R01 DE04164-05	18,032
NELSON, KENRAD E.	IMMUNOBIOLOGY AND EPIDEMIOLOGY OF LEPROSY	5P01 A116308-02	604,929
OMACHI, AKIRA	ERYTHROCYTE METABOLISM IN MUSCULAR DISEASE	5R01 NS14134-03	38,006
OSTRO, MARC J.	CELLULAR DISCRIMINATION OF LIPOSOME-INSERTED MRNAs	1R01 GM27935-01	109,478
PENG, HSIAO-MING B.	DEVELOPMENT OF SYNAPSE	1R01 NS16259-01	77,264
POPESCU, MIRCEA	REGULATION OF VIRAL INFECTION OF LYMPHOCYTES	5R01 A115138-02	82,970
PROUDFIT, HERBERT K.	BULBOSPINAL MECHANISMS INVOLVED IN MORPHINE ANALGESIA	5R01 NS12649-06	63,817
PRUZANSKY, SAMUEL	CENTER FOR CRANIOFACIAL ANOMALIES	2P01 DE02872-11	314,221
RABB, MAURICE F.	COMPREHENSIVE SICKLE CELL CENTER	5P60 HL15168-09	1,401,749
REITER, HARVARD	REGULATION OF CELL REPLICATION BY THYMIDINE	1R01 CA27151-01	77,902
REYNOLDS, WYNETKA A.	PERINATAL RESEARCH SOCIETY-ANNUAL MEETING	5R13 HD11653-03	6,513
ROSEN, KENNETH M.	PROSPECTIVE STUDIES OF CONDUCTION DISEASE	5R01 HL18794-06	133,895
ROSEN, KENNETH M.	PAROXYSMAL SUPRAVENTRICULAR DYSRHYTHMIA	5R01 HL23566-02	150,531
SABATINI, SANDRA	STUDY THE ROLE OF RENAL BICARBONATE ATPASE	5R01 AM22099-02	39,588
SACHS, HOWARD G.	DEVELOPMENT OF NORMAL AND MYOPATHIC MAMMALIAN HEART	5R01 HL18032-05	38,577
SCHLESINGER, DAVID H.	PROTEIN INHIBITORS OF CALCIUM PHOSPHATE PRECIPITATION	5R01 DE05059-03	52,140
SCHLESINGER, DAVID H.	PRIMARY STRUCTURE OF THE CYCLIC AMP RECEPTOR PROTEIN	1R01 GM25974-01A1	59,686
SCHLESINGER, DAVID H.	BIOCHEMICAL STUDIES OF NEUROHORMONAL COMMUNICATION	5R01 NS15226-02	60,530
SCHULMAN, MARTIN P.	ROLE OF LIPIDS IN DRUG METABOLISM: AGE-RELATED CHANGES	5R01 AG01238-02	49,735
SHARP, JOHN T.	RESPIRATORY MUSCLES AND VENTILATORY CONTROL IN MAN	5R01 HL08789-13	64,062
SKOSEY, JOHN L.	NEUTROPHIL FUNCTIONAL-METABOLIC RELATIONSHIPS	5R01 AM26094-02	60,947
STORTI, ROBERT V.	EXPRESSION AND ISOLATION OF DROSOPHILA MUSCLE GENES	5R01 GM27611-02	54,990
SUGAR, JOEL	TRIGGER MECHANISMS OF RECURRENT HERPES KERATITIS	5R01 EY02426-03	46,547

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
TAO, MARIANO.....	PROTEIN KINASE, SPECTRIN AND SHAPE OF ERYTHROCYTES.....	5R01 AM23045-02	93,979
TAO, ROBERT V.....	BIOCHEMISTRY AND METABOLISM OF LENTICULAR SPHINGOLIPIDS.....	2R01 EY01821-04	68,949
TEODORESCU, MARIUS C.....	BINDING OF BACTERIA TO NORMAL & LEUKEMIC LYMPHOCYTES.....	3R01 CA21399-03S1	8,190
TEODORESCU, MARIUS C.....	DIFFERENTIAL COUNTING OF LYMPHOCYTE SUBPOPULATIONS.....	9R01 CA29552-04A2	100,070
TISSOT, ROBERT G.....	THE MAJOR HISTOCOMPATIBILITY COMPLEX OF THE RABBIT.....	3R01 CA23026-03S1	2,071
TISSOT, ROBERT G.....	THE MAJOR HISTOCOMPATIBILITY COMPLEX OF THE RABBIT.....	5R01 CA23026-04	27,682
TOWNSEL, JAMES G.....	SYNAPTIC CHEMISTRY AND CARDIOREGULATION IN LIMULUS.....	5R01 HL24140-02	64,873
TSO, MARK O.....	PATHOLOGY OF RETINAL DYSFUNCTION.....	5R01 EY01903-05	114,680
TSO, MARK O.....	PATHOLOGY OF DISEASES OF OPTIC NERVE HEAD.....	5R01 EY01904-05	112,740
TSO, MARK O.....	PATHOLOGY OF AN INHERITED RETINAL DYSTROPHY.....	5R01 EY02596-03	69,858
VAINISI, SAMUEL J.....	OPHTHALMIC DISEASES.....	3R01 EY00874-08S1	47,657
VARY, JAMES C.....	MECHANISM OF BACTERIAL SPORE GERMINATION.....	5R01 AI12678-05	64,678
VENTON, DUANE L.....	ANTITUMOR AGENTS-SYNTHESIS OF 5'-NUCLEOSIDE CHELATORS.....	5R01 CA24047-03	49,601
VERHAGE, HAROLD G.....	HORMONAL CONTROL OF THE OVIDUCT.....	5R01 HD11404-03	55,962
VYGANTAS, CHARLES M.....	DIABETIC RETINOPATHY IN NONHUMAN PRIMATES.....	5R01 EY02183-03	86,004
WEISSMANN, BERNARD.....	STRUCTURAL STUDY OF LUNG HEPARINOID POLYSACCHARIDES.....	5R01 HL21615-03	73,577
WOLOSEWICK, JOHN J.....	THE CYTOPLASMIC GROUND SUBSTANCE IN TRANSFORMED CELLS.....	1R01 GM28397-01	62,912
YOUNG, ROCKEFELLER S.....	PSYCHOPHYSICAL STUDY OF PHOTOPIC ABNORMALITIES.....	5R01 EY03062-02	58,325
ZANEVELD, LOURENS J.....	HUMAN SPERM ENZYMES, INHIBITORS AND FERTILIZATION.....	5R01 HD09868-05	107,689
ORGANIZATION TOTAL	102	9,659,529	
DE KALB			
NORTHERN ILLINOIS UNIVERSITY ZIP CODE 60115			
BRILES, WORTHIE E.....	IMMUNOGENETICS OF TUMOR RELATED ALLOANTIGENS.....	5R01 CA12796-09	82,112
ERMAN, JAMES E.....	THE MECHANISM OF CYTOCHROME C PEROXIDASE CATALYSIS.....	5R01 GM18648-09	56,267
HAMPEL, ARNOLD E.....	AMINOACYL-TRNA SYNTHETASES IN CHO CELLS.....	5R01 GM19506-08	67,084
KRESHECK, GORDON C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07176-03	31,847
MITCHELL, JOHN L.....	REGULATION OF ORNITHINE DECARBOXYLASE ACTIVITY.....	5R01 AM17949-06	57,219
MITTLER, SIDNEY.....	HYPERTHERMIA AND RADIATION INDUCED GENETIC DAMAGE.....	5R01 CA23245-03	48,713
STEPHENS, M IRENE.....	A LONGITUDINAL STUDY OF S-MISARTICULATING CHILDREN.....	5R01 NS15069-03	63,027
VITELLO, LIDIA B.....	PHYSICOCHEMICAL PROPERTIES OF BRAIN PROTEOGLYCAN.....	5R01 NS15476-02	45,619
ORGANIZATION TOTAL	8	451,888	
EDWARDSVILLE			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM--SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE ZIP CODE 62026			
BAICH, ANNETTE.....	CONTROL OF ORNITHINE TRANSAMINASE IN ANIMAL CELLS.....	5R01 GM26030-02	38,646
MATTA, MICHAEL S.....	POLAR EFFECTS IN MODEL SUBSTRATES OF CHYMOTRYPSIN.....	5R01 GM18652-09	60,216
ORGANIZATION TOTAL	2	98,862	
EVANSTON			
AMERICAN ACADEMY OF PEDIATRICS ZIP CODE 60204			
D'ANGIO, GIULIO J.....	NATIONAL WILMS' TUMOR STUDY.....	3R10 CA11722-11S1	5,940
D'ANGIO, GIULIO J.....	NATIONAL WILMS' TUMOR STUDY.....	5R10 CA11722-12	306,346
ORGANIZATION TOTAL	2	312,286	
EVANSTON HOSPITAL ZIP CODE 60201			
SPRINGER, GEORG F.....	HUMAN BREAST CANCER-ASSOCIATED ANTIGENS AND CYTOTOXIN.....	3R01 CA19083-03S2	15,941
SPRINGER, GEORG F.....	T-ANTIGEN IN HUMAN CANCER DETECTION.....	2R01 CA19083-04A1	104,962
SPRINGER, GEORG F.....	NATURE OF T-SPECIFIC HUMAN CARCINOMA ANTIGENS.....	2R01 CA22540-19	111,643
VICK, NICHOLAS A.....	FINE STRUCTURE OF VIRAL INDUCED BRAIN TUMORS.....	5R01 NS12745-05	57,047
VICK, NICHOLAS A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05629-12	17,057
ORGANIZATION TOTAL	5	306,650	
NORTHWESTERN UNIVERSITY ZIP CODE 60201			
BASOLO, FRED.....	SYNTHETIC OXYGEN CARRIERS.....	5R01 HL13412-19	63,268
BENDER, MYRON L.....	MECHANISM OF ACTION OF PROTEASES.....	5R01 GM20853-18	69,461
BLAKE, R RANDOLPH.....	SPATIAL VISION IN NORMAL AND VISUALLY DEPRIVED ANIMALS.....	5R01 EY01596-05	50,851

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
BOLLENBACHER, WALTER E.....	PEPTIDE CONTROL OF DEVELOPMENT.....	5R01 NS15387-02	70,395
CAMPBELL, CONSTANCE S.....	THE ROLE OF THE ENVIRONMENT IN REPRODUCTIVE RHYTHMS.....	5R01 HD10050-05	54,277
CULOTTI, JOSEPH G.....	MUTATIONAL DISSECTION OF CHOLINERGIC SYNAPSES.....	1R01 NS16510-01	82,609
DALLOS, PETER J.....	STIMULUS-RELATED DC POTENTIALS OF THE COCHLEA.....	2R01 NS06730-14	94,126
DALLOS, PETER J.....	STUDIES IN COCHLEAR HAIR CELL TRANSDUCTION.....	3R01 NS08635-09S1	27,358
DALLOS, PETER J.....	STUDIES IN COCHLEAR HAIR CELL TRANSDUCTION.....	5R01 NS08635-10	153,023
DOERING, JEFFREY L.....	DEVELOPMENTAL CONTROL OF SSDNA EXPRESSION IN XENOPUS.....	5R01 GM25985-02	74,644
DUMAS, LAWRENCE B.....	EUKARYOTIC CELL PROTEINS THAT INITIATE DNA SYNTHESIS.....	2R01 GM23443-04	126,393
ENGEL, JAMES D.....	EXPRESSION OF DEVELOPMENTALLY RELATED AVIAN GENES.....	5R01 HL24415-02	80,324
ENROTH-CUGELL, CHRISTINA A.....	RETINAL GANGLION CELL RESPONSES TO TIME-VARYING STIMULI.....	5R01 EY00206-20	89,284
EPSTEIN, MAX.....	MATERIALS AND COMPONENTS FOR MINIATURE FIBERSCOPES.....	5R01 GM21367-06	97,163
GESTELAND, ROBERT C.....	ROLE OF CELLULAR ORGANELLES IN OLFACTORY RECEPTION.....	5R01 NS14663-03	53,269
GILBERT, LAWRENCE I.....	BIOCHEMICAL ANALYSIS OF THE ACTION OF HORMONES.....	5R01 AM02818-22	126,010
GOLDBERG, ERWIN.....	REPRODUCTIVE BIOCHEMISTRY OF TESTES SPECIFIC LDH-X.....	5R01 HD05863-09	104,452
GRANGER, NOELLE.....	NEUROENDOCRINE REGULATION OF ENDOCRINE GLANDS.....	5R01 NS14816-02	52,457
HINES, RODERICK L.....	ELECTRON PHASE MICROSCOPY OF BIOMOLECULES ON CRYSTALS.....	5R01 GM25443-03	22,582
HOFFMAN, BRIAN M.....	COBOLGLOBINS: COBALT SUBSTITUTED MYO- AND HEMOGLOBINS.....	5R01 HL13531-08	80,427
IBERS, JAMES A.....	MOLECULAR OXYGEN CARRIERS—SYNTHESIS, STRUCTURE, BONDING.....	5R01 HL13157-11	109,673
JACOBS, JOHN E.....	NON-INVASIVE SYSTEM FOR ARTERIOSCLEROSIS STUDIES.....	5R01 HL22604-03	89,194
JACOBS, JOHN E.....	USE OF ACOUSTIC ENERGY TO STUDY PULMONARY SYSTEMS.....	1R01 HL25787-01	93,036
KAUFFMAN, JOHN W.....	RAMAN SPECTROSCOPY OF ERYTHROCYTE AND MODEL MEMBRANES.....	5R01 HL21404-03	54,690
KERTESZ, ANDREW E.....	FUNCTIONAL ASPECTS OF PANUM'S FUSIONAL AREAS.....	5R01 EY01055-09	112,793
KLEIN, WILLIAM L.....	CONTROL OF MUSCARINIC ACETYLCHOLINE RECEPTOR TURNOVER.....	5R01 NS15299-02	50,052
KLOTZ, IRVING M.....	MOLECULAR BIOLOGY OF HEMERYTHRIN AND HEMOCYANIN.....	5R01 HL08299-18	127,788
KLOTZ, IRVING M.....	ALTERNATIVE ASPIRINS AS ANTISCICKLING AGENTS.....	5R01 HL22719-02	60,785
LAMBERT, JOSEPH B.....	CONFORMATIONAL ANALYSIS OF DRUG-RELATED HETEROCYCLES.....	5R01 GM26124-02	50,465
LETSINGER, ROBERT L.....	NEW METHODS FOR THE SYNTHESIS OF POLYNUCLEOTIDES.....	5R01 GM10265-18	117,103
LOACH, PAUL A.....	STRUCTURE AND FUNCTION OF PHOTOSYNTHETIC MEMBRANES.....	2R01 GM11741-14	117,505
LOACH, PAUL A.....	THE MECHANISM OF MITOCHONDRIAL ELECTRON TRANSFER.....	5R01 GM26098-02	63,049
LORAND, LASZLO.....	HUMAN ERYTHROCYTE STUDIES.....	5R01 AM25412-02	74,070
LORAND, LASZLO.....	COAGULATION OF BLOOD.....	2R01 HL02212-25	153,462
LORAND, LASZLO.....	ENZYME ASSAYS FOR BLOOD CLOTTING.....	5R01 HL16346-11	116,551
MACDONALD, ROBERT C.....	MEMBRANE FUSION.....	9R01 GM28404-04A1	71,292
MARGOLIASH, EMANUEL.....	ANTIGENICITY OF GLOBULAR PROTEINS.....	5R01 AI12001-07	82,791
MARGOLIASH, EMANUEL.....	MITOCHONDRIAL MEMBRANE METABOLIC ROLE OF CYTOCHROME C.....	5R01 GM19121-09	168,735
MARGOLIASH, EMANUEL.....	AMINO ACID ANALYZER FOR BIOCHEMICAL RESEARCH.....	5R01 HL11119-19	43,700
MARSHALL, JAMES A.....	SYNTHESIS OF TUMOR INHIBITORY COMPOUNDS.....	5R01 CA11089-18	32,041
NEUHAUS, FRANCIS C.....	BIOSYNTHESIS OF BACTERIAL CELL-WALL COMPONENTS.....	5R01 AI04615-19	135,547
NOLL, HANS.....	CELL SURFACE PROTEINS IN EMBRYOGENESIS.....	5R01 GM26968-02	72,642
PIERCE, SUSAN K.....	CELLULAR MECHANISMS REGULATING IMMUNE RESPONSES.....	5R01 AI14765-03	59,692
RACHMELE, MARTIN.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07028-15	167,946
ROSENFELD, JOEL P.....	OPERANT NEURAL CONTROL IN TRIGEMINAL PAIN SYSTEMS.....	5R01 DE05204-02	34,201
ROSENFELD, JOEL P.....	MORPHINE AND NOCICEPTIVE BRAIN STIMULATION.....	5R01 GM23696-04	35,492
SCHWARTZ, NEENA B.....	ENVIRONMENTAL AND HORMONAL INTERPLAY OF OVULATION.....	5R01 HD07504-08	121,461
SCHWARTZ, NEENA B.....	WORKSHOP ON PHYSIOLOGIC CESSATION OF OVARIAN FUNCTION.....	1R13 HD14570-01	11,030
SCHWEITZER-TONG, DAN E.....	VISUAL LATENCY OF X- AND Y-CELLS IN RETINA AND LGN.....	1R23 EY03738-01	43,260
SEKULER, ROBERT W.....	HUMAN AGING AND VISUAL PERCEPTION.....	5R01 AG01251-02	85,215
SHEMIN, DAVID.....	PORPHYRINS: ENZYMIC MECHANISMS AND CONTROL OF SYNTHESIS.....	5R01 AM13091-13	99,823
SILVERMAN, RICHARD B.....	NEW INACTIVATORS OF GABA TRANSAMINASE.....	5R01 NS15703-02	46,826
SIMPSON, SIDNEY B, JR.....	AGING IN VITRO: ARE LIZARD CELLS AN EXCEPTION.....	5R01 AG01476-02	50,628
SPEAR, BRIAN B.....	ORGANIZATION OF GENE-SIZED DNA MOLECULES IN OXYTRICHA.....	2R01 GM23440-04	107,692
TUREK, FRED W.....	REPRODUCTION: INTERACTION OF PHOTOPERIOD AND STEROIDS.....	5R01 HD09885-05	47,811
TUREK, FRED W.....	REPRODUCTION: ROLE OF MELATONIN AND THE PINEAL GLAND.....	5R01 HD12622-02	51,676
VAN DUYN, RICHARD P.....	A NEW PROBE TECHNIQUE FOR THE STUDY OF PHOTOSYNTHESIS.....	1R01 GM27498-01	70,799
WU, TAI T.....	ATTEMPTS TO PREDICT 3-D PROTEIN BACKBONE STRUCTURE.....	5R01 GM21482-06	33,504
ORGANIZATION TOTAL	58	4,636,393	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
GALESBURG			
KNOX COLLEGE ZIP CODE 61401			
GEER, BILLY W.....	GENETICS OF LATE SPERM DEVELOPMENT AND FUNCTION.....	5R01 HD11199-02	44,609
ORGANIZATION TOTAL	1 44,609		
HINES			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 60141			
GREENLEE, HERBERT B.....	LIVER ABNORMALITIES AFTER JEJUNOILEAL BYPASS.....	5R01 AM21833-03	44,559
HELD, IRENE R.....	NEUROTROPIC REGULATION OF MUSCLE PROTEIN SYNTHESIS.....	5R01 NS11755-06	44,537
LAWRENCE, ANN M.....	ECTOPIC ANTERIOR PITUITARY HORMONES OF BRAIN ORIGIN.....	5R01 AM21947-02	28,314
ORGANIZATION TOTAL	3 117,410		
MAYWOOD			
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153			
CASTRO, ANTHONY J.....	MECHANISMS AND SIGNIFICANCE OF NEURAL PLASTICITY.....	2R01 NS13230-06	55,870
DOBRIN, PHILIP B.....	LOCAL REGULATION OF VEIN WALL THICKENING.....	1R01 HL26056-01	43,721
DRUSE-MANTEUFFEL, MARY J.....	NEONATAL UNDERNUTRITION AND SYNAPTIC PLASMA MEMBRANES.....	1R01 NS16384-01	42,940
DUN, NAE J.....	INTERACTIONS OF NEUROTRANSMITTERS IN AUTONOMIC GANGLIA.....	1R01 NS15848-01	30,253
FARRAND, STEPHEN K.....	MOLECULAR GENETICS OF AGROBACTERIUM PLASMIDS.....	5R01 CA19402-05	70,546
LANGE, CHARLES F.....	IMMUNOCHEMISTRY OF AGING KIDNEY—NEONATE TO ADULT.....	5R01 AG00497-03	39,190
NEAFSEY, EDWARD J.....	THE TWO MOTOR SYSTEMS.....	5R01 NS16146-02	22,127
NORTH, RICHARD A.....	SINGLE NEURON ACTIVITY.....	2R01 NS06672-14	84,440
O'MORCHOE, CHARLES C.....	THE ORIGIN AND FORMATION OF RENAL LYMPH.....	5R01 AM18473-06	82,435
PEISS, CLARENCE N.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05368-19	79,187
RANDALL, WALTER C.....	REGULATION OF THE CARDIOVASCULAR SYSTEM.....	5P01 HL08682-17	530,329
ROSENBERG, ABRAHAM G.....	COMPLEX GLYCOLIPIDS OF BRAIN AND RELATED SYSTEMS.....	7R01 NS16348-01	128,685
SCHMIDT, ROBERT S.....	NEUROETHOLOGY.....	5R01 NS06673-15	48,807
SCHULTZ, RICHARD M.....	TRANSITION-STATE AFFINITY PURIFICATION OF PROTEASES.....	5R01 HL24910-02	55,711
STODOLSKY, MARVIN.....	CHROMOSOMAL FORMS OF COLIPHAGE P1 AND ITS DERIVATIVES.....	5R01 GM21435-04	29,940
YOTIS, WILLIAM W.....	BINDING OF FLUORIDE BY CARIOGENIC BACTERIA.....	5R01 DE05027-03	44,424
ORGANIZATION TOTAL	16 1,388,605		
NORMAL			
ILLINOIS STATE UNIVERSITY ZIP CODE 61761			
RICHARDSON, ARLAN G.....	EFFECT OF DIET AND AGING ON MACROMOLECULAR SYNTHESIS.....	5R01 AG01548-02	79,676
RICHARDSON, ARLAN G.....	AGE-RELATED CHANGES IN CHEMICAL CARCINOGENESIS.....	5R01 CA24856-02	47,600
ORGANIZATION TOTAL	2 127,276		
NORTH CHICAGO			
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 60064			
BREEN, MOIRA.....	ISOLATION AND CHARACTERIZATION OF THE PROTEOGLYCAN.....	5R01 AG00902-03	36,468
ORGANIZATION TOTAL	1 36,468		
PEORIA			
UNIVERSITY OF ILLINOIS PEORIA SCHOOL OF MEDICINE ZIP CODE 61605			
PETERSON, DARRYL R.....	RENAL TRANSPORT AND HYDROLYSIS OF PEPTIDE HORMONES.....	5R01 AM27646-02	54,073
ORGANIZATION TOTAL	1 54,073		
SPRINGFIELD			
SOUTHERN ILLINOIS UNIVERSITY SYSTEM—SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF MEDICINE ZIP CODE 62702			
BREWER, GREGORY J.....	GENETICS AND BIOCHEMISTRY OF MEMBRANE ASSEMBLY.....	7R01 AI17679-01	67,579
DUNAWAY, GEORGE A.....	PKF REGULATORY FACTOR: ACTION, STRUCTURE AND METABOLISM.....	5R01 AM25804-02	42,045

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
FAINGOLD, CARL L.....	PHARMACOLOGY OF CONVULSANT DRUGS.....	1R01 NS13849-01A2	45,539
SU, CHE.....	NERVE AND MUSCLE IN MESENTERIC AND PULMONARY VESSELS.....	5R01 HL24683-02	55,315
TEWARI, RAM P.....	ACQUIRED IMMUNITY TO EXPERIMENTAL HISTOPLASMOSIS.....	5R01 AI16158-02	54,191
ORGANIZATION TOTAL	5	264,669	
URBANA			
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801			
BAILAR, JOHN C, JR.....	CHIRAL HEAVY METAL CANCER CHEMOTHERAPEUTIC AGENTS.....	5R01 CA26704-02	24,870
BALDWIN, THOMAS O.....	THE MECHANISM OF AGE-RELATED ENZYME MODIFICATION.....	5R01 AG00884-03	46,569
BAUMRUCKER, CRAIG R.....	CALCIUM TRANSPORT AND DISTRIBUTION IN MAMMARY CELLS.....	5R01 HD10942-03	36,123
BEAK, PETER A.....	NEW SYNTHETIC METHODS USEFUL FOR CHEMOTHERAPEUTICS.....	2R01 GM18874-09	82,405
BEST, PHILIP M.....	OPTICAL SIGNALS AND CALCIUM RELEASE IN MUSCLE.....	1R23 HL25418-01	34,313
BROWN, ANN L.....	STRATEGIES FOR STUDYING PROSE PASSAGES.....	5R01 HD06864-09	57,199
BROWN, THEODORE L.....	NUCLEAR QUADRUPOLE DOUBLE RESONANCE SPECTROSCOPY.....	2R01 GM23395-04	57,695
CAIN, CHARLES A.....	IMMUNOLOGICAL ASPECTS OF HYPERTHERMIA CANCER THERAPY.....	5R01 CA24930-02	84,826
CAMPIONE, JOSEPH C.....	COGNITION IN THE RETARDED CHILD.....	3P01 HD05951-09S1	18,117
CAMPIONE, JOSEPH C.....	COGNITION IN THE RETARDED CHILD.....	5P01 HD05951-10	380,264
CARL, PHILIP L.....	PROTEASE-ACTIVATED PRO-DRUGS IN CANCER CHEMOTHERAPY.....	2R01 CA23498-03	32,476
CARTER, CAROL S.....	BRAIN MECHANISMS OF BEHAVIORAL DIMORPHISM.....	5R01 NS13421-02	44,967
CLARK, JOHN M, JR.....	THE MECHANISM OF MESSENGER-RNA TRANSLATION.....	5R01 GM08647-19	51,007
COATES, ROBERT M.....	HYDROXYLAMINE REARRANGEMENTS AND CARCINOGENESIS.....	2R01 CA20436-04	61,229
COATES, ROBERT M.....	SPECIFICITY IN TERPENE AND STEROL BIOSYNTHESIS.....	5R01 GM13956-15	99,277
CONNOR, JOHN A.....	INTRACELLULAR CALCIUM AND PH IN NEURONS.....	5R01 NS15186-02	48,567
CONRAD, H EDWARD.....	STRUCTURE AND METABOLISM OF CHONDROITIN SULFATE.....	5R01 HD08057-17	95,164
CONRAD, H EDWARD.....	HEPARIN AND HEPARIN SULFATE: STRUCTURE AND ACTIVITY.....	5R01 HL21763-11	52,893
CROFTS, ANTONY R.....	THE PROTON PUMPS OF PHOTOSYNTHETIC BACTERIA.....	5R01 GM26305-02	102,796
CRONAN, JOHN E, JR.....	GENETIC APPROACHES TO REGULATION OF LIPID METABOLISM.....	5R01 AI15650-03	116,886
CRONAN, JOHN E, JR.....	PROTEIN LIPID INTERACTION.....	1R01 GM26156-01	34,203
DANIEL, WILLIAM L.....	GENETIC ANALYSIS OF ARYL SULFATASE B VARIATION.....	1R01 GM27707-01	32,476
DEBRUNNER, PETER G.....	RESONANCE SPECTROSCOPY OF ENZYMES.....	5R01 GM16406-12	98,389
DELCOMYN, FRED.....	THE NEURAL BASIS OF BEHAVIOR.....	5R01 NS15632-02	43,339
DIERKS, RICHARD E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05460-18	20,754
DUCOFF, HOWARD S.....	X-RAYS INCREASE INSECT LONGEVITY: POSSIBLE MECHANISM.....	5R01 AG01416-02	62,127
DUCOFF, HOWARD S.....	SPLIT-DOSE REPAIR—DIVIDING VS. POSTMITOTIC CELLS.....	5R01 CA13779-08	35,679
DUNN, FLOYD.....	ULTRASONIC ABSORPTION BY BIOLOGICAL MATERIALS.....	5R01 GM12281-17	68,945
DUNN, FLOYD.....	UPDATING OF ULTRASONIC EXPOSURE INSTRUMENTATION.....	5P41 GM27429-02	17,468
EBREY, THOMAS G.....	MECHANISM OF VISUAL EXCITATION.....	2R01 EY01323-08	147,635
FENG, ALBERT S.....	PLASTICITY OF DENDRITIC DEVELOPMENT.....	5R01 NS14488-03	47,789
FRAUENFELDER, HANS.....	HEME PROTEIN REACTIONS.....	2R01 GM18051-09	116,766
FRIZZELL, LEON A.....	ULTRASONICALLY INDUCED CAVITATION IN TISSUES.....	1R01 GM28253-01	103,709
GARST, JOHN E.....	STRUCTURE-TOXICITY RELATIONSHIPS AMONG HETEROCYCLES.....	5R23 ES02193-02	38,078
GENNIS, ROBERT B.....	PROTEIN-LIPID INTERACTION.....	2R01 HL16101-07	67,399
GETZ, LOWELL L.....	SOCIAL ORGANIZATION AND POPULATION REGULATION.....	2R01 HD09328-05A1	52,825
GLASER, MICHAEL.....	LIPID METABOLISM AND MEMBRANE STRUCTURE AND FUNCTION.....	5R01 GM21953-06	82,695
GUMPORT, RICHARD J.....	T4 RNA LIGASE.....	5R01 GM25621-02	63,040
GUNSALUS, IRWIN C.....	PSEUDOMONAS R AND METABOLIC PLASMIDS AS SEX FACTORS.....	1R01 AI16193-01	115,053
GUNSALUS, IRWIN C.....	PROTEIN STRUCTURE MODIFICATION AND OXIDATION.....	2R01 GM21161-06	92,896
HAGER, LOWELL P.....	BIOCHEMICAL STUDIES OF T ANTIGEN AND TRANSFORMED CELLS.....	2R01 CA17619-05	81,842
HAGER, LOWELL P.....	ENZYMATIC ACTIVATION MECHANISMS.....	5R01 GM07768-21	110,167
HELMAN, SANDY I.....	ELECTROPHYSIOLOGY: RENAL TUBULES AND OTHER EPITHELIA.....	5R01 AM16663-09	80,981
HENDRICKSON, DAVID N.....	METAL SITES IN METALLOPROTEINS.....	2R01 HL13652-10	97,658
HIXON, JAMES E.....	PROSTAGLANDIN F2ALPHA LUTEOTROPIC & LUTEOLYTIC EFFECTS.....	5R01 HD11759-03	65,997
JACKSON, GARY L.....	CONTROL OF LUTEINIZING HORMONE BIOSYNTHESIS.....	5R01 HD09659-05	76,919
JACKSON, GARY L.....	NEURAL PATHWAYS FROM PHOTORECEPTORS TO THE PITUITARY.....	5R01 HD13037-02	42,782
JOHNS, BRUCE L.....	EXCLUDED VOLUME AND ITS EFFECT ON CAPILLARY TRANSPORT.....	1R23 HL25251-01	39,498
JONAS, ANA.....	STRUCTURE AND FUNCTION OF SERUM LIPOPROTEINS.....	5R01 HL16059-08	51,592
KAPLAN, SAMUEL.....	INDUCTION AND BIOGENESIS OF SUBCELLULAR ORGANELLES.....	2R01 GM15590-14	114,568
KATZENELLENBOGEN, BENITA S.....	ANTIESTROGENS: REPRODUCTIVE TISSUE AND TUMOR GROWTH.....	5R01 CA18119-05	112,670
KATZENELLENBOGEN, BENITA S.....	EFFECTS OF ESTROGEN ON HUMAN UTERUS TISSUE IN VITRO.....	5R01 HD06726-09	89,909

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ILLINOIS—Continued			
KATZENELLENBOGEN, JOHN A.....	UTERINE ESTROGEN RECEPTOR AFFINITY LABELING.....	5R01 AM15556-10	59,382
KATZENELLENBOGEN, JOHN A.....	ENZYME-ACTIVATED IRREVERSIBLE INHIBITORS OF PROTEASES.....	1R01 AM27526-01	71,711
KAUFMANN, KENNETH J.....	PROTON TRANSFER REACTIONS AND PROTON MOBILITY IN WATER.....	1R01 GM28190-01	66,768
KEMPER, BYRON W.....	BIOSYNTHESIS OF PARATHYROID HORMONE.....	2R01 AM18866-05	89,899
KEMPER, BYRON W.....	STRUCTURE AND FUNCTION OF CYTOCHROME P-450 GENES.....	1R01 GM27718-01	59,380
KONISKY, JORDAN.....	MODE OF ACTION OF I-COLICINS ON ESCHERICHIA COLI.....	5R01 AI10106-10	91,097
LARSEN, JOSEPH R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07030-15	195,787
LARSON, RICHARD A.....	ENVIRONMENTAL HYDROPEROXIDES: FORMATION & REACTIONS.....	5R01 ES02426-02	46,771
LEONARD, NELSON J.....	NUCLEOSIDES, NUCLEIC ACIDS, AND CELL DIVISION FACTORS.....	2R01 GM05829-22	169,557
LEVINE, NORMAN D.....	TAXONOMY OF THE APICOMPLEXAN PROTOZOA.....	5R01 AI15367-02	18,725
LOHMAN, TIMOTHY G.....	FAT AND FAT-FREE BODY COMPOSITION IN CHILDREN.....	1R01 AM26351-01A1	81,644
MALMSTADT, HOWARD V.....	ANALYTICAL/CLINICAL REACTION-RATE METHODOLOGY.....	5R01 GM21984-06	88,692
MALPELI, JOSEPH G.....	ROLES OF LGN SUBNUCLEI IN CORTICAL VISUAL PROCESSING.....	5R01 EY02695-02	47,936
MANGEL, WALTER F.....	A NEW ASSAY FOR TRANSFORMED CELLS.....	5R01 CA25633-02	83,002
MARTIN, JAMES C.....	SYNTHETIC AND PHYSICAL STUDIES OF ANTICANCER AGENTS.....	2R01 CA13963-08	84,374
MEINS, FREDERICK, JR.....	TUMOR INCEPTION AND PROGRESSION.....	2R01 CA20053-04A1	76,164
MILNER, JOHN A.....	ARGININE DEFICIENCY AND OROTIC ACIDURIA.....	2R01 AM19294-04	52,111
NANNEY, DAVID L.....	AGING AND TEMPORAL PATTERNING IN TETRAHYMENA.....	5R01 AG00010-04	65,934
NANNEY, DAVID L.....	GENETIC STUDIES WITH TETRAHYMENA.....	5R01 GM07779-19	118,028
NISHIDA, TOSHIRO.....	ROLE OF PLASMA LIPOPROTEINS IN ATHEROSCLEROSIS.....	5R01 HL17597-07	83,631
O'BRIEN, WILLIAM D, JR.....	ULTRASONIC PROPAGATION PROPERTIES IN INTACT TISSUE.....	5R01 GM24994-03	131,065
OLDFIELD, ERIC.....	PHYSICAL STUDIES OF PROTEINS AND PROTEIN-LIPID SYSTEMS.....	5R01 HL19481-05	46,973
ORDAL, GEORGE W.....	PHOTOTACTIC AND CHEMOTACTIC BEHAVIOR OF BACTERIA.....	5R01 GM21130-07	71,089
PLEWA, MICHAEL J.....	A MAIZE MONITOR FOR ENVIRONMENTAL GENOTOXINS.....	5R01 ES01895-03	48,350
RAMIREZ, VICTOR D.....	HORMONES AND BRAIN CATECHOLAMINE PHYSIOLOGY.....	1R01 HD14625-01	100,688
RASMUSEN, BENJAMIN A.....	GENETICS OF BLOOD TYPES AND STRESS SUSCEPTIBILITY.....	5R01 AM25684-02	33,937
REICHMANN, MANFRED E.....	AUTOINTERFERENCE IN VIRUS INFECTIONS AND MALIGNANCY.....	2R01 AI12070-07	112,920
RINEHART, KENNETH L, JR.....	CHEMISTRY AND BIOCHEMISTRY OF CERTAIN ANTIBIOTICS.....	2R01 AI01278-24	129,274
RINEHART, KENNETH L, JR.....	STRUCTURES OF ANTIBIOTICS AND RELATED COMPOUNDS.....	2R01 AI04769-19	102,843
RINEHART, KENNETH L, JR.....	HIGH RESOLUTION MASS SPECTRA OF BIOORGANIC COMPOUNDS.....	5R01 GM27029-11	108,865
SAVAGE, DWAYNE C.....	INFLUENCES OF NORMAL MICROFLORA ON GUT HISTOLOGY.....	5R01 AI11858-08	88,324
SEGRE, DIEGO.....	PARAMETERS OF THE IMMUNE RESPONSE IN AGED MICE.....	5R01 AG00451-08	97,532
SHADDUCK, JOHN A.....	DIAGNOSIS AND TREATMENT OF MAMMALIAN ENCEPHALITIZOONOSIS.....	7R24 RR01294-01	76,852
SHAPIRO, DAVID J.....	REGULATION OF HMG-COA REDUCTASE AND STEROL SYNTHESIS.....	5R01 HL17882-06	39,237
SHERWOOD, ORRIN D.....	RELAXIN: BIOCHEMICAL AND PHYSIOLOGICAL STUDIES.....	5R01 HD08700-06	47,839
SIEGEL, IVENS A.....	SALIVARY CHANGES AFTER CANCER CHEMOTHERAPEUTIC DRUGS.....	1R01 DE05678-01	109,314
STAPLETON, HARVEY J.....	ELECTRON SPIN RELAXATION AT ACTIVE SITES IN PROTEINS.....	5R01 GM24488-02	53,219
STEFFENSEN, DALE M.....	GENE MAPPING BY IN SITU HYBRIDIZATION.....	5R01 GM21123-06	47,373
STOCUM, DAVID L.....	STUDY PATTERN REGULATION IN REGENERATING AMPHIBIAN LIMBS.....	5R01 HD12659-02	36,217
SUSLICK, KENNETH S.....	SYNTHETIC ANALOGUES OF HEME PROTEINS.....	1R01 HL25934-01	57,048
SWITZER, ROBERT L.....	NOVEL CONTROL MECHANISMS IN ENDOSPORE FORMATION.....	5R01 AI1121-08	44,231
SWITZER, ROBERT L.....	REGULATION AND MECHANISM OF PRPP SYNTHETASE.....	5R01 AM13488-12	81,447
TEITELBAUM, PHILIP.....	EFFECT OF LEARNING ON LATERAL HYPOTHALAMIC RECOVERY.....	2R01 NS11671-08	122,993
TOMPKINS, WAYNE A.....	ULTRASONIC RADIATION EFFECTS ON IMMUNOLOGICAL FUNCTIONS.....	1R01 AI16793-01	77,079
TOMPKINS, WAYNE A.....	CYTOTOXIC MACROPHAGES ACTIVATION AND TARGET RECOGNITION.....	1R01 CA27694-01	75,442
UHLENBECK, OLKE C.....	STRUCTURE AND FUNCTION OF RIBONUCLEIC ACID.....	5R01 GM19059-09	104,335
UHLENBECK, OLKE C.....	ORGANIZATION OF DROSOPHILA TRNA GENES.....	5R01 GM25083-02	46,376
VISEK, WILLARD J.....	DIETARY PROTEIN-FAT INTERACTIONS IN DBMA MAMMARY CANCER.....	5R01 CA23226-03	48,063
VISEK, WILLARD J.....	HORMONES, DIETARY FAT AND MAMMARY CARCINOGENESIS.....	1R01 CA28629-01	68,957
WEBER, GREGORIO.....	PROTEIN CONFIGURATION BY FLUORESCENCE TECHNIQUES.....	5R01 GM11223-18	175,333
WEBER, MICHAEL J.....	EARLY CELLULAR CHANGES IN VIRAL ONCOGENESIS.....	5R01 CA12467-09	149,700
WILLIS, JUDITH H.....	ANALYSIS OF DEVELOPMENT IN INSECTS.....	5R01 AG00248-09	103,899
WOLFE, RALPH S.....	NEW MICROBIAL VITAMIN-COENZYME RELATIONSHIPS.....	5R01 AI12277-07	80,302
WONG, PAUL K.....	GENETIC STUDIES OF MURINE LEUKEMIA VIRUSES.....	5R01 CA17695-05	75,902
WONG, PAUL K.....	GENETIC STUDIES OF MOLONEY MURINE SARCOMA VIRUSES.....	5R01 CA19723-05	69,042
ZEHR, JOHN E.....	CENTRAL NERVOUS CONTROL OF RENIN AND BLOOD PRESSURE.....	5R01 HL15307-08	114,069
ORGANIZATION TOTAL	108	8,460,213	
STATE TOTAL	757	78,104,948	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA			
BLOOMINGTON			
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401			
ALLERHAND, ADAM	CARBON-13 NMR STUDIES OF SPECIFIC SITES IN PROTEINS	5R01 GM22620-05	67,928
ASLIN, RICHARD N.	PERCEPTION OF SPEECH AND NONSPEECH SOUNDS IN INFANTS	5R01 HD11915-03	54,724
BARTMESS, JOHN E.	HYDROGEN BONDING STRENGTHS OF SINGLE MOLECULES TO ANIONS	1R01 GM27743-01	27,773
BLUMENTHAL, THOMAS	Q-BETA REPLICASE AND PROTEIN SYNTHESIS T-FACTOR	5R01 GM21024-07	80,275
BLUMENTHAL, THOMAS	OVERLAPPING GENES OF RNA PHAGES	1R01 GM27148-01	62,478
BONNER, JAMES J.	MOLECULAR DISSECTION OF GENE REGULATION IN DROSOPHILA	5R01 GM26693-02	60,867
BRIGGS, ROBERT W.	GENE ACTION IN OOGENESIS AND EMBRYONIC DEVELOPMENT	5R01 GM05850-22	49,912
CASTELLAN, N. JOHN, JR.	BIOMEDICAL RESEARCH SUPPORT	2507 RR07031-15	131,132
CHOOI, YEAN W.	RIBOSOMAL TRANSCRIPTION UNITS IN D. MELANOGASTER	5R01 GM23410-03	65,370
CRAIG, JAMES C.	CUTANEOUS PATTERN PERCEPTION	2R01 NS09783-10	94,024
ELIZONDO, REYNALDO S.	TEMPERATURE REGULATION AND ADAPTATION IN MACACA MULATTA	5R01 AM16703-05	41,707
FROMMER, GABRIEL P.	SOMATOSENSORY FUNCTION DURING ANALGESIA	5R01 GM29254-01	27,850
GRIECO, PAUL A.	SYNTHESIS OF BIO-ACTIVE SUBSTANCES	1R01 AI17410-01	57,214
GRIECO, PAUL A.	SYNTHESIS OF TUMOR INHIBITORS	7R01 CA28865-01	108,056
GRIECO, PAUL A.	FLUOROPROSTAGLANDINS	1R01 HD14646-01	75,747
GURD, FRANK R.	STRUCTURE AND REACTIVITY OF PROTEINS AND LIPOPROTEINS	2R01 HL05556-21	147,289
GURD, FRANK R.	SPECIFIC ENRICHMENT OF MYOGLOBINS FOR CARBON-13 NMR	5R01 HL14680-09	78,021
GURD, RUTH S.	STRUCTURE-FUNCTION RELATIONSHIPS OF GLUCAGON	2R01 AM21121-04	60,156
HARMONY, JUDITH A.	THE CHEMISTRY OF HUMAN PLASMA LIPOPROTEINS	5R01 GM19631-17	70,146
HARMONY, JUDITH A.	CELL BEHAVIOR: ROLE OF MEMBRANE-BOUND LIPOPROTEINS	2R01 HL20882-04	76,016
HAUROWITZ, FELIX	MECHANISM OF ANTIGEN-INDUCED ANTIBODY FORMATION	5R01 AI09752-31	13,572
HIEFTJE, GARY M.	NEW METHODS FOR MEASUREMENT OF TRANSIENT CHEMICAL EVENTS	5R01 GM24473-02	58,931
HOFSTETTER, HENRY W.	MYOPIA STUDY	3R01 EY02411-01S2	6,814
JACOBSON, RICHARD M.	THE TOTAL SYNTHESIS OF LITHOSPERMIC ACID	5R01 GM24856-02	32,821
KAUFMAN, THOMAS C.	THE GENETIC CONTROL OF MORPHOGENESIS IN DROSOPHILA	2R01 GM24299-04	108,718
KLEIN, WILLIAM H.	ALKALINE PHOSPHATASE MRNA IN SEA URCHIN DEVELOPMENT	1R01 HD14182-01	106,594
MAHLER, HENRY R.	THE BIOSYNTHESIS OF RESPIRATORY ENZYMES	5R01 GM12228-17	143,156
MAHLER, HENRY R.	DYNAMICS OF NEURONAL MEMBRANE PROTEINS	2R01 NS08309-10	88,495
MAHOWALD, ANTHONY P.	ULTRASTRUCTURAL STUDIES OF DROSOPHILA DEVELOPMENT	5R01 HD07983-07	69,754
MALACINSKI, GEORGE M.	REGULATION OF GENE ACTION IN EARLY EMBRYOGENESIS	5R01 HD11295-03	94,383
NOVOTNY, MILOS V.	IMPROVE BIOCHEM. HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY	5R01 GM24349-03	33,175
POLISKY, BARRY A.	MOLECULAR BASIS OF UNCONTROLLED REPLICATION	2R01 GM24212-04	115,001
PORT, ROBERT F.	TEMPORAL INVARIANTS IN SPEECH PRODUCTION AND PERCEPTION	5R01 HD12511-02	15,864
PREER, JOHN R., JR.	GENETICS AND GENERAL BIOLOGY OF PARAMECIUM	5R01 GM20038-07	63,738
PUTNAM, FRANK W.	BLOOD PLASMA PROTEINS: STRUCTURE AND FUNCTION	5R01 AM19221-05	103,818
PUTNAM, FRANK W.	ABNORMAL PROTEINS IN MULTIPLE MYELOMA	5R01 CA08497-15	179,964
RAFF, RUDOLF A.	REGULATION OF PROTEIN SYNTHESIS IN EARLY DEVELOPMENT	2R01 HD06902-09	156,722
RANDOLPH, POLLEY A.	FOOD ENERGY, METABOLISM & GROWTH OF NEONATAL MAMMALS	1R01 HD13953-01	90,164
RICHARDSON, JOHN P.	FACTORS THAT CONTROL RNA TRANSCRIPTION	5R01 AI10142-10	65,177
RICHARDSON, JOHN P.	ENZYMES OF NUCLEAR RNA METABOLISM	5R01 GM26038-02	41,342
RICHMOND, ROLLIN C.	MECHANISM OF FERTILITY LOSS IN AGING DROSOPHILA MALES	5R01 AG02035-02	77,617
SCHROEDER, DOLORES M.	ANATOMICAL ORGANIZATION OF INFRARED SYSTEM	5R01 NS14031-03	38,298
SHERMAN, STEVEN J.	SOCIAL PSYCHOLOGICAL FACTORS IN ADOLESCENT SMOKING	5R01 HD13449-02	107,216
SHINER, VERNON J., JR.	COMPUTATION OF ISOTOPE EFFECTS IN BIOCHEMISTRY	5R01 GM25956-02	50,172
SINCLAIR, JOHN H.	CONSTRUCTION OF A PHYSICAL MAP OF ZEA MAYS MTDNA	5R01 GM25721-02	78,400
SONNEBORN, TRACY M.	NORMAL AND ABNORMAL CELL GROWTH AND HEREDITY	5R01 GM15410-13	64,425
SURZYCKI, STEFAN J.	ADENOVIRUS GENE EXPRESSION IN VITRO AND IN VIVO	2R01 AI13382-05	88,466
SURZYCKI, STEFAN J.	TRANSCRIPTION OF CHLOROPLAST DNA OF C. REINHARDI	2R01 GM22968-05	59,525
SZABO, ATTILA	ELECTRONIC AND DYNAMIC ASPECTS OF MACROMOLECULES	2R01 HL21483-03	54,768
TAYLOR, MILTON W.	BIOCHEMISTRY AND GENETICS OF MAMMALIAN APRT	1R01 AM25498-01A1	70,132
TAYLOR, MILTON W.	MUTANTS OF MAMMALIAN CELL LINES	5R01 GM18924-08	80,005
WEISMER, GARY G.	ACOUSTIC CHARACTERISTICS OF 'S' SOUND MISARTICULATION	5R01 NS15551-02	12,684
WHITE, DAVID	CELL INTERACTIONS IN THE FRUITING MYXOBACTERIUM	5R01 GM24565-02	34,371
WIGHTMAN, R. MARK	ELECTROANALYSIS OF MODULATED MONOAMINE RELEASE	1R01 NS15841-01	35,546
WILLIAMS, DAVID R.	CHEMISTRY OF INTERESTING ANTIBIOTICS	7R01 AI17668-01	72,321
WILSON, STEPHEN R.	SYNTHETIC APPLICATIONS OF ALKOXIDE INDUCED (1,3) SHIFTS	5R01 GM26039-02	64,817
ORGANIZATION TOTAL	56 4,013,651		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
GOSHEN			
GOSHEN COLLEGE	ZIP CODE 46526		
GROVE, STANLEY N.....	ROLE OF SUBCELLULAR COMPONENTS IN FUNGAL GROWTH.....	5R01 AI14678-02	63,492
JACOBS, MERLE E.....	BETA-ALANINE HARDENING OF SUPPORTING TISSUES.....	5R01 AG02010-02	40,074
JACOBS, MERLE E.....	EFFECTS OF BETA-ALANINE ON BEHAVIOR AND STRUCTURE.....	5R01 GM18680-09	37,780
JACOBS, MERLE E.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07197-01	15,750
ORGANIZATION TOTAL	4 157,096		
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS	ZIP CODE 46202		
ALDO-BENSON, MARLENE A.....	ROLE OF HAPTEN-BEARING CELL IN TOLERANCE.....	5R01 CA23886-03	41,185
ALLMANN, DAVID W.....	EFFECT OF FLUORIDE ON CAMP AND GLUCOSE METABOLISM.....	2R01 DE04387-04	55,577
APRISON, MORRIS H.....	CENTRAL NEUROCHEMICAL CONTROL OF CRANIAL NUCLEI.....	1R01 NS16205-01	91,000
ARMSTRONG, WILLIAM M.....	ION TRANSPORT IN SMALL INTESTINE.....	5R01 AM12715-12	61,470
ARMSTRONG, WILLIAM M.....	IONIC TRANSFER MECHANISMS IN AIRWAY EPITHELIUM.....	5R01 HL23332-02	40,582
BAEHNER, ROBERT L.....	LEUKOCYTE METABOLISM RELATED TO RECURRENT INFECTION.....	5R01 AI10892-08	128,284
BAEHNER, ROBERT L.....	COOPERATIVE STUDY OF CHILDREN'S CANCER.....	5R10 CA13809-08	151,422
BAEHNER, ROBERT L.....	BIOCHEMICAL BASIS OF OXYGEN DAMAGE TO LUNG CELLS.....	5R01 HL19779-05	93,902
BEERING, STEVEN C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05371-19	185,751
BEN-JONATHAN, NIRA.....	DOPAMINE IN PLASMA: ORIGIN AND FUNCTION.....	1R01 HD14348-01	74,780
BEN-JONATHAN, NIRA.....	CONTROL OF PROLACTIN SECRETION BY CATECHOLAMINES.....	5R01 NS13243-03	48,977
BENSON, MERRILL D.....	PROTEIN SAA IN NEOPLASTIC DISEASE.....	2R01 CA22141-04	37,045
BOCKRATH, RICHARD C.....	RADIATION INDUCED CELLULAR MUTAGENESIS AND DNA REPAIR.....	5R01 GM21788-06	36,997
BOHLEN, HAROLD G.....	MICROVASCULAR BEHAVIOR DURING INTESTINAL ABSORPTION.....	2R01 HL20605-04	36,297
BOHLEN, HAROLD G.....	MICROVASCULAR CHARACTERISTICS OF DIABETES MELLITUS.....	1R01 HL25824-01	35,933
BRANDT, KENNETH D.....	MULTIPURPOSE ARTHRITIS CENTER.....	2P60 AM20582-04	250,772
BRANDT, KENNETH D.....	CHANGES IN KNEE CARTILAGE WITH IMMOBILIZATION.....	1R01 AM27075-01	94,428
BRYAN, WILLIAM P.....	THE ROLE OF WATER IN PROTEIN STRUCTURE AND FUNCTION.....	1R01 GM27036-01A1	47,403
CLARK, CHARLES M, JR.....	DIABETES RESEARCH AND TRAINING CENTER.....	2P60 AM20542-04	904,013
CONNELLY, P MICHAEL.....	GENETIC LINKAGE STUDIES OF HUNTINGTON'S DISEASE.....	1R01 GM26659-01	77,336
DAVIS, ELDRED J.....	REGULATORY MECHANISMS IN ENERGY METABOLISM.....	5R01 AM13939-10	69,718
DYKEN, MARK L.....	PROGNOSIS IN TRANSIENT ISCHEMIC ATTACKS (TIA).....	1R01 NS16231-01	67,376
EDENBERG, HOWARD J.....	ENZYMOLOGY OF SV40 DNA REPLICATION: IN VITRO STUDIES.....	5R01 GM25681-03	53,092
EDMONDSON, JAMES W.....	REGULATION OF ALANINE TRANSPORT AND GLUCONEOGENESIS.....	1R01 AM26558-01A1	36,881
EHRlich, CLARENCE E.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA21720-03	135,135
EINHORN, LAWRENCE H.....	SOUTHEASTERN CANCER STUDY GROUP.....	1R10 CA28171-01	168,302
ERNEST, J TERRY.....	PATHOPHYSIOLOGY OF THE OCULAR CIRCULATION.....	7R01 EY03528-01	111,542
FELTEN, DAVID L.....	LOCAL ORGANIZATION OF MONOAMINERGIC DENDRITE BUNDLES.....	5R01 NS15677-02	46,524
FISCH, CHARLES.....	MECHANISMS & THERAPY OF CIRCULATORY DISEASE—ISCHEMIA.....	5P01 HL06308-20	695,172
FRIEDMAN, JULIUS J.....	DYNAMICS OF MICROCIRCULATORY FUNCTION.....	5R01 HL16094-08	73,542
GHETTI, BERNARDINO.....	SELECTIVE NEURONAL LOSS AND ITS SEQUELAE: A MODEL.....	1R01 NS14426-01A2	47,324
GIBSON, DAVID M.....	INSULIN INDUCTION OF LIPOGENIC ENZYMES IN HEPATOCYTES.....	5R01 AM19299-05	76,379
GIBSON, DAVID M.....	INTERCONVERTIBILITY OF LIVER HMG COA REDUCTASE IN VITRO.....	5R01 AM21278-03	39,368
GILMOUR, ROBERT F, JR.....	ELECTROPHYSIOLOGIC BASIS OF ISCHEMIC ARRHYTHMIAS.....	1R23 HL24851-01	36,462
GOLICHOWSKI, ALAN M.....	CERVICAL CONNECTIVE TISSUE METABOLISM—PREGNANCY & LABOR.....	1R01 HD14057-01	106,169
GRIM, CLARENCE E.....	HYPERTENSION: PSYCHOPHYSIOLOGIC & GENETIC PRECURSORS.....	5R01 HL20034-05	118,621
HAMILTON, JEAN A.....	STRUCTURAL STUDIES OF COMPLEXES BY X-RAY DIFFRACTION.....	5R01 GM24623-02	30,613
HARRIS, ROBERT A.....	REGULATION OF LEUCINE OXIDATION.....	2R01 AM19259-05	61,842
HARRIS, ROBERT A.....	HORMONAL CONTROL OF HEPATIC GLUCOSE AND FAT SYNTHESIS.....	1R01 AM21178-04	59,315
HARRIS, ROBERT A.....	HYPOGLYCEMIC ACTION OF 2-CHLOROPROPIONATE.....	5R01 AM25334-02	51,997
JACKSON, ROBERT C.....	EXPERIMENTAL CHEMOTHERAPY OF HEPATOMAS BY ANTIFOLATES.....	5R01 CA18129-05	74,747
JOHNSTON, C CONRAD, JR.....	SKELETAL METABOLIC ABNORMALITIES IN DIABETES MELLITUS.....	5R01 AM22189-02	59,669
JOHNSTON, C CONRAD, JR.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00750-08	561,962
JONES, LARRY R.....	RYANODINE: MECHANISM OF ACTION IN CARDIAC TISSUES.....	5R01 HL23704-02	35,888
LLOYD, THOMAS C, JR.....	PULMONARY FACTORS IN CIRCULATORY REGULATION.....	5R01 HL15694-08	49,882
MC CUNE, SYLVIA A.....	REGULATION OF FAT AND PROTEIN SYNTHESIS.....	1R23 AM26897-01	49,507
MEISS, RICHARD A.....	CONTRACTILE MECHANISMS OF REPRODUCTIVE SMOOTH MUSCLE.....	2R01 HD10898-04	30,977
O'CONNOR, BRIAN L.....	EXPERIMENTALLY INDUCED CHARCOT'S JOINTS.....	1R01 AM26951-01	77,641

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
O'DOHERTY, JOSEPHINE.....	STUDY OF DIABETES USING ION-SELECTIVE MICROELECTRODES.....	1R23 AM26246-01	41,975
O'DONNELL, MARTIN J.....	SCHIFF BASE SYNTHONS IN AMINO ACID CHEMISTRY.....	1R01 GM28193-01	52,864
OCHS, SIDNEY.....	ANALYSIS OF AXOPLASMIC TRANSPORT.....	2R01 NS08706-12	128,026
OPPENHEIM, BERNARD E.....	RADIONUCLIDE SCREENING IN RENOVASCULAR HYPERTENSION.....	5R01 HL24774-02	92,173
PHILLIPS, RALPH W.....	FLUORIDE DISTR. IN TEETH USING SILICATE CEMENT MODEL.....	5R01 DE04904-03	64,400
RHOADES, RODNEY A.....	NUTRITION & HORMONAL INTERACTION IN LUNG DEVELOPMENT.....	5R01 HD10670-05	60,893
RICKARD, KARYL A.....	NUTRITION SUPPORT OF CHILDREN WITH WILMS' TUMORS.....	1R01 CA28531-01	44,253
ROACH, PETER J.....	HORMONAL CONTROL OF GLYCOGEN METABOLISM.....	5R23 AM27221-02	45,925
ROACH, PETER J.....	LIVER GLYCOGEN METABOLISM AND ITS CONTROL BY HORMONES.....	1R01 AM27240-01	55,460
ROESKE, ROGER W.....	CHARACTERIZATION OF MEMBRANE-ACTIVE PEPTIDES.....	1R01 GM27170-01	68,927
ROESKE, ROGER W.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	5R01 HD12776-02	79,208
ROSENTHAL, RAOUL S.....	ROLE OF GONOCOCCAL PEPTIDOGLYCAN IN INFLAMMATION.....	5R01 AI14826-03	77,994
ROTHER, CARL F.....	REFLEX CONTROL OF VASCULAR CAPACITANCE IN SHOCK.....	5R01 HL07723-17	38,507
SIAKOTOS, ARISTOTLE N.....	OCULAR LYSOSOMES IN HEREDITARY RETINAL DEGENERATIONS.....	2R01 EY01806-04	165,486
SIMON, JAY R.....	NEURONAL RELATIONSHIPS IN THE CAUDATE NUCLEUS.....	1R01 NS15951-01	46,542
TANNER, GEORGE A.....	NEPHRON RESPONSE TO TUBULAR OBSTRUCTION OR DAMAGE.....	5R01 HL13929-08	39,834
WALKER, FREDERICK J.....	FUNCTIONAL PROPERTIES OF ACTIVATED PROTEIN C.....	1R23 HL26069-01	44,685
WATANABE, AUGUST M.....	MECHANISMS OF ADRENERGIC-CHOLINERGIC ANTAGONISM.....	5R01 HL18795-06	64,045
WEBER, GEORGE.....	METABOLIC PATTERNS AND CHEMOTHERAPY OF NEOPLASIA.....	5R01 CA05034-20	145,805
WEBER, GEORGE.....	CORRELATED STUDY OF METABOLIC REGULATION IN NEOPLASIA.....	5P01 CA13526-09	587,482
WEINBERGER, MYRON H.....	SPECIALIZED CENTER OF RESEARCH IN HYPERTENSION.....	5P50 HL14159-10	1,246,172
WILDE, CHARLES E. III.....	BIOCHEMICAL ANALYSIS OF B LYMPHOCYTE STIMULATION.....	1R01 AI16375-01	60,055
ORGANIZATION TOTAL	70	8,769,512	
INDIANAPOLIS CENTER FOR ADVANCED RESEARCH ZIP CODE 46202			
FRANKLIN, THOMAS D. JR.....	MICROVASCULAR RESPONSES TO ULTRASOUND.....	5R01 HL20869-03	74,357
FRY, FRANCIS J.....	DIAGNOSIS OF INTRACRANIAL DISEASE.....	5R01 NS14201-03	185,716
FRY, FRANCIS J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05781-03	28,171
ORGANIZATION TOTAL	3	288,244	
METHODIST HOSPITAL OF INDIANA ZIP CODE 46202			
GORDON, EDWIN E.....	INSULIN AND GLUCAGON INTERACTION WITH KIDNEY CELLS.....	7R01 AM28039-01	47,613
ORGANIZATION TOTAL	1	47,613	
NOTRE DAME			
UNIVERSITY OF NOTRE DAME ZIP CODE 46556			
ALDOUS, JOAN.....	FAMILY SIZE AND LATER KIN CONTACTS: A PILOT STUDY.....	5R01 AG02279-02	51,487
ASANO, TOMOAKI.....	PHYSIOLOGICAL ASPECTS OF SENSENCE IN GERM-FREE ANIMALS.....	5R01 AG00900-02	60,018
BASU, SUBHASH C.....	GLYCOLIPID METABOLISM IN TUMOR AND TRANSFORMED CELLS.....	5R01 CA14764-05	77,837
CASTELLINO, FRANCIS J.....	STRUCTURE-FUNCTION STUDIES OF PLASMINOGEN AND PLASMIN.....	2R01 HL13423-10	88,652
CASTELLINO, FRANCIS J.....	BLOOD COAGULATION PROTEIN-METAL ION-LIPID INTERACTIONS.....	2R01 HL19982-04	120,782
CRAIG, GEORGE B. JR.....	FACTORS AFFECTING VECTOR COMPETENCE IN AEDES TRISERIATUS.....	5R01 AI02753-21	179,037
FUCHS, MORTON S.....	REPRODUCTIVE PHYSIOLOGY OF AEDES MOSQUITOES.....	5R01 AI10707-09	108,294
GORDON, ROBERT E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07033-15	85,285
HAYES, ROBERT G.....	CORE ABSORPTION SPECTROSCOPY OF METALLOPORPHYRINS.....	5R01 GM25453-03	32,754
HAYES, ROBERT G.....	X-RAY PHOTOELECTRON SPECTROSCOPY OF HEME COMPOUNDS.....	5R01 HL13651-09	64,027
KLINE, DONALD W.....	STIMULUS PERSISTENCE AND AGE: A PROSPECTIVE ANALYSIS.....	5R23 AG01072-02	34,836
KOWALSKI, CONRAD J.....	SYNTHESIS OF ANTICANCER GERMACRANOLIDE SESQUITERPENES.....	1R01 CA27157-01	74,342
MARSHALL, JAMES J.....	SYNTHETIC CARBOHYDRATE-PROTEIN CONJUGATES.....	7R01 GM29242-01	36,684
MILLER, MARVIN J.....	SYNTHESIS OF FERRICHRONES AND RELATED IRON CHELATORS.....	5R01 GM25845-02	163,879
MILLER, MARVIN J.....	SYNTHESIS OF BETA-LACTAMS FROM HYDROXAMIC ACIDS.....	5R01 GM26867-02	54,759
NOWAK, THOMAS L.....	NMR STUDIES OF METALS IN KINASES AND RELATED ENZYMES.....	5R01 AM17049-08	70,990
POLLARD, MORRIS.....	INTESTINAL CARCINOGENESIS IN CONVENTIONAL/GERM-FREE RATS.....	5R26 CA15957-07	82,466
POLLARD, MORRIS.....	PROSTATE ADENOCARCINOMAS IN RATS.....	5R26 CA17559-06	78,018
POLLARD, MORRIS.....	DEVELOPMENT AND MAINTENANCE OF GERM-FREE ANIMAL COLONIES.....	3P40 RR00294-14S1	10,915
POLLARD, MORRIS.....	DEVELOPMENT AND MAINTENANCE OF GERM-FREE ANIMAL COLONIES.....	5P40 RR00294-15	171,200
SAZ, HOWARD J.....	INTERMEDIARY METABOLISM OF HELMINTHS.....	2R01 AI09483-11	123,680
SCHEIDT, W. ROBERT.....	X-RAY AND CHEMICAL STUDIES OF METALLOPORPHYRINS.....	5R01 HL15627-08	76,318
WEINSTEIN, PAUL P.....	DEVELOPMENT OF PARASITIC HELMINTHS IN VITRO.....	2R01 AI09625-11	98,186

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
WOSTMANN, BERNARD S.....	CHARACTERIZATION OF NUTRITIONALLY DEFINED GNOTOBIOTE.....	5P40 RR00640-08	95,156
ORGANIZATION TOTAL	24 2,039,602		
TERRE HAUTE			
INDIANA STATE UNIVERSITY TERRE HAUTE ZIP CODE 47809			
BOZARTH, ROBERT F.....	TOXIN PRODUCING DSRNA VIRUSES IN USTILAGO MAYDIS.....	5R01 AI15537-02	31,548
DUSANIC, DONALD G.....	BIOLOGY AND IMMUNOLOGY OF T. CRUZI METACYCLIC FORMS.....	5R01 AI14642-03	36,834
ORGANIZATION TOTAL	2 68,382		
WEST LAFAYETTE			
PURDUE UNIVERSITY WEST LAFAYETTE ZIP CODE 47907			
ALTMAN, JOSEPH.....	COMPREHENSIVE STUDY OF BRAIN DEVELOPMENT.....	5R01 NS14815-02	122,195
ANDERSON, JOHN N.....	HORMONAL CONTROL OF ALPHA-FETOPROTEIN.....	5R01 HD11960-02	28,354
ARGOS, PATRICK.....	COMPARISON AND PREDICTION OF PROTEIN STRUCTURE.....	1R01 GM27682-01	36,098
ARNOTT, STRUTHER.....	GLYCOSAMINOGLYCAN AND PROTEOGLYCAN STRUCTURES.....	2R01 GM20682-07	96,810
ARNOTT, STRUTHER.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07032-15	189,787
ARONSON, ARTHUR I.....	MORPHOGENETIC PROCESSES IN BACTERIAL SPORULATION.....	5R01 GM20606-07	104,236
AUNON, JORGE I.....	QUANTIFICATION OF SINGLE EVOKED POTENTIALS.....	5R01 NS15347-02	66,876
AXELROD, BERNARD.....	IDENTIFICATION OF PHOSPHATE-BINDING SITES IN PROTEINS.....	1R01 GM27700-01	62,680
BAIRD, WILLIAM M.....	MODIFIERS OF CHEMICAL CARCINOGENESIS IN CELL CULTURE.....	7R01 CA28825-01	73,541
BOURLAND, JOE D.....	CATHERER VENTRICULAR DEFIBRILLATION STUDIES.....	5R01 HL20629-04	76,972
BOURLAND, JOE D.....	CARDIAC OUTPUT FROM THE PNEUMOCARDIOGRAM.....	5R01 HL22321-03	58,341
BRENCHLEY, JEAN E.....	CHARACTERIZATION OF T RNA MATURATION MUTANTS.....	5R01 GM25251-04	62,828
BROWN, HERBERT C.....	STEREOSPECIFIC SYNTHESIS VIA HYDROBORATION.....	5R01 GM10937-18	104,639
BURNS, EDWARD M.....	PITCH ANOMALIES AND THE CODING OF PITCH.....	5R01 NS15405-02	32,212
BUTLER, LARRY G.....	RELATIONSHIPS OF PHOSPHOMONO- AND PHOSPHODIESTERASES.....	2R01 GM23028-04A1	78,458
BYRN, STEPHEN R.....	SOLID STATE REACTIONS IN MEDICINAL CHEMISTRY.....	5R01 GM21174-05	69,450
CARLSON, DON M.....	GLYCOPROTEINS AND PROLINE-RICH PROTEINS.....	5R01 AM19175-06	133,731
CARLSON, DON M.....	PULMONARY SECRETIONS.....	5R01 HL25225-02	66,039
CARLSON, GARY P.....	ARRHYTHMIGENIC CHLORINATED COMPOUNDS.....	5R01 GM23402-02	33,072
CHANG, CHING-JER.....	INTERACTIONS OF ALKYLATING AGENTS AND NUCLEIC ACIDS.....	5R01 CA22987-03	100,365
CRAMER, WILLIAM A.....	THE MECHANISM OF ACTION OF COLICIN.....	5R01 GM18457-10	77,099
CRANE, FREDERICK L.....	HORMONE CONTROL OF PLASMA MEMBRANE REDOX FUNCTION.....	5R01 AM25235-03	66,829
CUSHMAN, MARK S.....	NEW ALKALOID SYNTHESIS.....	5R01 CA19204-05	64,930
CUSHMAN, MARK S.....	SYNTHESIS OF STREPTONIGRIN.....	1R01 CA27517-01	50,389
DAS, GOPAL D.....	TRANSPLANTATION OF NEURAL TISSUES AND NEUROGENESIS.....	5R01 NS08817-10	78,375
DILLEY, RICHARD A.....	PROTON-MEMBRANE INTERACTIONS IN BIOENERGETICS.....	5R01 GM19595-08	60,338
DIXON, JACK E.....	THE MECHANISM OF INSULIN DEGRADATION.....	5R01 AM18024-05	58,666
DIXON, JACK E.....	THYROTROPIN RELEASING HORMONE: SYNTHESIS, DEGRADATION.....	5R01 AM18849-05	50,546
DYKHUIZEN, DANIEL E.....	EXPERIMENTAL TEST OF ALLOZYME NEUTRALITY.....	5R01 GM24886-03	64,824
FETH, LAWRENCE L.....	AUDITORY FREQUENCY SELECTIVITY AFTER NOISE EXPOSURE.....	1R01 ES02334-01	51,374
FETH, LAWRENCE L.....	FREQUENCY DISCRIMINATION AND PITCH OF COMPLEX TONES.....	5R01 NS12235-06	35,393
FLOSS, HEINZ G.....	STUDY OF BIOLOGICALLY ACTIVE MICROBIAL METABOLITES.....	5R01 AI11728-07	110,356
FLOSS, HEINZ G.....	GENETICS OF ANTIBIOTIC BIOSYNTHESIS IN S. COELICOLOR.....	1R01 AI17107-01	55,817
FLOSS, HEINZ G.....	BIOSYNTHESIS OF ERGOT ALKALOIDS.....	5R01 CA17482-12	91,943
FLOSS, HEINZ G.....	STEREOCHEMISTRY OF ENZYME REACTIONS.....	5R01 GM18852-10	92,808
FUCHS, PHILIP L.....	TOTAL SYNTHESIS OF CYTOCHALASIN C.....	5R01 AI13073-02	34,789
FUCHS, PHILIP L.....	SYNTHESIS OF ALKALOIDAL ANTILEUKEMIA AGENTS.....	2R01 CA19689-04A1	79,795
FUCHS, PHILIP L.....	SYNTHESIS OF QUASSINOIDAL ANTILEUKEMIA AGENTS.....	5R01 CA21840-03	68,409
GEDDES, LESLIE A.....	FUNDAMENTAL STUDIES IN ELECTROSURGERY.....	5R01 GM23103-03	107,934
GEDDES, LESLIE A.....	INDIRECT MEAN BLOOD PRESSURE.....	5R01 HL18947-04	52,218
GEDDES, LESLIE A.....	AN AUTOMATIC IMPLANTABLE BLOOD PRESSURE CONTROLLER.....	1R01 HL25746-01	53,312
GILHAM, PETER T.....	FINE STRUCTURE OF NUCLEIC ACIDS.....	5R01 GM11518-16	63,190
GILHAM, PETER T.....	SYNTHESIS OF POLYRIBONUCLEOTIDES OF DEFINED SEQUENCE.....	5R01 GM19395-09	77,630
GOLUB, EDWARD S.....	INDUCTION OF IMMUNOLOGICAL TOLERANCE.....	5R01 AI08800-11	103,415
GOLUB, EDWARD S.....	BRAIN ASSOCIATED HEMATOPOIETIC ANTIGENS.....	5R01 CA18641-06	79,287
HARTL, DANIEL L.....	FINAL EXPRESSION OF BETA-GLUCURONIDASE IN DROSOPHILA.....	5R01 AG02052-02	45,568
HARTL, DANIEL L.....	MEASURES OF POPULATION FITNESS.....	5R01 GM26634-02	41,420

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
HERMUDSON, MARK A.	AMINO ACID SEQUENCES OF BINDING PROTEINS	5R01 GM24602-03	69,012
HERRMANN, KLAUS M.	BIOCHEMICAL AND GENETIC STUDIES OF DAHP-SYNTHETASE	5R01 GM17678-09	56,207
HORII, YOSHIYUKI	AGING EFFECTS ON VOICE FUNDAMENTAL FREQUENCIES	5R01 AG01590-02	34,293
HORNEMANN, ULFERT	BIOSYNTHESIS OF ANTIBIOTICS CONTAINING N-N BONDS	2R01 CA18587-04A1	68,857
HORNEMANN, ULFERT	INTERACTION OF MITOMYCIN C WITH NUCLEOPHILES	5R01 CA25685-02	80,357
HUI, CHIU S.	CONTRACTILE ACTIVATION IN STRIATED MUSCLE	5R01 NS15375-02	33,031
JAFFE, LIONEL F.	ELECTRICAL CONTROLS OF NERVE REGENERATION	5R01 NS11545-06	58,276
KAK, A C.	DIGITAL RAY TRACING IN ULTRASONIC TOMOGRAPHY	5R01 GM24687-02	67,370
KAK, A C.	ULTRASONIC SCATTERING BY BIOLOGICAL TISSUES	5R01 GM26942-02	59,521
KEENAN, THOMAS W.	ENDOMEMBRANE INTERCONVERSION IN MILK FORMATION	2R01 GM23889-04	102,142
KENT, CLAUDIA M.	ANALYSIS OF SURFACE MEMBRANES OF DEVELOPING MUSCLE CELLS	3R01 HD10580-03S1	18,440
KIM, KI-HAN	INSULIN CONTROL OF KEY ENZYMES FOR GLUCOSE HOMEOSTASIS	5R01 AM12865-12	60,792
KIRKSEY, AVANELLE	LONG ORAL CONTRACEPTIVE USE/VITAMIN B-6 PREGNANCY NEEDS	5R01 HD11996-03	54,448
KIRKSEY, AVANELLE	VITAMIN B6 IN DEVELOPMENT OF CENTRAL NERVOUS SYSTEM	5R01 NS14005-03	51,495
KISSINGER, PETER T.	ANALYSIS OF TYROSINE METABOLITES IN BODY FLUIDS	5R01 GM22713-05	52,770
KISSINGER, PETER T.	N-ACETYL-P-QUINONEIMINE IN ACETAMINOPHEN TOXICITY	5R01 GM26283-02	60,953
KOHLHAW, GUNTER B.	REGULATION OF LEUCINE BIOSYNTHESIS	2R01 GM15102-13	73,566
LASKOWSKI, MICHAEL, JR.	PROTEIN PROTEINASE INHIBITORS	5R01 GM10831-22	219,727
LEONARD, LAWRENCE B.	LEXICAL FACTORS IN SPECIFIC LANGUAGE IMPAIRMENT	1R01 NS16154-01	78,150
LIGHT, ALBERT	BOVINE ENTEROKINASE STRUCTURE AND FUNCTION	5R01 GM22261-06	77,259
LIGHT, ALBERT	MECHANISM OF FOLDING OF SERINE PROTEINASES	5R01 GM23628-03	48,297
LOVETT, JAMES S.	SYNTHESIS AND SECRETION OF EXTRACELLULAR GLYCOPROTEIN	5R01 AI15437-02	73,261
LYTLE, FRED E.	NEW TECHNIQUES IN RAMAN SPECTROSCOPY OF BIO-MOLECULES	5R01 GM26123-02	60,040
MARGERUM, DALE W.	METAL ION TRANSFER AND CATALYSIS IN PEPTIDE COMPLEXES	5R01 GM21152-16	86,960
MARGERUM, DALE W.	ACTIVATION OF MOLECULAR OXYGEN BY METAL PEPTIDES	5R01 GM19775-09	53,110
MARKLEY, JOHN L.	NMR SPECTROSCOPY IN PROTEIN CHEMISTRY	5R01 GM19907-08	87,048
MARKLEY, JOHN L.	A REGIONAL NMR RESOURCE FOR BIOMOLECULAR RESEARCH	2P41 RR01077-04	279,411
MC MILLIN, DAVID R.	EFFECTS OF ELECTROPHILIC ATTACK ON POLYNUCLEOTIDES	5R01 AM16101-09	63,353
MC MILLIN, DAVID R.	COPPER PROTEINS: ASPECTS OF STRUCTURE AND DYNAMICS	5R01 GM22764-05	63,693
MINKE, BARUCH	INTERMEDIATE STEPS OF PHOTOTRANSDUCTION	1R01 EY03456-01	46,677
MORRE, D JAMES	GLYCOPHINGOLIPID METABOLISM AND TUMORIGENESIS	5R01 CA18801-03	89,807
MORRE, D JAMES	CANCER DETECTION BY SERUM ANALYSIS OF HETEROGLYCANS	3R01 CA21958-03S1	20,352
MORRE, D JAMES	CANCER CENTER SUPPORT (CORE)	5P30 CA23168-03	218,744
MORRE, D JAMES	INTERNATIONAL FORUM: CANCER-CELL ORGANELLES	1R13 CA28088-01	7,900
MORRE, D JAMES	DICTYOSOME-LIKE STRUCTURES IN REPRODUCTIVE DEVELOPMENT	5R01 HD11508-03	39,455
MORRISON, HARRY A.	SKIN PHOTOBIOLOGY-PHOTOCHEMISTRY OF UROCANIC ACID	5R01 CA18267-03	45,077
MORTENSON, LEONARD E.	MICROBIAL ENZYMES INVOLVED IN NITROGEN METABOLISM	5R01 AI04865-19	106,622
MUSICK, WILLIAM D.	STRUCTURAL STUDIES OF THE PHOSPHORIBOSYLTRANSFERASES	1R01 GM27100-01	45,153
NAKAJIMA, SHIGEHIO	CELLULAR BIOPHYSICS OF NEUROMUSCULAR FUNCTION	5R01 NS08601-11	72,222
NAKAJIMA, YASUKO	ULTRASTRUCTURE AND FUNCTION OF NERVE AND MUSCLE	5R01 NS10457-08	56,672
NEGISHI, EI-ICHI	SELECTIVE SYNTHESIS OF OLEFINS VIA METAL CATALYSIS	7R01 GM27947-01	65,670
NICHOLS, DAVID E.	2-AMINO-3,4-DIHYDROQUINAZOLINES AS DOPAMINE AGONISTS	5R01 HL23609-02	36,602
OSTROY, SANFORD E.	RELATED MOLECULAR AND PHYSIOLOGICAL EVENTS IN VISION	5R01 EY00413-12	80,279
PAK, WILLIAM L.	GENETIC DISSECTION OF THE PHOTOTRANSDUCTION PROCESS	2R01 EY00033-11	182,448
PAK, WILLIAM L.	INTERDISCIPLINARY STUDIES OF VISUAL PROCESSES	1P30 EY02723-01A1	204,101
PAK, WILLIAM L.	MECHANISM OF PROLONGED EXCITATION IN PHOTORECEPTORS	1R01 EY03381-01	45,430
PARDUE, HARRY L.	INSTRUMENTATION FOR FAST CLINICAL ANALYSES	5R01 GM13326-13	101,586
PEPPERBERG, DAVID R.	VISUAL PIGMENT AND PHOTORECEPTOR ADAPTATION	3R01 EY02103-03S1	15,506
PEPPERBERG, DAVID R.	VISUAL PIGMENT AND PHOTORECEPTOR ADAPTATION	2R01 EY02103-04	67,500
PINTO, LAWRENCE H.	INTERMEDIATE PROCESSES IN PHOTORECEPTORS	5R01 EY01221-07	68,684
PINTO, LAWRENCE H.	MAMMALIAN VISUAL MUTANTS	5R01 EY02536-03	45,960
POWLEY, TERRY L.	HYPOTHALAMIC CONTROL OF BODY WEIGHT AND FEEDING	5R01 AM27627-02	61,686
PROHOFKY, EARL W.	MOTIONAL DYNAMICS OF DNA HELICES	2R01 GM24443-03	75,137
RAY, WILLIAM J, JR.	MECHANISM OF THE GROUP TRANSFER PROCESS	5R01 GM08963-18	124,492
REGNIER, FRED E.	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY OF PROTEINS	2R01 GM25431-03	88,621
RODWELL, VICTOR W.	MECHANISM OF REGULATION OF HMG-COA REDUCTASE ACTIVITY	2R01 HL19223-04A1	96,201
ROSSMANN, MICHAEL G.	STRUCTURE OF A SMALL SPHERICAL VIRUS	5R01 AI12129-08	101,293
ROSSMANN, MICHAEL G.	STRUCTURAL STUDIES OF PROTEIN SUBUNITS	5R01 GM10704-18	131,151
ROSSMANN, MICHAEL G.	ROTATING DRUM FILM SCANNER	5P41 GM27517-02	2,997
SMITH, L DENNIS	CYTOPLASMIC REGULATION IN EARLY CELL DIFFERENTIATION	5R01 HD04229-12	158,889
SOMERVILLE, RONALD L.	REGULATORY MECHANISMS IN TRYPTOPHAN BIOSYNTHESIS	5R01 GM22131-06	78,210

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
INDIANA—Continued			
STEIN, ARNOLD	CHROMATIN ASSEMBLY AND DISASSEMBLY BY PROTEINS	1R01 GM27719-01	101,603
TESSMAN, ETHEL S.	REGULATORY MECHANISMS IN SMALL DNA PHAGES	5R01 AI1853-07	86,738
TSAI, MING-DAW	STEREOCHEMISTRY OF ADENYLYL TRANSFER REACTIONS	5R01 GM26839-02	50,738
TYLER, VARRIO E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05586-13	59,234
UMBARGER, H EDWIN	ENZYMIC MECHANISMS IN BIOSYNTHETIC PATHWAYS	5R01 GM12522-16	191,380
VAN ETEN, ROBERT L	THE ACTIVE SITES OF ACID PHOSPHATASES	5R01 GM27003-11	93,982
WEINBERG, BERND	LINGUISTIC ASPECTS OF SPEECH AFTER LARYNGECTOMY	5R01 NS15371-02	25,997
WEINTRAUB, HERSCHEL J.	CONFORMATIONAL ANALYSIS OF BIOLOGICAL MOLECULES	5R01 GM25142-02	47,651
WEITH, H LEE	SEQUENCING ROUS SARCOMA VIRUS DNA INTEGRATION SITES	5R01 CA23332-03	44,575
WIEBERS, JOYCE L	IDENTITY AND LOCALE OF ALKYLATED NUCLEOSIDES IN DNA	5R01 CA23859-03	43,604
ZALKIN, HOWARD	SYNTHESIS OF EXTRACELLULAR PROTEINS IN BACTERIA	5R01 AI15929-02	38,174
ZALKIN, HOWARD	REGULATORY ENZYMES IN TRYPTOPHAN SYNTHESIS	5R01 GM24658-10	77,020
ORGANIZATION TOTAL	120	9,047,000	
STATE TOTAL	280	24,431,100	
IOWA			
AMES			
IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY ZIP CODE 50010			
APPLEQUIST, JON B	THEORY OF MOLECULAR OPTICAL PROPERTIES	2R01 GM13684-14	47,092
CARLSON, JOSEPH R	HORMONES: ACTION ON IDENTIFIED NEURONS	1R01 NS15277-01A1	49,995
DELLMANN, H DIETER	HERRING BODY AND PITUITARY IN NEUROSECRETION	5R01 NS14062-03	42,489
FRENCH, DEXTER	MECHANISM OF AMYLASE ACTION	5R01 GM08822-19	85,866
FROMM, HERBERT J.	REGULATION OF BRAIN AND TUMOR PHOSPHOTRANSFERASES	2R01 NS10546-15	50,130
GRAVES, DONALD J.	INTERCONVERSION & REGULATION OF GLYCOGEN METABOLISM	2R01 GM09587-19	91,036
HOFFMANN, RICHARD J.	FUNCTION OF GENETICALLY DETERMINED ENZYME VARIATION	7R01 GM28024-01	47,052
HOROWITZ, JACK	STRUCTURAL BASIS OF RIBONUCLEIC ACID SPECIFICITY	5R01 GM09042-18	72,878
KRAUS, GEORGE A	SYNTHESIS OF TRICHOETHENE LACTONES	5R01 CA23663-03	49,328
KRAUS, GEORGE A	SILYL ENONES IN ANTHRACYCLINE SYNTHESIS	2R01 GM24474-03	55,455
KRAUS, GEORGE A	NIGMS SHARED INSTRUMENTATION PROGRAM—200 MHZ NMR	5P41 GM27433-02	16,622
LAROCK, RICHARD C	SYNTHESIS OF PROSTAGLANDIN ANALOGUES AND ANTAGONISTS	5R01 AM21795-03	37,302
LAROCK, RICHARD C	SYNTHESIS OF BIOLOGICALLY ACTIVE HETEROCYCLES	2R01 GM24254-04	87,592
MASON, MILDRED	READING DISABILITY AND THE ENCODING OF VISUAL STIMULI	5R01 EY01813-05	30,992
MAYFIELD, JOHN E	DROSOPHILA HMG PROTEINS	5R01 AG01927-02	29,292
METZLER, DAVID E.	THE ACTION OF B VITAMINS IN ENZYMIC CATALYSIS	2R01 AM01549-24	123,719
NORDSKOG, ARNE W.	HISTOCOMPATIBILITY IMMUNE RESPONSE GENES IN CHICKENS	5R01 AI12746-05	81,902
PATTEE, PETER A	GENETICS OF BIOSYNTHESIS IN STAPHYLOCOCCUS AUREUS	5R01 AI06647-13	58,860
POLLAK, EDWARD	RESEARCH IN MATHEMATICAL AND STATISTICAL GENETICS	5R01 GM13827-14	43,145
ROBYT, JOHN F	BIOSYNTHETIC STUDY OF DENTAL PLAQUE POLYSACCHARIDES	5R01 DE03578-09	54,698
WARNER, CAROL M.	ROLE OF THE MHC IN EARLY MAMMALIAN DEVELOPMENT	1R01 HD13748-01	36,671
ZAFFARANO, DANIEL J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07034-15	76,768
ORGANIZATION TOTAL	22	1,268,884	
IOWA CITY			
UNIVERSITY OF IOWA ZIP CODE 52242			
ABBOUD, FRANCOIS M.	REGULATION OF THE CIRCULATION IN PATHOLOGICAL STATES	5P01 HL14388-09	1,549,951
ANURAS, SINN	STUDIES OF FAMILIAL VISCERAL MYOPATHY	5R01 AM25965-02	89,721
ARNONE, ARTHUR	X-RAY STUDIES OF HEMOGLOBIN AND OTHER PROTEINS	5R01 AM17563-07	85,363
ASHMAN, ROBERT F.	IMMUNOLOGIC ROLE OF THE ANTIGEN BINDING CELL	7R01 AI17803-01	101,966
ASHMAN, ROBERT F.	EARLY ACTIVATION EVENTS—NORMAL/IMMUNE DEFICIENT B CELLS	1R01 AI17990-01	76,233
BAR, ROBERT S.	INSULIN RECEPTORS AND INSULIN-MODULATED IMMUNE FUNCTION	5R01 AM21250-03	57,064
BAR, ROBERT S.	ACTION OF INSULIN AND GROWTH PEPTIDES ON ENDOTHELIUM	3R01 AM25421-01S1	3,000
BAR, ROBERT S.	ACTION OF INSULIN AND GROWTH PEPTIDES ON ENDOTHELIUM	5R01 AM25421-02	41,061
BEAM, KURT G. JR	REGULATION OF MEMBRANE EXCITABILITY	5R01 NS14901-02	44,870
BENTON, ARTHUR L	PERFORMANCE TESTS IN CEREBRAL DISEASE	5R01 NS00616-27	60,332
BHALLA, RAMESH C	CALCIUM/IONS & C-AMP ROLE IN CAUSATION OF HYPERTENSION	5R01 HL19027-05	79,342

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
BHATNAGAR, RANBIR K.	EFFECTS OF DRUGS ON NEUROCHEMICAL MATURATION OF BRAIN	5R01 NS12121-06	68,135
BLACK, ASA C, JR.	CNS EPINEPHRINE AND HYPERTENSION	5R23 HL24351-02	37,087
BLAIR, WILLIAM F.	INFLUENCE OF WRIST PATHOMECHANICS ON HAND FUNCTION	5R01 AM14659-09	124,247
BLAKLEY, RAYMOND L.	STRUCTURAL STUDIES ON DIHYDROFOLATE REDUCTASE	2R01 CA13840-09	103,905
BLAKLEY, RAYMOND L.	INHIBITORS OF HUMAN RIBONUCLEOTIDE REDUCTASE	5R01 CA16254-06	30,277
BLAKLEY, RAYMOND L.	METHOTREXATE TOXICITY AND RESCUE	5R01 CA25693-02	66,887
BLAKLEY, RAYMOND L.	ALLOSTERIC REGULATION OF MONOMERIC ENZYMES	5R01 GM26538-12	86,831
BLAKLEY, RAYMOND L.	SEQUENCING FACILITY	5P41 GM27441-02	18,742
BRAND, RICHARD A.	BIOMECHANICS OF HIP AND KNEE	5R01 AM14486-09	106,556
BURNS, CHARLES P.	LIPID METABOLISM OF LEUKOCYTES	5R01 CA17283-06	64,602
BURTON, THOMAS C.	MACULAR PHOTOCOAGULATION STUDY	5R10 EY02553-02	42,128
CAMPBELL, DONALD T.	MOLECULAR BASIS OF MEMBRANE EXCITABILITY	5R01 NS15400-02	24,063
CAPLAN, RICHARD M.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18017-06	170,916
CHALKLEY, ROGER G.	STRUCTURE AND FUNCTION OF CHROMOSOMAL NUCLEOHISTONE	5R01 CA10871-13	110,249
CHALKLEY, ROGER G.	REPLICATION AND ACETYLTATION OF HEPATOMA CHROMATIN	1R01 GM27228-01	92,955
CHANDRAN, KRISHNAN B.	PULSATILE FLOW DYNAMICS OF PROSTHETIC HEART VALVES	1R01 HL26269-01	40,896
CHRISTENSEN, JAMES	STUDIES OF THE SMALL INTESTINAL SLOW WAVE	5R01 AM08901-15	99,595
CHRISTENSEN, JAMES	REGULATION OF THE LOWER ESOPHAGEAL SPHINCTER	5R01 AM11242-14	95,043
CLARK, EDWARD B.	ROLE OF BLOOD FLOW IN AORTIC ARCH DEVELOPMENT	5R01 HD14723-02	40,673
CLARKSON, BRIAN H.	ANTI-CARIES MECHANISMS OF FLUORIDE COMPLEXES: IN VITRO	5R01 DE04835-02	59,528
COFFMAN, ROBERT E.	SPIN-SPIN MAGNETIC GEOMETRY-DYNAMIC EXCHANGE COUPLING	5R01 GM24480-02	54,216
CONWAY, THOMAS W.	PROTEIN SYNTHESIS IN T4 BACTERIOPHAGE-INFECTED CELLS	5R01 AI13101-08	69,213
COOPER, GEORGE, IV.	THE MECHANICAL BASIS OF MYOCARDIAL ENERGETICS	5R01 HL21570-03	63,917
COUCOUVANIS, DIMITRI	IRON AND MOLYBDENUM COMPLEXES: ENZYME ACTIVE SITES	5R01 GM26671-02	68,175
COX, CHARLES D, JR.	IN VIVO GROWTH OF PSEUDOMONAS AERUGINOSA	2R01 AI13120-04	68,595
CRAWFORD, IRVING P.	MUTATIONAL PERTURBATION OF SUBUNIT INTERACTIONS	5R01 GM25735-03	75,509
DAVIS, LEODIS	SERINE AND THREONINE METABOLISM	5R01 AM16950-07	64,978
DAWSON, DAVID C.	ION TRANSPORT BY THE COLON AND HORMONAL CONTROL	5R01 AM18776-05	38,238
DE GOWIN, RICHARD L.	HEMOPOIETIC CONTROL MECHANISMS	5R01 CA11472-08	112,878
DEMBURG, JEFFREY L.	BIOCHEMISTRY OF CELL RECOGNITION IN NERVOUS SYSTEMS	5R01 NS14295-03	54,256
DI BONA, GERALD F.	THE NEURAL CONTROL OF RENAL FUNCTION	5R01 AM15843-08	67,697
DONELSON, JOHN E.	VARIANT SURFACE ANTIGEN GENES OF TRYPANOSOMA BRUCEI	1R01 AM16950-01	67,500
DONELSON, JOHN E.	SEQUENCE ANALYSIS & EXPRESSION OF YEAST & DROSOPHILA DNA	5R01 GM21696-05	51,186
DONHAM, KELLEY J.	THE EPIDEMIOLOGY OF LEUKEMIA IN RURAL IOWA	1R01 CA28626-01	101,224
DONTA, SAM T.	CHOLERA TOXIN AND ADRENAL CELLS IN TISSUE CULTURE	5R22 AI11416-08	50,155
DONTA, SAM T.	E. COLI ENTEROTOXINS AND DIARRHEAL DISEASE	5R22 AI11794-06	54,360
DUTTON, GARY R.	CNS CELL CULTURES AS A MODEL FOR BRAIN DEVELOPMENT	1R01 NS16518-01	103,131
ECKSTEIN, JOHN W.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00059-19	836,877
ECKSTEIN, JOHN W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05372-19	189,877
FALSETTI, HERMAN L.	FLUID MECHANICS OF HEART VALVE PROSTHESES	3R01 HL20829-03S1	8,586
FALSETTI, HERMAN L.	FLUID MECHANICS OF HEART VALVE PROSTHESES	2R01 HL20829-04	31,185
FEISS, MICHAEL G.	VIRUS CHROMOSOME STRUCTURE: ROLE IN DEVELOPMENT	5R01 AI12851-05	90,868
FELDBUSH, THOMAS L.	EVALUATE TUMOR PATIENT CELL MEDIATED IMMUNITY—IN VITRO	5R26 CA26662-02	30,705
FELLOWS, ROBERT E, JR.	STRUCTURE AND FUNCTION OF PLACENTAL LACTOGEN	5R01 HD13154-02	53,410
FISCHER, LAWRENCE J.	AGE-RELATED CHANGES IN DRUG CONJUGATION	5R01 GM26811-02	55,041
FITZ, ANNETTE E.	THE RENIN-ANGIOTENSIN SYSTEM AND KALLIKREIN-KININ	5R01 HL23429-02	63,187
FOLKINS, JOHN W.	STUDIES OF SPEECH ARTICULATION	2R01 NS07555-13	92,042
FOMON, SAMUEL J.	GROWTH AND NUTRITION OF NORMAL INFANTS	5P01 HD07578-06	496,054
FONSECA, RAYMOND J.	OSSEOUS HEALING IN RIDGE AUGMENTATION PROCEDURES	7R01 DE05755-01	44,133
FRATKIN, JONATHAN D.	PROLIFERATION OF RETINAL VASCULAR ENDOTHELIUM IN VITRO	1R23 EY03488-01	11,830
GEBHART, GERALD F.	NEUROPHYSIOLOGY/PHARMACOLOGY OF CENTRAL NOCICEPTORS	5R01 GM22026-05	66,010
GEBHART, GERALD F.	NEUROPHARMACOLOGY OF INTRACRANIALY-INDUCED ANALGESIA	5R01 NS12114-05	50,421
GETTING, PETER A.	ANALYSIS OF INTERNEURONS AND MOTONEURONS IN TRITONIA	7R01 NS17328-01	43,102
GINSBERG, BARRY H.	RADIOIMMUNOASSAY OF THE SOMATOMEDINS IN DIABETES	2R01 AM21084-04	54,131
GINSBERG, BARRY H.	INSULIN RECEPTORS DURING IN VITRO DIFFERENTIATION	5R01 AM21128-03	51,665
GISOLFI, CARL V.	HYPOTHALAMIC FUNCTION IN EXERCISE THERMOREGULATION	5R01 NS14745-02	68,530
GOFF, HAROLD M.	HIGH OXIDATION STATE IRON PORPHYRINS	1R01 GM28831-01	53,200
GRANNER, DARYL K.	INSULIN RECEPTORS AND MECHANISM OF INSULIN ACTION	5R01 AM20858-03	63,436
GRANNER, DARYL K.	HORMONAL REGULATION OF GLUCONEOGENIC ENZYME SYNTHESIS	5R01 AM24037-03	57,849
GRANNER, DARYL K.	CORE CENTER: DIABETES AND ENDOCRINOLOGY	5P30 AM25295-02	483,585
GRISSEM, FELIX E.	LACTOGEN RECEPTOR IN UTERUS AND OVARY DURING PREGNANCY	5R01 HD13230-02	49,920

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
HALMI, NICHOLAS S.....	INVESTIGATION OF THE THYROID AND PITUITARY.....	2R01 AM02463-22	53,030
HARRIS, RICHARD R.....	FACTORS ASSOCIATED WITH HYPERPLASIA OF ORAL MUCOSA.....	5R23 DE05393-02	30,652
HART, MICHAEL N.....	MORPHOLOGIC EXAMINATION OF BRAIN PARENCHYMAL VESSELS.....	5R01 HL22149-03	38,371
HAYREH, SOHAN S.....	PHOTOCOAGULATION STUDIES ON RETINAL VEIN OCCLUSION.....	2R01 EY01151-06	79,000
HAYREH, SOHAN S.....	OCULAR VASCULAR OCCLUSIVE DISORDERS.....	3R01 EY01576-05S1	8,627
HAYREH, SOHAN S.....	EXPERIMENTAL OCULAR VASCULAR OCCLUSIVE STUDIES.....	2R01 EY01576-06	100,243
HEATH, EDWARD C.....	CHEMISTRY AND METABOLISM OF POLYSACCHARIDES.....	5R01 AM19850-05	152,824
HEISTAD, DONALD D.....	NEUROGENIC CONTROL OF THE CIRCULATION.....	5R01 HL16066-07	53,851
HERMSMEYER, R KENT.....	MEMBRANE ELECTRICAL PROPERTIES OF VASCULAR MUSCLE.....	5R01 HL16328-08	45,174
HOAK, JOHN C.....	FACTORS INFLUENCING ENDOTHELIAL FUNCTION.....	5R01 HL22408-02	88,848
HOFFMANN, LOUIS G.....	CRITICAL SS BONDS FOR IGG ANTIBODY EFFECTOR FUNCTION.....	1R01 AI17228-01	61,713
HUBEL, KENNETH A.....	WATER AND ELECTROLYTE TRANSPORT BY THE INTESTINE.....	5R01 AM18769-05	67,959
HUG, DANIEL H.....	PHOTOACTIVATION OF URONCANASE IN PSEUDOMONAS PUTIDA.....	5R01 GM26241-02	74,389
HUNSICKER, LAWRENCE G.....	MECHANISMS OF INJURY IN IMMUNE COMPLEX NEPHRITIS.....	5R01 AM26125-02	53,906
JENNINGS, MICHAEL L.....	BIOCHEMICAL STUDIES OF ERYTHROCYTE ANION TRANSPORT.....	5R01 GM26861-02	47,708
JEW, JEAN Y.....	DEVELOPMENT SUBSEQUENT TO JAUNDICE OF THE NEWBORN.....	5R01 HD11800-03	45,563
JEW, JEAN Y.....	STUDIES OF VASOMOTOR CONTROL.....	5R23 HL21914-03	38,914
JOHNSON, ALAN K.....	THE PATHOGENESIS OF STRESS-INDUCED HYPERTENSION.....	5R01 HL24102-02	82,802
JOHNSON, WILLIAM.....	RIBOSOMAL VACCINES.....	5R01 AI10449-08	54,161
JOHNSON, WILLIAM.....	LEGIONNAIRES' DISEASE BACTERIUM.....	5R01 AI15807-02	58,102
KAELBER, WILLIAM W.....	EXPERIMENTAL INVESTIGATION OF PAIN.....	5R01 GM23336-05	55,764
KALNITSKY, GEORGE.....	PROTEASES IN NORMAL AND IMMUNOLOGICALLY INJURED LUNG.....	5R01 HL16920-04	49,190
KAPLAN, JACK H.....	SODIUM PUMP PARTIAL REACTIONS IN HUMAN ERYTHROCYTES.....	5R01 HL24309-02	53,488
KASSELL, NEAL F.....	TIMING OF CEREBAL ANEURYSM SURGERY.....	1R01 NS15940-01A1	184,156
KATER, STANLEY B.....	INTEGRATION OF INTERCELLULAR COMMUNICATION.....	2R01 AM19858-04	97,126
KATER, STANLEY B.....	NEURAL CONTROL OF DISCRETE BEHAVIORAL PROCESSES.....	5R01 NS09696-09	48,794
KISKER, C THOMAS.....	BLOOD COAGULATION IN THE FETUS: A FETAL LAMB MODEL.....	5R01 HD12574-02	92,345
KLASSEN, LYNELL W.....	PATHOGENETIC ROLE OF SUPPRESSOR CELLS IN AUTOIMMUNITY.....	5R01 AI15518-02	50,198
KOLLROS, JERRY J.....	GENERATION OF NEURONAL FORM AND FUNCTION.....	5P01 NS15350-02	266,869
LACHENBRUCH, PETER A.....	ESTIMATION OF PROGNOSIS USING SEER DATA.....	5R01 CA24089-03	145,335
LAKES, RODERIC S.....	EXPERIMENTAL STUDY OF ASYMMETRIC ELASTICITY IN BONE.....	5R01 AM25863-02	32,494
LAUER, RONALD M.....	SMOKING IN SCHOOL AGE CHILDREN: THE MUSCATINE STUDY.....	5R01 HD13374-02	99,574
LAUER, RONALD M.....	CORONARY RISK FACTORS IN CHILDREN.....	5R01 HL20124-04	57,693
LIU, YOUNG K.....	THE TRAUMATOLOGY OF THE HEAD AND SPINE.....	5R01 GM26608-02	111,283
LOENING, STEFAN A.....	CHEMOTHERAPY OF ADVANCED PROSTATIC CANCER.....	5R26 CA15108-07	107,871
LOENING, STEFAN A.....	EVALUATION AND TREATMENT OF PATIENTS WITH BLADDER CANCER.....	2R26 CA15933-07	126,283
LONG, JOHN P.....	STRUCTURE ACTIVITY STUDIES OF PHARMACOLOGIC AGENTS.....	5P01 GM22365-05	246,992
LONG, JOHN P.....	AUTONOMIC TRANSMISSION.....	5R01 NS04431-18	33,567
LONGO, FRANK J.....	EFFECTS OF AGING ON OVULATED EGGS AND FERTILIZATION.....	5R01 HD12174-03	76,458
LUBAROFF, DAVID M.....	IMMUNOLOGIC ASPECTS OF PROSTATIC CANCER.....	5R26 CA18014-06	39,447
LUND, DONALD D.....	REGENERATION OF CARDIAC PARASYMPATHETIC INNERVATION.....	5R23 HL24246-02	43,498
LUTWICK, LARRY I.....	HEPATITIS B VIRUS AND HEPATOCELLULAR CARCINOMA.....	5R01 CA25811-02	42,751
MACINDOE, JOHN H.....	METABOLISM IN ESTROGEN AND ANDROGEN BREAST CANCER CELLS.....	5R01 CA24687-02	47,788
MACKENZIE, IAN C.....	FACTORS DETERMINING VARIATION IN ADULT ORAL MUCOSA.....	5R01 DE05190-02	92,205
MACKENZIE, IAN C.....	STEM CELLS IN ORAL MUCOSA.....	1R01 DE05395-01	64,828
MACKENZIE, IAN C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05313-19	104,171
MARCUS, MELVIN L.....	EFFECTS OF HYPERTROPHY ON THE CORONARY CIRCULATION.....	3R01 HL20827-03S1	6,943
MARCUS, MELVIN L.....	STUDIES OF THE ESCAPE PHENOMENON IN CEREBRAL VESSELS.....	5R01 HL23731-02	58,203
MARK, ALLYN L.....	MODULATION OF BARORECEPTOR REFLEXES.....	1R01 HL24962-01	59,708
MARKOVETZ, ALLEN J.....	INTESTINAL ANAEROBIC MICROFLORA OF AN INVERTEBRATE.....	2R01 AI13990-04	89,808
MARKOVETZ, ALLEN J.....	MICROBIAL AND INSECT METABOLISM OF ALIPHATIC COMPOUNDS.....	5R01 GM19809-09	80,443
MAURER, RICHARD A.....	REGULATION OF PROLACTIN SYNTHESIS.....	5R01 AM21803-03	48,033
MENNINGER, JOHN R.....	CONTROL AND MECHANISM OF PROTEIN-CHAIN TERMINATION.....	5R01 GM20626-07	74,903
MONTGOMERY, REX.....	STRUCTURAL STUDIES OF ANTIGENS OF LEGIONNAIRES' DISEASE.....	1R01 AI17159-01	76,677
MONTGOMERY, REX.....	STRUCTURES OF CARBOHYDRATE PROSTHETIC GROUPS.....	5R01 GM14013-10	75,389
MORRIS, HUGHLETT L.....	DIAGNOSTIC AND PROGNOSTIC TECHNIQUES IN CLEFT PALATE.....	5P01 DE00853-23	429,729
MYERS, MARTIN G.....	PATHOPHYSIOLOGY OF VARICELLA ZOSTER VIRUS INFECTION.....	2R01 AI13627-04	95,549
MYERS, MARTIN G.....	ACUTE RESPIRATORY ILLNESSES IN SURVIVORS OF INFANT RDS.....	5R01 HD10598-03	126,493
NEWLON, CAROL S.....	DNA REPLICATION IN SACCCHAROMYCES CEREVISIAE.....	5R01 GM21510-06	61,197
OWEN, WHYTE G.....	BIOCHEMISTRY AND PHYSIOLOGY OF THROMBIN.....	2R01 HL22471-03	72,473
PAMPEL, FRED C.....	A CROSS-NATIONAL DYNAMIC STUDY OF RETIREMENT LEVELS.....	5R01 AG01568-02	41,852

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
PEDRINI, VITTORIO A.	LIGAMENT PROTEOGLYCANS AND INTERACTIONS WITH COLLAGEN	1R01 AM27330-01	89,472
PEDRINI, VITTORIO A.	PROTEOGLYCANS OF ANIMAL LUNG PARENCHYMA	5R01 HL21626-03	48,538
PESANTI, EDWARD L.	INTERACTION OF ALVEOLAR MACROPHAGES WITH PNEUMOCYSTIS	5R01 AI15223-03	51,742
PIETRZYK, DONALD J.	SEPARATION AND DETERMINATION OF CARCINOGENS	5R01 CA18555-06	37,977
RAIZADA, MOHAN K.	REGULATION OF INSULIN AND GLUCAGON RECEPTORS	5R01 AM21018-03	60,043
RICHERSON, HAL B.	PULMONARY RESPONSES TO INHALED ANTIGEN	5R01 HL19873-05	92,262
RICHERSON, HAL B.	PATHOGENESIS IN EXPERIMENTAL INTERSTITIAL PNEUMONITIS	5R01 HL22676-03	66,912
RILEY, EDGAR F.	ASSAY OF TUMOR INDUCTION BY X-RAY AND DRUG MODALITIES	5R01 CA26511-02	67,135
ROBILLARD, JEAN E.	MATURATION OF THE FETAL KIDNEY	5R01 HD11466-04	46,200
ROSAZZA, JOHN P.	MICROBIAL TRANSFORMATIONS—NATURAL ANTITUMOR AGENTS	2R01 CA13786-07	75,558
ROSAZZA, JOHN P.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1S0R RR09222-01	87,066
RUBENSTEIN, PETER A.	CONTRACTILE PROTEINS FROM SMOOTH MUSCLE CELLS	5R01 GM24702-03	56,589
RUSHTON, GERARD	RETIREMENT DECISION-MAKING: DETERMINANTS OF MIGRATION	5R21 AG01182-03	50,668
SALU, YEHUDA	MEASURING AND USING TORSO EFFECTS IN ELECTROCARDIOGRAPHY	5R23 HL22795-02	41,855
SANDQUIST, DEAN S.	DIFFERENTIATION IN A MALIGNANT NEURAL TUMOR	5R23 CA24241-03	26,453
SATO, KENZO	MECHANISM OF ECCRINE SWEAT GLAND FUNCTION	5R01 AM25339-03	85,797
SCHMID, PHILLIP G.	MECHANISMS OF CIRCULATORY REGULATION IN HEART FAILURE	3R01 HL20768-03S1	5,652
SCHMID, PHILLIP G.	ROLE OF VASOPRESSIN IN HEART FAILURE	1R01 HL25227-01	84,627
SHANLEY, JOHN D.	CYTOMEGALOVIRUS AND PULMONARY DEFENSE MECHANISMS	1R01 AI16817-01	57,958
SHERMAN, BARRY M.	PATHOBIOLOGY OF AMENORRHEA/HYPERPROLACTINEMIA	1R01 HD13136-01A1	114,015
SILVERSTONE, LEON M.	REMINERALIZATION OF ENAMEL CAVITIES IN VITRO	2R01 DE04819-04	80,919
SINGH, DIWAN	CYCIC AMP DEPENDENT PROTEIN KINASES IN HYPERTENSION	5R23 HL22984-03	42,286
SIX, ERICH W.	GENETIC STUDIES OF PHAGE-PROPHAGE INTERACTIONS	5R01 AI04043-19	101,414
SODERBERG, GARY H.	ANALYSIS OF MOTOR UNIT DISCHARGE IN ELDERLY MAN	5R01 AG01280-02	43,129
SOLL, DAVID R.	THE REGULATION OF DIMORPHISM IN CANDIDA ALBICANS	5R01 AI15743-02	45,639
SOLL, DAVID R.	THE REGULATION OF TIMING IN DEVELOPING SYSTEMS	5R01 GM25832-02	53,733
SOLURSH, MICHAEL	CONTROL OF EXTRACELLULAR MATRIX SYNTHESIS	5R01 HD05505-08	78,192
SPECTOR, ARTHUR A.	A/S SCOR—LIPIDS, ATHEROSCLEROSIS AND THROMBOSIS	5P50 HL14230-09	1,049,458
SPECTOR, ARTHUR A.	LIPID DEPOSITION IN MAMMALIAN CELLS	5R01 HL14781-10	125,963
SPECTOR, REYNOLD	DRUG, VITAMIN, AND HORMONE TRANSPORT IN SPINAL FLUID	2R01 NS15073-03	87,790
SPECTOR, REYNOLD	PTERIDINES IN BRAIN: HOMEOSTASIS AND FUNCTION	5R01 NS15074-03	71,010
SPIESTERSBACH, DUANE C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07035-15	105,784
SQUIER, CHRISTOPHER A.	NATURE OF THE PERMEABILITY BARRIER IN ORAL EPITHELIUM	1R01 DE05525-01	59,948
STAUFFER, GEORGE V.	REGULATION OF ONE CARBON METABOLISM	5R01 GM26878-02	58,980
STAY, BARBARA A.	CONTROL OF JUVENILE HORMONE SYNTHESIS	5R01 AI15230-02	52,700
STEINMETZ, PHILIP R.	TRANSPORT PROCESSES OF URINARY ACIDIFICATION	2R01 AM17568-07	128,400
STEINMETZ, PHILIP R.	CONTROL OF POTASSIUM TRANSPORT IN BLADDER	5R01 AM24022-02	64,514
STELLWAGEN, EARLE C.	STRUCTURE AND FUNCTION STUDIES OF CYTOCHROME C	2R01 GM13215-15	50,268
STELLWAGEN, EARLE C.	AFFINITY CHROMATOGRAPHY FOR THE DINUCLEOTIDE FOLD	5R01 GM22109-06	77,428
STEVENS, REGGIE H.	RADIATION-EQUIVALENCY OF MUTAGENS/CARCINOGENS	1R01 ES02352-01	44,420
STINSKI, MARK F.	CYTOMEGALOVIRUS TRANSCRIPTION AND TRANSLATION	5R01 AI13562-05	53,068
STOKES, JOHN B. III	PROSTAGLANDINS AND ION TRANSPORT ACROSS RENAL TUBULES	5R01 AM25231-03	72,878
STOLTZFUS, CONRAD M.	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNAS	5R01 CA28051-02	99,417
STRAUSS, JOHN S.	EVALUATION OF PATHOGENIC FACTORS IN ACNE VULGARIS	5R01 AM22083-03	158,799
STRAUSS, JOHN S.	WORKSHOP ON ORAL RETINOLIDS IN DERMATOLOGICAL DISEASE	1R13 AM26804-01	25,000
STRAUSS, RONALD G.	NEUTROPHIL FUNCTIONS IN THE NEONATE	5R01 HD11964-03	22,789
TEPHLY, THOMAS R.	BIOCHEMICAL TOXICOLOGY AND PHARMACOLOGY	5P50 GM12675-16	772,308
TEPHLY, THOMAS R.	METHANOL POISONING	5R01 GM19420-09	106,173
TEPHLY, THOMAS R.	MORPHINE AND ESTROGEN GLUCURONYLTRANSFERASE ACTIVITIES	5R01 GM26221-02	58,699
THAMES, MARC D.	CARDIAC RECEPTORS WITH VAGAL C-FIBER AFFERENTS	5R01 HL21158-04	31,045
THAMES, MARC D.	ROLE OF RENAL NERVES IN CONTROL OF RENIN SECRETION	1R01 HL23898-01A1	29,980
THOMPSON, H. STANLEY	PUPILLARY AND VER INDICATORS OF OPTIC NERVE DISEASE	1R01 EY03500-01	39,129
THOMPSON, ROBERT G.	HORMONE INTEGRATED CONCENTRATIONS IN DIABETES	2R01 AM18439-04A2	45,911
TIPTON, CHARLES M.	INFLUENCE OF CHRONIC EXERCISE ON HYPERTENSIVES	5R01 HL21245-04	79,008
TOMANEK, ROBERT J.	INFLUENCE OF AGING AND HYPERTENSION ON THE MYOCARDIUM	2R01 HL18629-06	54,063
VAN HOESEN, GARY W.	MESOCORTICAL ANATOMY AND PLASTICITY	5R01 NS14944-02	44,696
VAN HOUTEN, JUDITH L.	GENETIC DISSECTION OF CHEMOKINESIS IN PARAMYELIUM	1R01 GM26231-01A1	70,158
VAN ORDEN, DIANNA E.	BIOGENIC AMINES AND PROSTAGLANDINS IN UTERINE FUNCTION	5R01 HD06380-08	126,574
WALLACE, ROBERT B.	ANOVLUTION & EPIDEMIOLOGY OF HORMONE-RESPONSIVE TUMORS	2R01 CA15104-07	82,390
WATZKE, ROBERT C.	TOXOCARA CANIS INFECTION OF THE PRIMATE EYE	5R01 EY02280-03	26,628
WAZIRI, RAFIQ	APLYSIA NEUROPHYSIOLOGY—PRESYNAPTIC ELECTROTONIC COUPLING	5R01 NS14052-03	44,777

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
IOWA—Continued			
WEFEL, JAMES S.....	KINETICS AND MECHANISMS OF ACTION OF FLUORIDES.....	5R01 DE04486-03	54,390
WEINBERGER, MILES M.....	PHARMACOLOGIC MANAGEMENT OF CHILDREN WITH ASTHMA.....	1R01 AI16151-01	113,797
WHITE, CARL W.....	EFFECT OF CONTINUING EDUCATION ON PHYSICIAN BEHAVIOR.....	5R25 HL23517-02	90,814
WILLIAMS, NORMAN E.....	MEMBRANE BIOGENESIS DURING REGENERATION OF CILIA.....	5R01 GM25769-02	42,825
WILLIAMS, TERENCE H.....	NEUROPLASTICITY, AND PROMOTING CENTRAL REGENERATION.....	5R01 NS11650-08	73,730
WU, CHUN-FANG.....	PHYSIOLOGY OF NEURONS IN DEVELOPMENT.....	1R01 NS15797-01	61,507
ORGANIZATION TOTAL	200 19,035,852		
MOUNT VERNON			
CORNELL COLLEGE ZIP CODE 52314			
JORDAN, TRUMAN H.....	SNF2 REACTION WITH APATITE AND OTHER CA/PO4 SYSTEMS.....	5R01 DE04192-06	20,469
JORDAN, TRUMAN H.....	REACTIONS OF TITANIUM FLUORIDE WITH HYDROXYAPATITE.....	5R01 DE04705-02	23,103
ORGANIZATION TOTAL	2 43,572		
STATE TOTAL	224 20,348,308		
KANSAS			
KANSAS CITY			
AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE ZIP CODE 66103			
SMITH, WESLEY D.....	LOEB CLASSICAL LIBRARY, HIPPOCRATES, VOLUME SIX.....	5R01 LM03047-03	19,600
ORGANIZATION TOTAL	1 19,600		
UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOSPITAL ZIP CODE 66103			
ANDERSON, HARRISON C.....	MINERALIZATION STUDIES RELATED TO ORAL BIOLOGY.....	5R01 DE05262-03	46,265
ARNOLD, WILFRED N.....	CELL ENVELOPES OF PATHOGENIC YEASTS.....	5R01 AI13177-05	38,870
ATKINS, FLOYD L.....	CATECHOLAMINE METABOLISM AND THE HEART.....	5R23 HL21973-03	21,091
BELMONT, JOHN M.....	DEVELOPMENT OF CHILDREN'S SELF-CONTROLLED COGNITION.....	5R01 HD08911-05	62,841
BUNAG, RUBEN D.....	HYPOTHALAMIC DYSFUNCTION IN DIABETES AND HYPERTENSION.....	1R01 AM27660-01	55,512
BUNAG, RUBEN D.....	HYPERTENSION PRODUCED BY SYMPATHETIC DYSFUNCTION.....	5R01 HL14560-09	66,059
BUNAG, RUBEN D.....	NON-INVASIVE BLOOD PRESSURE MEASUREMENT.....	5R01 HL22854-03	33,666
BUTKOWSKI, RALPH J.....	STUDIES OF POLYCYSTIC RENAL DISEASE.....	5R01 AM26178-02	63,546
CHENEY, PAUL D.....	NEURAL MECHANISMS IN THE CONTROL OF LIMB MOVEMENT.....	1R01 NS16262-01	64,988
CHENG, CHIA C.....	NATIONAL CANCER RESEARCH AND DEMONSTRATION CENTER.....	3P30 CA15080-06S1	67,611
CHENG, CHIA C.....	STRUCTURE-ACTIVITY RELATIONSHIP STUDY OF DHAQ ANALOGS.....	1R01 CA28121-01	58,032
CHONKO, ARNOLD M.....	MECHANISM OF URIC ACID TRANSPORT IN THE NEPHRON.....	5R01 AM19624-04	54,784
CLANCY, RICHARD L.....	EFFECT OF HYPOXIA ON CELLULAR ACID BASE REGULATION.....	5R01 HL21889-02	33,114
COHN, DAVID V.....	PARATHYROID AND PROPARATHYROID HORMONE.....	2R01 AM18323-06	56,129
COHN, DAVID V.....	METABOLIC PATHWAYS IN BONE.....	5R01 DE05209-03	95,511
DE, SUDHANSU K.....	STEROID HORMONES AND EMBRYO DEVELOPMENT.....	1R01 HD12122-01A2	32,556
DE, SUDHANSU K.....	ROLE OF HISTAMINE IN EARLY PREGNANCY.....	5R01 HD12304-02	48,668
EBNER, KURT E.....	MECHANISM OF LACTOSE SYNTHESIZING ENZYMES.....	5R01 AM18257-07	72,981
EBNER, KURT E.....	MAMMARY AND LIVER PROLACTIN RECEPTORS.....	5R01 CA17478-06	34,026
FERNANDEZ, HUGO L.....	NEUROTROPIC SUBSTANCES AFFECTING MUSCLES.....	5R01 NS15509-02	21,635
FISHER, HARVEY F.....	STRUCTURE AND MECHANISMS OF ACTION OF ENZYMES.....	5R01 GM15188-14	80,237
FRENKEL, JACOB K.....	TOXOPLASMOSIS: ITS TRANSMISSION AND PREVENTION.....	5R01 AI07489-14	75,423
FRENKEL, JACOB K.....	IMMUNITY OF NONLYMPHOID CELLS TO INTRACELLULAR INFECTION.....	5R01 AI14056-04	71,205
GRANTHAM, JARED J.....	MECHANISMS OF TRANSPORT IN ISOLATED KIDNEY TUBULES.....	5R01 AM13476-11	115,716
GREENWALD, GILBERT S.....	FOLLICULAR AND LUTEAL REGULATION IN THE MAMMALIAN OVARY.....	2R01 HD00596-18	92,507
HALSEY, JOHN F.....	EFFECTS OF COLOSTRUM ON IMMUNE RESPONSIVENESS.....	5R01 HD12416-02	47,941
HELMKAMP, GEORGE M, JR.....	MEMBRANE-PHOSPHOLIPID EXCHANGE PROTEIN INTERACTIONS.....	2R01 GM24035-04	65,188
HOOGSTADEN, BARTH.....	SOUTHWEST ONCOLOGY GROUP STUDIES.....	5R10 CA12644-09	418,441
HOOGSTADEN, BARTH.....	SOUTHWEST ONCOLOGY GROUP—OPERATIONS OFFICE.....	5R10 CA16943-06	629,110
HUDSON, BILLY G.....	STRUCTURE OF BASEMENT MEMBRANES.....	5R01 AM18381-07	73,937
HUDSON, BILLY G.....	PATHOGENESIS OF HUMAN DIABETIC NEPHROPATHY.....	5R01 AM21169-03	39,015
HUNG, KUEN-SHAN.....	DEVELOPMENT OF PULMONARY INNERVATION.....	5R01 HD10139-05	28,919
HURWITZ, ARYEH.....	FACTORS AFFECTING THE RESPONSES TO DRUGS.....	5P50 GM15956-13	317,779

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS—Continued			
JEWELL, WILLIAM R.....	CANCER EDUCATION PROGRAM—MID-AMERICA CANCER CENTER.....	5R25 CA17959-06	106,110
KHALIFAH, RAJA G.....	HUMAN ERYTHROCYTE CARBONIC ANHYDRASE.....	7R01 HL26348-01	29,780
KHALIFAH, RAJA G.....	HUMAN ERYTHROCYTE CARBONIC ANHYDRASE.....	5R01 HL26348-02	42,335
KIMMEL, JOE R.....	STRUCTURE-FUNCTION RELATIONSHIPS IN PROTEINS.....	5R01 AM09072-16	79,634
KIMMEL, JOE R.....	PANCREATIC POLYPEPTIDE IN OBESITY.....	1R01 AM26191-01	31,680
KINSEY, JOHN A.....	GENETIC STUDIES OF GLUTAMATE DEHYDROGENASE MUTANTS.....	5R01 GM23967-03	42,011
KLAASSEN, CURTIS D.....	HEPATIC UPTAKE AND BILIARY EXCRETION IN TOXICOLOGY.....	5R01 AM14513-11	62,483
KLAASSEN, CURTIS D.....	CADMIUM TOXICOLOGY.....	2R01 ES01142-06	64,273
KLEIN, ROBERT M.....	A CELL CYCLE STUDY OF DEVELOPING RAT SALIVARY GLANDS.....	5R23 DE04557-03	13,654
LINDSLEY, HERBERT B.....	TISSUE INJURY IN AFRICAN TRYPAOSOMIASIS.....	5R01 AI15880-02	62,387
LINSHAW, MICHAEL A.....	FLUID TRANSPORT PHYSIOLOGY IN DEVELOPING RENAL TUBULE.....	5R01 AM25748-02	67,675
LOWMAN, JAMES T.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00828-07	6,092
LOWMAN, JAMES T.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05373-19	177,951
MACGREGOR, RONAL R.....	PARATHORMONE METABOLIZING ENZYMES OF THE PARATHYROID.....	1R01 AM26416-01	27,028
MARINO, THOMAS A.....	DEVELOPMENT OF THE CARDIAC AV JUNCTIONAL TISSUES.....	1R01 HL25431-01	5,000
MELNYKOVYCH, GEORGE.....	STEROID INDUCED CHANGES IN CULTURED MALIGNANT CELLS.....	2R01 CA08315-16	63,484
MOORE, WAYNE V.....	ROLE OF AGGREGATED AND MONOMERIC GROWTH HORMONE.....	5R01 AM19544-03	49,770
NELSON, STANLEY R.....	MECHANISMS OF BRAIN DEHYDRATION WITH OSMOTIC DIURETICS.....	5R01 NS14390-03	21,484
PARK, CHAN H.....	CHEMOTHERAPY OF NORMAL AND LEUKEMIC MARROW IN VITRO.....	2R01 CA20717-04	87,085
PARMELY, MICHAEL J.....	THE CELLULAR BASIS OF COLOSTRAL IMMUNITY.....	5R01 HD11787-03	52,985
RAWITCH, ALLEN B.....	THE ROLE OF THYROGLOBULIN IN THYROXINE BIOSYNTHESIS.....	5R01 AM18896-04	71,352
REISSMANN, KURT R.....	ERYTHROPOIETIN STUDIES.....	5R01 AM07239-17	54,495
RHODES, JAMES B.....	INTERACTION OF PANCREAS WITH INTESTINAL BRUSH-BORDER.....	5R01 AM22135-02	54,698
ROWE, VERNON D.....	PINEAL GLAND EFFECTS ON GROWTH AND DEVELOPMENT.....	5R01 HD12904-02	41,863
SAYIN, VIRGINIA J.....	ULTRAFILTRATION CHARACTERISTICS OF ISOLATED GLOMERULI.....	5R01 AM22040-03	46,504
SILVERSTEIN, RICHARD.....	PEP CARBOXYKINASE IN SUDDEN INFANT DEATH SYNDROME.....	3R01 HD10562-03S1	10,031
SMITH, STEPHEN D.....	CULTURE, SENSITIVITY OF MALIGNANT LYMPHOID COLONIES.....	1R01 CA27924-01	36,524
STECHSCHULTE, DANIEL J.....	IMMUNOLOGIC MECHANISMS IN RESPIRATORY DISEASE AND SLE.....	5P50 AI15360-02	154,264
SULLIVAN, LAWRENCE P.....	STUDY OF FACTORS AFFECTING RENAL POTASSIUM TRANSPORT.....	2R01 AM15883-07A2	48,910
SUZUKI, TSUNEO.....	STUDIES OF ANTIGEN RECEPTOR ON HUMAN B LYMPHOCYTES.....	5R01 AI14876-03	65,318
TARR, CHARLES M.....	CONTRACTILE ACTIVITY OF SINGLE CARDIAC CELLS.....	5R01 HL18943-05	43,142
TERRANOVA, PAUL F.....	AGED ANTRAL FOLLICLES AND ATRESIA.....	5R01 HD12754-02	35,510
UYEKI, EDWIN M.....	TERATOGENIC EFFECTS OF CHOLINERGIC INSECTICIDES.....	5R01 ES02046-02	140,056
VOOGT, JAMES L.....	BIOGENIC AMINE LEVELS IN VIVO AND PITUITARY FUNCTION.....	1R01 HD13729-01	35,541
WELLING, LARRY W.....	ANALYTIC FORMULATION OF TRANSPORT IN SINGLE NEPHRONS.....	5R01 AM16968-08	84,380
WONG, GLENDA L.....	HORMONE RESPONSES IN ISOLATED BONE CELLS.....	5R01 AM23062-02	73,418
WONG, KIN-PING.....	RIBOSOMAL PROTEINS, PROTEIN-RNA INTERACTION & FUNCTION.....	5R01 GM22962-04	68,132
WOOD, GARY W.....	TRANSPORT OF IGG ANTIBODIES THROUGH THE PLACENTA.....	1R01 HD14065-01	44,949
YARBROUGH, LYNNWOOD R.....	MOLECULAR MECHANISMS OF TUBULIN-LIGAND INTERACTIONS.....	5R01 GM24599-03	45,511
ORGANIZATION TOTAL.....	72.....5,330,802		

LAWRENCE

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AKAGI, JAMES M.....	SULFATE-REDUCING BACTERIA.....	5R01 GM25118-15	34,863
BAER, DONALD M.....	COMMUNICATIONS RESEARCH WITH RETARDED CHILDREN.....	5P01 HD00870-17	569,752
BEARSE, ROBERT C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07037-15	131,140
BORCHARDT, RONALD T.....	CNS ADRENERGIC NEURONS AND HYPERTENSION.....	5R01 HL24093-02	59,790
BORCHARDT, RONALD T.....	STRUCTURAL ANALOGS OF S-ADENOSYLMETHIONINE.....	5R01 NS10198-07	62,486
BORCHARDT, RONALD T.....	INHIBITION OF CATECHOL-O-METHYLTRANSFERASE.....	2R01 NS10918-07	58,338
BORCHARDT, RONALD T.....	MECHANISM OF ACTION OF NEUROCYTOTOXINS.....	5R01 NS15692-02	62,013
BROWN, JOHN C.....	FUNCTIONAL ASPECTS OF ANTIGEN-ANTIBODY INTERACTION.....	5R01 AI16220-02	51,252
BURCHILL, BROWER R.....	ROLE OF THE CILIATE CORTEX IN METABOLIC REGULATION.....	5R01 GM24878-02	28,470
BURTON, PAUL R.....	EM STUDIES OF SPERM AND NERVE: FOCUS ON MICROTUBULES.....	5R01 GM24992-16	86,028
BUTTERFIELD, EARL C.....	GENERALIZED LANGUAGE & THOUGHT IN THE MENTALLY RETARDED.....	5R01 HD13029-02	79,770
CRAWFORD, MICHAEL H.....	AGING AMONG THE MENNONITES OF KANSAS AND NEBRASKA.....	5P01 AG01646-02	141,129
DENTLER, WILLIAM L, JR.....	THE ROLE OF MICROTUBULES IN ORGANELLE MOTILITY.....	2R01 AM21672-04	68,765
GIVENS, RICHARD S.....	EXPLORATORY AND SYNTHETIC PHOTOCHEMISTRY.....	5R01 GM16611-11	50,980
GRUNEWALD, GARY L.....	CONFORMATIONALLY DEFINED ADRENERGIC AMINES.....	5R01 GM22988-05	65,148
GRUNEWALD, GARY L.....	DESIGN OF INHIBITORS OF EPINEPHRINE BIOSYNTHESIS.....	5R01 HL12887-02	53,070

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS—Continued			
HANZLIK, ROBERT P.	THE ROLE OF EPOXIDES IN METABOLISM AND DRUG TOXICITY	5R01 GM21784-06	60,587
HANZLIK, ROBERT P.	GC/MS/COM RESEARCH-SERVICE FACILITY	5P41 GM27430-02	20,908
HEFFNER, HENRY E.	BEHAVIORAL ANALYSIS OF THE ROLE OF AUDITORY CORTEX	5R01 NS12992-04	57,067
HIMES, RICHARD H.	PROTEIN STRUCTURE AND FUNCTION	5R01 AM07140-16	42,037
HIMES, RICHARD H.	PROPERTIES OF MICROTUBULAR PROTEIN	2R01 NS11360-05	58,143
HOROWITZ, FRANCES D.	INFANTS—INDIVIDUAL DIFFERENCES AND ENVIRONMENTS	5R01 HD10608-04	100,830
HOUSTON, L LUGENE	RICIN: A PLANT AGGLUTININ WITH ANTITUMOR PROPERTIES	2R01 CA16206-06	95,350
HOUSTON, L LUGENE	CYTOSKELETON-MEMBRANE INTERACTION IN EUKARYOTIC CELLS	5R01 GM24583-03	49,871
KOVACH, ILDIKO M.	ACYL TRANSFER IN APROTIC SOLVENTS	5R01 GM26006-02	30,911
LICHTWARDT, ROBERT W.	GENETIC VARIATION IN SOIL POPULATIONS OF HISTOPLASMA	5R01 AI14936-02	40,335
LILLYWHITE, HARVEY B.	ARTERIAL BLOOD PRESSURE REGULATION	5R01 HL24640-02	38,785
LINDENBAUM, SIEGFRIED	THERMODYNAMIC STUDIES OF BILE ACID MICELLAR SOLUTIONS	5R01 AM18084-07	50,971
MERTES, MATHIAS P.	COFACTOR INHIBITION OF THYMIDYLATE SYNTHETASE	5R01 CA07522-16	78,201
MERTES, MATHIAS P.	CENTER FOR DRUG DESIGN	5P01 GM22357-05	401,203
MERTES, MATHIAS P.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05606-14	80,081
MICHAELIS, MARY L.	ADENOSINE AS A METABOLIC AUTOREGULATOR IN AGING BRAIN	1R23 AG01948-01	38,796
MIKKELSON, THOMAS J.	QUANTITATION OF DRUG UPTAKE BY CORNEAL EPITHELIUM	5R01 EY02328-03	34,531
MITSCHER, LESTER A.	NEW ANTIBIOTICS—ISOLATION, SYNTHESIS, AND EVALUATION	5R01 AI13155-06	92,464
MITSCHER, LESTER A.	VERSATILE SYNTHESIS OF OPTICALLY PURE PROSTAGLANDINS	5R01 GM26553-02	60,832
PATTON, THOMAS F.	AGE-RELATED DOSAGE MODIFICATIONS FOR OPHTHALMIC DRUGS	5R01 EY01945-03	45,913
QUADAGNO, JILL S.	FACTORS AFFECTING SERVICE PROVISION TO THE RURAL AGED	1R23 AG02002-01	28,216
REPTA, ARNOLD J.	EVALUATION OF ANTINEOPLASTIC NOBLE METAL COMPLEXES	5R01 CA24834-02	76,126
ROBERTSON, DONALD C.	PATHOGENICITY OF ENTEROTOXIGENIC ESCHERICHIA COLI	5R22 AI12357-06	58,404
RUTLEDGE, CHARLES O.	DRUG EFFECTS ON RELEASE OF BIOGENIC AMINES & BEHAVIOR	5R01 NS12760-06	70,720
RUTLEDGE, CHARLES O.	MOLECULAR MECHANISMS OF NEUROTRANSMITTER RELEASE	1P01 NS16364-01	297,610
SCHIEFELBUSCH, RICHARD L.	RESEARCH CENTER IN MENTAL RETARDATION	5P30 HD02528-14	511,237
SCHIEFELBUSCH, RICHARD L.	DEVELOPMENT OF CHILDREN FROM DEPRIVING ENVIRONMENTS	5P01 HD03144-13	422,898
SCHOWEN, RICHARD L.	ENZYME EFFECTOR DESIGN	5R01 GM20198-07	83,215
SCHOWEN, RICHARD L.	BIOLOGICAL TRANSMETHYLATION	5R01 GM20199-05	52,213
STERNSON, LARRY A.	CHEMICAL CHARACTERIZATION OF ARYLHYDROXYLAMINES	1R01 CA28782-01	70,226
WEAVER, ROBERT F.	TRANSCRIPTION CONTROL IN NUCLEAR POLYHEDROSIS VIRUS	5R01 GM22127-05	59,046
WILEY, ROBERT A.	FURAN LUNG TOXINS: ORGAN SPECIFICITY AND METABOLISM	5R01 GM26366-02	51,256
YOCHIM, JEROME M.	HORMONE ACTION ON UTERINE PROGESTATIONAL METABOLISM	1R01 HD11797-01A2	63,760
ZIMBRICK, JOHN D.	EPR STUDIES ON DETECTION AND TREATMENT OF CANCER	5R01 CA14335-06	61,310
ZIMBRICK, JOHN D.	DNA BASE DAMAGE INDUCED BY GAMMA RADIATION	5R01 GM18927-09	45,476
ORGANIZATION TOTAL	51	5,032,423	
MANHATTAN			
KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE ZIP CODE 66506			
BODE, VERNON C.	BIOCHEMICAL STUDIES ON THE REGULATION OF DNA FUNCTION	5R01 GM18182-09	73,240
CENTER, MELVIN S.	EFFECT OF ANTITUMOR AGENTS ON THE CELL NUCLEUS	1R01 CA28120-01	55,913
CONRAD, GARY W.	FIBROBLAST DIFFERENTIATION DURING EYE DEVELOPMENT	5R01 EY00952-09	66,272
CONRAD, GARY W.	MOLLUSCAN POLAR LOBES: ROLE IN EMBRYONIC DEVELOPMENT	5R01 HD07193-07	40,741
CONSIGLI, RICHARD A.	STUDIES IN POLYOMA TRANSFORMED CELLS—VIRION PROTEINS	5R01 CA07139-17	81,999
CONSIGLI, RICHARD A.	CHARACTERIZATION OF GRANULOSIS VIRUS COMPONENTS	5R01 ES02036-02	73,636
COX, DAVID J.	SELF-ASSOCIATION REACTIONS OF MACROMOLECULES	5R01 GM22243-06	43,391
DAVIS, LAWRENCE C.	DIRECT SCANNING GEL FILTRATION ON INTERACTING SYSTEMS	5R01 GM23039-05	35,072
DENELL, ROBIN E.	A DEVELOPMENTAL GENETIC ANALYSIS OF THE CELL SURFACE	1R01 GM27195-01	69,293
FORTNER, G WILLIAM	ULTRAVIOLET CARCINOGENESIS AND IMMUNITY	5R01 CA24196-02	55,268
JOHNSON, TERRY C.	TUMORIGENESIS AND A CELL SURFACE GROWTH INHIBITOR	1R01 CA27648-01	52,693
KELLY, PAUL T.	MOLECULAR BASIS OF SYNAPSE FORMATION	1R01 NS15554-01A1	58,653
KRUH, R F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07036-15	61,921
MANNEY, THOMAS R.	GENE FUNCTIONS ASSOCIATED WITH MATING IN YEAST	5R01 GM19175-09	68,624
REECK, GERALD R.	TUMOR-ENRICHED NONHISTONE CHROMATIN PROTEINS	5R01 CA17782-06	43,536
ROCHE, THOMAS E.	REGULATION OF MAMMALIAN PYRUVATE DEHYDROGENASE	5R01 AM18320-06	40,684
ROUFA, DONALD J.	GENETICS OF THE MAMMALIAN 80S RIBOSOME	5R01 GM23013-04	68,045
SMITH, JOSEPH E.	GLUTATHIONE DEFICIENCY IN RED CELLS	3R01 HL12972-10S1	18,102
SMITH, JOSEPH E.	GLUTATHIONE DEFICIENCY IN RED CELLS	2R01 HL12972-11	31,983
SPOONER, BRIAN S.	IMMUNOCHEMICAL STUDIES OF CARDIAC ACTIN	1R01 HL25910-01	43,069

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
KANSAS—Continued			
TAKEMOTO, DOLORES J.....	THE CONTROL OF CYCLIC GMP IN HUMAN LYMPHOCYTES.....	1R23 CA27500-01	41,560
TAKEMOTO, LARRY J.....	LENS MEMBRANE IN RELATION TO CATARACTOGENESIS.....	5R01 EY02932-02	85,644
WESTFALL, JANE A.....	ELECTRON MICROSCOPY OF NEURONS, AXONS AND SYNAPSES.....	5R01 NS10264-08	39,078
ORGANIZATION TOTAL	23 1,248,417		
TOPEKA			
MENNINGER FOUNDATION ZIP CODE 66601			
KOVACH, JOSEPH K.....	DEVELOPMENT OF A BEHAVIORAL PHENOTYPE.....	5R01 HD06770-08	77,769
SPOHN, HERBERT E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05517-14	15,045
ORGANIZATION TOTAL	2 92,814		
WICHITA			
WICHITA STATE UNIVERSITY ZIP CODE 67208			
CHAN, FRANK Y.....	LENS REGENERATION IN ADULT NEWTS.....	5R01 EY02663-03	16,005
ORGANIZATION TOTAL	1 16,005		
STATE TOTAL	150 11,740,061		
KENTUCKY			
FRANKFORT			
KENTUCKY STATE UNIVERSITY ZIP CODE 40601			
RIDGEL, GERTRUDE C.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08124-07	106,779
ORGANIZATION TOTAL	1 106,779		
LEXINGTON			
EPHRAIM MC DOWELL CANCER RESEARCH FOUNDATION CORPORATION ZIP CODE 40503			
HANNAN, MOHAMMED A.....	ACTION SPECTRA OF GENETIC TOXICITIES OF UV RADIATIONS.....	1R01 GM28351-01	77,740
ORGANIZATION TOTAL	1 77,740		
UNIVERSITY OF KENTUCKY ZIP CODE 40506			
ANDERSON, GARY L.....	PYRIDO(2,3-D)PYRIMIDINE RIBONUCLEOSIDES.....	1R01 GM27655-01	46,306
BARKLEY, MARY D.....	PHYSICAL STUDIES OF PROTEIN-DNA INTERACTIONS.....	5R01 GM22873-06	54,917
BIRGE, WESLEY J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07114-12	44,467
BONNER, PHILIP H.....	MYOBLAST LINEAGES AND INNERVATION IN EARLY MYOGENESIS.....	5R01 HD10307-05	42,265
BUTTERFIELD, D ALLAN.....	MEMBRANE ALTERATIONS IN HUNTINGTON'S DISEASE.....	5R01 NS13791-03	54,962
CHAN, SHUNG K.....	ALPHA-1-ANTITRYPSIN STRUCTURE IN RELATION TO EMPHYSEMA.....	2R01 HL16166-07	90,328
CLARK, JIMMY D.....	GENETIC ANALYSIS OF AGING IN THE TRUE SLIME MOLDS.....	5R23 AG00809-03	37,851
CLAWSON, D KAY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05374-19	140,214
COLEMAN, MARY S.....	TERMINAL TRANSFERASE IN MAMMALIAN HEMOPOIETIC TISSUE.....	5R01 CA19492-05	80,546
COLEMAN, MARY S.....	CANCER CENTER SUPPORT CORE GRANT.....	5P30 CA23154-03	83,049
CRANDALL, MARJORIE A.....	GENETIC CONTROL OF MATING IN HANSENULA WINGEI.....	3R01 GM21889-04S1	1,630
DE SIMONE, PHILIP A.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18107-05	107,230
DE SIMONE, PHILIP A.....	SOUTHEASTERN CANCER STUDY GROUP.....	2R10 CA20255-04	92,016
DELAND, FRANK H.....	CLINICAL CEA-TUMOR RADIOIMMUNODETECTION.....	5R01 CA25584-02	287,301
DICKSON, ROBERT C.....	EUCARYOTIC ENZYME INDUCTION—YEAST BETA-GALACTOSIDASE.....	5R01 GM22749-05	82,543
DIEDRICH, DONALD F.....	PHLORIZIN INHIBITION OF SUGAR TRANSPORT.....	5R01 AM06878-18	59,798
DIGENIS, GEORGE A.....	PREPARATION OF 11 C- D- AND L- AMINO ACIDS.....	1R01 GM27962-01	68,277
DRUMMOND, JAMES F.....	CLINICAL CANCER EDUCATION PROGRAM (DENTAL).....	5R25 CA17992-05	30,206
GALLA, JOHN H.....	STEROID-INDUCED HYPERLIPIDEMIA AND HYPERTENSION.....	2R01 HL18923-04	27,201
GOLD, DAVID V.....	A STUDY OF HUMAN PANCREATIC DUCT ANTIGEN.....	1R26 CA29489-01	36,159
GOLDENBERG, DAVID M.....	SELECTIVE RADIOIMMUNOTHERAPY OF COLON CANCER.....	5R26 CA24204-03	94,088
GUTHRIE, GORDON P, JR.....	ADRENAL STEROIDS IN ADOLESCENT AND ADULT HYPERTENSION.....	5R23 HL21917-03	38,208
HANSON, BARBARA A.....	MANNAAN SYNTHESIS INHIBITION BY INOSITOL STARVATION.....	1R01 GM28286-01	31,191

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
KENTUCKY—Continued			
HURLEY, LAURENCE H.	PYRROLO(1,4)BENZODIAZEPINE ANTITUMOR ANTIBIOTICS.	5R01 CA17047-06	106,971
HURLEY, LAURENCE H.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09166-02	97,300
KORNET, MILTON J.	DIAZACYCLOALKANE ANTICONVULSANTS.	5R01 NS15709-02	26,778
KOTCHEN, JANE M.	HIGH BLOOD PRESSURE IN THE YOUNG	5R01 HL19956-05	113,714
KOTCHEN, JANE M.	HIGH BLOOD PRESSURE CONTROL IN A RURAL COMMUNITY	5R01 HL23999-02	213,028
KOTCHEN, THEODORE A.	RENIN KINETICS IN HYPERTENSIVE AND UREMIC PLASMA	3R01 HL15528-06S1	3,131
KOTCHEN, THEODORE A.	EFFECT OF CHLORIDE ON RENIN.	5R01 HL22390-03	49,615
LAINE, ROGER A.	CHEMICAL STRUCTURE OF GLYCOPETIDES FROM ERYTHROCYTES	5R01 AM25101-02	41,639
LAINE, ROGER A.	CHEMISTRY OF CELL-SURFACE AND RELEASED GLYCOPROTEINS	2R01 GM23902-04	90,573
LEGAN, SANDRA J.	NEUROENDOCRINE CONTROL OF GONADOTROPIN SECRETION	1R01 HD14039-01	80,694
LESNAW, JUDITH A.	REPLICATION OF NEGATIVE STRAND RNA VIRUSES	5R01 AI13574-05	68,005
MARCINIAK, EWA J.	BIOLOGY OF ANTITHROMBIN III	1R01 HL26136-01	53,994
MARUYAMA, YOSH.	RADIATION THERAPY ONCOLOGY PROGRAM.	3P01 CA17786-05S1	107,198
MILLER, RALPH E.	NEURAL REGULATION OF INSULIN SECRETION RATE	5R01 AM17082-07	68,830
PANT, KESHAB.	A MODEL FOR COLONIC CANCER-ASSOCIATED ANTIGENS	5R26 CA15799-06	122,809
PAPKA, RAYMOND E.	AUTONOMIC NERVOUS ELEMENTS IN THE DEVELOPING HEART	5R01 HL22226-03	46,891
PERDUE, MICHAEL L.	AVIAN ONCORNAVIRUS MESSENGER RNA	5R01 CA26170-02	67,052
PRIMUS, F JAMES.	RADIOLOGICAL LOCALIZATION OF HUMAN TUMORS	5R01 CA17742-06	103,037
PRIMUS, F JAMES.	IMMUNOLOGICAL HETEROGENEITY OF CEA	5R01 CA24376-03	51,534
RANDALL, DAVID C.	BEHAVIORAL INFLUENCES ON CARDIAC CONTRACTILITY	5R01 HL19343-05	72,515
RHOADS, ROBERT E.	REGULATION OF OVALBUMIN SYNTHESIS IN CHICK OVIDUCT	5R01 GM20818-07	95,333
RINGHAM, GARY L.	CALCIUM AND TRANSMITTER RELEASE AT A CENTRAL SYNAPSE	7R01 NS16664-01	35,744
ROSENTHAL, GERALD A.	NON-PROTEIN AMINO ACID BIOCHEMISTRY AND TOXICITY	5R01 AM17322-06	34,013
ROSZMAN, THOMAS L.	IMMUNOBIOLOGY OF PRIMARY INTRACRANIAL TUMORS	2R01 CA18234-04A2	61,118
ROSZMAN, THOMAS L.	IMMUNOBIOLOGY OF ASV INDUCED PRIMARY BRAIN TUMORS	5R01 CA23891-02	58,914
SISKEN, JESSE E.	REGULATION OF MITOSIS IN NORMAL AND TRANSFORMED CELLS	1R01 CA27399-01A1	76,180
STEINER, MARION R.	MEMBRANE PROTEINS AND LIPIDS IN MAMMARY CARCINOMA	5R01 CA25730-03	66,668
SURAWICZ, BORYS.	DISPERSION OF REFRACTORINESS, LONG QTC, AND ARRHYTHMIAS	5R01 HL21929-02	44,492
SWIM, H EARLE.	STUDIES OF RIBOSOMES FROM HISTOPLASMA CAPSULATUM	5R01 AI13360-03	31,290
THOMPSON, JOHN S.	NONHLA HUMAN GRANULOCYTE MONOCYTE ENDOTHELIAL ANTISERA	1R01 AI18008-01	71,188
TURCO, SALVATORE J.	REGULATION OF PROTEIN GLYCOSYLATION	1R01 AM26983-01	64,027
VORE, MARY E.	HEPATIC DRUG ELIMINATION IN PREGNANCY	5R01 HD13250-02	53,224
WOLF, DAVID J.	AGING AMONG THE SCOTS-IRISH OF NORTHEASTERN KENTUCKY	5P01 AG01358-02	242,145
ZECHMAN, FRED W.	PERCEPTION OF RESPIRATORY LOADS.	5R01 HL24412-02	105,670
ORGANIZATION TOTAL	57	4,256,067	
LOUISVILLE			
UNIVERSITY OF LOUISVILLE ZIP CODE 40208			
BARROWS, GEORGE H.	STEROID UPTAKE IN HORMONALLY DEPENDENT CANCERS	5R01 CA23848-03	38,490
BENZ, FREDERICK W.	UNFOLDING OF PANCREATIC RIBONUCLEASE AND DERIVATIVES	5R01 GM26529-03	57,464
BURZYNSKI, NORBERT J.	CLINICAL CANCER EDUCATION PROGRAM (DENTAL)	5R25 CA18006-06	65,706
DE ROSA, GUGLIELMO.	DIETARY MODIFICATIONS, EXERCISE AND TUMOR GROWTH	5R01 CA25602-02	82,842
DOYLE, RONALD J.	POTENTIAL ANTICARCINOGENS	5R01 DE05102-03	58,899
DU PRE, DONALD B.	VISCOELASTIC PROPERTIES OF POLYMER LIQUID CRYSTALS	5R01 HL24364-02	50,619
EIFERMAN, RICHARD A.	COMPARATIVE INHIBITION OF TISSUE COLLAGENASES	5R01 EY02538-02	47,973
FLOWERS, NANCY C.	RECORDING AND ANALYSIS OF LOW LEVEL CARDIAC SIGNALS	2R01 HL19768-04	117,316
FONDA, MARGARET L.	REGULATION OF MAMMALIAN PYRIDOXAL PHOSPHATE METABOLISM	5R01 AM19507-03	45,125
GAMEL, JOHN W.	MALIGNANT POTENTIAL OF UVEAL MELANOMAS	5R01 EY03148-02	29,000
GRAY, ROBERT D.	CARBON MONOXIDE BINDING TO CYTOCHROMES P-450 & P-448	5R01 GM25738-02	43,692
HILTON, MARY A.	NUTRITIONAL INTERVENTION IN CANCER CHEMOTHERAPY	5R01 CA24108-02	42,387
HOFFMAN, JERALD L.	METHIONINE ADENOSYLTTRANSFERASE AND NEOPLASIA	3R01 CA22166-03S1	5,884
HORAN, LEO G.	MULTIPOLAR LINKAGE BETWEEN HEART GEOMETRY AND SURFACE	5R01 HL16901-07	61,865
HUANG, KEE C.	METHOTREXATE-INDUCED NEPHROTOXICITY AND DRUG DEVELOPMENT	5R01 CA25252-02	42,859
HUNT, LAWRENCE A.	STRUCTURE AND FUNCTION OF VIRAL GLYCOPETIDES.	7R01 AI17807-01	57,184
KALSOW, CAROLYN M.	OCULAR AUTOIMMUNITY INVOLVING RETINA OR UVEA	5R01 EY01516-06	55,084
KEENEY, ARTHUR H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05375-19	80,591
LAVERY, J PATRICK	THE RHEOLOGY OF HUMAN CHORIOAMNIOTIC MEMBRANES	5R01 HD11237-03	36,366
MANSFIELD, JOHN M.	IMMUNOSUPPRESSION IN EXPERIMENTAL TRYPAOSOMIASIS.	5R01 AI15378-02	58,636
MANSFIELD, JOHN M.	IMMUNOBIOLOGY OF AFRICAN TRYPAOSOMIASIS.	1R01 AI16467-01	29,935

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
KENTUCKY—Continued			
MEYER, DONALD C.....	SEROTONERGIC-NORADRENERGIC NEUROENDOCRINE MECHANISMS.....	1R01 HD12886-01A1	51,749
MILLER, LOUISE B.....	FOUR PRESCHOOL PROGRAMS: 7TH THROUGH 10TH GRADE EFFECTS.....	5R01 HD12039-02	55,696
MILLER, RICHARD D.....	PHYSIOLOGY AND METABOLISM OF LEGIONELLA PNEUMOPHILA.....	1R01 AI16121-01A1	51,724
MOORE, CONDUCT.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17985-06	132,176
MUSACCHIA, X J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07153-04	36,215
NERLAND, DONALD E.....	INTERMEDIATE METABOLITES INVOLVED IN BENZENE TOXICITY.....	5R01 ES01901-02	28,248
POTTS, ALBERT M.....	THE ACTION OF DRUGS AND POISONS ON THE EYE.....	5R01 EY01591-03	98,551
POTTS, ALBERT M.....	AN EXPERIMENTAL STUDY OF ANTIGLAUCOMA SURGERY.....	5R01 EY01941-03	56,493
SCHULTZ, GREGORY S.....	ANGIOTENSIN II RECEPTORS OF AORTIC ENDOTHELIAL CELLS.....	1R01 HL26202-01	43,380
STREMEL, RICHARD W.....	VENTILATORY CONTROL MECHANISMS RELATED TO 'CO2 FLOW'.....	5R23 HL23546-02	25,392
SUDDICK, RICHARD P.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05315-15	15,870
TAYLOR, JOHN F.....	FACTORS MODIFYING THE REACTION PROPERTIES OF HB S.....	5R01 HL22780-03	25,670
TAYLOR, K GRANT.....	RADICAL REACTIONS OF MUTAGENS AND CARCINOGENS.....	5R01 CA22365-02	47,941
USUI, WAYNE M.....	ENVIRONMENTS AND SOCIAL INTERACTION.....	1R23 AG01605-01A1	42,690
WACKER, WALDON B.....	EXPERIMENTAL STUDIES OF AUTOIMMUNE UVEITIS.....	5R01 EY00254-13	58,806
WESTPHAL, ULRICH F.....	STEROID-PROTEIN INTERACTIONS.....	1R01 LM03525-01	15,464
WILLIAMS, DONALD E.....	DERIVATION OF NONBONDED POTENTIAL PARAMETERS.....	5R01 GM16260-12	46,521
WONG, JOHN L.....	MOLECULAR MECHANISMS OF CHEMICAL CARCINOGENESIS.....	5R01 CA16182-06	53,134
ORGANIZATION TOTAL	39	1,993,637	
MURRAY			
MURRAY STATE UNIVERSITY	ZIP CODE 42071		
CHRISTENSEN, BRUCE M.....	AEDS TRIVITTATUS: IMMUNE RESPONSE TO FILARIAL WORMS.....	1R22 AI16472-01	16,344
ORGANIZATION TOTAL	1	16,344	
STATE TOTAL	99	6,450,567	
LOUISIANA			
BATON ROUGE			
GULF SOUTH RESEARCH INSTITUTE	ZIP CODE 70808		
MAY, PAUL D.....	NEW POLYMERS FOR PERMANENT SOFT DENTURE LINERS.....	1R01 DE04814-01A1	115,314
ORGANIZATION TOTAL	1	115,314	
LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE AT BATON ROUGE	ZIP CODE 70803		
BLACKBURN, MICHAEL N.....	PLASMA INHIBITORS IN COAGULATION AND THROMBOSIS.....	5R01 HL24846-02	43,765
CAPRIO, JOHN T.....	OLFACTION AND TASTE.....	5R01 NS14819-02	20,180
CULLEY, DUDLEY D, JR.....	LABORATORY MANAGEMENT OF RANA CATESBEIANA.....	5P40 RR00635-09	76,423
HALES, BRIAN J.....	ORIENTATION OF MOLECULES IN MEMBRANES.....	5R01 GM25049-03	31,837
HOUK, KENDALL N.....	APPLICATIONS OF NEW CYCLOADDITIONS TO DRUG SYNTHESIS.....	5R01 GM17652-06	54,232
KERR, KIRKLYN M.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09087-03	65,776
LEE, WILLIAM R.....	GENETIC EFFECT—ALKYLATION IN REPAIR DEFICIENT GERM CELL.....	1R01 ES02295-01	78,215
LEE, WILLIAM R.....	QUANTITATIVE GENETIC STUDY OF ENVIRONMENTAL MUTAGENS.....	1R01 ES02412-01	91,801
NEWKOME, GEORGE R.....	PYRIDINE HETEROMACROCYCLES: FUTURE BIOLOGICAL MODELS.....	2R01 GM20985-07A2	31,389
NEWKOME, GEORGE R.....	SYNTHETIC MACROCYCLES AS ENZYMATIC REDOX MIMICS.....	5R01 GM24053-02	29,793
PRYOR, WILLIAM A.....	BIOORGANIC CHEM—OZONE, NITROGEN DIOXIDE, TOBACCO SMOKE.....	2R01 HL16029-07	95,351
RIOPPELLE, ARTHUR J.....	PRE- & POSTNATAL UNDERNUTRITION & ADAPTIVE CAPACITY.....	5R22 HD07479-06	121,101
TRAYNHAM, JAMES G.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07039-09	37,164
WEIDNER, EARL H.....	GLUGEA-INDUCED XENOMA (GIX) CELLS STUDIES.....	5R01 AI15829-02	31,551
YOUNATHAN, EZZAT S.....	PHOSPHOFRUCTOKINASE IN NORMAL AND DIABETIC STATES.....	5R01 AM21307-03	53,357
ORGANIZATION TOTAL	15	861,935	
SOUTHERN UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE BATON ROUGE	ZIP CODE 70813		
CHRISTIAN, FRED A.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08025-10	520,181
ORGANIZATION TOTAL	1	520,181	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
COVINGTON			
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70433			
HARRISON, RICHARD M.....	PATHOPHYSIOLOGY OF VARICOCELE.....	5R01 HD12939-02	84,140
LI, YU-TEH.....	GLYCOSIDASES AS RELATED TO SPHINGOLIPIDOSES.....	5R01 NS09626-10	102,051
LOWRIE, ROBERT C, JR.....	INTERACTIONS OF FILARIAE IN CULICOIDES.....	2R22 AI13555-04	32,586
ROBERTS, JAMES A.....	HOST-PARASITE INTERACTION IN PYELONEPHRITIS.....	5R01 AM14681-11	173,875
WALSH, JOHN J.....	SUPPORT FOR REGIONAL PRIMATE RESEARCH CENTER.....	5P51 RR00164-19	1,876,595
ORGANIZATION TOTAL	5 2,269,247		
GRAMBLING			
GRAMBLING STATE UNIVERSITY ZIP CODE 71245			
HILL, FRANKLIN D.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08054-09	71,810
ORGANIZATION TOTAL	1 71,810		
NEW ORLEANS			
ALTON OCHSNER MEDICAL FOUNDATION ZIP CODE 70121			
BOWEN, JOHN C.....	MICROENVIRONMENT OF GASTRIC AND COLONIC MUCOSA.....	2R01 AM19897-04	78,452
FROHLICH, EDWARD D.....	HEMODYNAMICS OF THE CLINICAL HYPERTENSIONS.....	5R01 HL22506-03	77,921
FROHLICH, EDWARD D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05518-18	14,835
PEGRAM, BARBARA L.....	REGIONAL HEMODYNAMICS IN SPONTANEOUS HYPERTENSION.....	5R01 HL20542-05	52,993
TRIPPADO, NICK C.....	COMPLIANCE OF FLUID SPACES IN ADVANCING HYPERTENSION.....	3R01 HL22261-02S1	8,024
TRIPPADO, NICK C.....	VENOUS TONE AND SODIUM INTERRELATION TO HYPERTENSION.....	2R01 HL22261-03	43,943
ORGANIZATION TOTAL	6 276,168		
DILLARD UNIVERSITY ZIP CODE 70122			
VERRETT, JOYCE M.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08064-10	166,956
ORGANIZATION TOTAL	1 166,956		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70112			
BAGBY, GREGORY J.....	LIPOPROTEIN LIPASE IN HEART MYOCYTES.....	5R01 HL23329-02	24,606
BEAZLEY, ROBERT M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17916-03	68,583
BERENSON, GERALD S.....	BIOCHEMISTRY OF CARDIOVASCULAR CONNECTIVE TISSUE.....	5R01 HL02942-24	141,228
BERENSON, GERALD S.....	A/S SCORE—EARLY NATURAL HISTORY OF ARTERIOSCLEROSIS.....	5P50 HL15103-09	1,210,551
BERLIN, CHARLES I.....	PERIPHERAL AND CENTRAL AUDITORY MECHANISMS.....	2P50 NS11647-06A1	678,167
BROMBERG, BARRY B.....	AUTONOMIC CONTROL OF LACRIMAL GLAND FUNCTION.....	1R01 EY03325-01	36,161
BURNS, ALASTAIR H.....	METABOLIC CHARACTERIZATION OF THE HYPERTROPHIED HEART.....	5R23 HL22904-02	26,229
CAMPOS, EMILIO C.....	ASPECTS OF BINOCULAR VISION IN STRABISMUS.....	5R01 EY03107-02	39,993
CENTIFANTO, YSOLINA M.....	HSV STRAIN SPECIFICITY AND OCULAR DISEASE.....	5R01 EY02389-02	79,510
COHN, ISIDORE, JR.....	ADMINISTRATION OF NATIONAL PANCREATIC CANCER PROJECT.....	2R26 CA17500-06	329,858
ELSTON, ROBERT C.....	STATISTICAL GENETIC ANALYSIS FOR CANCER FAMILIES.....	1R01 CA28198-01	188,414
ELSTON, ROBERT C.....	GENETIC ANALYSIS OF MULTIFACTORIAL TRAITS.....	7R01 GM28356-01	68,781
FRANKLIN, RUDOLPH M.....	SECRETORY IMMUNE SYSTEM—RELATIONSHIP TO OCULAR DISEASE.....	3R01 EY03028-02S1	2,500
FRANKLIN, RUDOLPH M.....	SECRETORY IMMUNE SYSTEM—RELATIONSHIP TO OCULAR DISEASE.....	5R01 EY03028-03	76,534
GEBHARDT, BRYAN M.....	SUPPRESSION OF CORNEA ALLOGRAFT REJECTION.....	5R01 EY03150-02	78,228
GUERRA, LUIS R.....	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA18703-04A1	35,154
HARTMAN, ARTHUR D.....	ADIPOCYTE METABOLISM AS RELATED TO CELL SIZE.....	5R01 AM19995-04	40,015
HERBERT, JACK D.....	GOUT-PRONE ANIMALS.....	1R01 AM25736-01A1	27,335
HOSSLER, FRED E.....	THE SITE AND MECHANISM OF PLASMA MEMBRANE RENEWAL.....	5R01 GM24953-03	19,588
HOWE, CALDERON.....	IMMUNOCHEMICAL STUDY OF VIRUS RECEPTORS & INFECTED CELLS.....	5R01 AI10945-09	70,787
KAUFMAN, HERBERT E.....	PHARMACOLOGY AND EXTERNAL OCULAR DISEASES.....	5P30 EY02377-02	184,830
KAUFMAN, HERBERT E.....	CORNEAL PRESERVATION AND KERATOPLASTY.....	5R01 EY02580-03	110,748
KAUFMAN, HERBERT E.....	OCULAR HERPES SIMPLEX.....	2R01 EY02672-03	154,641
KLYCE, STEPHEN D.....	TRANSPORT PROCESSES ACROSS THE CORNEAL EPITHELIUM.....	5R01 EY03311-02	91,129
KRATZ, KENNETH E.....	VISUAL RESTRICTION AND DEVELOPMENT OF X- AND Y-CELLS.....	5R01 NS15473-02	31,099
LARSON, PAUL F.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05376-19	148,467
LEECH, STEPHEN H.....	INDUCTION OF GENETICALLY TAILORED IMMUNE IMBALANCE.....	5R23 CA25668-02	29,110
LEVITZKY, MICHAEL G.....	VENTILATION, PERFUSION, AND SYSTEMIC ARTERIAL REFLEXES.....	5R01 HL22641-03	28,612

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
LIEBOW, CHARLES.....	PANCREATIC CONTROL BY HISTAMINE.....	7R01 AM28552-01	45,211
LILES, SAMUEL L.....	PUTAMEN AND CORTICOSTRIATAL NEURONS IN MOTOR FUNCTION.....	5R01 NS15485-02	44,898
LOPEZ-S, ALFREDO.....	LUNG CANCER AND VITAMIN A.....	5R01 CA23205-03	83,548
MATTHEWS, MURRAY A.....	PHARMACOLOGIC MODIFICATION OF AFFERENT INPUT.....	5R01 NS14699-03	32,320
MAY, JAMES G.....	FAR-FIELD RECORDING OF OPTIC NERVE RESPONSES.....	1R01 EY03483-01	45,001
MIDGETT, RONALD J.....	EFFECT OF UREMIC SERA ON VITAMIN D METABOLISM IN VITRO.....	5R01 AM25437-02	25,292
MORGAN, WILLIAM T.....	TRANSPORT PROTEIN-LIVER CELL INTERACTIONS.....	7R01 AM27237-01	48,668
MORGAN, WILLIAM T.....	SERUM PROTEIN FUNCTION IN ORGANIC ANION TRANSPORT.....	5R01 HD14481-02	64,276
MURRAY, MICHAEL L.....	MEDIATION OF NITROUS ACID MUTAGENESIS BY POLYAMINES.....	5R01 CA26355-02	37,757
NARAYANAN, C. H.....	TRIGEMINAL NECK REFLEX—DEVELOPMENT AND CONTROL.....	5R01 HD12064-03	44,410
RADHAKRISHNAMURTHY, B.....	BIOCHEMISTRY OF LUNG PROTEOGLYCANS.....	5R01 HL21649-03	59,396
RAO, JAYARAMAN.....	ORGANIZATION OF SENSORY CORTICOSTRIATAL PROJECTIONS.....	1R01 NS16609-01	32,069
RAWLS, HENRY R.....	TOPICALLY-APPLIED POLYMERS FOR CARIES PREVENTION.....	1R01 DE05596-01	32,638
RAYSON, JACK H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05704-10	28,118
REEVES, RICHARD E.....	BIOCHEMISTRY OF ENTERIC AMOEBA AND RELATED ORGANISMS.....	5R01 AI02951-19	42,784
REEVES, RICHARD E.....	GROWTH REQUIREMENTS FOR AXENIC AMEBAE.....	5R01 AI15090-03	28,570
ROHEIM, PAUL S.....	APOLIPOPROTEIN METABOLISM: REGULATION AND FUNCTION.....	1P01 HL25596-01	597,724
ROSKOSKI, ROBERT, JR.....	NEUROTRANSMITTER BIOSYNTHESIS.....	2R01 NS15994-02	61,792
ROTHSCHILD, HENRY.....	STRUCTURE AND FUNCTION OF AN SV40 THERMOINDUCIBLE MUTANT.....	1R01 CA27943-01	40,220
SARKAR, NIKHIL K.....	CREEP AND CORROSION OF DENTAL AMALGAMS.....	5R01 DE05126-03	46,527
SHEPHERD, RAYMOND E.....	EXERCISE, TRAINING AND REGULATION OF LIPID METABOLISM.....	7R01 AM28521-01	55,233
SMITH, DIANE E.....	POSTNATAL DEVELOPMENT OF THE SPINOCEREBELLAR SYSTEM.....	5R01 NS13155-04	31,555
SMITH, JERRY W.....	VIRAL ANTIGENS IN HERPETIC EYE DISEASE.....	5R01 EY02984-02	66,364
SPITZER, JOHN J.....	HORMONE INTERACTION WITH CARDIAC MYOCYTES IN ISCHEMIA.....	5R01 HL23157-02	103,165
STARY, HERBERT C.....	EVOLUTION & PROGRESSION OF PEDIATRIC ATHEROSCLEROSIS.....	5R01 HL22739-02	71,843
STRONG, JACK P.....	NATURAL AND EXPERIMENTAL ATHEROSCLEROSIS.....	5P01 HL08974-16	617,324
UPDYKE, BRUCE V.....	VISUAL AND ASSOCIATION CONNECTIONS OF PULVINAR.....	2R01 EY01925-04	60,704
VEDECKIS, WAYNE V.....	STEROID HORMONE RECEPTOR STRUCTURE IN MOUSE CELLS.....	1R01 AM27038-01	58,952
VILLAREJOS, VICTOR M.....	EPIDEMIOLGY OF HEPATITIS B ANTIGEN AND VIRAL HEPATITIS.....	2R01 AI12910-05	257,096
WECKER, LYNN.....	NEUROMUSCULAR EFFECTS OF CHRONIC INSECTICIDE EXPOSURE.....	5R23 ES02278-02	25,119
WERBLIN, THEODORE P.....	EPIKERATOPHAKIA: THE SURGICAL CORRECTION OF APHAKIA.....	1R01 EY03635-01	79,007
WILBER, JOHN F.....	THYROTROPIN RELEASING FACTOR SECRETION AND ACTIONS.....	5R01 AM25482-03	97,077
ZIMMERMAN, THOMAS J.....	TIMOLOL: A NEW DRUG FOR THE TREATMENT OF GLAUCOMA.....	5R01 EY02376-02	77,590
ORGANIZATION TOTAL.....	61 7,063,106		
LOUISIANA STATE UNIVERSITY-UNIVERSITY OF NEW ORLEANS ZIP CODE 70122			
BRYAN, SARA E.....	METALLOTHIONEIN INDUCTION BY CADMIUM, COPPER, MERCURY.....	5R01 ES00802-09	93,469
GITHENS, SHERWOOD, III.....	CARCINOGENESIS OF PANCREATIC DUCTAL TISSUE IN VITRO.....	5R26 CA19177-05	68,719
ORGANIZATION TOTAL.....	2 162,188		
TOURO INFIRMARY ZIP CODE 70115			
GITTER, KURT A.....	MACULAR PHOTOCOAGULATION STUDY.....	5R10 EY02564-02	41,291
ORGANIZATION TOTAL.....	1 41,291		
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70118			
AGRAWAL, KRISHNA C.....	DEVELOPMENT OF ANTITUMOR AND RADIOSENSITIZING AGENTS.....	5R01 CA21050-05	78,790
ALWORTH, WILLIAM L.....	MODIFICATION OF MAMMALIAN EPOXIDE HYDRASE ACTIVITY.....	5R01 CA23014-02	51,357
ANDERSON, MARY L.....	RELAXIN: RECEPTOR SITES AND HORMONAL CONTROL.....	5R01 HD13408-02	58,237
ARIMURA, AKIRA.....	PHYSIOLOGY OF HYPOTHALAMIC NEUROHORMONES.....	5R01 AM09094-15	90,517
BANTA, JAMES E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05444-19	48,844
BEAVER, PAUL C.....	OCCULT HELMINTHIC INFECTIONS.....	2R01 AI04919-17A1	48,906
BECKMAN, BARBARA G.....	PHARMACOLOGIC MODULATION OF ERYTHROID COLONY FORMATION.....	1R23 CA27802-01	42,770
BERGMAN, STUART M.....	CHEMOTHERAPY OF PROSTATIC CANCER.....	5R26 CA22387-03	74,578
BERNOFSKY, CARL.....	PYRIDINE NUCLEOTIDES AND ISCHEMIC HEART DISEASE.....	5R01 HL24192-02	42,856
BOWERS, CYRIL Y.....	HYPOTHALAMIC THYROTROPHIN-RELEASING FACTOR.....	5R01 AM06164-18	134,708
BYERS, LARRY D.....	LIGAND INDUCED CHANGES IN MULTI-SUBUNIT ENZYMES.....	5R01 GM24765-02	34,240
COHEN, WILLIAM.....	DIABETIC CATARACT: PREVENTION BY PHOTOAFFINITY DRUGS.....	1R01 EY03356-01	60,820
COY, DAVID H.....	SYNTHESIS AND BIOLOGY OF ANALOGUES OF SOMATOSTATIN.....	2R01 AM18370-06	57,657
COY, DAVID H.....	BIOLOGICAL STUDIES ON PANCREATIC POLYPEPTIDES.....	5R01 AM22156-03	35,977
DI LUZIO, NICHOLAS R.....	DEVELOPMENTAL THERAPEUTICS: GLUCAN.....	5R01 CA24326-02	118,402
DOMER, JUDITH E.....	HOST RESPONSES IN EXPERIMENTAL CANDIDIASIS.....	5R01 AI12806-06	60,118

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
DUDEK, FRANCIS E.....	LOCAL INTERACTIONS BETWEEN HIPPOCAMPAL NEURONS.....	1R01 NS16683-01	91,863
EHRlich, MELANIE.....	5-METHYLCYTOSINE IN DNA: CANCER AND DEVELOPMENT.....	2R01 CA19942-04	66,503
EHRlich, MELANIE.....	MUTAGENESIS AT 5-METHYLCYTOSINE RESIDUES IN DNA.....	5R01 GM26986-02	49,333
EVANICH, MYRON J.....	BIO-TELEMETRY IN THE STUDY OF VENTILATORY CONTROL.....	5R01 HL21743-03	75,727
FISHER, JAMES W.....	KIDNEY CONTROL OF ERYTHROPOIETIN PRODUCTION.....	5R01 AM13211-11	50,769
FRIEDMAN, LORRAINE.....	EXPERIMENTAL CRYPTOCOCCOSIS.....	5R01 AI15050-02	35,685
GEORGE, WILLIAM J.....	MECHANISM OF ACTION OF ERYTHROPOIETIN.....	5R01 AM20386-02	46,086
GOTTLIEB, A ARTHUR.....	INHIBITOR OF DNA POLYMERASE PRODUCED BY TUMOR CELLS.....	5R01 CA25023-02	55,676
HAMILTON, ANDREW E.....	SIGNIFICANCE OF CENTRIC FUSION IN LEMUR EVOLUTION.....	1R01 GM27965-01	65,390
HAMLIN, JAMES T, III.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05377-19	95,411
HAMORI, EUGENE.....	COMPUTER-BASED REPRESENTATION OF LONG DNA SEQUENCES.....	2R01 GM20008-06A1	26,471
HYMAN, ALBERT L.....	CARDIOVASCULAR SURGICAL RESEARCH.....	5R01 HL11802-12	151,429
IGNARRO, LOUIS J.....	BIOREGULATION OF HUMAN NEUTROPHIL FUNCTION.....	5R01 AM17692-06	53,587
JOHNSON, MARY K.....	ROLE OF MICROBIAL CYTOLYSINS IN OCULAR INFECTIONS.....	5R01 EY00424-12	80,484
KADOWITZ, PHILIP J.....	HUMORAL CONTROL OF PULMONARY AND SYSTEMIC CIRCULATION.....	5R01 HL15580-08	91,285
KADOWITZ, PHILIP J.....	REGULATION OF INTRAPULMONARY AIRWAYS AND VESSELS.....	5R01 HL18070-06	34,566
KASTIN, ABBA J.....	CONTROL OF MSH RELEASE AND ROLE OF MIF AND MSH.....	5R01 NS07664-12	76,194
KATZ, STEPHEN P.....	EFFECTS OF IMMUNE REGULATION IN FILARIASIS.....	1R23 AI17046-01	38,314
KLAWITTER, JEROME J.....	BIOLOGICAL PROSTHETIC ATTACHMENT.....	5R01 DE05292-02	83,942
KREMENTZ, EDWARD T.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18007-05	124,282
KRISHNAMURTY, V S.....	REGULATORY ROLE OF CA++ & MG++ IN VASCULAR SMOOTH MUSCLE.....	5R23 HL25818-02	40,876
LEHRER, SAMUEL B.....	HUMORAL AND CELLULAR IGE SYNTHESIS IN THE MOUSE.....	5R23 AI14891-03	42,971
MOSER, STEPHEN A.....	IMMUNE RESPONSES IN MURINE CRYPTOCOCCOSIS.....	5R01 AI15461-02	76,282
ORIHILL, THOMAS C.....	INTERNATIONAL RESEARCH IN INFECTIOUS DISEASES.....	1P01 AI16315-01	442,935
SALVAGGIO, JOHN E.....	OCCUPATIONAL HYPERSENSITIVITY CHEST DISEASES.....	2P50 AI13401-06	111,404
SCHALLY, ANDREW V.....	NEUROCHEMISTRY OF THE DIENCEPHALON.....	2R01 AM07467-17	184,194
SCHOELLMANN, GUENTHER.....	MOLECULAR ASPECTS OF THE PHOTORECEPTOR FUNCTION.....	1R01 EY03350-01	56,995
SETO, YEB JO.....	TUMORICIDAL COMPARISON OF CO2 LASER AND CRYOGENICS.....	1R01 CA26326-01A1	61,959
SPANNHAKE, ERNST W.....	PROSTAGLANDIN TRANSFORMATIONS AND LUNG FUNCTION.....	5R01 HL22945-02	53,165
SPRINGGATE, CLARK F.....	HUMAN LIVER APURINIC DNA ENDONUCLEASE.....	5R23 ES02159-02	39,796
STUCKEY, WALTER J.....	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY.....	5R10 CA03389-22	98,250
SUTHERLAND, CARL M.....	PRIMARY BREAST CANCER THERAPY GROUP.....	1R10 CA23306-01A1	32,665
WEILL, HANS.....	IMMUNE & FIBROTIC RESPONSES TO OCCUPATIONAL ENVIRONMENT.....	5P50 HL15092-09	663,867
WEINSTEIN, ALLAN M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07040-13	87,167
ORGANIZATION TOTAL	50 4,424,300		
XAVIER UNIVERSITY OF LOUISIANA ZIP CODE 70125			
ASHMAN, PORTIA U.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08008-10	354,346
ORGANIZATION TOTAL	1 354,346		
RUSTON			
LOUISIANA TECHNOLOGICAL UNIVERSITY ZIP CODE 71272			
HOLLADAY, LESLIE A.....	SOMATOSTATIN-ISLET INTERACTION: EM AUTORADIOGRAPHY.....	7R01 AM28564-01	68,675
SCHUBERT, ROY W.....	PHYSIOLOGICAL & MATHEMATICAL STUDY OF HEART FUNCTION.....	5R01 HL22864-02	45,442
ORGANIZATION TOTAL	2 114,117		
SHREVEPORT			
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT SHREVEPORT ZIP CODE 71130			
ALBRIGHT, JAMES A.....	OSTEOGENESIS IMPERFECTA TREATED WITH ELECTRIC FIELD.....	5R01 AM26020-02	53,153
BANSCHBACH, MARTIN W.....	ANALYSIS OF THE CF SERUM CALCIUM TRANSPORT FACTOR.....	1R01 AM26078-01A1	35,750
BEAL, JOHN A.....	SYNAPTOLGY OF SPECIFIC MARGINAL AND SG SPINAL NEURONS.....	1R01 NS16642-01	33,721
BERG, RODNEY D.....	EFFECT OF ANTAGONISM AND S-IGA INDIGENOUS ANAEROBES.....	5R01 AI14235-03	39,154
BERG, RODNEY D.....	MECHANISMS CONFINING INDIGENOUS BACTERIA TO GI TRACTS.....	5R01 AI15826-02	39,081
DIANA, JOHN N.....	CAPILLARY PERMEABILITY IN HEART FAILURE AND HYPERTROPHY.....	5R01 HL23196-02	47,159
GILLELAND, HARRY E, JR.....	OUTER MEMBRANE OF PSEUDOMONAS AERUGINOSA.....	1R01 AI14149-01A2	36,725
LANE, JOHN D.....	SPINAL CORD LESIONS—NEUROBIOLOGICAL MECHANISMS.....	1R01 NS16409-01	66,302
LEUNG, CHRISTOPHER C.....	EMBRYOTOXIC PLACENTA ANTISERUM.....	5R01 HD13939-02	26,511
LEUNG, CHRISTOPHER C.....	STUDIES OF ABNORMAL EMBRYONIC DEVELOPMENT.....	5R01 HD13940-02	46,566

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
LOUISIANA—Continued			
MC DONALD, JOHN C	A HETEROPHILE SYSTEM IN HUMAN RENAL TRANSPLANTATION	5R01 AM21346-04	62,036
PICKERING, JERRY W	IMMUNOBIOLOGY OF HUMAN MALIGNANT MELANOMA	5R01 CA27134-02	36,074
RIGBY, PERRY G	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05822-01	48,332
SAHA, SUBRATA	A NEW METHOD TO MEASURE THE RATE OF FRACTURE HEALING	5R01 AM26732-02	72,927
STEWART, JOHN J	CENTRAL ACTIONS OF DRUGS ON SMALL INTESTINE	5R01 GM25324-03	31,734
WELBOURNE, TOM C	RENAL CONTROL OF UREA AND GLUTAMINE FORMATION	5R01 AM21026-03	36,482
WILLIAMS, DARRYL M	MITOCHONDRIAL IRON UPTAKE AND HEME SYNTHESIS	5R01 AM23004-02	45,790
WILLIAMS, DARRYL M	CLINICAL CANCER EDUCATION PROGRAM	1R25 CA28248-01	43,813
WOLCOTT, R MICHAEL	CONTROL OF CELL DIVISION IN LEUKEMIA CELLS	5R01 CA24914-02	56,390
WONG, ROBERT K	NERVE CELL DENDRITES	1R01 NS16606-01	51,397
ORGANIZATION TOTAL	20 909,097		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 71130			
GRIMES, SIDNEY R	BASIC SPERMATIDAL PROTEIN MRNA IN RAT TESTIS	5R01 HD11796-03	44,422
ORGANIZATION TOTAL	1 44,422		
STATE TOTAL	168 17,394,478		
MAINE			
BAR HARBOR			
JACKSON LABORATORY ZIP CODE 04609			
BAILEY, DONALD W	NON-H-2 HISTOCOMPATIBILITY ANTIGENS	5R01 AI13130-05	278,058
BAILEY, DONALD W	GENETIC STABILITY OF MOUSE ZYGOTES IN FROZEN STORAGE	5R01 GM22878-05	87,649
BEAMER, WESLEY G	INHERITED GROWTH DISORDERS OF ENDOCRINE SYSTEMS	5R01 AM17947-07	114,027
BEAMER, WESLEY G	OVARIAN TUMORS IN YOUNG MICE	5R01 CA24145-02	22,991
BERNSTEIN, SELDON E	PHYSIOLOGICAL GENETICS OF THE MOUSE	5R01 AM25305-30	141,403
BERNSTEIN, SELDON E	ANALYSES AND THERAPY OF NEONATAL BLOOD DISORDERS	5R01 HD00254-20	52,899
CARLSON, GEORGE A	H-2 ASSOCIATED NATURAL RESISTANCE	1R01 CA28231-01	111,216
CHAI, CHEN K	AGE-DEPENDENT AMYLOID DEGENERATION IN MICE	5R01 AG02122-02	74,573
CHEN, HARRY W	CHOLESTEROL IN MEMBRANE FUNCTION AND CELL TRANSFORMATION	5R01 GM22900-05	100,995
CHEN, HARRY W	FLUORESCENCE-ACTIVATED CELL SORTER	5P41 GM27477-02	9,654
COLEMAN, DOUGLAS L	HEREDITARY DIABETES IN THE MOUSE	2R01 AM14461-11	86,246
COLEMAN, DOUGLAS L	BIOCHEMISTRY OF PIGMENTATION AND INHERITED DISORDERS	5R01 AM20725-19	59,448
COLLINS, ROBERT L	LATERALIZATION OF FUNCTION: BEHAVIOR GENETIC ANALYSIS	9R01 GM23618-04A1	121,134
DAVISON, MURIEL T	ROBERTSONIAN CHROMOSOMES OF THE MOUSE	1R01 GM27102-01	84,917
EGOROV, IGOR K	MUTATIONS OF CMAD LOCI IN MOUSE CHROMOSOME 17	1R01 GM28017-01	211,332
EICHER, EVA M	CYTOGENETICS OF THE MOUSE	5R01 GM20919-07	126,636
EICHER, EVA M	A MOUSE MUTANT GENE RESOURCE	5P40 RR01183-03	86,549
FOX, RICHARD R	PATHOGENESIS OF GLAUCOMA-LIKE CHANGES IN BUPHTHALMOS	5R01 EY03115-02	96,159
HARRISON, DAVID E	DECLINE OF IMMUNE RESPONSE WITH AGE	2R01 AG00594-07	79,379
HARRISON, DAVID E	AGING AT THE CELLULAR AND TISSUE LEVEL	1R01 AG01755-01	106,099
HARRISON, DAVID E	STEM CELL INTERACTIONS IN MARROW TRANSPLANTATION	9R01 AM25687-07	100,252
HEINIGER, HANS-JORG	CHOLESTEROL IN NORMAL AND MALIGNANT LYMPHOCYTES	2R01 CA19305-04	95,016
HOPPE, PETER C	DEVELOPMENT OF PARTHENOGENETIC ACTIVATED MOUSE EGGS	5R01 HD10381-03	67,114
JOHNSON, DAVID A	RELATIONSHIP OF LEUKEMOGENESIS AND IMMUNE RESPONSIVENESS	5R23 CA25944-02	35,513
KANDUTSCH, ANDREW A	STEROID METABOLISM IN TUMORS AND NORMAL TISSUES	5R01 CA02758-25	197,452
KANDUTSCH, ANDREW A	DOLICHOL SYNTHESIS IN DIFFERENTIATION AND MALIGNANCY	1R01 GM29241-01	67,641
KOZAK, LESLIE P	BIOCHEMICAL GENETICS OF OVARIAN AND TESTICULAR TERATOMAS	2R01 HD08431-07	89,761
LEITER, EDWARD H	GENETIC CONTROL OF HYPERPLASIA IN THE ENDOCRINE PANCREAS	2R01 AM17631-06A1	91,245
MURPHY, EDWIN D	GENE MECHANISMS IN LYMPHOMA AND LYMPHOPROLIFERATION	5R01 CA22948-03	110,837
OUTZEN, HENRY C	IMMUNOMODULATION OF ONCOGENESIS	5R01 CA24901-02	117,732
PREHN, RICHMOND T	MECHANISMS OF CARCINOGENESIS	5R01 CA20920-04	315,549
PREHN, RICHMOND T	ANATOMICAL GRADIENT IN SUSCEPTIBILITY TO ONCOGENESIS	5R01 CA26775-02	49,912
RODERICK, THOMAS H	STUDY OF MAMMALIAN CHROMOSOMAL INVERSIONS	5R01 GM19656-09	60,431
SHULTZ, LEONARD D	IMMUNODEFICIENCY AND TUMORIGENESIS	5R01 CA20408-04	80,730
STEVENS, LEROY C	INVESTIGATIONS ON TERATOCARCINOGENESIS	5R01 CA02662-26	160,292
TAYLOR, BENJAMIN A	GENETIC ANALYSIS OF COMPLEX INFIRMITIES	5R01 GM18684-09	60,003

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MAINE—Continued			
WAYMOUTH, CHARITY.....	CONTROL OF CELL GROWTH, DIFFERENTIATION, AND FUNCTION.....	5R01 CA11339-10	61,918
WAYMOUTH, CHARITY.....	HORMONE AND CARCINOGEN EFFECTS ON PROSTATE IN VITRO.....	2R26 CA20226-05	33,616
WAYMOUTH, CHARITY.....	SUPPORT FOR INBRED AND MUTANT ANIMALS RESOURCE.....	5P40 RR00251-15	106,069
WAYMOUTH, CHARITY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05545-18	127,647
ORGANIZATION TOTAL	40 4,080,094		
BRUNSWICK			
BOWDOIN COLLEGE ZIP CODE 04011			
KERTZER, DAVID I.....	HOUSEHOLD DYNAMICS IN LONGITUDINAL PERSPECTIVE.....	5R01 HD13415-02	45,841
STEINHART, WILLIAM L.....	MEMBRANE FUNCTION IN HERPESVIRUS INFECTION.....	5R01 AI15820-02	46,232
ORGANIZATION TOTAL	2 92,073		
ORONO			
UNIVERSITY OF MAINE AT ORONO ZIP CODE 04473			
BLAKE, RICHARD D.....	STRUCTURE AND INTERACTIONS OF DNA.....	2R01 GM22827-04A1	41,266
LERNER, JOSEPH.....	GENETIC ASPECTS OF AMINO ACID TRANSPORT SYSTEMS.....	2R01 AM19445-04	55,517
MOUNTCASTLE, DONALD B.....	TRANSMEMBRANE SIGNALING FOLLOWING RECEPTOR BINDING.....	1R01 GM28338-01	78,001
NICHOLSON, BRUCE L.....	PISCINE ERYTHROCYTIC NECROSIS IN THE ATLANTIC COD.....	5R01 HL19164-05	46,683
TYLER, MARY S.....	TISSUE INTERACTIONS IN THE CRANIOFACIAL REGION.....	5R23 DE04859-03	26,838
WOHLGEMUTH, ANDREW R.....	INFORMATION FROM IMMUNOLOGICAL REACTION TABLES.....	2R01 CA20105-04	22,603
ORGANIZATION TOTAL	6 270,908		
PORTLAND			
MAINE MEDICAL CENTER ZIP CODE 04102			
HOWARD, DONALD R.....	TISSUE BLOOD GROUP ANTIGENS AND CARCINOGENESIS.....	1R23 CA28128-01	25,611
RAND, PETER W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05805-02	16,077
ORGANIZATION TOTAL	2 41,688		
SALSBUURY COVE			
MOUNT DESERT ISLAND BIOLOGICAL LABORATORY ZIP CODE 04672			
MILLER, DAVID S.....	MEMBRANE TOXICITY THEORY AND ENVIRONMENTAL POLLUTANTS.....	5R01 ES00920-08	73,187
MILLER, DAVID S.....	ENVIRONMENTAL POLLUTANTS AND MEMBRANE TRANSPORT.....	5R01 ES01678-03	53,612
RAPPAPORT, RAYMOND.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05764-06	21,427
SCHMIDT-NIELSEN, BODIL M.....	BIOLOGY OF EXCRETORY AND OSMOREGULATORY MECHANISMS.....	5R01 AM15972-09	100,281
SCHMIDT-NIELSEN, BODIL M.....	PHYSIOLOGY AND MORPHOLOGY OF CELL TRANSPORT.....	5R01 AM15973-09	71,329
ORGANIZATION TOTAL	5 319,836		
STATE TOTAL	55 4,804,599		
MARYLAND			
BALTIMORE			
BALTIMORE CITY HOSPITALS ZIP CODE 21224			
LIEBSON, IRA A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05556-18	40,784
ORGANIZATION TOTAL	1 40,784		
CARNEGIE INSTITUTION OF WASHINGTON, D. C. ZIP CODE 21210			
BROWN, DONALD D.....	THE DUAL 5S RNA GENE SYSTEM IN XENOPUS.....	2R01 GM22395-06	181,435
BROWN, DONALD D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05799-03	38,219
FAMBROUGH, DOUGLAS M.....	NERVE AND MUSCLE MEMBRANES.....	1R01 NS16542-01	113,327
GEARHART, PATRICIA J.....	B CELL EXPRESSION OF IMMUNOGLOBULIN V AND C REGIONS.....	5R01 CA25507-03	54,530
MULLER, KENNETH J.....	REGENERATION OF PARTICULAR SYNAPSES.....	5R01 NS15014-02	49,739
PAGANO, RICHARD E.....	CELL SURFACE LIPIDS: ORGANIZATION; DYNAMICS; METABOLISM.....	5R01 GM22942-05	101,772

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
RUBIN, GERALD M.....	CONTROL OF GENE EXPRESSION IN ANIMAL CELLS.....	7R01 GM29054-01	116,276
SPRADLING, ALLAN C.....	NORMAL AND MUTANT CHORION GENES OF DROSOPHILA.....	1R01 GM27875-01	134,040
WARD, SAMUEL.....	GENETIC SPECIFICATION OF CELL MORPHOLOGY.....	5R01 GM25243-03	100,752
WARD, SAMUEL.....	ELECTRON MICROSCOPE FACILITY.....	5P41 GM27349-02	3,200
ORGANIZATION TOTAL	10 893,290		
JOHN F. KENNEDY INSTITUTE ZIP CODE 21205			
CATALDO, MICHAEL F.....	PSYCHOPHYSIOLOGICAL REACTIONS TO TOUCH.....	1R01 HD14519-01	51,577
CATALDO, MICHAEL F.....	A BEHAVIORAL MEDICINE APPROACH TO MOVEMENT DISORDERS.....	5R01 NS14634-03	78,462
CATALDO, MICHAEL F.....	BEHAVIORAL MEDICINE ASSESSMENT OF MOVEMENT DISORDERS.....	5R01 NS15679-02	87,994
CATALDO, MICHAEL F.....	BEHAVIORAL MEDICINE APPLIED TO NEUROLOGICAL DISORDERS.....	3R13 NS15695-01S1	3,000
FREEMAN, JOHN M.....	EFFECTS OF ANTICONVULSANTS ON LEARNING AND BEHAVIOR.....	5R01 NS15564-02	120,622
KISHIMOTO, YASUO.....	SPHINGOLIPID METABOLISM AND BRAIN DEVELOPMENT.....	2R01 NS13559-05	100,999
KISHIMOTO, YASUO.....	BRAIN ALPHA-HYDROXY FATTY ACID METABOLISM & MYELINATION.....	5R01 NS13569-05	80,741
MOSER, HUGO W.....	GENETIC AND TOXIC CAUSES OF MENTAL RETARDATION.....	5P01 HD10981-03	301,409
MOSER, HUGO W.....	BRAIN LIPIDS IN DIFFUSE DEMYELINATIVE DISEASES.....	5R01 NS13513-04	82,270
MOSER, HUGO W.....	ADRENOLEUKODYSTROPHY HETEROZYGOTE AND PRENATAL DIAGNOSIS.....	1R01 NS15829-01	31,333
MOSER, HUGO W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05808-02	63,900
SEITZ, RACHEL E.....	PRECURSORS OF LANGUAGE IN NORMAL CHILDREN.....	5R01 HD11970-02	67,181
WHITEHEAD, WILLIAM E.....	BEHAVIORAL MEDICINE TREATMENT OF FECAL INCONTINENCE.....	1R01 NS15781-01	53,322
ORGANIZATION TOTAL	13 1,122,810		
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218			
ACKERS, GARY K.....	MOLECULAR SIEVE CHROMATOGRAPHY OF INTERACTING PROTEINS.....	5R01 GM24486-04	122,640
ACKERS, GARY K.....	SUBUNIT INTERACTIONS IN SICKLE CELL HEMOGLOBIN.....	5R01 HL23766-02	41,928
ADKINSON, N FRANKLIN, JR.....	STUDIES OF ALLERGIC DRUG REACTIONS.....	2R01 AI11936-07	82,150
ADKINSON, N FRANKLIN, JR.....	VALUE OF SKIN TESTING FOR PENICILLIN ALLERGY.....	5R01 AI15525-02	129,625
ADKINSON, N FRANKLIN, JR.....	ROLE OF PROSTAGLANDINS IN HUMAN AIRWAY FUNCTION.....	1R01 HL24938-01	126,452
AEBI, UELI.....	STRUCTURAL STUDIES OF RNA POLYMERASE FROM E. COLI.....	1R01 GM27765-01	89,113
AMZEL, LEON M.....	3-DIMENSIONAL STRUCTURE OF PROTON TRANSLOCATING ATPASES.....	5R01 GM25432-03	66,857
AMZEL, LEON M.....	FILM SCANNING FACILITY FOR DATA COLLECTION OR DISPLAY.....	5P41 GM27420-02	7,270
ANDERSON, DAVID E.....	VASCULAR EFFECTS OF INHIBITORY BEHAVIORAL ADAPTATIONS.....	5R01 HL17970-06	101,318
ANDERSON, NORMAN D.....	LYMPHOCYTE CHEMOTAXIS.....	5R01 AI16072-02	94,035
ANDERSON, NORMAN D.....	TUMOR INDUCED CHANGES IN LYMPHATIC TISSUES.....	5R01 CA24728-02	100,811
ANNAU, ZOLTAN.....	BIOLOGICAL EFFECTS OF EXPOSURE TO ENVIRONMENTAL AGENTS.....	1P01 ES02277-01	479,746
AUGUST, J THOMAS.....	GENETIC EXPRESSION OF CELLULAR ONCOGENES.....	5R01 CA19471-04	165,712
AURELIAN, LAURE.....	CM1 TO HSV-2 ANTIGENS IN GENITAL HERPES INFECTIONS.....	5R01 AI14341-03	76,642
BACHORIK, PAUL S.....	INTERACTION OF LIVER CELL MEMBRANES AND LIPOPROTEINS.....	5R01 HL23438-02	65,222
BANG, FREDERIK B.....	REGULATION OF SUSCEPTIBILITY TO MHV IN CONGENIC MICE.....	5R01 AI16036-02	87,685
BANG, FREDERIK B.....	INTRANASAL HOMEOSTASIS VIRUSES & POLLUTANT GASES.....	3R01 ES01477-03S1	8,745
BAYLIN, STEPHEN B.....	POLYAMINE METABOLISM IN INTESTINAL EPITHELIAL GROWTH.....	1R01 AM27447-01	83,613
BAYLIN, STEPHEN B.....	HISTAMINASE AND AMINES IN NEURAL CREST TUMORS.....	5R01 CA18404-06	75,981
BEER, MICHAEL.....	ELECTRON MICROSCOPIC STUDIES OF COLLAGEN.....	1R01 GM27758-01	61,297
BEER, MICHAEL.....	ATOMIC MICROSCOPY OF LABELED SYSTEMS: A STEM FACILITY.....	1P41 RR01214-01	276,386
BENBOW, ROBERT M.....	CONTROL OF DNA REPLICATION IN XENOPUS LAEVIS.....	5R01 GM25970-02	214,067
BESCHÖRNER, WILLIAM E.....	CHRONIC GRAFT-VERSUS-HOST DISEASE IN RADIATION CHIMERA.....	1R01 CA28701-01	67,628
BESSMAN, MAURICE J.....	ENZYMATIC SYNTHESIS OF NUCLEOTIDES AND DNA.....	5R01 GM18649-22	94,922
BIAS, WILMA B.....	GENETICS OF RHEUMATIC DISEASE IN ISOLATED POPULATIONS.....	5R01 AM20656-02	82,080
BLASS, ELLIOTT M.....	THE ONTOGENY OF INGESTIVE BEHAVIOR.....	5R01 AM18560-06	69,645
BRAND, LUDWIG.....	FLUORESCENCE PROBES IN STUDIES OF PROTEINS AND MEMBRANES.....	5R01 GM11632-18	136,539
BRENNER, M HARVEY.....	MORTALITY OF OLDER MALES IN INTERNATIONAL PERSPECTIVE.....	1R01 AG01833-01	97,574
BRUSILOV, SAUL W.....	UREA CYCLE ENZYMOPATHIES.....	2R01 HD11134-04	175,514
BUEDING, ERNEST.....	PROTECTION AGAINST MUTAGENIC EFFECTS OF DRUGS.....	5R01 CA18251-05	93,196
BURDICK, JAMES F.....	SURVIVAL OF PRIMARILY VASCULARIZED MURINE ALLOGRAFTS.....	1R01 AI15081-01A2	85,349
BURKE, PHILIP J.....	EXPERIMENTAL THERAPY OF MYELOID LEUKEMIA IN REMISSION.....	5R01 CA23973-03	78,369
CAMERON, JOHN L.....	ACUTE PANCREATITIS: PATHOPHYSIOLOGY AND TREATMENT.....	5R01 AM19646-04	117,778
CAMPBELL, JAMES N.....	NEUROPHYSIOLOGICAL AND PSYCHOPHYSICAL STUDIES OF PAIN.....	5R01 NS14447-03	54,173
CARAMAZZA, ALFONSO.....	COMPREHENSION DEFICITS IN THE APHASICS.....	5R01 NS14099-03	67,201
CARAMAZZA, ALFONSO.....	SYNTACTIC DEFICITS IN APHASIA.....	1R01 NS16155-01	120,596
CARRAN, FRANCIS D.....	THE STRUCTURAL BASIS OF CELLULAR FUNCTION.....	5R01 AM12803-22	125,721
CEBRA, JOHN J.....	CELLULAR & HUMORAL BASES OF MUCOSAL IMMUNE RESPONSES.....	5R01 AI09652-11	183,393

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
CHA, YOUNG-NAM	MECHANISM OF ANTIMUTAGENESIS BY ANTICARCINOGENS	1R01 CA27594-01	62,482
CHANG, THOMAS S	SULFHYDRYL OXIDASE FROM THE MALE REPRODUCTIVE TRACT	5R01 HD12762-02	51,057
CHARACHE, SAMUEL	STUDY OF ABNORMAL HEMOGLOBINS	3R01 HL02799-22S1	26,807
CHARACHE, SAMUEL	STUDY OF ABNORMAL HEMOGLOBINS	2R01 HL02799-23A1	125,874
CHEDEKEL, MILES R	PHOTOCHEMISTRY AND STRUCTURE OF PHAEOELANIN	5R01 AG02380-02	37,329
CHEDEKEL, MILES R	BIOSYNTHESIS AND STRUCTURE OF PHAEOELANIN	5R01 AG02381-02	45,825
CHEN, CHUNG-HO	BIOCHEMICAL STUDIES OF PROLIFERATIVE RETINOPATHIES	3R01 EY01399-05S1	16,776
CHENG, TU-CHEN	GLOBIN RNA PROCESSING IN NORMAL AND THALASSEMIC CELLS	1R01 HL26225-01	82,537
CHILDS, BARTON	STUDIES IN HUMAN GENETICS	5R01 HD00486-25	158,642
COATES, THOMAS J	BEHAVIORAL MEDICINE FOR ADOLESCENT HYPERTENSION	5R23 HL24297-02	46,200
COFFEY, DONALD S	PROGRAMMATICAL STUDIES ON BENIGN PROSTATIC HYPERPLASIA	2P01 AM19300-05	480,968
COFFEY, DONALD S	REGULATION OF PROSTATIC GROWTH BY ANDROGENS	5R01 AM22000-09	102,064
COFFEY, DONALD S	CHEMOTHERAPEUTIC AGENTS AND PROSTATIC DNA SYNTHESIS	5R26 CA15416-07	153,615
COHEN, STEVEN R	IMMUNOCHEMICAL STUDY OF MYELINATION AND DEMYELINATION	5R01 NS14167-03	63,574
COLE, GERALD A	IMMUNOSUPPRESSION AND EXPERIMENTAL VIRAL INFECTION	5R01 NS11286-10	143,914
COLVIN, MICHAEL O	PHARMACOLOGY OF CYCLOPHOSPHAMIDE AND OTHER ALKYLATORS	2R01 CA16783-07	134,053
COMSTOCK, GEORGE W	CANCER STUDIES IN WASHINGTON COUNTY, MD	5R01 CA24758-02	88,782
COMSTOCK, GEORGE W	RESPIRATORY EFFECTS OF HOUSEHOLD EXPOSURES	3R01 ES02157-01S1	616
CONE, RICHARD A	RHODOPSIN, DIFFUSION, AND VISUAL EXCITATION	2R01 EY00520-11	93,011
COYLE, JOSEPH T	HUNTINGTON'S CHOREA MODEL: STRIATAL LESION BY KAINATE	2R01 NS13584-04	77,406
CRAIG, SUSAN W	CELL SURFACE CONTROL OF LYMPHOCYTE PHYSIOLOGY	2R01 AI13700-04	91,681
DANNENBERG, ARTHUR M, JR	PATHOGENESIS OF ENVIRONMENTALLY-INDUCED INFLAMMATION	5R01 ES01879-02	132,938
DE LONG, MAHLON R	MOTOR FUNCTIONS OF THE BASAL GANGLIA	5R01 NS15417-02	134,873
DE VOE, ROBERT D	ANALYSIS OF FLICKER RETINAL ACTION POTENTIALS	5R01 EY00008-18	69,128
DEVROOTES, PETER N	CAMP SIGNALS MEDIATING AGGREGATION IN DICTYOSTELIUM	1R01 GM28007-01	92,472
DINTZIS, HOWARD M	REGULATION OF IMMUNITY AT THE MOLECULAR LEVEL	5R01 CA25043-03	110,685
DOTTIN, ROBERT P	DEVELOPMENTAL CONTROL OF DICTYOSTELIUM GENE EXPRESSION	1R01 GM27310-01	86,976
DRACHMAN, DANIEL B	NERVE-MUSCLE INTERACTIONS IN DEVELOPMENT	5R01 HD04817-11	111,628
DROLLER, MICHAEL J	CELLULAR IMMUNE RESPONSE MECHANISMS IN BLADDER CANCER	2R26 CA24592-03	76,355
DURAND, RALPH E	SIMULATED TUMOR THERAPY WITH AN IN VITRO MODEL	5R01 CA23511-04	125,066
EDIDIN, MICHAEL A	CHEMISTRY & DEVELOPMENT OF TRANSPLANTATION ANTIGENS	5R01 AI14584-14	90,445
EDIDIN, MICHAEL A	GENETICS OF CELL ADHESION AND CLEFT PALATE FORMATION	5R01 DE04481-03	56,946
ENGLUND, PAUL T	STRUCTURE AND SYNTHESIS OF DNA	9R01 GM27608-12	181,321
ENTWISLE, DORIS R	CAESAREAN SECTIONS: SOCIAL AND PSYCHOLOGICAL FACTORS	5R01 HD13103-02	40,217
EPSTEIN, MELVIN H	DEVELOPMENT OF A TOTALLY IMPLANTABLE PRESSURE TRANSDUCER	5R01 NS13610-02	73,682
EWING, LARRY L	REGULATION OF ANDROGEN SECRETION IN MAMMALIAN TESTES	5R01 HD07204-08	101,577
FARRELL, RICHARD A	LIGHT SCATTERING STUDIES OF OCULAR TISSUES	5R01 EY01019-08	109,887
FENSELAU, ALLAN H	CONTROL OF TUMOR-INDUCED VASCULARIZATION	5R01 CA15381-06	107,724
FENSELAU, CATHERINE C	APPLICATIONS OF MASS SPECTROMETRY IN PHARMACOLOGY	2R01 GM21248-06	144,993
FINE, STUART L	MACULAR PHOTOCOAGULATION STUDY READING CENTER	5R01 EY02546-02	186,989
FINE, STUART L	MACULAR PHOTOCOAGULATION STUDY	5R10 EY02556-02	70,941
FINKELSTEIN, DANIEL	STUDIES OF RETINITIS PIGMENTOSA	5R01 EY01791-05	102,786
FINKELSTEIN, DANIEL	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY: COORD. CTR	3R10 EY02466-02S1	40,003
FINKELSTEIN, DANIEL	BRANCH VEIN OCCLUSION COLLABORATIVE STUDY	3R10 EY02469-02S1	10,451
FLOWER, ROBERT W	RETINA AND RETINAL VESSELS	5R01 EY00205-20	144,011
FLOWER, ROBERT W	PROSTAGLANDINS IN PREMATURE INFANT VASCULAR PHYSIOLOGY	5R01 EY02482-03	110,923
FOLSTEIN, MARSHAL F	RESEARCH CENTER WITHOUT WALLS FOR HUNTINGTON'S DISEASE	1P01 NS16375-01	568,276
FORD, KATHLEEN	THE FERTILITY OF IMMIGRANTS TO THE UNITED STATES	1R01 HD14271-01	60,795
FREEDBERG, IRWIN M	STUDIES OF EPIDERMAL MACROMOLECULAR METABOLISM	5R01 AM21358-04	185,795
FRIEDMAN, MORTON H	CORRELATION OF ARTERIAL HEMODYNAMICS AND MORPHOLOGY	5R01 HL21270-03	115,090
GADACZ, THOMAS R	BILE COMPOSITION IN POST-OPERATIVE REFLUX GASTRITIS	5R01 AM21835-02	39,320
GAFFNEY, BETTY J	SPIN LABELING RECEPTORS ON NORMAL AND MALIGNANT CELLS	9R01 GM28070-07	142,806
GIBSON, D WADE	HERPESVIRUS PROTEIN SYNTHESIS AND VIRION ASSEMBLY	2R01 AI13718-04	108,593
GILLESPIE, ELIZABETH	PHOSPHATIDYLINOSITOL METABOLISM AND INFLAMMATION	5R01 AI14959-02	61,797
GILLESPIE, ELIZABETH	STUDIES OF THE GLYOXALASE ENZYMES	1R01 AI17301-01	56,888
GLASER, BERT M	OCULAR ANGIOGENIC FACTORS: BIOASSAYS AND BIOCHEMISTRY	1R01 EY03510-01	87,835
GOPALAKRISHNAN, T V	CYTOPLASMIC CONTROL OF DIFFERENTIATED FUNCTIONS	5R01 HD13316-02	96,108
GORDIS, LEON	ENVIRONMENTAL EPIDEMIOLOGIC STUDY OF PANCREATIC CANCER	3R26 CA21642-03S1	43,690
GORDIS, LEON	ENVIRONMENTAL EPIDEMIOLOGIC STUDY OF PANCREATIC CANCER	5R26 CA21642-04	87,921
GOTT, VINCENT L	PROTECTION OF THE MYOCARDIUM DURING CARDIAC SURGERY	5R01 HL19414-05	237,251
GOTTLIEB, MICHAEL	COMPLEX CARBOHYDRATES AND MEMBRANES OF TRYPAENOMATIDAE	1R01 AI16530-01	92,055

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
GRAHAM, GEORGE G.	ROLE OF STAPLE FOODS IN INFANT NUTRITION.....	5R22 HD10111-05	138,122
GREEN, WILLIAM R.	OCULAR CLINICO-PATHOLOGIC CORRELATION.....	3R01 EY01684-03S1	35,997
GRIFFIN, JOHN W.	AXONAL TRANSPORT IN MODELS OF NEUROFILAMENTOUS PATHOLOGY.....	5R01 NS14784-03	34,621
GROSSMAN, LAWRENCE	ENZYMATIC EXCISION AND REPAIR MECHANISM.....	5R01 GM22846-06	99,259
GRZANNA, REINHARD	IMMUNOCYTOCHEMISTRY OF CENTRAL HISTAMINERGIC NEURONS.....	1R01 NS16654-01	73,312
HANKS, JOHN H.	ENERGETICS AND CULTIVATION OF M. LEPRAE.....	2R22 AI14442-04	142,550
HARRINGTON, WILLIAM F.	BIOPHYSICAL CHEMICAL STUDIES OF MUSCLE PROTEINS.....	5R01 AM04349-21	236,764
HARRIS, ALAN H.	CIRCULATORY EFFECTS OF OPERANT CARDIOVASCULAR CONTROL.....	5R01 HL17958-06	93,035
HART, GERALD W.	PROTEOLYCAN AND GLYCOPROTEINS OF DEVELOPING THYMUS.....	1R01 HD13563-01	82,284
HARTMAN, PHILIP E.	DETECTION SYSTEMS FOR MUTAGENS & CARCINOGENS.....	5R01 CA26328-02	91,564
HAYWARD, GARY S.	STRUCTURAL ORGANIZATION OF HUMAN HERPESVIRUS GENOMES.....	2R01 CA22130-04	89,299
HAYWARD, GARY S.	CELLULAR TRANSFORMATION BY DNA OF HUMAN HERPESVIRUSES.....	1R01 CA28473-01	108,615
HEDREEN, JOHN C.	CORTICOSTRIATAL AND CORTICOPONTINE NEURONS.....	5R01 NS13812-02	53,599
HELTNE, PAUL G.	LONG-TERM CAPTIVE REPRODUCTION OF AOTUS TRIVIRGATUS.....	5P04 RR01172-03	59,550
HENDERSON, D A.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05445-19	195,787
HEPTINSTALL, ROBERT H.	EXPERIMENTAL HYPERTENSION AND RENAL CIRCULATION.....	5R01 HL07835-19	199,680
HEPTINSTALL, ROBERT H.	GENESIS OF ATHEROSCLEROTIC LESIONS.....	5R01 HL18473-06	68,153
HERRIOTT, ROGER M.	PYROLYTIC PRODUCTS OF PROTEINOUS FOODS AS MUTAGENS.....	5R01 CA25167-02	50,985
HESS, ALLAN D.	ISOLATION OF HUMAN SUPPRESSOR LYMPHOCYTES.....	1R01 AI17256-01	50,370
HILLIS, ARGYE	MACULAR PHOTOCOAGULATION STUDY COORDINATING CENTER.....	5R10 EY02547-02	129,057
HILTON, JOHN	CYCLOPHOSPHAMIDE AND RELATED COMPOUNDS: IN VIVO STUDY.....	1R01 CA28765-01	77,519
HIRSCH, ROBERT L.	NON-SPECIFIC DEFENSE MECHANISMS IN VIRAL ENCEPHALITIS.....	1R01 NS15749-01	41,602
HIRST, LAWRENCE W.	ASSESSMENT OF CORNEAL ENDOTHELIUM IN VIVO.....	5R01 EY02476-03	74,211
HOOPES, JOHN E.	METABOLIC STUDY OF SKIN FLAPS.....	2R01 AM18732-04A1	61,198
HUANG, P C.	GENETIC STUDIES OF HUMAN CHROMOSOMAL DISEASES.....	5R01 ES01596-04	100,773
HUANG, RU-CHIH C.	CONTROL OF MYELOMA TUMOR GROWTH.....	5R01 CA13953-08	166,249
HUANG, RU-CHIH C.	THE INDUCTION OF HUMAN INTERFERON IN C-10 CELLS.....	1R01 CA28123-01	86,486
HUBBARD, ANN L.	BIOLOGY OF DIFFERENTIATED SURFACE DOMAINS IN HEPATOCYTES.....	1R01 GM29185-01	123,133
HUGHES, WALTER T.	HABITAT & TRANSMISSION OF PNEUMOCYSTIS CARINII.....	5R01 AI14769-03	79,639
HUME, JOHN C.	SEXUALLY TRANSMITTED DISEASE RESEARCH.....	1P01 AI16959-01	395,311
HUMPHREY, RICHARD L.	614C ARGININE PULSE LABELING OF PLASMA CELL NEOPLASMS.....	5R01 CA24698-02	86,824
HUNGERFORD, DAVID S.	ISCHEMIC NECROSIS OF BONE: CLINICAL-LABORATORY STUDY.....	5R01 AM20798-03	191,408
HUNT, RICHARD K.	CELLULAR MECHANISMS IN NEURONAL SPECIFICITY & PLASTICITY.....	5R01 NS14807-03	79,344
HUTCHINS, GROVER M.	SYMBOLIC LOGIC ANALYSIS OF CONGENITAL HEART DISEASE.....	5R01 HL22963-03	26,272
HUTCHINS, GROVER M.	FORMAL ANALYSIS OF A PATIENT DATA INDEX BY COMPUTER.....	1R01 LM03651-01	103,771
IM, MICHAEL J.	WOUND HEALING AND AGING.....	1R01 AG02373-01	64,382
ISHIZAKA, KIMISHIGE	RELATION OF GAMMA GLOBULIN STRUCTURE TO HYPERSENSITIVITY.....	5R01 AI10060-11	157,742
ISHIZAKA, KIMISHIGE	REGULATION OF REAGINIC ANTIBODY RESPONSE.....	5R01 AI11202-08	143,418
ISHIZAKA, KIMISHIGE	ONTOGENY AND DIFFERENTIATION OF IGE-B LYMPHOCYTES.....	5R01 AI14784-03	78,753
JACOBUS, WILLIAM E.	MYOCARDIAL ENERGY TRANSPORT—CREATINE KINASE.....	5R01 HL20658-03	47,767
JACOBUS, WILLIAM E.	PHOSPHORUS NUCLEAR MAGNETIC RESONANCE ON CARDIAC TISSUE.....	5R01 HL22080-03	73,743
JOHNS, RICHARD J.	NEUROSENSORY INTERDISCIPLINARY RESEARCH PROGRAM.....	5P01 NS07226-11	223,736
JONES, M DOUGLAS, JR.	CEREBRAL BLOOD FLOW IN THE FETUS AND NEWBORN.....	1R01 HD13830-01	114,068
KAN, LOU-SING	MODEL ALKYLATED DECANUCLEOTIDE DNA HELICES.....	1R01 CA27111-01	83,000
KANTNER, JOHN F.	POPULATION RESEARCH CENTER.....	5P30 HD06268-08	323,738
KAZAZIAN, HAIG H, JR.	THE GENETIC CONTROL OF HEMOGLOBIN SYNTHESIS.....	5R01 AM13983-11	181,142
KIDD, LANGFORD	BEHAVIORAL APPROACHES TO ADOLESCENT HYPERTENSION.....	5R01 HL22934-03	163,140
KIM, BORIS F.	HIGH RESOLUTION SPECTROSCOPY OF PORPHYRINS.....	5R01 GM21897-06	117,862
KING, WILLIAM M.	THE OCULOMOTOR SYSTEM: NEURAL STRUCTURE AND FUNCTION.....	5R01 EY02717-02	94,769
KOWARSKI, AVINOAM.	INTEGRATED CONCENTRATION OF HORMONES IN GROWTH.....	2R01 HD06284-09	145,927
KRAG, SHARON S.	MUTANTS ALTERED IN GLYCOSYLATION OF MEMBRANE PROTEINS.....	2R01 CA20421-04	88,539
LANE, M DANIEL	REGULATION OF LIPID SYNTHESIS BY INSULIN AND GLUCAGON.....	2R01 AM14574-11	147,585
LANE, M DANIEL	REGULATORY ENZYME MECHANISMS.....	2R01 AM14575-12	155,332
LARRABEE, MARTIN G.	METABOLISM AND FUNCTION IN SYMPATHETIC NEURONS.....	5R01 NS00702-25	49,216
LATTMAN, EATON E.	X-RAY DIFFRACTION STUDIES OF POLYOMA AND SV-40 VIRUS.....	5R01 AI14820-02	59,046
LEE, YUAN C.	CHEMISTRY AND BIOCHEMISTRY OF GLYCOCONJUGATES.....	5R01 AM09970-15	104,923
LEHNINGER, ALBERT L.	RESPIRATION-COUPLED TRANSPORT PROCESSES IN TUMOR CELLS.....	5R01 CA25360-02	235,732
LEHNINGER, ALBERT L.	ENERGY-COUPLING PROCESSES IN MITOCHONDRIA.....	5R01 GM05919-22	261,615
LENHARD, RAYMOND E, JR.	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA16116-07	67,751
LENHARD, RAYMOND E, JR.	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17970-05	203,510
LENHARD, RAYMOND E, JR.	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	2R10 CA21188-04	94,818

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
LENNARZ, WILLIAM J.	LIPID CARRIERS IN MEMBRANE GLYCOPROTEIN SYNTHESIS	2R01 GM21451-06	146,602
LENNARZ, WILLIAM J.	ENZYMATIC CONVERSION OF PROTEINS TO GLYCOPROTEINS	5R01 GM24821-03	89,766
LENNARZ, WILLIAM J.	PLASMA MEMBRANE CHANGES IN FERTILIZATION AND DEVELOPMENT	5R01 HD08357-06	95,093
LENNARZ, WILLIAM J.	GLYCOPROTEIN SYNTHESIS DURING EMBRYONIC DEVELOPMENT	5R01 HD12718-02	77,727
LEVENTHAL, BRIGID G.	SOUTHWEST ONCOLOGY GROUP—PEDIATRICS	1R10 CA28476-01	58,164
LEVIN, JACK	BLOOD COAGULATION AND HEMORRHAGIC DISEASE	5R01 HL01601-32	174,884
LEVIN, LESLIE S.	HETEROGENEITY IN OSTEOGENESIS IMPERFECTA	5R01 AM25869-02	71,069
LICHTENSTEIN, LAWRENCE M.	IN VITRO STUDIES OF HUMAN ANAPHYLAXIS	2R01 AI07290-15	178,229
LICHTENSTEIN, LAWRENCE M.	AN IN VITRO APPROACH TO PROBLEMS OF CLINICAL ALLERGY	5R01 AI08270-13	231,114
LICHTENSTEIN, LAWRENCE M.	PHARMACOLOGIC CONTROL OF HYPERSENSITIVITY PHENOMENA	5R01 HL23586-08	145,348
LIETMAN, PAUL S.	ANTIBIOTIC TOXICITY: BIOCHEMICAL & CLINICAL PHARMACOLOGY	5R01 GM26902-02	159,903
LILJENFELD, ABRAHAM M.	FAMILIAL AGGREGATION OF INFLAMMATORY BOWEL DISEASE	5R01 AM20467-03	169,915
LIN, DIANE C.	THE ROLE OF CONTRACTILE PROTEINS IN ERYTHROCYTE AGING	5R23 AG00993-03	46,129
LIN, SHIN	MOLECULAR BASIS OF ACTION OF CYTOCHALASIN B	5R01 GM22289-06	80,201
LITTLEFIELD, JOHN W.	HYBRIDIZATION, DNA FUNCTION, MUTATION IN CELL CULTURE	3R01 CA16754-06S1	183,334
LITTLEFIELD, JOHN W.	CYSTIC FIBROSIS AND BRONCHIOLITIS	5P50 HL19157-04	394,154
LIU, LEROY F.	FUNCTIONAL AND MECHANISTIC STUDIES OF DNA TOPOISOMERASES	1R01 GM27731-01	93,952
LOVE, WARNER E.	X-RAY STRUCTURE ANALYSIS OF BIOLOGICAL MOLECULES	3R01 AM02528-21S1	9,111
LOVE, WARNER E.	X-RAY CRYSTAL STRUCTURE OF SICKLE CELL HEMOGLOBIN	5R01 AM16446-08	103,708
MACLEAN, WILLIAM C. JR.	LACTOSE DIGESTION IN INFANTS AND CHILDREN	5R01 HD11172-03	55,850
MALONEY, PETER C.	ION GRADIENTS AND ENERGY COUPLING IN BACTERIA	2R01 GM24195-04	116,520
MARGOLIS, SIMEON	ACUTE EFFECTS OF DIETARY FAT AND CHOLESTEROL ON HDL	5R01 HL24715-02	67,980
MARSH, DAVID G.	GENETICS OF IMMUNE RESPONSE IN MAN	2P01 AI13370-04	238,500
MARZILLI, LUIGI G.	STRUCTURE OF NUCLEIC ACID AND NUCLEOTIDE METAL SPECIES	5R01 GM20544-06	113,259
MARZILLI, LUIGI G.	METAL COMPLEXES AS MULTIFUNCTIONAL CATALYSTS	5R01 GM25906-02	19,353
MASSOF, ROBERT W.	STUDIES OF VISUAL FUNCTION IN THE PERIPHERAL RETINA	5R01 EY02952-02	49,680
MAUMENEZ, IRENE H.	GENETICS IN OPHTHALMOLOGY	5R01 EY01773-05	143,323
MAYER, MANFRED M.	MECHANISM OF CYTOLYSIS BY COMPLEMENT	5R01 AI02566-22	161,131
MAYER, MANFRED M.	BIOCHEMICAL STUDIES OF LYMPHOKINES AND RELATED AGENTS	5R01 CA24441-06	118,542
MC HUGH, PAUL R.	HYPOTHALAMUS IN FEEDING BEHAVIOR	2R01 AM19302-06	93,104
MC INTYRE, PATRICIA A.	STUDIES OF PLATELET KINETICS IN MAN USING INDIUM-111	5R01 AM20812-03	65,606
MC KHANN, GUY M.	CENTER FOR MS ALS AND OTHER NEUROMUSCULAR DISEASES	1P50 NS15721-01	919,440
MC MACKEN, ROGER L.	ENZYMOLGY OF THE REPLICATION OF LAMBDA DNA IN VITRO	5R01 GM24282-03	78,204
MENKES, HAROLD A.	AIRWAYS CHRONIC DIS—GENETIC & ENVIRONMENTAL FACTORS	5P50 HL14153-09	1,145,743
MEYER, MARY B.	RISK FACTORS FOR PREGNANCY COMPLICATIONS IN SMOKERS	1R01 HD13583-01	31,280
MIGEON, BARBARA R.	GENETIC STUDIES OF HUMAN SOMATIC CELLS	5R01 HD05465-10	196,054
MIGEON, CLAUDE J.	RELATION OF HORMONES TO GROWTH AND DEVELOPMENT	5R01 AM00180-29	130,254
MILLER, NEIL R.	CLINICAL INVESTIGATIONS IN OCULAR MOTILITY DISORDERS	5R01 EY02272-03	71,887
MILLER, PAUL S.	NUCLEIC ACID ANALOGS AS SUBSTRATES FOR DNA SYNTHESIS	5R01 GM25795-02	51,767
MILMAN, GREGORY	BIOCHEMISTRY OF MUTATION IN HUMAN CELLS	5R01 CA21650-05	128,977
MILNOR, WILLIAM R.	DYNAMICS OF PULSATILE BLOOD FLOW	5R01 HL12607-12	61,070
MOLLIVER, MARK E.	DIFFERENTIATION OF ADRENERGIC NEUROBLASTS IN VITRO	5R01 HD07389-06	85,592
MOLLIVER, MARK E.	ONTOGENESIS OF MONOAMINE PROJECTIONS TO CORTEX	5R01 NS08153-08	90,289
MOLLIVER, MARK E.	ORGANIZATION OF NEOCORTICAL NORADRENERGIC INNERVATION	5R01 NS15199-02	98,495
MONEY, JOHN	LONGITUDINAL AND RELATED PSYCHOHORMONAL STUDIES	5R01 HD00325-24	223,975
MONJAN, ANDREW A.	STRESS, IMMUNITY AND DISEASE	5R01 AI15626-02	131,755
MORROW, JOHN F.	EUKARYOTIC GENE ISOLATION AND EXPRESSION	5R01 GM26557-03	114,029
MOUDRIANAKIS, EVANGELOS N.	ENZYMOLGY OF MITOCHONDRIAL ATP SYNTHESIS	5R01 GM25683-02	85,874
MOUNTCASTLE, VERNON B.	THE NEOCORTX AND HIGHER CEREBRAL FUNCTIONS	5R01 EY03167-02	256,195
MOXON, E. RICHARD	THE STUDY OF HEMOPHILUS INFLUENZAE-INDUCED CNS INJURY	5R01 NS12554-06	20,056
MURPHY, DOUGLAS B.	THE MOLECULAR MECHANISM OF INTRACELLULAR MOTILITY	2R01 GM26155-03	87,473
MURPHY, EDMOND A.	GENETIC FACTORS IN LENGTH OF LIFE	5R01 AG01334-02	75,563
MURPHY, EDMOND A.	INVESTIGATIONS OF THE MARFAN SYNDROME	5R01 AM23066-02	71,515
MURPHY, EDMOND A.	THEORETICAL ASPECTS OF CLINICAL GENETICS	5R01 GM24736-03	97,070
NAGER, GEORGE T.	HISTOPATHOLOGY OF HUMAN TEMPORAL BONES	2R01 NS02182-21	115,971
NARAYAN, OPENDRA	PATHOGENESIS OF VISNA, A SLOW DEMYELINATING DISEASE	5R01 NS12127-06	122,250
NATHANS, DANIEL	PROGRAM ON MOLECULAR BIOLOGY OF VIRAL TUMORIGENESIS	2P01 CA16519-06	954,323
NATHANSON, CONSTANCE A.	CONTRACEPTIVE CONTINUATION AMONG TEENAGE WOMEN	1R01 HD13623-01	166,177
NEWBALL, HAROLD H.	MEDIATORS OF INFLAMMATION IN THE HUMAN LUNG	1R01 HL24210-01A1	113,909
NICKON, ALEX	DOMED FUNCTIONAL GROUPS	5R01 GM06304-18	100,246
NORMAN, PHILIP S.	A STUDY OF ALLERGY TO RAGWEED POLLEN	5R01 AI04866-18	110,613

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
NORMAN, PHILIP S.	CLINICAL CENTER FOR ALLERGIC DISEASES.	5P50 AI10304-10	323,086
O'BRIEN, VIVIAN	STENOSIS HEMODYNAMICS AND ENDOTHELIAL RESPONSE	5R01 HL23291-02	59,839
OLIVE, PEGGY L.	ACTIVATION AND REACTIVITY OF NITROHETEROCYCLES	5R01 CA24519-03	46,970
OLIVE, PEGGY L.	MUTAGENICITY AND DNA DAMAGE USING SPHEROIDS.	1R01 CA28793-01	106,013
ORDER, STANLEY E.	AN EXPERIMENTAL MULTIMODALITY PROGRAM IN OVARIAN CANCER.	5P01 CA25905-02	139,934
OWENS, ALBERT H, JR.	REGIONAL ONCOLOGY RESEARCH CENTER	5P30 CA06973-18	2,309,395
PATZ, ARNALL	DEVELOPMENT OF MICROANGIOPATHY IN JUVENILE DIABETES.	5R01 AM20826-04	151,644
PATZ, ARNALL	CORE CENTER GRANT: WILMER OPHTHALMOLOGICAL INSTITUTE	3P30 EY01765-04S1	16,800
PATZ, ARNALL	CORE CENTER GRANT: WILMER OPHTHALMOLOGICAL INSTITUTE	5P30 EY01765-05	261,829
PATZ, ARNALL	DIABETIC RETINOPATHY: INHIBITION OF NEOVASCULARIZATION	5R01 EY02603-03	124,122
PATZ, ARNALL	ROLE OF SYSTEMIC HYPERTENSION ON DIABETIC RETINOPATHY	5R01 HL20455-05	241,551
PEDERSEN, PETER L.	CONTROL OF ENZYMIC PHOSPHATE TRANSFER IN MITOCHONDRIA	5R01 CA10951-13	158,635
PERMUTT, SOLBERT	THE INTEGRATED FUNCTION OF RESPIRATION AND CIRCULATION	5P01 HL10342-15	753,947
PIERCE, NATHANIEL F.	STUDIES OF INFECTIOUS DIARRHEAL DISEASES	5P01 AI14480-03	432,744
PIGLET, VINCENT P, JR.	BASIS FOR REGULATION OF RIBONUCLEOTIDE REDUCTASE	5R01 GM20122-08	75,114
PIGLET, VINCENT P, JR.	IN VITRO RECONSTITUTION OF POLYOMA DNA REPLICATION.	5R01 GM23813-03	64,094
PITHA, PAULA M.	HUMAN INTERFERON—MECHANISM OF INDUCTION AND ACTION	5R01 AI10944-08	94,714
PITHA, PAULA M.	ANTITUMOR EFFECT OF INTERFERON	5R01 CA19061-05	77,927
PLAUT, MARSHALL	HISTAMINE IN MODULATION OF CELL-MEDIATED IMMUNITY	5R01 AI12810-06	48,207
PODUSLO, SHIRLEY E.	OLIGODENDROGLIA: MYELINATION AND DEMYELINATION	1R01 NS14577-01A1	86,105
POGGIO, GIAN F.	BINOCLAR VISION AND DEPTH PERCEPTION	5R01 EY02966-02	153,050
POLIAK, ROBERTO J.	STRUCTURE OF IMMUNOGLOBULINS	5R01 AI08202-13	219,874
POLLARD, THOMAS D.	ACTOMYOSIN-MICROTUBULE INTERACTIONS IN CELL DIVISION	2R01 GM26132-03	118,607
POLLARD, THOMAS D.	THE MOLECULAR MECHANISM OF CELLULAR MOTILITY	5R01 GM26338-03	110,423
PRENDERGAST, ROBERT A.	IMMUNOPATHOLOGY OF UVEITIS	1R01 EY03521-01	80,354
PRICE, DONALD L.	DISEASES OF MOTOR NEURONS	5R01 NS10580-06	95,410
PROCTOR, LEONARD R.	CLINICAL APPLICATION OF NEW CALORIC TEST	5R01 NS13780-04	70,027
PROVOST, THOMAS T.	IMMUNOLOGIC STUDIES IN CUTANEOUS LUPUS	5R01 AM25650-03	57,364
QUIGLEY, HARRY A.	THE PATHOGENESIS OF GLAUCOMATOUS OPTIC NERVE DAMAGE	2R01 EY02120-04	158,340
RICHTER, ANDERS	PUBLICATION OF NEUBURGER HISTORY OF NEUROPHYSIOLOGY	1R01 LM03573-01	17,676
RISBY, TERENCE H.	CHEMICAL DETERMINANTS OF BACTERIAL SPECIFICITY	1R01 AI16384-01	113,685
ROBINSON, CECIL H.	SELECTIVE INHIBITORS OF STEROID TRANSFORMING ENZYMES	2R01 AM15918-07A1	79,676
ROBINSON, CECIL H.	STEROIDS WITH CYTOTOXIC EFFECTS ON THE PROSTATE	3R26 CA16418-06S1	13,083
ROBINSON, CECIL H.	STEROIDS WITH CYTOTOXIC EFFECTS ON THE PROSTATE	2R26 CA16418-07	38,012
ROBINSON, CECIL H.	SELECTIVE INHIBITORS OF PLACENTAL STEROID AROMATASE	5R01 HD11840-03	54,175
ROBINSON, DAVID A.	STUDY OF OCULOMOTOR CONTROL SYSTEM	5R01 EY00598-12	115,668
ROBINSON, ROBERT G.	CHEMICAL & BEHAVIORAL ASYMMETRY AFTER CEREBAL ISCHEMIA	1R01 NS15178-01A1	48,286
ROGERS, MARK C.	SYMPATHETIC CONTROL OF HYPERGLYCEMIA AFTER HEMORRHAGE	5R23 GM25790-02	47,700
ROSEMAN, SAUL	STUDIES OF NORMAL AND MALIGNANT CELL MEMBRANES	5P01 CA21901-04	654,392
ROSS, RICHARD S.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00035-20	982,191
ROSS, RICHARD S.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00052-19	464,959
ROSS, RICHARD S.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00722-08	220,966
ROSS, RICHARD S.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05378-19	193,787
RUBIN, ROBERT J.	CHEMICAL AND BIOLOGICAL DETERMINANTS OF TOXICITY	5P01 ES00454-12	1,131,979
SACHS, MURRAY B.	STIMULUS ENCODING IN THE AUDITORY SYSTEM	2R01 NS12112-06	161,415
SACK, DAVID A.	LOCAL IMMUNE RESPONSE TO INFECTIOUS DIARRHEAL DISEASE	1R22 AI16508-01	64,672
SAGAWA, KIICHI	SYSTEMS ANALYSIS OF BARORECEPTOR REFLEX	5R01 HL14529-09	73,359
SAGAWA, KIICHI	MECHANICS OF CARDIAC CHAMBER CONTRACTION	5R01 HL14903-09	182,134
SAGAWA, KIICHI	MECHANICS OF HEART MUSCLE CONTRACTION	2R01 HL18912-05	66,448
SAGAWA, KIICHI	MULTIPLE MARKER BIPLANE CINEVENTRICULOGRAMMETRY	5R01 HL24357-02	94,364
SANNES, PHILIP L.	INFLUENCES ON THE DEVELOPMENT OF LUNG EPITHELIUM	5R01 HL24748-02	36,751
SANTOS, GEORGE W.	BONE MARROW TRANSPLANTATION IN HUMAN DISEASE	3P01 CA15396-07S1	5,355
SANTOS, GEORGE W.	BONE MARROW TRANSPLANTATION IN HUMAN DISEASE	5P01 CA15396-08	1,105,683
SASTRE, ANTONIO	NEURAL CONTROL OF THE HEART: AN IN VITRO MODEL	5R01 HL22675-02	63,581
SCHILLER, EVERETT L.	IN VITRO CULTIVATION OF ONCHOCERCA VOLVULUS	1R22 AI16035-01	147,934
SCHNAAR, RONALD L.	CELL SURFACE CARBOHYDRATES IN NEURONAL CELL FUNCTION	1R01 HD14010-01	100,643
SCHRAMM, LAWRENCE P.	ANALYSIS OF INTERACTION BETWEEN CNS VASOMOTOR SYSTEMS	3R01 HL16315-06S1	6,284
SCHRAMM, LAWRENCE P.	ANALYSIS OF INTERACTION BETWEEN CNS VASOMOTOR SYSTEMS	2R01 HL16315-07A1	118,315
SCHUETZ, ALLEN W.	OOCYTE GROWTH, MATURATION AND ACTIVATION	5R01 HD07041-05	78,296
SCOCCA, JOHN J.	DNA INTERACTIONS IN BACTERIAL TRANSFORMATION	2R01 GM21890-04A1	101,191
SCOTT, WILLIAM W.	CHEMOTHERAPY OF PROSTATIC CANCER	5R26 CA15407-07	88,341

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
SEED, JOHN L.	CHEMOTHERAPY OF SCHISTOSOMIASIS WITH THIOL DIAZINES.	1R23 AI16974-01	41,580
SENSENBRENNER, LYLE L.	REGULATION OF HEMATOPOIESIS.	1P01 AM27157-01	182,674
SENSENBRENNER, LYLE L.	THYMIC MODIFICATION OF LEUKEMOGENESIS.	5R01 CA22735-03	87,575
SENSENBRENNER, LYLE L.	INFLUENCE OF NUTRITION AFTER CANCER THERAPY.	5R01 CA26606-02	92,807
SHAH, KEERTI V.	INVESTIGATION OF SV40-RELATED INFECTIONS OF MAN.	5R01 CA13478-09	146,231
SHANE, BARRY.	REGULATION OF FOLATE POLYGAMMA-GLUTAMATE SYNTHESIS.	5R01 CA22717-03	62,323
SHEARN, ALLEN D.	MUTATIONAL DISSECTION OF IMAGINAL DISC DEVELOPMENT.	5R01 AG01822-02	61,931
SHIN, HYUN S.	TUMOR DEFENSE BY PLATELETS AND MACROPHAGES.	5R01 CA14113-08	136,267
SHOUKAS, ARTIN A.	CAPACITY OF SYSTEMIC AND CARDIOPULMONARY COMPARTMENTS.	2R01 HL19039-04A1	76,236
SILVERSTEIN, ARTHUR M.	PATHOGENESIS OF UVEITIS.	2R01 EY00279-17	77,225
SILVERSTEIN, ARTHUR M.	THE PATHOBIOLOGY OF THE CORNEA.	5R01 EY02650-03	156,020
SMITH, KIRBY D.	QUANTITATIVE GENETIC CONTROL OF PROTEIN SYNTHESIS.	5R01 HL15026-14	78,285
SOLEZ, KIM	PATHOLOGY AND PATHOPHYSIOLOGY OF ACUTE RENAL FAILURE.	1R01 AM26809-01	64,233
SOLLNER-WEBB, BARBARA T.	TRANSCRIPTION OF XENOPUS RIBOSOMAL DNA.	1R01 GM27720-01	100,721
SPIVAK, JERRY L.	ROLE OF ERYTHROPOIETIN IN TRANSCRIPTIONAL CONTROL.	5R01 AM16702-08	102,555
SQUIRE, ROBERT A.	RHINIB URINARY BLADDER CARCINOGENESIS BY 2-HYDROXYBUTYL.	5R26 CA23789-02	146,663
STAAL, STEPHEN P.	LEUKEMOGENESIS IN AKR MICE.	5R01 CA26089-02	76,689
STARK, WALTER J.	HISTOCOMPATIBILITY (HLA) ANTIGENS IN KERATOPLASTY.	5R01 EY01302-05	146,163
STEVENS, MARY B.	MULTIPURPOSE ARTHRITIS CENTER.	2P60 AM20558-04	282,531
STRANDBERG, JOHN D.	ANIMAL RESOURCE SUPPORT FOR BIOMEDICAL RESEARCH.	2P40 RR00130-17	233,725
SUN, TUNG-TIEN.	CELLULAR AND MOLECULAR BASIS OF EPIDERMAL DISEASE.	5R01 AM25140-02	58,600
SUN, TUNG-TIEN.	STUDIES OF CORNEAL EPITHELIAL DIFFERENTIATION.	5R01 EY02472-03	116,855
SUSKIND, SIGMUND R.	BIOMEDICAL RESEARCH SUPPORT.	2S07 RR07041-15	164,387
SWIFT, DAVID L.	RESPIRATORY TRACT DEPOSITION OF HYGROSCOPIC AEROSOLS.	5R01 HL19715-04	111,316
SZKLO, MOYSES	EPIDEMIOLOGY OF APLASTIC ANEMIA IN BALTIMORE.	5R01 CA26757-02	215,881
SZKLO, MOYSES	EPIDEMIOLOGIC AND HLA STUDY OF LEUKEMIA.	5R01 CA26500-02	223,973
TALALAY, PAUL	BIOCHEMICAL PHARMACOLOGY OF STEROID HORMONES.	2R01 AM07422-17	130,140
TALALAY, PAUL	DESIGN OF CHEMOTHERAPEUTIC AGENTS.	5P01 GM16492-12	418,436
TALAMO, BARBARA R.	NEURONAL MODULATION OF DIFFERENTIATION AND FUNCTION.	5R01 NS12839-05	14,507
TAYLOR, HUGH R.	THE PATHOGENESIS OF TRACHOMA.	1R01 EY03324-01	177,856
TENNEKON, GIHAN	CEREBROSIDE SULFOTRANSFERASE: ROLE IN MYELINATION.	5R01 NS14670-03	87,451
THOMAS, CAROLINE B.	PERSONAL PATTERNS AS PREDICTIVE OF DISEASE OR DEATH.	5R01 AG01760-02	58,723
TOWNSEND, CRAIG A.	BIOSYNTHESIS OF BETA-LACTAM ANTIBIOTICS.	5R01 AI14937-03	37,007
TOWNSEND, CRAIG A.	BIOSYNTHESIS OF AFLATOXIN.	5R01 ES01670-03	53,018
TRISCHMANN, THOMAS M.	NATURAL RESISTANCE AND IMMUNITY IN CHAGAS' DISEASE.	1R01 AI16113-01	57,616
TRIPS, MILAN	GENETICS OF FILARIAL INFECTION IN MOSQUITOES.	5R22 AI14520-03	61,870
TS'O, PAUL O.	INTERRELATIONSHIP BETWEEN AGING AND CARCINOGENESIS.	5R01 AG01998-02	123,943
TS'O, PAUL O.	BIOMEDICAL RISKS CAUSED BY NUCLEIC ACID PERTURBATION.	5P01 CA16043-05	306,849
TS'O, PAUL O.	INTERFERON SYSTEM: ACTION, INDUCTION AND REGULATION.	1R01 CA27120-01A1	93,175
TS'O, PAUL O.	13TH JERUSALEM SYMPOSIUM ON CARCINOGENESIS.	1R13 CA27481-01	31,300
TS'O, PAUL O.	ESR STUDY ON HYDROCARBON RADICALS AND CARCINOGENESIS.	5R01 ES01659-08	99,926
TS'O, PAUL O.	NUCLEIC ACID CHEMISTRY AND ITS BIOMEDICAL APPLICATION.	5R01 GM16066-13	178,829
TS'O, PAUL O.	NMR BIOMEDICAL RESEARCH CENTER.	5P41 GM27512-02	22,020
TSAN, MIN-FU	STUDY OF NEUTROPHIL METABOLISM AND FUNCTION.	5R01 AI13004-05	68,218
TSAN, MIN-FU	STUDY OF GALLIUM ACCUMULATION IN INFLAMMATORY LESIONS.	5R01 AI15431-02	45,533
TSONG, TIAN Y.	CALORIMETRIC STUDY OF PROTEIN SELF-ASSEMBLING.	5R01 GM24077-02	21,083
TSONG, TIAN Y.	DYNAMICS OF SYNTHETIC AND BIOLOGICAL MEMBRANES.	5R01 HL18048-06	84,353
TUCKER, ROBERT W.	CENTROSOME IN NEOPLASTIC AND NONNEOPLASTIC CELLS.	5R01 GM27938-02	95,657
TUTSCHKA, PETER J.	USE OF CYCLOSPORIN A IN MARROW TRANSPLANTATION.	1R01 AM26502-01	66,815
VALENTINE, MARTIN D.	TREATMENT OF INSECT STING ALLERGY IN CHILDREN.	5R01 AI15443-02	116,472
VALLE, DAVID L.	GYRATE ATROPHY: TREATMENT AND PATHOPHYSIOLOGY.	5R01 EY02948-02	142,633
WAGNER, HENRY N, JR.	NUCLEAR INSTRUMENTATION AND CHEMISTRY IN MEDICINE.	5P01 GM10548-18	293,587
WAGNER, HENRY N, JR.	EVALUATION OF CARDIAC FUNCTION WITH RADIOACTIVE TRACERS.	3R01 HL20674-03S1	18,858
WAGNER, HENRY N, JR.	PROGRAM FOR STUDY OF NEURORECEPTOR BINDING IN MAN.	5P01 NS15080-02	302,854
WALKER, W GORDON	FACTORS REGULATING ELECTROLYTE EXCRETION BY THE KIDNEY.	5R01 HL03303-23	128,524
WALSER, MACKENZIE	AMINO ACID ANALOGUES IN NUTRITION.	5P01 AM18020-07	341,429
WALSER, MACKENZIE	IMPLICATION OF BRANCHED-CHAIN AMINO AND KETOACIDS.	1R13 AM27403-01	15,966
WALSH, PATRICK C.	STEROID AND ENZYME PROFILES IN PROSTATIC CANCER.	2R26 CA16924-07	104,199
WALSH, PATRICK C.	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER.	2R26 CA25881-02	133,099
WANG, SHIH Y.	MOLECULAR BASIS FOR BIO-EFFECTS OF POLLUTANTS.	1P01 ES02300-01	443,627
WANG, SHIH Y.	CHEMICAL ANALYSIS OF NON-DIMERIC UV DAMAGE IN DNA.	5R01 GM24238-03	63,233

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
WARR, GLENN A.	PHAGOCYTIC AND IMMUNE DEFENSE MECHANISMS OF THE LUNG	5R23 HL22823-03	44,978
WEILAND, ANDREW J.	FACTORS INFLUENCING SURVIVAL OF VASCULARIZED BONE GRAFT	5R01 AM25791-02	124,593
WEISEFELD, MYRON L.	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH	2P50 HL17655-06	1,697,502
WEISS, JAMES L.	ECHO CHANGES IN WALL MOTION WITH MYOCARDIAL ISCHEMIA	5R01 HL19232-05	88,312
WHITE, EMIL H.	CHEMI- AND BIOLUMINESCENCE	5R01 GM19488-23	72,498
WHITE, EMIL H.	ENZYME ACTIVE SITE MAPPING UTILIZING CARBONIUM IONS	5R01 GM21450-05	81,063
WHITE, ROBERT I, JR.	NON-OCCLUSIVE MESENTERIC ISCHEMIA	5R01 AM20185-02	116,045
WIGGINS, JAMES W.	ELECTRON MICROSCOPE TECHNIQUES FOR MEMBRANE STRUCTURE	5R01 GM24237-03	84,453
WILLOUGHBY, WILLIAM F.	MITOGEN INDUCED INTERSTITIAL PNEUMONITIS	5R01 HL19819-05	135,888
WINCHURCH, RICHARD A.	TRAUMA-INDUCED SUPPRESSION OF IMMUNITY	5R01 GM26235-02	63,011
WINKELSTEIN, JERRY A.	THE ROLE OF COMPLEMENT IN ANTIBACTERIAL IMMUNITY	2R01 AI11637-07	47,923
WOLINSKY, JERRY S.	NEUROVIRULENCE AND PERSISTENCE OF MUMPS VIRUS	5R01 AI15721-02	53,580
YOUNG, ERIC D.	PROPERTIES OF INFERIOR COLICULUS AND COCHLEAR NUCLEUS	5R01 NS12524-06	22,454
ZEE, DAVID S.	OCULOMOTOR DISORDERS: CLINICAL AND EXPERIMENTAL STUDY	5R01 EY01849-05	45,444
ZELNIK, MELVIN	USE AND NON-USE OF CONTRACEPTION AMONG ADOLESCENTS	5R01 HD11107-03	120,560
ZIERLER, KENNETH L.	FLUXES ACROSS BIOMEMBRANES AND PEPTIDE HORMONE ACTION	2R01 AM17574-06A1	129,162
ZIRKIN, BARRY R.	SPERMIOGENESIS AND FERTILIZATION IN MAMMALS	2R01 HD09921-04A1	67,392
ORGANIZATION TOTAL	360	51,666,367	
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201			
ALBRECHT, EUGENE D.	OVARIAN STEROID BIOSYNTHESIS IN AGED PREGNANT RATS	5R23 AG01336-02	45,245
ALBRECHT, EUGENE D.	MATERNAL-FETAL STEROID REGULATION IN PREGNANT BABOONS	1R01 HD13294-01A1	57,559
ALBUQUERQUE, EDSON X.	MUSCLE REINNERVATION AND NEUROTROPHIC INFLUENCE	5R01 NS12063-07	132,635
BAKER, RICHARD H.	ARTHRORO-BORNE DISEASES AND THEIR CONTROL	1P01 AI16289-01	326,212
BARRACLOUGH, CHARLES A.	CENTRAL NERVOUS SYSTEM REGULATION OF REPRODUCTION	5R01 HD02138-19	123,734
BLACK, LINDSAY W.	PHAGE T4 HEAD ASSEMBLY AND INITIATION OF INFECTION	5R01 AI11676-06	73,856
BLAUSTEIN, MORDECAI P.	THE PHYSIOLOGY OF PRESYNAPTIC NERVE TERMINALS	5R01 NS16106-02	102,022
BOYNE, ALAN F.	DEPOLARIZATION AND SYNAPTIC VESICLE BEHAVIOR	2R01 NS16167-02	62,806
BRODIE, ANGELA M.	AROMATASE INHIBITORS FOR CONTROL OF BREAST CANCER	3R01 CA27440-01S1	5,256
BRODIE, ANGELA M.	AROMATASE INHIBITORS FOR CONTROL OF BREAST CANCER	5R01 CA27440-02	115,657
BRODIE, ANGELA M.	CONTROL OF ESTROGEN BIOSYNTHESIS IN REPRODUCTION	1R01 HD13909-01	57,058
BUCCI, ENRICO	INTERACTION OF ALPHA & BETA CHAINS OF HUMAN HEMOGLOBIN	2R01 HL13164-09	90,684
BURNETT, JOSEPH W.	A TOXICOLOGICAL AND CHEMICAL STUDY OF SEA NETTLE VENOM	2R01 ES01474-04	124,212
CALLERY, PATRICK S.	POTENTIAL PRECURSORS OF GAMMA-AMINOBUTYRIC ACID	5R01 NS14017-02	57,904
CANNER, PAUL L.	COOPERATIVE STUDY OF DRUGS AND CORONARY HEART DISEASE	5R01 HL08888-14	139,461
CHANG, YUNG-FENG	METABOLISM AND NEUROCHEMISTRY OF LYSINE IN THE BRAIN	5R01 NS11822-05	51,052
CHANNING, CORNELIA P.	THE MECHANISM OF LUTEINIZATION IN VITRO AND IN VIVO	2R01 HD08834-07	113,252
CHANNING, CORNELIA P.	HUMAN OVARIAN INHIBIN AND ITS SECRETION	5R01 HD12003-02	63,942
CHEUNG, AUGUSTINE Y.	MICROWAVE HYPERTHERMIA SYSTEMS FOR CANCER TREATMENT	5R01 CA22577-03	44,563
DENNIS, JOHN M.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05379-19	213,787
ELDEFRAWI, AMIRA T.	TOXICOLOGICAL STUDIES OF INSECT ACH-RECEPTORS	5R01 AI13640-05	65,673
ELDEFRAWI, AMIRA T.	TOXICOLOGY OF THE IONIC CHANNEL OF THE ACH-RECEPTOR	5R01 NS15261-02	44,248
ELIAS, F GEORGE	PRIMARY CANCER THERAPY GROUP (NSABP)	2R10 CA20196-02	33,202
FAJER, A B	OVARIAN AND EXTRAOVARIAN CONTROL OF MEIOSIS	1R01 HD13087-01	60,965
FRANK, LEONARD	METABOLISM OF CERTAIN AMINO ACIDS	5R01 GM11105-18	153,764
GEARHART, JOHN D.	EXPERIMENTAL EMBRYOLOGY OF MAMMALIAN CHIMERAS	5R01 HD12685-02	65,912
GLASER, EDMUND M.	INTERACTIVE CAMERA LUCIDA COMPUTER-MICROSCOPE	1R01 GM27165-01	130,450
GOLDMAN, LAWRENCE	ELECTRICAL EXCITATION IN NERVE FIBERS	2R01 NS07734-11A1	80,505
GONZALEZ-SERRATOS, HUGO	ION FLUXES IN NERVE AND MUSCLE	5R01 NS13420-05	32,409
GUTH, LLOYD	REGENERATION IN THE SPINAL CORD	5R01 NS12847-05	115,131
HALL-CRAGGS, ERNEST C.	SKELETAL MUSCLE DEGENERATION AND REGENERATION	2R01 NS13296-04	64,899
HEALD, FELIX P.	CHOLESTEROL & ATHEROGENESIS DURING GROWTH & DEVELOPMENT	1R01 HL25295-01	68,661
HIRSHFIELD, ANNE N.	ATRESIA IN THE CYCLING RAT: ROLE OF ANDROGENS	1R01 HD13642-01	40,932
HORN, LYLE W.	TRANSPORT OF ANIONIC AMINO ACIDS IN GIANT AXONS	5R01 NS14569-03	38,337
JONES, RAYMOND T.	IN VITRO PANCREATIC CARCINOGENESIS	5R26 CA19197-05	61,966
KAUFFMAN, FREDERICK C.	PHARMACOLOGY OF CARCINOGEN ACTIVATION IN INTACT CELLS	2R01 CA20807-04	64,409
KAUFFMAN, FREDERICK C.	METABOLISM IN INJURED AND REGENERATING NEURAL TISSUE	5R01 NS14728-03	59,876
KESSLER, IRVING I.	A PROSPECTIVE STUDY OF CANCER RISK IN TUBERCULOSIS	3R01 CA25018-02S1	8,596
KESSLER, IRVING I.	MALE ROLE IN CERVICAL CANCER	2R01 CA25019-03	172,618
KESSLER, IRVING I.	A PROSPECTIVE STUDY OF LYMPHOID TISSUES IN NEOPLASIA	3R01 CA25020-02S1	5,165
KIRTLEY, MARY E.	STUDY OF GLYCOLYTIC ENZYMES BOUND TO MEMBRANES	5R01 GM19394-08	60,023

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
KNAPP, DAVID A	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05770-02	26,779
KRUEGER, BRUCE K	BIOCHEMISTRY OF EXCITABLE MEMBRANES	1R01 NS16285-01	83,916
LANG, DAVID J	PREGNANCY IN ADOLESCENCE: FACTORS AFFECTING OUTCOME	7R01 HD15439-01	50,765
LEDERER, W JONATHAN	SODIUM PUMP, INTRACELLULAR NA AND TENSION IN HEART	1R01 HL25675-01	93,970
MACKLER, BRUCE F	CELLULAR INFILTRATES IN HUMAN PERIODONTAL DISEASE	5R01 DE05612-02	47,948
MARKELONIS, GEORGE J	NEUROTROPHIC REGULATION OF MUSCLE PROTEIN TURNOVER	1R01 NS16076-01	52,139
MAX, STEPHEN R	NEURAL CONTROL OF GLUCOSE 6-PHOSPHATE DEHYDROGENASE	1R01 NS15760-01	21,820
MAX, STEPHEN R	ANDROGENS IN MUSCLE DEVELOPMENT AND REGENERATION	1R01 NS15766-01	36,365
MC DOWELL, ELIZABETH M	MUCOUS PRODUCING CELL GENESIS IN RESPIRATORY EPITHELIUM	5R01 HL24722-02	78,572
MC WILLIAMS, ROGER W	ROLE OF THE REGIONAL LYMPH NODE IN ORAL NEOPLASIA	5R23 DE04774-03	11,362
MERGNER, WOLFGANG J	MICROPROBE ANALYSIS/METABOLITE LEVELS OF I MYOCARDIUM	5R01 HL22281-03	36,055
MINAH, GLENN E	CHARACTERISTICS OF CARIOGENIC DENTAL PLAQUE	2R01 DE04795-04	43,800
MULLINS, LORIN J	THE ION SELECTIVITY OF THE EXCITABLE MEMBRANE	2R01 NS05846-14	30,099
MULLINS, LORIN J	ELECTRICAL AND BIOCHEMICAL PROPERTIES OF EXCITABLE CELLS	5P01 NS14800-03	469,358
NACHSHEN, DANIEL A	PATHWAYS FOR CALCIUM ENTRY IN BRAIN NERVE ENDINGS	1R01 NS16461-01	64,892
OH, TAE H	NERVE-MUSCLE INTERACTIONS AND NEUROTROPHIC AGENTS	5R01 NS15013-02	76,918
PINTER, GABRIEL G	VASCULAR DISEASE IN EXPERIMENTAL DIABETES	5R01 AM17093-07	108,571
POLAKIS, S EFTIMIOS	DIFFERENTIATION OF 3T3-L1 FIBROBLASTS TO ADIPOCYTES	5R01 GM23057-05	68,874
PRICE, THOMAS R	CLINICAL STROKE RESEARCH CENTER	1P50 NS16332-01	788,649
PUMPLIN, DAVID W	FREEZE-FRACTURE OF DEVELOPING MYOTUBES AND SYNAPSES	5R01 NS15513-02	34,132
REGGIARDO, ZULEMA R	MECHANISM OF TUMOR ABRIGATION BY GLYCOLIPID A1	5R01 CA21367-03	84,785
REIER, PAUL J	NEURON-GLIAL DYNAMICS DURING REGENERATION	2R01 NS13836-04	108,369
RICHARDS, RICHARD D	HISTO-/BIO-CHEMICAL CHANGES IN EXPERIMENTAL CATARACTS	5R01 EY01292-06	50,141
ROBINSON, J EUGENE	X-RAY AND MICROWAVE HYPERTHERMIA FOR CANCER TREATMENT	5R01 CA22617-03	51,587
ROSEN, BARRY P	BIOENERGETICS OF MICROBIAL MEMBRANE FUNCTIONS	5R01 GM21648-06	71,575
RUCHKIN, DANIEL S	EMITTED POTENTIALS AND COGNITIVE ACTIVITY	5R01 NS11199-06	49,052
SAMARAS, GEORGE M	FOCAL MICROWAVE RADIATION THERAPY-PRECLINICAL EVALUATION	5R01 NS16316-02	73,923
SELMANOFF, MICHAEL K	TUBEROINFUNDIBULAR DOPAMINE NEURONS AND PROLACTIN	5R01 NS14611-03	40,872
SEXTON, MARY	MATERNAL SMOKING AND INFANT BIRTH WEIGHT	5R01 HD10659-03	169,918
SHEAR, CHARLES R	POSTEMBRYONIC STRIATED MUSCLE GROWTH	5R01 AM20131-05	45,112
SHIN, MOON L	MECHANISM OF DEMYELINATION IN MULTIPLE SCLEROSIS	5R01 NS15662-02	55,315
SJODIN, RAYMOND A	TRACER FLUXES AND NET FLUXES ACROSS CELL MEMBRANES	5R01 NS07626-17	71,510
SPITZNAGLE, LARRY A	DEVELOPMENT OF TUMOR AND ORGAN IMAGING AGENTS	7R01 CA28561-01	54,639
SPITZNAGLE, LARRY A	PREPARATION OF RADIOPHARMACEUTICALS FROM DRUG ANALOGS	5R01 HL18744-05	56,597
STRUM, JUDY M	NEOPLASTIC MAMMARY GLAND: STRUCTURE/FUNCTION	5R01 CA20764-05	40,261
TILDON, J TYSON	KETONE METABOLISM IN DEVELOPMENTAL HOMEOSTASIS	5R01 HD06291-08	73,573
TRAUB, ROBERT	STUDIES OF CERTAIN IMPORTANT GENERA OF SIPHONAPTERA	5R01 AI04242-19	143,355
TRUMP, BENJAMIN F	SUBCELLULAR REACTION TO INJURY IN THE KIDNEY	2R01 AM15440-08A2	112,971
VARMA, SHAMBHU D	ALDOSE REDUCTASE IN OCULAR PATHOLOGY	5R01 EY02160-03	50,341
WAECHTER, CHARLES J	THE ROLE OF POLYPRENOLS IN BRAIN GLYCOPROTEIN ASSEMBLY	5R01 NS12296-06	72,691
WILSON, P DAVID	STATISTICAL MODELS FOR DETECTION OF HYPERTENSION	1R01 HL24986-01	59,339
WISE, PHYLLIS M	NEUROENDOCRINE & NEUROCHEMICAL FUNCTION DURING AGING	1R01 AG02224-01	68,805
ZIELKE, H RONALD	GLUTAMINE METABOLISM IN HUMAN CULTURED FIBROBLASTS	5R01 GM23827-03	43,521
ORGANIZATION TOTAL	84 7,301,874		
BETHESDA			
MID-ATLANTIC RESEARCH INSTITUTE ZIP CODE 20014			
ZON, GERALD	SYNTHESIS OF POTENTIAL CNS ANTITUMOR PRODRUGS	5R01 CA18366-04	52,827
ORGANIZATION TOTAL	1 52,827		
NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS ZIP CODE 20014			
NEY, W ROGER	RADIATION PROTECTION AND MEASUREMENTS	3R01 CA18001-14S1	35,455
SINCLAIR, WARREN K	RADIATION PROTECTION AND MEASUREMENTS	2R01 CA18001-15	105,870
ORGANIZATION TOTAL	2 141,325		
U.S. DEPARTMENT OF DEFENSE—UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES ZIP CODE 20014			
BEEBE, DAVID C	DEVELOPMENT OF THE BLOOD-OCULAR BARRIERS	1R01 EY03429-01	23,753
BOCKMAN, EMMA L	BLOOD FLOW REGULATION IN MUSCLE	7R01 HL26345-01	15,096
HADDY, FRANCIS J	EFFECT OF CATIONS, ANIONS, AND WATER UPON BLOOD VESSELS	5R01 HL21525-04	14,399

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
HOLMES, RANDALL K.....	CONTROL OF BACTERIAL TOXINS BY VIRUSES AND PLASMIDS.....	2R22 AI14107-04	49,820
MULDOON, SHEILA M.....	GENERAL ANESTHETICS AND VASCULAR NEUROEFFECTOR SYSTEMS.....	2R01 GM25926-02	39,465
WU, HENRY C.....	BIOCHEMISTRY OF CELL DIVISION IN BACTERIA.....	1R01 GM28811-01	70,548
ORGANIZATION TOTAL	6 213,081		
UNDERSEA MEDICAL SOCIETY ZIP CODE 20014			
SHILLING, CHARLES W.....	WORKSHOP ON RESPIRATORY CONTROL IN DIVING.....	1R13 HL25875-01	10,748
SHILLING, CHARLES W.....	SEMINAL DOCUMENTS OF DEEP SEA DIVING, 1860-1960.....	3R01 LM03050-01S1	4,288
ORGANIZATION TOTAL	2 15,036		
UNIVERSITIES ASSOCIATED FOR RESEARCH AND EDUCATION IN PATHOLOGY ZIP CODE 20014			
FISHBEIN, WILLIAM N.....	UREASE AND DEAMINASES IN CHEMISTRY AND MEDICINE.....	5R01 AM10960-14	57,037
TRUMP, BENJAMIN F.....	HISTOPATHOLOGY AND CARCINOGENESIS OF HUMAN PROSTATE.....	5R26 CA15798-07	91,278
WISSLER, ROBERT W.....	SUPPORT OF THE REGISTRY OF COMPARATIVE PATHOLOGY.....	5P40 RR00301-15	165,623
ZIMMERMAN, LORENZ E.....	IMPROVED DIAGNOSIS AND THERAPY IN OPHTHALMOLOGY.....	5R01 EY01386-05	46,243
ORGANIZATION TOTAL	4 360,181		
CATONSVILLE			
FRIENDS MEDICAL SCIENCE RESEARCH CENTER ZIP CODE 21228			
SALACH, JAMES I, JR.....	MONAMINE OXIDASE IN THE CNS AND OTHER TISSUES.....	5R01 NS14222-03	55,460
SAVAGE, CHARLES.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05546-18	13,449
ORGANIZATION TOTAL	2 68,909		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS ZIP CODE 21228			
CREIGHTON, DONALD J.....	CATALYTIC MECHANISM OF SULFHYDRYL PROTEASES.....	5R01 GM24807-02	47,581
GETHMANN, RICHARD C.....	GENETIC CONTROL OF THE MEIOTIC PROCESS.....	5R01 GM22050-06	38,211
HAYS, JOHN B.....	DNA STRUCTURES WHICH STIMULATE GENETIC RECOMBINATION.....	5R01 GM22586-05	99,069
KUNG, SHAIN-DOW.....	RIBULASE-1,5 BISPHOSPHATE CARBOXYLASE IN VIVO.....	1R01 GM27746-01	50,862
LITTLE, ROBERT G.....	ROLE OF DISTAL RESIDUES IN HEME PROTEINS.....	1R01 GM27663-01	55,781
LOVETT, PAUL S.....	PLASMIDS, PHAGES, AND BACTERIAL SPORULATION.....	5R01 AI10331-08	20,802
LOVETT, PAUL S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07159-05	54,785
OSTRAND-ROSENBERG, SUZANNE.....	ONCOFETAL ANTIGENS IN EMBRYOGENESIS AND TUMOR GROWTH.....	5R01 CA24910-02	64,361
POLLACK, RALPH M.....	DELTA5-3-KETOSTEROID ISOMERASE.....	1R01 CA24410-01A1	83,627
POLLACK, RALPH M.....	STEREOELECTRONIC ACCELERATION OF ENZYMIC REACTIONS.....	5R01 GM25391-02	44,645
PONARAS, ANTHONY A.....	A NEW VERSION OF THE CLAISEN REARRANGEMENT.....	5R01 AI16261-02	34,199
PONARAS, ANTHONY A.....	ELECTROSTATIC FORCES IN POLYISOPRENOID BIOSYNTHESIS.....	5R01 GM25700-02	34,324
PROVINE, ROBERT R.....	ONTOGENY OF WING FLAPPING IN CHICK.....	5R01 HD11973-02	30,817
ROTH, THOMAS F.....	SELECTIVE PROTEIN UPTAKE IN DEVELOPING OOCYTES.....	5R01 HD09549-06	66,929
ROTH, THOMAS F.....	CELLULAR ASPECTS OF MATERNAL-FETAL IGG TRANSPORT.....	5R01 HD11519-03	81,323
SOKOLOVE, PHILLIP G.....	PHOTOSTIMULATED NEUROSECRETION AND SEXUAL MATURATION.....	5R01 AI16259-02	55,339
STEINER, ROBERT F.....	CONFORMATIONAL TRANSITIONS OF ALLOSTERIC PROTEINS.....	5R01 AM16688-08	67,538
TAKEDA, YOSHINORI.....	DEVELOPMENTAL SWITCH IN PHAGE LAMBDA.....	1R01 GM28138-01	82,203
WAN, THOMAS T.....	EFFECTS OF RETIREMENT AND LIFE CHANGES ON HEALTH.....	5R01 AG01680-02	42,363
WHALEN, DALE L.....	KINETIC STUDIES OF ARYL EPOXIDE REACTIONS.....	5R01 CA17278-05	42,004
ORGANIZATION TOTAL	20 1,096,763		
COLLEGE PARK			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742			
BRAUTH, STEVEN E.....	COMPARATIVE NEUROBIOLOGY OF THE BASAL GANGLIA.....	5R01 NS13018-05	37,380
BRINKLEY, HOWARD J.....	FUNCTIONING OF CORPORA LUTEA.....	5R01 HD00739-15	73,076
CAMPAGNONI, ANTHONY T.....	SYNTHESIS AND ASSEMBLY OF BASIC PROTEINS INTO MYELIN.....	5R01 NS15469-02	57,536
COLWELL, RITA R.....	ECOLOGY OF PATHOGENIC VIBRIOS.....	2R22 AI14242-04	70,098
DUFFY, JOHN.....	HISTORY OF AMERICAN PUBLIC HEALTH.....	1R01 LM03549-01	16,405
FRASER-REID, BERTRAM O.....	ASYMMETRIC SYNTHESIS OF ANTITUMOR TRICHOETECANES.....	1R01 CA28192-01	86,938
FRASER-REID, BERTRAM O.....	NEW ROUTES TO ANTITUMOR/ANTIBIOTIC AMINO SUGARS.....	1R01 CA28193-01	50,826
GOKEL, GEORGE W.....	DIAZONIUM ION CHEMISTRY IN NONPOLAR SOLUTION.....	5R01 GM26990-02	23,264
GOLDSBY, RICHARD A.....	STUDIES OF HUMAN LYMPHOCYTES WITH MONOCLONAL ANTIBODIES.....	1R01 AI16398-01	81,302
HAMLET, SANDRA L.....	PHYSIOLOGICAL STUDY OF SPEECH ADAPTATION.....	2R01 DE03631-07	58,757

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MARYLAND—Continued			
HODOS, WILLIAM.....	A BEHAVIORAL ANALYSIS OF VISUAL SYSTEM EVOLUTION.....	2R01 EY00735-10	104,062
HOWARD, LAWRENCE V. JR.....	GROWTH OF OUTER PROTEIN LAYER OF BACILLUS SPHAERICUS.....	5R01 AI15946-02	15,523
JARVIS, BRUCE B.....	NEW AND POTENT ANTICANCER AGENTS.....	3R01 CA25967-01S1	21,197
KELLOGG, R BRUCE.....	MATHEMATICAL PROBLEMS IN KIDNEY MODELING.....	2R01 AM20373-03	19,411
LEVINSON, JOHN Z.....	SPATIAL AND TEMPORAL PROPERTIES OF VISION.....	5R01 EY01640-05	94,549
MARIANO, PATRICK S.....	SYNTHESIS OF N-ALLYLMINIUM SALT-PHOTOCYCLIZATIONS.....	1R01 GM27251-01	52,740
MARTIN, JAMES G.....	PERCEPTION AND PRODUCTION OF CONNECTED SPEECH.....	5R01 NS13645-03	67,629
MAZZOCCHI, PAUL H.....	CONFORMATIONS OF THYROID AND BETA-ADRENERGIC ANALOGS.....	5R01 AM17458-05	54,480
MC ARDLE, JAMES V.....	KINETIC AND STRUCTURAL INVESTIGATION OF SIDEROPHORES.....	5R01 AI15750-02	58,435
MENZER, ROBERT E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07042-15	99,671
NELSON, JUDD O.....	DINITROANILINE HERBICIDE METABOLISM & TOXICOLOGY.....	5R23 ES01646-03	36,530
PIERCE, SIDNEY K.....	CELLULAR WATER BALANCE: THE INVERTEBRATE MECHANISM.....	2R01 GM23731-04	80,404
SISLER, HUGH D.....	MODE OF TOXIC AND ANTIPATHOGENIC ACTION OF FUNGICIDES.....	5R01 AI00225-28	49,977
VIJAY, IINDER K.....	BIOSYNTHESIS OF MAMMARY GLYCOPROTEINS.....	5R01 AM19682-03	49,809
ORGANIZATION TOTAL	24	1,359,999	
GAITHERSBURG			
U.S. DEPARTMENT OF COMMERCE—NATIONAL BUREAU OF STANDARDS ZIP CODE 20760			
CASWELL, RANDALL S.....	DOSIMETRY STANDARDS FOR NEUTRON RADIATION THERAPY.....	5R01 CA26313-02	182,478
ORGANIZATION TOTAL	1	182,478	
PRINCESS ANNE			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND EASTERN SHORE ZIP CODE 21853			
WUOH, JOSEPH G.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08079-07	249,194
ORGANIZATION TOTAL	1	249,194	
ROCKVILLE			
AMERICAN FOUNDATION FOR BIOLOGICAL RESEARCH BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 20852			
HAYUNGA, EUGENE G.....	CHARACTERIZATION OF SCHISTOSOME SURFACE ANTIGENS.....	1R22 AI16717-01	102,982
LEWIS, FREDIE A.....	IMMUNITY IN A SCHISTOSOMA MANSONI ABORTIVE INFECTION.....	5R22 AI16006-02	59,979
ORGANIZATION TOTAL	2	162,961	
AMERICAN TYPE CULTURE COLLECTION ZIP CODE 20852			
HAMBURGER, ANNE W.....	CULTURE OF DRUG RESISTANT HUMAN TUMOR CELLS.....	5R01 CA26008-02	60,592
HAMBURGER, ANNE W.....	IMPROVEMENT OF A BIOASSAY FOR HUMAN TUMOR STEM CELLS.....	1R01 CA28669-01	57,872
HAY, ROBERT J.....	DEVELOPMENT OF A CELL BANK FOR BOWEL CANCER RESEARCH.....	5R26 CA25635-02	111,182
HAY, ROBERT J.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05819-01	15,435
WILLIAMS, CAROLYN D.....	TRACHEOBRONCHIAL MUCUS-PRODUCING CELLS IN VITRO.....	5R01 HL24695-02	79,633
ORGANIZATION TOTAL	5	324,714	
SAINT MARYS CITY			
ST. MARY'S COLLEGE OF MARYLAND ZIP CODE 20686			
GLIDDEN, LARAIN M.....	LEARNING/MEMORY STRATEGIES IN RETARDED PERSONS.....	5R01 HD13187-02	32,153
ORGANIZATION TOTAL	1	32,153	
SILVER SPRING			
INSTITUTE FOR BEHAVIORAL RESEARCH ZIP CODE 20910			
RIOCH, DAVID M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05636-14	16,575
TAUB, EDWARD.....	EFFECTS OF SOMATOSENSORY DEAFFERENTATION.....	9R01 NS16685-08A1	106,864
ORGANIZATION TOTAL	2	123,439	
STATE TOTAL	541	65,408,185	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS			
AMHERST			
AMHERST COLLEGE	ZIP CODE 01002		
CZAP, PETER, JR.	RUSSIAN FERTILITY AND HOUSEHOLD STRUCTURE 1790-1897	2R01 HD10798-03	53,241
DOOLEY, DAVID M.	AMINE OZIDASES: ACTIVE SITE STRUCTURE AND ROLE OF CU(2)	1R01 GM27659-01	64,884
GEORGE, STEPHEN A.	VISION IN TRIPLOID ANIMALS	3R01 EY01662-05S1	2,408
GEORGE, STEPHEN A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07110-13	26,742
GIBBS, JULIAN H.	STATISTICAL MECHANICS OF BIOLOGICAL MACROMOLECULES	5R01 GM27951-02	66,622
KIDDER, GEORGE W.	METABOLIC STUDIES OF ANIMAL MICROORGANISMS	5R01 AM01005-28	41,464
KROPF, ALLEN	PHOTOCHEMISTRY OF THE VISUAL PIGMENTS	5R01 EY00201-19	50,841
POCCIA, DOMINIC L.	ACTIVATION OF SPERM NUCLEUS AT FERTILIZATION	5R01 HD12982-03	63,101
WAGGONER, ALAN S.	EARLY MOLECULAR EVENTS IN VISUAL EXCITATION	5R01 EY00930-09	37,858
WAGGONER, ALAN S.	OPTICAL PROBES OF MEMBRANE ENERGETICS AND STRUCTURE	5R01 NS15265-02	70,865
ZIMMERMAN, WILLIAM F.	RETINAL PIGMENT EPITHELIUM, SUBCELLULAR BIOCHEMISTRY	5R01 EY00675-09	32,769
ORGANIZATION TOTAL	11	510,795	
UNIVERSITY OF MASSACHUSETTS AT AMHERST			
ZIP CODE 01003			
ARBIB, MICHAEL A.	NETWORKS: DEVELOPMENTAL STUDIES, VISUOMOTOR ACTIVITY	5R01 NS14971-02	67,405
BRANDTS, JOHN F.	FREE ENERGY OF FOLDING OF GLOBULAR PROTEINS	5R01 GM11071-18	83,579
BRANDTS, JOHN F.	STRUCTURAL STUDIES OF THE HUMAN ERYTHROCYTE MEMBRANE	5R01 HL17878-06	77,668
CARPINO, LOUIS A.	NEW AMINO-PROTECTING GROUPS	5R01 GM09706-15	58,573
CONTI, SAMUEL F.	PREDATION BY BDOLLOVIBRIO: RECOGNITION AND COMMITMENT	1R01 AI17684-01	56,920
CONTI, SAMUEL F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07048-15	115,243
COX, C. D.	CULTIVATION OF VIRULENT TREPONEMA PALLIDUM	5R01 AI10982-08	78,955
EDMAN, JOHN D.	BITING FLY-VERTEBRATE HOST INTERRELATIONSHIPS	5R01 AI13981-03	49,915
FOURNIER, MAURILLE J., JR.	BIOSYNTHESIS OF TRANSFER RIBONUCLEIC ACID	5R01 GM19351-09	82,995
FRIEDMAN, MARK I.	ENERGY METABOLISM, HUNGER, AND FEEDING	2R01 AM20022-04	54,624
FRIEDMAN, MARK I.	LIPID METABOLISM AND FOOD INTAKE	1R01 AM27490-01	52,850
HEPLER, PETER K.	ROLE OF CALCIUM AND MEMBRANES IN MITOSIS	2R01 GM25120-04	110,596
HOLMES, ROBERT R.	PHOSPHATE MODEL FOR RIBONUCLEASE ACTION	5R01 GM21466-06	58,206
HOLT, STANLEY C.	CHARACTERISTICS OF DISEASE-RELATED CAPNOBACTERIA	5R01 DE05123-03	66,100
HONIGBERG, BRONISLAW M.	PATHOGENICITY AND IMMUNOLOGY OF TRYPAANOSOMATIDS	5R01 AI00742-25	163,721
HONIGBERG, BRONISLAW M.	TRICHOMONIASIS: A LABORATORY AND CLINICAL STUDY	1R01 AI16176-01A1	167,737
JACOBSON, BRUCE S.	PLASMA MEMBRANES INVERTED ON BEADS-ACTIN BINDING	5R01 GM25461-03	59,647
KARASZ, FRANK E.	EFFECT OF PRESSURE ON CONFORMATIONAL TRANSITIONS	5R01 GM24260-02	69,441
LESSIE, THOMAS G.	PSEUDOMONAS CEPACIA AND ITS UNUSUAL PHAGE, CP1	5R01 GM21198-12	48,507
LEVIN, BRUCE R.	PROTEIN VARIATION AND SELECTION MECHANISMS IN E. COLI	2R01 GM19848-07	100,795
MACDONALD, A. BRUCE	OCULAR IMMUNOLOGY AND PATHOGENESIS OF TRACHOMA	5R01 EY03094-02	89,400
MARTZ, ERIC	MONOCLONAL ANTIBODY ANALYSIS OF KILLER CELL FUNCTION	1R01 AI18003-01	98,645
NORKIN, LEONARD C.	AN SV40-RHESUS MONKEY CELL PERSISTENT INFECTION	2R01 AI14049-04	71,706
RAYNER, KEITH	FOVEAL AND PARAFOVEAL CUES IN READING	2R01 HD12727-03	39,250
SCHWARTZ, IRA S.	RIBOSOME BINDING SITES FOR PROTEIN SYNTHESIS FACTORS	5R01 GM25989-02	64,161
SLAKEY, LINDA L.	ENZYME REGULATION IN CULTURED ARTERIAL CELLS	5R01 HL22486-03	55,589
SLAKEY, LINDA L.	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	5R01 HL24660-02	54,214
SMYTH, J. ROBERT, JR.	A GENETIC EYE DEFECT AND AMELANOSIS IN THE CHICKEN	5R01 EY02575-03	71,751
STOFFOLANO, JOHN G., JR.	FEEDING BEHAVIOR OF HEMATOPHAGOUS TABANIDS	5R01 AI15039-02	36,816
WADE, GEORGE N.	HORMONES AND BEHAVIOR: EFFECTS OF DIABETES & ADIPOSITY	2R01 AM20785-04	35,765
WADE, GEORGE N.	HORMONES, BRAIN FUNCTION AND BEHAVIOR	5R01 NS10873-08	60,957
WESTHEAD, EDWARD W., JR.	DIVALENT CATIONS IN ENOLASE AND OTHER BIOLOGICAL SYSTEMS	5R01 GM14945-14	87,953
WESTHEAD, EDWARD W., JR.	STRUCTURE OF THE CHROMAFFIN GRANULE MEMBRANE	5R01 GM24197-03	63,088
WILDER, MARTIN S.	PINOCTYOSIS AND ANTIBACTERIAL ACTIVITIES OF MACROPHAGES	5R01 AI15853-02	45,229
WOODCOCK, CHRISTOPHER L.	STRUCTURE OF NATIVE AND RECONSTITUTED CHROMATIN	5R01 GM25305-03	58,314
ZIMMERMANN, ROBERT A.	PHOTOCHEMICAL PROBES OF RIBOSOME ARCHITECTURE	5R01 GM22807-05	84,300
ORGANIZATION TOTAL	36	2,640,615	
BELMONT			
MASSACHUSETTS GENERAL HOSPITAL--MCLEAN HOSPITAL DIVISION			
ZIP CODE 02178			
DE MARNEFFE, FRANCIS	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05484-18	111,165
HAUSER, GEORGE	BIOCHEMISTRY OF INOSITOL AND PHOSPHOINOSITIDES	5R01 NS06399-11	116,075

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
MAROTTA, CHARLES A	PROGRAM PROJECT: MOLECULAR BIOLOGY OF NEURONAL AGING	1P01 AG02126-01	223,349
NIXON, RALPH A	PROTEOLYSIS IN AXONAL DEGENERATION AND MYELINOGENESIS	5R01 NS15494-02	77,100
SHASHOUA, VICTOR E	BRAIN METABOLISM AND THE BIOCHEMISTRY OF LEARNING	5R01 NS09407-07	94,038
SHASHOUA, VICTOR E	BIOCHEMICAL CORRELATES OF NEURAL REGENERATION	5R01 NS14674-02	63,375
ORGANIZATION TOTAL	6	685,102	
BOSTON			
AFFILIATED HOSPITALS CENTER—BOSTON HOSPITAL FOR WOMEN ZIP CODE 02115			
GIANNOPOULOS, GEORGE	HORMONAL REGULATION OF FETAL LUNG MATURATION	1R01 HD11765-01A1	135,098
GIANNOPOULOS, GEORGE	HORMONAL CONTROL OF THE INITIATION OF PARTURITION	2R01 HD12202-03	73,546
RYAN, KENNETH J	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05481-10	14,214
SMITH, BARRY T	HORMONAL/INTERCELLULAR CONTROL OF FOREGUT DEVELOPMENT	1R01 HD14534-01	122,357
SMITH, BARRY T	REGULATION OF LUNG GROWTH AND MATURATION	1R01 HL25907-01	197,726
STARK, ANN R	RESPIRATORY MUSCLES IN REGULATION OF INFANT BREATHING	5R23 HL21405-03	44,871
ORGANIZATION TOTAL	6	587,812	
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115			
ABRAMS, HERBERT L	CINEANGIOGRAPHIC STUDIES OF THE CARDIOVASCULAR SYSTEM	5R01 HL20895-05	212,039
ALEXANDER, R WAYNE	CHARACTERIZATION OF PLATELET ALPHA-ADRENERGIC RECEPTOR	5R01 HL23088-02	38,079
BARRY, WILLIAM H	EFFECTS OF HYPOXIA ON CARDIAC CONTRACTION & RELAXATION	5R01 HL23893-02	71,576
BRAUNWALD, EUGENE	DETERMINANTS OF IRREVERSIBLE ISCHEMIC INJURY IN HEART	5R01 HL23140-03	112,974
BRAUNWALD, EUGENE	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00888-06	722,002
BRENNER, BARRY M	CONTROL OF FLUID EXCHANGES IN THE MAMMALIAN KIDNEY	5R01 AM19467-05	235,186
BROWN, EDWARD M	REGULATION OF NORMAL AND ABNORMAL PARATHYROID TISSUE	5R01 AM25910-02	32,566
BUNN, H FRANKLIN	NONENZYMATIC GLYCOSYLATION OF PROTEINS IN DIABETES	2R01 AM18223-06	78,546
BUNN, H FRANKLIN	STRUCTURE AND FUNCTION OF NORMAL AND ABNORMAL HEMOGLOBIN	5R01 HL16927-07	91,243
BUNN, H FRANKLIN	THE ACETYLATION OF FETAL HEMOGLOBIN	5R01 HL20925-03	36,941
BUSCH, GEORGE J	IMMUNOPATHOLOGY OF RENAL ALLOGRAFT REJECTION	1R01 AM26326-01	96,129
BUSCH, GEORGE J	INJURY TO VASCULAR ENDOTHELIUM AND SMOOTH MUSCLE	5R01 HL24528-02	82,896
CAREY, MARTIN C	ALIMENTARY TRACT LIPIDS IN HEALTH AND DISEASE	5R01 AM18559-06	94,178
CARPENTER, CHARLES B	RAT ALLOGRAPHS AND CELLULAR SUPPRESSOR MECHANISMS	1R01 AM27406-01	166,462
FALCHUK, Z MYRON	PATHOGENESIS OF SPRUE & INFLAMMATORY BOWEL DISEASE	5R01 AM17684-07	69,723
FLESHER, ALAN R	IMMUNOCHEMICAL STUDY OF LEGIONNAIRES' DISEASE AGENT	5R01 AI15837-02	63,113
GALPER, JONAS B	MUSCARINIC RECEPTORS IN THE DEVELOPING HEART	5R23 HL22775-03	36,518
GREENES, ROBERT A	INVESTIGATIONS IN CLINICAL DECISION MAKING	5P01 LM03401-02	275,311
GRIFFISS, JOHN M	THE ROLE OF IGA IN BACTERIAL DISEASE	5R01 AI15241-02	54,289
GROSSMAN, WILLIAM	DIASTOLIC PROPERTIES OF THE HUMAN LEFT VENTRICLE	5R01 HL19089-05	66,578
HANDIN, ROBERT I	ROLE OF PF-4 IN DETECTING AND PROMOTING THROMBOSIS	5R01 HL17513-06	52,671
HASSAN, WILLIAM E, JR	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05489-18	184,139
HENNEKENS, CHARLES H	RISK FACTORS FOR MYOCARDIAL INFARCTION IN WOMEN	1R01 HL24074-01A1	49,014
HENNEKENS, CHARLES H	BLOOD PRESSURE VARIABILITY IN CHILDREN AND FAMILIES	1R01 HL25268-01	48,469
HESEL, SAMUEL J	COMPUTED CARDIAC TOMOGRAPHY IN INFARCT SIZING	5R01 HL21719-03	38,016
HOLLENBERG, NORMAN K	RENAL VASCULAR REACTIVITY IN THE HYPERTENSIVE PATIENT	5R01 HL14944-09	71,804
INGRAM, ROLAND H, JR	LOCALIZATION OF AIRWAYS OBSTRUCTION AND RESPONSES	2R01 HL16463-07	91,244
INGWALL, JOANNE S	CARDIAC ENERGY METABOLISM AND PROTEIN SYNTHESIS	5R01 HL22290-03	51,771
KAPLAN, MICHAEL M	THYROID HORMONE METABOLISM IN NONTHYROID TISSUE	1R01 AM25340-01A1	36,885
KASS, EDWARD H	CHRONIC INFECTIONS AND THE ORIGINS OF CHRONIC DISEASE	3P01 HD11924-02S2	27,155
KASS, EDWARD H	UNSUSPECTED INFECTION AND PERINATAL MORBIDITY	2P01 HD11924-03	206,520
KASS, EDWARD H	ORIGINS OF HYPERTENSION	5R01 HL22298-04	360,727
LARSEN, PHILIP R	THE PHYSIOLOGICAL ROLE OF THYROXINE BINDING PROTEINS	5R01 AM18616-06	92,986
MANNICK, JOHN A	TRANSFER OF TUMOR IMMUNITY WITH IMMUNE-RNA	5R01 CA23865-02	72,335
MANNICK, JOHN A	IMMUNOLOGICAL STUDIES OF PATIENTS AFTER TRAUMATIC INJURY	5R01 GM26016-02	98,793
MATHEWS-ROTH, MICHELINE M	CAROTENOID AS ANTITUMOR AGENTS FOR SKIN TUMORS	2R01 CA23053-04	55,311
MC FADDEN, EDWARD R, JR	PATHOPHYSIOLOGY OF EXERCISE-INDUCED ASTHMA	5R01 HL17873-06	48,384
MIRSKY, ISRAEL	A MATHEMATICAL APPROACH TO CARDIOVASCULAR MECHANICS	5R01 HL12711-11	68,860
MITCH, WILLIAM E	PROTEIN NUTRITION IN EXPERIMENTAL UREMIA	5R01 AM26903-02	56,322
NEER, EVA J	ADENYLATE CYCLASE AND THE PLASMA MEMBRANE	5R01 AM19277-05	89,890
PENNINGTON, JAMES E	PSEUDOMONAS VACCINES FOR RESPIRATORY IMMUNITY	5R01 AI15411-02	48,310
PENNINGTON, JAMES E	PULMONARY IMMUNOPATHOLOGY IN THE COMPROMISED HOST	5R23 HL21997-03	36,741

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
PFEFFER, JANICE M.	DIASTOLIC PROPERTIES OF THE HYPERTROPHIED VENTRICLE	1R23 HL26127-01	37,212
PFEFFER, MARC A.	MYOCARDIAL INFARCT SIZE AND VENTRICULAR FUNCTION	5R01 HL23878-02	69,953
PIER, GERALD B.	A POLYSACCHARIDE VACCINE TO PSEUDOMONAS AERUGINOSA	5R01 AI15835-02	71,496
SMITH, THOMAS W.	DIGITALIS: MECHANISM AND REVERSAL STUDIES	5R01 HL18003-07	134,526
SPEIZER, FRANK E.	A PROSPECTIVE COHORT FOR RISKS IN BREAST CANCER	5R01 CA23645-04	199,570
SPEIZER, FRANK E.	PROSPECTIVE STUDY OF DIET AND CANCER IN WOMEN	5R01 CA26560-02	142,686
STROM, TERRY B.	NEUROENDOCRINE RECEPTOR-LYMPHOCYTES	2R01 AM21094-04	117,634
SWENSON, RICHARD G.	THE PERCEPTUAL PROCESS IN THE DIAGNOSIS OF LUNG DISEASE	5R01 GM23891-03	15,181
SZABO, SANDOR	PATHOPHYSIOLOGY OF EXPERIMENTAL DUODENAL ULCER	1R01 AM25229-01A1	68,589
SZABO, SANDOR	CHARACTERIZATION OF BIOLOGIC ACTIONS OF ACRYLONITRILE	5R01 ES01876-03	72,241
TAGER, IRA B.	EARLY RISK PREDICTORS FOR CHRONIC PULMONARY DISEASE	5R01 HL22528-04	114,100
TRIER, JERRY S.	FUNCTIONAL MORPHOLOGY OF THE ALIMENTARY TRACT	5R01 AM17537-08	170,777
VATNER, STEPHEN F.	CARDIOVASCULAR CONTROL IN NORMAL AND DISEASE STATES	5R01 HL15416-08	302,857
VATNER, STEPHEN F.	MYOCARDIAL ISCHEMIA	5R01 HL17459-05	159,802
VATNER, STEPHEN F.	MYOCARDIAL HYPERTROPHY & FAILURE IN CONSCIOUS ANIMALS	5R01 HL23724-02	109,949
WILLIAMS, GORDON H.	ANGIOTENSIN RECEPTORS ON ADRENAL AND RENAL TISSUE	5R01 HL16821-05	106,043
WILLIAMS, GORDON H.	HORMONES IN HYPERTENSION	3R01 HL18882-03S1	7,085
WYNNE, JOSHUA	QUANTITATIVE REGIONAL RADIOVENTRICULOGRAPHY	5R23 HL24241-02	36,798
ZIMMERMAN, ROBERT E.	LOW DOSE, HIGH RESOLUTION, HIGH SPEED NUCLEAR CARDIOLOGY	5R01 HL24496-02	69,533
ORGANIZATION TOTAL	61	6,528,828	
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120			
AUSTEN, K. FRANK	IN VITRO STUDIES OF THE MECHANISM OF ANAPHYLAXIS	2R01 AI07722-14	235,394
AUSTEN, K. FRANK	IMMUNOLOGIC RELEASE OF CHEMICAL MEDIATORS IN MAN	5P50 AI10356-10	313,740
AUSTEN, K. FRANK	CHEMICAL MEDIATORS OF ACUTE PULMONARY DISORDERS	5P01 HL17382-07	284,669
AUSTEN, K. FRANK	BIOMEDICAL RESEARCH SUPPORT	2S07 RO5669-13	103,252
CAULFIELD, JOHN P.	PATHOLOGY OF BASEMENT MEMBRANE-LIKE COLLAGEN	5R01 AM25960-02	94,401
DAVID, JOHN R.	CELLULAR IMMUNITY	2R01 A07685-15	269,765
DAVID, JOHN R.	IMMUNOLOGY OF FOUR TROPICAL PARASTIC DISEASES OF MAN	1P01 AI16479-01	464,328
GOETZL, EDWARD J.	REGULATION OF HYPERSENSITIVITY REACTIONS IN THE LUNG	5R01 HL19777-05	112,098
LIANG, MATTHEW H.	MULTIPURPOSE ARTHRITIS CENTER	2P60 AM20580-04	643,489
LIU, DAVID Y.	GLYCOLIPIDS: CELL RECEPTORS FOR LYMPHOCYTE MEDIATORS	5R23 AI16021-02	45,975
REMOLD, HEINZ G.	MIGRATION INHIBITORY FACTOR AND MACROPHAGES	2R01 AI21110-06A1	120,125
REMOLD, HEINZ G.	DEFENSE MECHANISMS OF THE ALVEOLAR MACROPHAGE	1R01 HL25534-01	75,592
SCHUR, PETER H.	RHEUMATIC DISEASES—HUMAN DISEASE IMMUNE COMPLEXES	5P30 AM05577-19	215,456
SCHUR, PETER H.	RHEUMATIC DISEASES: IMMUNE COMPLEXES & IMMUNOGENETICS	5R01 AM11414-14	136,865
SLEDGE, CLEMENT B.	THE DEVELOPMENT OF RADIATION SYNOVECTOMY IN ARTHRITIS	5R01 AM23063-02	130,362
SPRAGG, JOCELYN	HUMAN KININ & FIBRINOLYTIC SYSTEMS AND RENAL DISEASE	5R01 HL22939-03	89,452
STEINBERG, JAMES	CHONDROCYTE-MATRIX INTERACTIONS IN ARTHRITIC DISEASE	5R01 AM18268-05	113,458
TAUBER, ALFRED I.	MODULATION OF GRANULOCYTE MIGRATION AND CYTOTOXICITY	5R23 AI15116-03	45,336
TRENTHAM, DAVID E.	IMMUNOLOGIC PROPERTIES OF COLLAGEN	5R01 AM21490-03	83,114
ORGANIZATION TOTAL	19	3,576,871	
BETH ISRAEL HOSPITAL ZIP CODE 02215			
ALBERT, MARILYN S.	REVERSIBLE CHANGES OF COGNITION IN THE ELDERLY	1P01 AG02269-01	126,149
ALS, ANN V.	RADIOGRAPHIC CONTRAST TOXICITY IN THE ISCHEMIC HEART	5R01 HL21589-03	53,433
ASCH, BONNIE B.	MAMMARY NEOPLASTIC PROGRESSION IN VITRO	5R23 CA26406-02	31,800
BENSON, HERBERT	CARDIOVASCULAR BEHAVIOR AND THE RELAXATION RESPONSE	5R01 HL22727-02	139,284
BLEICH, HOWARD L.	BIBLIOGRAPHIC RETRIEVAL FOR THE HOSPITAL LIBRARY	5R01 LM03123-03	81,175
CONNOLLY, JAMES L.	NERVE GROWTH FACTOR SURFACE CHANGES/RECEPTOR REDISTR.	1R01 AM26920-01	31,800
DVORAK, ANN M.	BASOPHIL/MAST CELL FUNCTION IN THE CONTROL OF CANCER	7R01 CA28834-01	98,123
DVORAK, HAROLD F.	PATHOGENESIS OF CELLULAR IMMUNITY AND TOLERANCE	5R01 AI16925-02	98,780
DVORAK, HAROLD F.	BIOLOGY OF SOLID TUMOR GROWTH AND IMMUNE REJECTION	7R01 CA28471-01	101,159
EPSTEIN, FRANKLIN H.	WATER AND ELECTROLYTES IN HEALTH AND DISEASE	2R01 AM18078-08	109,204
EPSTEIN, FRANKLIN H.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR01032-05	614,583
GESCHWIND, NORMAN	CYTOARCHITECTONIC MAPPING OF CORTICAL ASYMMETRIES	5R01 NS14018-02	74,508
GLASS, JONATHAN	MURINE HEPATOCYTE TRANSFERRIN BINDING AND IRON UPTAKE	1R01 AM26974-01	31,228
GOLDMAN, PETER	CARCINOGEN METABOLISM BY HOST INTESTINAL BACTERIA	2R01 CA15260-07	72,063
HAYES, WILSON C.	MECHANISMS OF NORMAL, ARTHRITIC AND PROSTHETIC KNEES	5R01 AM26740-02	96,005
INGBAR, SIDNEY H.	NORMAL AND DISORDERED THYROID HORMONE ECONOMY	5R01 AM18416-06	267,301
LANDSBERG, LEWIS	CARBOHYDRATE METABOLISM AND CATECHOLAMINES	2R01 AM20378-04	139,043

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
LANDSBERG, LEWIS	CALORIES, CATECHOLAMINES AND HYPERTENSION	5R01 HL24084-02	98,172
LOCKE, STEVEN	STRESS AND HUMAN CELL-MEDIATED IMMUNITY	1R23 CA29155-01	47,297
MESULAM, MAREK-MARSEL	CONNECTIONS OF THE CEREBRAL CORTEX	5R01 NS09211-10	79,310
PALESTRANT, AUBREY M.	TRANSPERILIC ULTRASOUND EVALUATION OF THE PROSTATE	1R01 CA27895-01	15,043
RABKIN, MITCHELL T.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05479-18	108,797
ROBINSON, STEPHEN H.	ORIGIN AND FATE OF BILE PIGMENTS	5R01 AM09834-16	68,138
ROBINSON, STEPHEN H.	FACTORS REGULATING HEMOPOIETIC CELL DIFFERENTIATION	5R01 AM17148-06	89,803
ROWE, JOHN W.	PROGRAM PROJECT IN BIOMEDICAL ASPECTS OF AGING	2P01 AG00599-04	511,373
SALZMAN, EDWIN W.	POSTOPERATIVE THROMBOEMBOLISM IN SURGICAL PATIENTS	2R01 HL13754-10	299,467
SEGAL, JOSEPH	LYMPHOID TISSUE RESPONSES TO THYROID HORMONE IN AGING	5R23 AG01436-02	35,728
SILEN, WILLIAM	G. I. MUCOSAL BARRIER IN HEALTH AND SURGICAL DISEASE	5R01 AM15681-09	126,118
SKILLMAN, JOHN J.	ALBUMIN SYNTHESIS: EFFECT OF FEEDING SURGICAL PATIENTS	5R01 AM19794-04	68,111
SLACK, WARNER V.	PATIENT COUNSELING BY COMPUTER	5R01 LM03393-02	137,358
SPEARS, J. RICHARD	3-D ANALYSIS OF SINGLE PLANE CORONARY CINEANGIOGRAMS	1R23 HL27328-01	38,823
STEER, MICHAEL L.	EARLY EVENTS FOLLOWING STIMULATION OF HUMAN PLATELETS	3R01 HL20956-03S1	3,674
STOFF, JEFFREY S.	PROTAGLANDINS AND THE KIDNEY	5R01 AM26155-02	61,099
WHITE, AUGUSTUS A., III	ANALYSIS OF THORACIC SPINE CLINICAL STABILITY	5R01 AM25601-02	58,800
YOUNG, JAMES B.	SYMPATHOADRENAL REGULATION IN EXPERIMENTAL OBESITY	1R23 AM26455-01	36,423
ORGANIZATION TOTAL	35	4,049,172	
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114			
DAVISON, PETER F.	THE COLLAGENS IN LAMELLAR TISSUES OF THE EYE	5R01 EY02213-02	137,509
DAVISON, PETER F.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05711-10	125,881
FISHER, ROBERT J.	MAMMALIAN MITOCHONDRIAL BIOGENESIS	2R01 GM23422-04	87,640
FUJIMORI, EIJI	AGE-RELATED CHANGES IN COLLAGEN AND HYALURONIC ACID	5R01 AG00296-03	82,872
GERGELY, JOHN	BIOCHEMISTRY OF MUSCLE CONTRACTION	2R01 HL05949-20	267,063
HIDALGO, CECILIA	LIPIDS ROLE IN SARCOPLASMIC RETICULUM CA/ION TRANSPORT	5R01 HL23007-02	77,525
IKEMOTO, NORIYAKI	STRUCTURE AND FUNCTION OF SARCOPLASMIC RETICULUM	5R01 AM16922-08	143,160
JACOBSON, BERNARD J.	CLEFT PALATE: TERATOGENIC ROLE OF CORTISONE	5R01 DE04507-03	78,740
JACOBSON, BERNARD J.	ROLE OF HYALOCYTES IN THE VITREOUS	3R01 EY00810-06S1	15,862
JULIAN, FRED J.	CONTRACTILITY IN HEART AND OTHER STRIATED MUSCLES	5R01 HL16606-13	215,603
KILLICK, KATHLEEN A.	MECHANISMS OF ENZYME LATENCY DURING CELLULAR AGING	2R01 AG00922-03	47,979
KILLICK, KATHLEEN A.	METABOLIC COMPARTMENTATION DURING DEVELOPMENT	5R01 GM25534-02	78,053
LEAVIS, PAUL C.	REGULATION OF CARDIAC AND SKELETAL MUSCLE CONTRACTION	5R01 HL20464-03	43,491
LEHRER, SHERWIN S.	INTRAOCULAR MUSCLE—BIOCHEMICAL STUDIES	5R01 EY02464-03	48,918
LEHRER, SHERWIN S.	CARDIAC TROPOMYOSIN AND TROPOMYOSIN-ACTION INTERACTIONS	5R01 HL22461-03	99,017
LU, RENNE C.	STRUCTURE-FUNCTION STUDIES ON BRAIN TUBULIN AND ACTIN	5R01 GM24666-03	20,078
MITCHELL, DAVID H.	A GENETIC ANALYSIS OF AGING	5R01 AG00952-03	81,021
NUSSBAUM, ALEXANDER L.	CHEMICAL SYNTHESIS OF BIOLOGICALLY SIGNIFICANT DNA	5R01 GM24369-03	121,776
NUSSBAUM, ALEXANDER L.	TARGETED SEQUENCE-SPECIFIC CLEAVAGE OF NUCLEIC ACIDS	1R01 GM27084-01	56,926
PAULUS, HENRY	EFFECT OF CELLULAR AGING ON ENZYME REGULATION	5R01 AG00804-03	84,071
PAULUS, HENRY	PEPTIDE ANTIBIOTICS AND BACTERIAL SPOREULATION	5R01 GM23149-04	133,067
SANADI, D. RAO	MOLECULAR MECHANISMS IN CADMIUM TOXICITY	1R01 ES02167-01A1	52,175
SANADI, D. RAO	OXIDATIVE PHOSPHORYLATION IN HEART MITOCHONDRIA	2R01 GM13641-14	178,280
SANADI, D. RAO	HYDROGEN ION TRANSLLOCATION—VESICLES & PLANAR BILAYERS	5R01 GM26764-02	81,254
SARKAR, NILIMA	INVOLVEMENT OF RNA IN DNA SYNTHESIS	5R01 GM25022-03	54,428
SARKAR, NILIMA	FUNCTION OF POLYADENYLATE SEQUENCES IN BACTERIAL RNA	5R01 GM26517-02	65,595
SARKAR, SATYAPRIYA	BIOSYNTHESIS OF CARDIAC AND SKELETAL MUSCLE PROTEINS	5R01 AM13238-12	123,485
SEIDEL, JOHN C.	EPR STUDIES ON ROTATIONAL MOTION OF MYOSIN AND ACTIN	5R01 HL15391-09	124,754
SEIDEL, JOHN C.	ACTIN-MYOSIN INTERACTION IN PULMONARY SMOOTH MUSCLE	5R01 HL23249-03	81,868
SRETER, FRANK A.	TRANSFORMATION OF MUSCLE FIBERS BY ACTIVITY PATTERN	1R01 AG02103-01	167,165
SRETER, FRANK A.	BIOCHEMICAL CHANGES IN CARDIAC HYPERTROPHY	1R01 HL23967-01A1	165,631
STAFFORD, WALTER F., III	MYOSIN-LINKED REGULATION IN VERTEBRATE SMOOTH MUSCLE	5R23 HL25397-02	47,885
TAO, TERENCE C.	PROXIMITY RELATIONSHIPS AMONG MUSCLE PROTEINS	5R01 AM21673-04	89,736
WOHLRAB, HARTMUT	THE DEVELOPMENT-AGING TRANSITION IN MUSCLE TISSUES	2R01 AG00100-04A1	110,920
WRIGHT, BARBARA E.	DIFFERENTIATION, AGING AND DEATH IN DICTYOSTELIUM	5R01 AG00260-13	129,165
WRIGHT, BARBARA E.	COMPUTER ANALYSIS OF AGING IN DICTYOSTELIUM	2R01 AG00433-11	69,432
ORGANIZATION TOTAL	36	3,588,025	
BOSTON HEALTH AND HOSPITALS DEPARTMENT—BOSTON CITY HOSPITAL ZIP CODE 02118			
CHRISTENSEN, THOMAS G.	THE ABSORPTIVE FUNCTION OF CONDUCTING AIRWAYS	5R01 HL23495-02	48,034

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
HAUDENSCHILD, CHRISTIAN C.	VASCULAR ENDOTHELIUM: ADHESION, MOTILITY, COLLAGEN	5R01 HL23357-02	71,259
LEVIN, ROBERT M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05569-16	108,005
MC CABE, WILLIAM R.	DEFENSE MECHANISM IN GRAM-NEGATIVE BACTEREMIA	5R01 AI14719-03	82,938
MC CABE, WILLIAM R.	BIOLOGY AND IMMUNOLOGY OF GRAM-NEGATIVE BACILLI	5R01 AI14789-04	151,714
MC MAHON, LILLIAN	A COMPREHENSIVE CENTER FOR SICKLE CELL DISEASE	5P60 HL15157-09	850,110
PALMER, KENNETH C.	ACUTE LUNG INJURY: PATHOLOGY OF DRUG MODIFIED REPAIR	5R23 HL23459-02	37,384
REIF, ARNOLD E.	EXPERIMENTAL STUDIES ON IMMUNITY TO CANCER CELLS	2R01 CA15952-06A2	75,255
RICE, PETER A.	IMMUNOLOGY OF INFECTION WITH NEISSERIA GONORRHOEA	5R01 AI15633-02	53,721
ZAMCHECK, NORMAN	PATHOLOGY OF THE DIGESTIVE TRACT MUCOUS MEMBRANE	3P01 CA04486-20S1	475,614
ORGANIZATION TOTAL	10 1,954,034		
BOSTON UNIVERSITY ZIP CODE 02215			
ALBRIGHT, JOHN T.	THE ANTIOXIDANT SYSTEM OF GAS-FILLED ORGANS	5R01 HL23338-02	59,347
ALEXANDER, EDWARD A.	EFFECT OF AGING ON RENAL FUNCTION	5R01 AG00028-03	93,773
ALEXANDER, EDWARD A.	RENAL CONTROL OF SODIUM EXCRETION	5R01 HL17458-06	113,760
APSTEIN, CARL S.	MYOCARDIAL ISCHEMIA AND INFARCTION IN DIABETES	1R01 AM28569-01	86,749
APSTEIN, CARL S.	BASIC MECHANISMS OF ISCHEMIC MYOCARDIAL INJURY	5R01 HL23406-02	63,399
BENNETT, MICHAEL	MARROW DEPENDENT CELL FUNCTION IN INFECTIONS	1R01 AI16522-01	49,401
BENNETT, MICHAEL	IMMUNOBIOLOGY OF VIRAL LEUKEMIA AND ITS TREATMENT	5R01 CA15369-07	65,757
BENNETT, MICHAEL	H-2 COMPATIBLE ALLOGENEIC GRAFT-VERSUS-HOST DISEASE	5R01 HL24204-02	77,401
BLACK, PAUL H.	MECHANISMS OF TRANSFORMATION BY ONCOGENIC VIRUSES	5R01 CA28107-02	229,898
BRECHER, PETER I.	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	1R01 HL25157-01	60,405
BROITMAN, SELWYN A.	DIET, FLORA AND COLON TUMORIGENESIS	5R26 CA16750-06	98,133
CATHCART, EDGAR S.	PATHOGENESIS OF AMYLOIDOSIS AND RHEUMATOID ARTHRITIS	1R01 AM26451-01	127,396
CATSIMPOOLAS, NICHOLAS	LYMPHOID CELL PURINE NUCLEOSIDE PHOSPHORYLASE	7R01 CA29594-01	52,712
CATSIMPOOLAS, NICHOLAS	HUMAN CELL CULTURE PRODUCTION OF OPSONIC PROTEIN	7R01 HL26939-01	57,346
CENTER, DAVID M.	RELATIONSHIP OF INFLAMMATION TO PULMONARY FIBROSIS	5R23 HL24483-02	40,422
CHOBANIAN, ARAM V.	ARTERIAL METABOLISM, DIABETES AND ATHEROGENESIS	5R01 HL12869-11	118,560
CHOBANIAN, ARAM V.	PATHOGENESIS AND COMPLICATIONS OF HYPERTENSION	5P50 HL18318-05	1,560,864
CHRISTOPHER, CHARLES W.	REGULATION OF NUTRIENT TRANSPORT BY ANIMAL CELLS	5R01 GM27905-02	89,066
COHEN, ALAN S.	SYNOVIAL MEMBRANE AND RELATED CONNECTIVE TISSUES	5R01 AM04599-20	241,608
COHEN, ALAN S.	MULTIPURPOSE ARTHRITIS CENTER	2P60 AM20613-04	719,100
CORWIN, LAURENCE M.	VITAMIN E FATTY ACIDS AND MEMBRANE FUNCTION	5R01 AM21618-03	63,396
CORWIN, LAURENCE M.	EFFECT OF VITAMIN E AND LIPIDS ON TUMORIGENICITY	5R01 CA26604-02	81,480
COUSER, WILLIAM G.	IMMUNOLOGIC MECHANISMS OF GLOMERULAR INJURY	3R01 AM17722-06S1	19,621
COUSER, WILLIAM G.	IMMUNOLOGIC MECHANISMS OF GLOMERULAR INJURY	2R01 AM17722-07	166,208
DEYKIN, DANIEL	ROLE OF PLATELET LIPIDS IN HEMOSTASIS AND THROMBOSIS	2R01 HL18586-04A1	39,568
DIETTER, JOHN E.	CARDIAC ALLOGRAFTS IN AUTOLOGOUS RADIATION CHIMERAS	5R01 HL18186-06	65,349
ECKNER, ROBERT J.	BIOLOGICAL AND PHYSICAL PROPERTIES OF FRIEND VIRUS	5R01 CA19562-05	112,754
EGDHAL, RICHARD H.	ENDOCRINE AND METABOLIC RESPONSE TO SHOCK AND TRAUMA	5R01 GM23870-05	191,091
ESSIG, ALVIN	PATHWAYS OF TRANSEPIITHELIAL WATER FLOW	5R01 AM25535-02	101,922
FELDMAN, MARTIN L.	DEGENERATION WITH ADVANCING AGE IN RAT VISUAL CORTEX	5R01 AG02123-02	43,460
FINE, RICHARD E.	ACTIN AND OTHER FILAMENTS IN THE GROWING NEURON	5R01 NS10582-08	113,764
FISCHER, STEVEN C.	BEHAVIORAL TREATMENTS FOR NOCTURNAL BRUXISM	1R23 DE05527-01	28,965
FRANZBLAU, CARL	RESPONSE OF THE LUNG TO INJURY	5P01 HL19717-04	945,682
FRANZBLAU, CARL	PULMONARY VASCULAR SMOOTH MUSCLE CELL DYNAMICS	5R01 HL23542-03	72,600
GOLDMAN, HENRY M.	CLINICAL CANCER EDUCATION PROGRAM—ORAL ONCOLOGY	5R25 CA22980-03	59,152
GOODGLASS, HAROLD	APHASIA RESEARCH CENTER	5P01 NS06209-15	252,342
GORMAN, ANTHONY L.	IONIC BASIS OF VISUAL RESPONSES	2R01 EY01157-07	108,595
GORMAN, ANTHONY L.	INTRACELLULAR CALCIUM EFFECTS ON MEMBRANE PERMEABILITY	2R01 NS11429-07	126,785
GUTERMAN, SONIA K.	RHO PROTEIN INTERACTION WITH RNA AND RNA POLYMERASE	2R01 GM24461-04	80,486
HOLLANDER, WILLIAM	ROLE OF THE ARTERIAL WALL IN ATHEROSCLEROSIS	5P01 HL13262-09	1,035,914
HOOD, WILLIAM B. JR.	PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA	3R01 HL14646-06S1	37,273
HUBBARD, ALLYN E.	A STUDY OF ELECTROMECHANICAL PROCESSES IN THE COCHLEA	1R01 NS16589-01	152,615
HUMES, ARTHUR G.	DEVELOPMENT OF NEURAL CONNECTIONS IN AN EMBRYO	5R01 NS14383-03	54,659
JACKSON, BENJAMIN T.	BASIC FACTORS IN SURGERY: DEVELOPMENT OF HEMOPHOSIS	5R01 HD11471-03	97,801
JACOBSON, GARY R.	THE STRUCTURE OF THE D-MANNITOL PERMEASE OF E COLI	1R01 GM28226-01	67,909
JENKINS, C. DAVID	RECOVERY AFTER HEART SURGERY: BIO-BEHAVIORAL FACTORS	2R01 HL20637-04	342,437
KAGAN, HERBERT M.	PROPERTIES OF AORTIC LYSYL OXIDASE	2R01 AM18880-04A1	80,868
KAMINER, BENJAMIN	REGULATORY PROTEINS IN VERTEBRATE SMOOTH MUSCLE	5R01 AM18207-04	78,955
KUCERA, JAN	THE MOTOR INNERVATION OF THE MUSCLE SPINDLE	1R01 NS16184-01	30,686

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
KUMAR, VINAY	STUDIES OF ISOLATED MARROW-DEPENDENT (M) CELLS	2R01 CA21401-04	94,122
KUPCHIK, HERBERT Z.	MONOCLONAL ANTIBODIES TO PANCREATIC TUMOR MARKERS	1R26 CA29383-01	51,755
LAING, RONALD A.	STUDIES OF THE CORNEAL ENDOTHELIUM OF THE EYE	2R01 EY01227-05A1	118,891
LAING, RONALD A.	METABOLIC STUDIES OF CORNEAL TISSUES	5R01 EY01990-03	138,620
LAURSEN, RICHARD A.	STRUCTURE AND FUNCTION OF HUMAN PLASMIN	2R01 HL15535-07A1	81,345
LEHMAN, WILLIAM J.	REGULATION OF MUSCULAR CONTRACTION: A COMPARATIVE STUDY	5R01 AM17062-06	73,855
LEIBOWITZ, HOWARD M.	STUDIES IN CORNEAL TRANSPLANTATION	5R01 EY00544-11	169,215
LEIBOWITZ, HOWARD M.	DEVELOPMENT OF FUNCTIONAL BIOPOLYMERS FOR THE EYE	5R01 EY02978-02	104,752
LESLIE, CRYSTAL A.	ADRENERGIC RECEPTOR-CYCLASE SYSTEM IN SENSITIZED LUNG	5R23 HL22011-03	45,666
LIANG, CHANG-SENG	METABOLIC CONTROL OF CARDIAC OUTPUT	2R01 HL17403-04A1	88,558
LIANG, CHANG-SENG	CONDITIONING EFFECTS OF CATECHOLAMINE INFUSIONS	5R01 HL24214-02	63,198
LO GERFO, FRANK W.	HEMODYNAMICS IN VASCULAR SURGERY	2R01 HL21796-03	121,658
MAKARSKI, JOSEPH S.	REGULATION OF PULMONARY ENDOTHELIAL CELL ACTIVITIES	5R01 HL19133-04	42,636
MANDEL, RICHARD	ADDITIVE AND SYNERGISTIC EFFECTS OF MUTAGENS	5R01 CA27324-02	48,838
MATOLTSY, ALEXANDER G.	CHEMISTRY OF KERATINS AND THEIR PRECURSORS	5R01 AM05924-18	145,013
MC LAUGHLIN, ROBERT J.	CONTRACTILE AND ELASTIC PROPERTIES OF CARDIAC MUSCLE	5R01 HL19133-04	73,287
MONETTE, FRANCIS C.	AN IMMUNOLOGICAL STUDY OF PLURIPOTENT STEM CELLS	5R01 AM17735-05	50,672
MOOLTEN, FREDERICK L.	A SERUM IMMUNOSUPPRESSIVE FACTOR IN CANCER	5R01 CA15129-05	137,344
MOOLTEN, FREDERICK L.	PROTECTIVE IMMUNITY TO CHEMICAL CARCINOGENS	5R01 CA23534-02	80,937
MOZDEN, PETER J.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA18019-06	174,985
NILES, RICHARD M.	CYCLIC AMP METABOLISM IN CULTURED EPITHELIAL CELLS	5R01 CA25473-02	62,344
O'BRYAN, PAUL M., JR.	EARLY RECEPTOR POTENTIALS IN SINGLE VERTEBRATE CONES	2R01 EY01812-04	96,657
O'SULLIVAN, JOHN B.	QUARTER CENTURY STUDY OF GLUCOSE INTOLERANCE	1R01 HL25149-01	205,500
OBLER, LORRAINE K.	LANGUAGE IN THE AGING BRAIN	5R23 AG01243-02	37,711
PETERS, ALAN	AGING AND THE NERVOUS SYSTEM	2P01 AG00001-09A1	540,184
PETERS, ALAN	STRUCTURE AND ORGANIZATION OF THE CEREBRAL CORTEX	5R01 NS07016-14	98,389
PETERSON, SCOTT W.	PLASMA MEMBRANES AND CONTROL OF CELL GROWTH	1R01 CA27285-01	80,305
PETERSON, SCOTT W.	ISOLATION OF THE ERYTHROCYTE MEMBRANE CA2 + ATPASE	1R01 GM28832-01	53,583
POLGAR, PETER R.	PROSTAGLANDINS AND CELLULAR AGING	2R01 AG00455-06	84,820
PRICE, CHRISTOPHER H.	GLYCINE AS A NEURAL MESSENGER IN IDENTIFIED NEURONS	1R01 NS16399-01	56,237
RAPAPORT, ELIEZER	THE ROLE OF AP4A IN MALIGNANT TRANSFORMATION	7R01 CA28803-01	86,734
RAVIOLA, GIUSEPPINA E.	FUNCTIONAL ANATOMY OF THE ANTERIOR SEGMENT OF THE EYE	3R01 EY01349-05S1	164,610
RAVIOLA, GIUSEPPINA E.	FUNCTIONAL ANATOMY OF THE ANTERIOR SEGMENT OF THE EYE	5R01 EY01349-06	127,294
RITTENHOUSE-SIMMONS, SUSAN	ROLE OF PHOSPHOINOSITIDES IN HUMAN PLATELET SECRETION	5R01 HL22502-03	32,935
ROTHSCHILD, KENNETH J.	BIOPHYSICAL STUDY OF ORIENTED PHOTORECEPTOR MEMBRANE	3R01 EY02142-03S1	7,685
RYSER, HUGUES J.	PENETRATION OF MACROMOLECULES INTO MAMMALIAN CELLS	5R01 CA14551-08	114,837
SAIDE, JUDITH D.	PROPERTIES AND ASSEMBLY OF Z-DISC PROTEINS	5R01 HL22985-03	54,726
SANDSON, JOHN I.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00533-12	675,120
SANDSON, JOHN I.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05380-19	189,787
SCHMID, KARL	CHEMISTRY OF HUMAN PROTEINS AND GLYCOPROTEINS	5R01 GM10374-18	136,400
SCHMID, KARL	THE STRUCTURES OF HUMAN PULMONARY GLYCOPROTEINS	5R01 HL25011-02	107,136
SCHWARTZ, JOHN H.	ENERGETICS OF URINARY ACIDIFICATION: THE PENTOSE SHUNT	5R01 AM20611-03	71,605
SENGUPTA, SISIR K.	EVALUATE NEW CHROMOPHORE MODIFIED ACTINOMYCIN D ANALOGS	5R01 CA26281-02	104,516
SHAPIRO, JERROLD M.	GLAUCOMA RISK FROM TREATMENT OF SYSTEMIC HYPERTENSION	5R01 EY01788-05	115,298
SHEPRO, DAVID	ENDOTHELIAL CELL COMMUNICATION IN HOMEOSTASIS	5R01 HL16714-07	134,823
SIMONS, ELIZABETH R.	BLOOD PLATELET INTERACTIONS WITH AGGREGANTS	5R01 HL15335-08	81,979
SIMONS, ELIZABETH R.	INVESTIGATIONS OF HEMOGLOBIN S PROPERTIES	5R01 HL16375-06	42,496
SMALL, DONALD M.	EFFECT OF DIETARY LECITHIN ON HDL AND OTHER LIPOPROTEINS	5R01 HL24739-02	103,436
SMITH, BARBARA D.	COLLAGEN AND ITS RELATIONSHIP TO TUMORS	5R01 CA23540-03	43,932
SNIDER, GORDON L.	PULMONARY MACROPHAGE COLLAGENASE IN LUNG FIBROSIS	5R01 HL25216-01	58,266
SONENSHIN, GAIL E.	REGULATORY MECHANISMS IMMUNOGLOBULIN SYNTHESIS	5R01 AI16051-02	43,192
STANLEY, H. EUGENE	RAMAN & FTIR STUDIES OF MEMBRANE LIPID FLEXIBILITY	2R01 EY01996-04	72,892
STEEL, R. KNIGHT	A PROPOSAL TO INITIATE INNOVATIVE RESEARCH IN AGING	5R21 AG01178-03	23,835
STONE, PHILLIP J.	THE ROLE OF 2-MACROGLOBULIN IN EMPHYSEMA	1R01 HL25229-01	72,038
TAMARIN, ROBERT H.	EXPERIMENTAL MANIPULATION OF POPULATIONS	5R01 HD11682-03	34,759
TAMARIN, ROBERT H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07043-15	42,238
TAMM, SIDNEY L.	CELL MOTILITY, MEMBRANE FLUIDITY AND MECHANOTRANSDUCTION	1R01 GM27903-01	116,651
TERNER, CHARLES	ANDROGEN CONTROL OF PHOSPHODIESTERASE MODULATOR	1R01 HD14322-01	93,614
TROMBLY, CATHERINE A.	EXERCISE EFFECTS ON HAND MUSCLES OF POST-CVA PATIENTS	1R01 NS15758-01	75,045
TROXLER, ROBERT F.	SYNTHESIS OF BILE PIGMENTS IN PLANTS	5R01 GM22822-05	60,720
WALOGA, GERALDINE	INTERNAL REGULATORS OF PHOTOTRANSDUCTION	1R23 EY03656-01	43,122

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
WALSH, CAROL T.....	NEONATAL G.I. ABSORPTION OF LEAD, CADMIUM AND MERCURY.....	5R23 ES01708-03	24,508
WEINSTEIN, MARK J.....	PURIFICATION, STRUCTURE AND FUNCTION OF FACTOR VIII.....	5R01 HL22355-03	33,881
WHITE, EDWARD L.....	SYNAPTIC CONNECTIVITY IN CEREBRAL CORTEX.....	5R01 NS14838-02	61,555
WILLIAMS, LESTER F., JR.....	ROLE OF THE GALL BLADDER IN PATHOGENESIS OF GALLSTONES.....	5R01 AM15304-09	150,947
WOTIZ, HERBERT H.....	ETIOLOGIC AND PROGNOSTIC FACTORS IN BREAST CANCER.....	3P01 CA18226-03S1	28,180
WOTIZ, HERBERT H.....	VITAMIN B6 AND HORMONE ACTION IN UTERI AND BREAST CANCER.....	1R01 CA28645-01	103,116
ZOLLER, LAWRENCE C.....	STRUCTURE AND FUNCTION OF SPECIALIZED GRANULOSA CELLS.....	5R01 HD12684-03	48,824
ZURIF, EDGAR B.....	COMMUNICATION IN APHASIA: MECHANISMS AND REHABILITATION.....	5R01 NS11408-08	113,449
ZURIF, EDGAR B.....	LEXICAL ACQUISITION AND REPRESENTATION IN APHASIA.....	1R01 NS15972-01	50,337
ORGANIZATION TOTAL	119 15,625,229		
CENTER FOR BLOOD RESEARCH ZIP CODE 02115			
ALPER, CHESTER A.....	INVESTIGATIONS OF HUMAN COMPLEMENT.....	5R01 AI14157-11	143,617
ALPER, CHESTER A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05626-14	48,276
ANDREWS, JUDITH A.....	ACTIVATION OF THE FIRST COMPONENT OF BOVINE COMPLEMENT.....	5R23 AI14779-03	47,757
ANTONIADIS, HARRY N.....	CHARACTERIZATION OF SERUM FACTORS INDUCING MITOSIS.....	3R01 CA15388-06S1	53,147
BING, DAVID H.....	SPECIFICITY OF PROTEASES CLR, CLS, PLASMIN AND THROMBIN.....	5R01 AM17351-08	91,872
BING, DAVID H.....	ISOLATION AND CHARACTERIZATION OF PLASMA PROTEINS.....	5R01 HL24856-02	147,633
DAVIS, ALVIN E., III.....	INTERACTION OF THE COMPLEMENT AND COAGULATION SYSTEMS.....	5R23 HL22799-03	52,296
KENNEY, DIANNE M.....	PLATELET FUNCTION—MICROTUBULES, STRUCTURAL PROTEINS.....	5R23 HL24311-02	51,001
REMOLD-O'DONNELL, EILEEN.....	MACROPHAGE ACTION BY LYMPHOCYTE MEDIATORS.....	5R01 CA21225-05	68,272
SHAEFFER, JOSEPH R.....	HEMOGLOBIN SYNTHESIS IN SICKLE CELL TRAIT INDIVIDUALS.....	5R01 HL24021-04	89,466
ORGANIZATION TOTAL	10 793,337		
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
ANAST, CONSTANTINE S.....	CALCITONIN AND PARATHYROID HORMONE IN CHILDREN.....	5R01 HD13864-02	89,897
AUSPRUNK, DIANNA H.....	STRUCTURE AND DEVELOPMENT OF REGENERATING CAPILLARIES.....	5R01 HL21994-03	52,528
AVERY, MARY E.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00128-16	821,705
BARLOW, CHARLES F.....	MENTAL RETARDATION RESEARCH PROGRAM.....	5P30 HD06276-09	483,545
BERNHARD, WILLIAM F.....	LEFT VENTRICULAR-AORTIC BYPASS AND COMPOSITE PROSTHESIS.....	3R01 HL20037-03S1	7,605
BERNHARD, WILLIAM F.....	CLINICAL LEFT VENTRICULAR BYPASS STUDIES.....	1R01 HL25882-01	189,613
BOREL, YVES R.....	IMMUNOLOGIC TOLERANCE TO DNA IN MURINE LUPUS NEPHRITIS.....	2R01 AI13867-05	92,616
BOROW, KENNETH M.....	CARDIAC FUNCTION IN REPAIRED CONGENITAL HEART DISEASE.....	5R23 HL24356-02	36,681
BRAZELTON, T BERRY.....	DEVELOPMENT OF PRE- AND FULL-TERM INFANTS.....	3R01 HD10889-03S1	43,032
BRESLOW, JAN L.....	CYSTIC FIBROSIS: A CELL CULTURE APPROACH.....	2R01 AM20010-04	115,883
BRESLOW, JAN L.....	IN VITRO STUDY OF LIPOPROTEINS IN VASCULAR DISEASE.....	3R01 HL15895-06S1	33,594
BRESLOW, JAN L.....	IN VITRO STUDY OF LIPOPROTEINS IN VASCULAR DISEASE.....	2R01 HL15895-07	82,510
BROSEGHINI, ALBERT L.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05482-18	189,787
BURCHFIEL, JAMES L.....	SYNAPTIC MECHANISMS IN HIPPOCAMPAL EPITHEPTOGENESIS.....	5R01 NS15266-02	67,519
CARLSON, MARY L.....	CONSEQUENCES OF PARIETAL LESIONS.....	2R01 NS14261-03A1	39,401
COHEN, HARVEY J.....	MYELOID DEVELOPMENT IN AN INDUCED LEUKEMIC CELL LINE.....	5R01 CA26506-02	34,606
COLTEN, HARVEY R.....	HUMAN SERUM COMPLEMENT GENETICS.....	5P01 AI15033-03	233,328
COLTEN, HARVEY R.....	LUNG CELL METABOLISM IN VITRO.....	5R01 HL22487-03	79,184
DAVIS, MICHAEL A.....	IONIC GALLIUM 68 GENERATOR FOR USE IN NUCLEAR MEDICINE.....	5R01 GM26780-02	17,474
DICHTER, MARC A.....	CNS CELL CULTURE PHYSIOLOGY & MECHANISMS OF EPILEPSY.....	2R01 NS15362-02	71,666
DUFFY, FRANK H.....	THE ROLE OF INHIBITION IN EXPERIMENTAL AMBLYOPIA.....	2R01 EY01901-04	133,330
DUFFY, FRANK H.....	AUTOMATED NEUROPHYSIOLOGICAL DIAGNOSIS OF DYSLLEXIA.....	1R01 HD13420-01	91,485
DUFFY, FRANK H.....	AUTOMATED NONINVASIVE DIAGNOSIS OF BRAIN DYSFUNCTION.....	5R01 NS14767-02	110,179
EDELSON, PAUL J.....	MECHANISMS OF MACROPHAGE ANTITUMOR ACTIVATION.....	3R01 CA23503-03S1	12,555
EYRE, DAVID R.....	BIOCHEMISTRY & MORPHOLOGY OF INBORN SKELETAL DISEASES.....	1R01 AM26489-01	78,739
FOLKMAN, MOSES J.....	TUMOR ANGIOGENESIS: A CONTROL POINT IN TUMOR GROWTH.....	3R01 CA14019-06S1	60,886
FOLKMAN, MOSES J.....	TUMOR ANGIOGENESIS: A CONTROL POINT IN TUMOR GROWTH.....	2R01 CA14019-07	87,363
FOX, THOMAS O.....	STERIOD RECEPTOR MECHANISMS IN DEVELOPING BRAIN.....	2R01 HD10818-04	62,346
FULTON, ANNE B.....	RETINAL AND VISUAL DEVELOPMENT IN THE FIRST YEAR.....	1R01 EY03211-01	101,109
GABBAY, KENNETH H.....	NEUROPATHY IN DIABETES: ROLE OF SORBITOL PATHWAY.....	5R01 AM15019-10	84,390
GABBAY, KENNETH H.....	BLOOD GLUCOSE, HGB A1C, AND DIABETIC VASCULAR DISEASE.....	5R01 HL20539-05	292,930
GALLUP, PAUL M.....	AGING CELLS AND TISSUES.....	5P01 AG00376-06	298,972
GERALD, PARK S.....	GENETIC AND CYTOGENETIC STUDY OF MENTAL RETARDATION.....	5P01 HD04807-12	455,103
GERALD, PARK S.....	GENETIC STUDIES OF LYSOSOMAL DISORDERS.....	5R01 HD06285-09	94,248
GILLES, FLOYD H.....	CHILDHOOD BRAIN TUMOR CONSORTIUM.....	5R01 CA20462-04	367,347
GLIMCHER, MELVIN J.....	THE BIOLOGY OF SKELETAL AND MINERALIZED TISSUES.....	5P01 AM15671-10	608,548

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
GLIMCHER, MELVIN J.	NATURE OF BONE MINERAL: INCEPTION, MATURATION, AGING	1R01 AM26843-01	61,717
GRAND, RICHARD J.	DEVELOPMENT AND CONTROL OF SYNTHESIS AND SECRETION	5R01 AM14523-11	101,014
HOLTRUP, MARIJKE E.	ULTRASTRUCTURAL ANALYSIS OF BONE CELL METABOLISM	5R01 AM17834-06	122,218
HOUGEN, THOMAS J.	AGE-DEPENDENT PHARMACODYNAMICS OF CARDIAC GLYCOSIDES	1R23 HL24302-01A1	42,295
HUANG, ALICE S.	REPLICATION OF VESICULAR STOMATITIS VIRUS	5R01 AI16625-02	114,763
KIRSCHNER, DANIEL A.	MYELIN MEMBRANE STRUCTURE: STABILITY AND PATHOLOGY	2R01 NS14326-03	117,574
KLAGSBRUN, MICHAEL	CARTILAGE AND CHONDROSARCOMA-DERIVED GROWTH FACTORS	2R01 CA21763-04	87,747
KLAGSBRUN, MICHAEL	THE GROWTH OF CELLS IN MILK; PURIFICATION OF MITOGENS	1R01 HD13585-01	69,120
LANDIS, WILLIAM J.	ELECTRON OPTICAL EXAMINATION OF MINERALIZED TISSUES	1R01 DE05351-01	41,946
LATT, SAMUEL A.	PROTEIN-DNA INTERACTIONS IN HUMAN CHROMOSOMES	5R01 GM21121-07	171,379
LEVITON, ALAN	CLASSIFICATION AND ETIOLOGY OF CHILDHOOD BRAIN TUMORS	5R01 CA21819-04	156,836
LEVY, ROBERT J.	CARBOXYGLUTAMIC ACID IN CARDIOVASCULAR DISEASE	5R23 HL24463-02	38,602
LEW, KENNETH K.	GENETIC AND HORMONAL FACTORS IN GONADAL AGING	5R01 AG00971-03	62,018
LIAN, JANE B.	ROLE OF VITAMIN K IN MINERAL METABOLISM	1R01 AM26333-01	45,452
LIAN, JANE B.	BLOOD-MATERIAL INTERACTIONS	5R01 HL24029-02	180,031
LUX, SAMUEL E, IV	PATHOPHYSIOLOGY OF RED CELL MEMBRANE DISEASES	5R01 AM21836-03	102,772
MANDLE, ROBERT J, JR.	BIOSYNTHESIS OF INTRINSIC BLOOD COAGULATION FACTORS	1R01 HL25495-01	47,280
MANSOUR, JOSEPH M.	DEVELOPMENT OF A CLINICALLY APPLICABLE MODEL OF GAIT	5R01 AM22165-02	62,684
MC INTOSH, KENNETH	IMMUNOLOGY OF RESPIRATORY VIRAL DISEASE IN INFANTS	1R01 AI16741-01	95,554
MITCHELL, ALLEN A.	INTENSIVE DRUG SURVEILLANCE IN HOSPITALIZED CHILDREN	5R01 GM24781-03	256,591
MONTGOMERY, ROBERT	CONTROL OF REGIONAL DIFFERENTIATION OF FETAL INTESTINE	1R01 HD14498-01	40,699
MOWER, GEORGE D.	NONDEPRIVATION MODELS OF AMBLYOPIA	1R01 EY03335-01	58,854
NADAS, ALEXANDER S.	MANAGEMENT OF PATENT DUCTUS IN PREMATURE INFANTS	3R01 HL23121-02S1	213,724
NADAS, ALEXANDER S.	MANAGEMENT OF PATENT DUCTUS IN PREMATURE INFANTS	5R01 HL23121-03	1,221,244
NATHAN, DAVID G.	LYSIS OF RED CELLS BY HEMOGLOBIN AND MEMBRANE DISEASE	3R01 AM15322-14S1	12,350
NATHAN, DAVID G.	LYSIS OF RED CELLS BY HEMOGLOBIN AND MEMBRANE DISEASE	5R01 AM15322-15	165,721
NATHAN, DAVID G.	WHITE BLOOD CELL FUNCTION IN HEMATOLOGIC DISORDERS	5R01 CA26033-02	43,659
NATHAN, DAVID G.	IRON OVERLOAD IN HOMOZYGOUS BETA THALASSEMIA	5R01 HL20000-05	56,908
NORDLEMAN, HERBERT L.	DEVELOPMENTAL EFFECTS OF LOW LEVEL LEAD EXPOSURE	5P01 HD08945-05	320,766
ORRIN, STUART H.	MOLECULAR ANALYSIS OF NORMAL AND THALASSEMIC DNA	5R01 HL23689-02	33,813
RABINOVITCH, MARLENE	PULMONARY VASCULAR GROWTH IN CONGENITAL HEART DEFECTS	5R01 HL24418-02	48,157
REID, LYNNE M.	BRONCHIAL MUCUS PRODUCTION IN ORGAN CULTURE	5R01 HL22444-03	73,228
REID, LYNNE M.	EFFECT OF HYPOXIA ON PVSF AND ITS PRECURSOR CELLS	5R01 HL23232-03	91,679
ROFFLER-TARLOV, SUZANNE K.	EFFECTS OF PURKINJE CELL LOSS ON THE DEEP NUCLEI	5R01 NS14937-02	11,656
ROGART, RICHARD B.	SODIUM CHANNEL FUNCTION IN NORMAL AND DISEASE STATES	1R01 NS16183-01	89,289
ROSEN, FRED S.	REACTIONS AND METABOLISM OF IMMUNE PROTEINS AND CELLS	2P01 AI05877-17	164,698
ROSEN, FRED S.	IMMUNOLOGIC MECHANISMS IN RENAL DISEASES IN CHILDHOOD	5P01 AM16392-08	237,846
SCHWABER, JERROLD F.	B LYMPHOCYTES IN X-LINKED AGAMMAGLOBULINEMIA	1R23 AI16731-01	37,272
SIDMAN, RICHARD L.	OPTIC NERVE AXON GROWTH IN MOUSE PIGMENTATION MUTANTS	5R01 EY03225-02	70,460
SIDMAN, RICHARD L.	BRAIN DEVELOPMENT IN NORMALS AND MUTANTS	3R01 NS11232-07A1S1	17,170
SIDMAN, RICHARD L.	SYNTHETIC GUIDANCE SYSTEM FOR NERVE FIBER GROWTH	5R01 NS14768-03	288,543
SIDMAN, RICHARD L.	REDUCED CONNECTIONS: CAUSE OF PREMATURE NEURON AGING?	1R01 NS16278-01	207,441
TACK, BRIAN F.	STRUCTURAL BASIS OF C3 FUNCTIONS	1R01 AI17146-01	49,803
WEINER, HOWARD L.	MOLECULAR PATHOGENESIS OF REOVIRUS INDUCED DISEASE	5R01 NS15735-02	37,941
ZETTER, BRUCE R.	GROWTH AND MIGRATION OF CAPILLARY ENDOTHELIAL CELLS	1R01 CA28540-01	80,044
ORGANIZATION TOTAL	81 11,372,262		
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION ZIP CODE 02114			
ADLER, ALICE J.	BIOCHEMICAL ASPECTS OF RETINAL ADHESION	5R01 EY03101-02	75,267
ADOLPH, ALAN R.	SYNAPTIC TRANSMITTERS AND VERTEBRATE RETINAL FUNCTION	1R01 EY03383-01	106,447
ALLANSMITH, MATHEA R.	OCULAR ANAPHYLAXIS	2R01 EY02099-04	106,865
ALLANSMITH, MATHEA R.	THE SECRETORY IGA SYSTEM OF THE EYE	5R01 EY02882-02	80,619
BERMAN, MICHAEL B.	CELLULAR AND BIOCHEMICAL BASES OF CORNEAL ULCERATION	5R01 EY01246-07	142,074
BUZNEY, SHELDON M.	PROPERTIES OF RETINAL VASCULAR CELLS IN TISSUE CULTURE	1R01 EY03515-01	70,196
CHAKRABARTI, BIRESWAR	ROLE OF HYALURONIC ACID IN THE VITREOUS STRUCTURE	5R01 EY01760-03S3	8,954
CHAKRABARTI, BIRESWAR	ROLE OF HYALURONIC ACID IN THE VITREOUS STRUCTURE	2R01 EY01760-04A1	48,213
CINTRON, CHARLES	MACROMOLECULAR MORPHOGENESIS OF CORNEAL TISSUES	2R01 EY01199-07	145,009
DELORI, FRANCOIS C.	TRICHROMETRIC OXIMETRY OF RETINAL VESSELS	5R01 EY02094-03	77,956
DOANE, MARSHALL G.	THE INTERACTION OF LIDS & TEARS IN CORNEAL WETTING	5R01 EY01846-04	75,297
FEKE, GILBERT T.	HUMAN RETINAL BLOOD FLOW AND LASER VELOCIMETRY	5R01 EY01303-06	68,981
FOSTER, CHARLES S.	IMMUNOPATHOLOGY IN ULCERATIVE KERATITIS	5R01 EY03063-02	104,790

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
GILBARD, JEFFREY P.	DRYING OF THE OCULAR SURFACE	1R01 EY03373-01	64,140
GIPSON, ILENE K.	CELL MOTILITY AND ADHESION IN CORNEAL WOUND HEALING	2R01 EY03306-02	92,925
HIROSE, TATSUO	SIMULTANEOUS MACULA VER AND ERG IN FUNDUS DISEASES	5R01 EY01259-05	38,925
HULTSCH, ERWIN	CHEMISTRY & MORPHOLOGY OF VITREOUS REGENERATION	5R01 EY02427-03	93,297
HULTSCH, ERWIN	PATHOPHYSIOLOGY OF VITREOUS	5R01 EY02895-02	61,019
LIU, HSIAO-SU L.	SUSTAINED-RELEASE CHEMOTHERAPY FOR OCULAR MALIGNANCY	5R01 EY02917-03	113,082
MC MEEL, J WALLACE	STUDY OF RETINAL CIRCULATION IN DIABETES	5R01 EY02164-03	84,493
MUKAI, NORITSUGU	PATHOGENESIS OF DIABETIC RETINOPATHY	5R01 EY02062-03	74,045
MUKAI, NORITSUGU	RETINAL TUMOR CELL LINES IN TWO ANIMAL MODELS	5R01 EY03171-02	81,655
NEUFELD, ARTHUR H.	TROPHIC INFLUENCES ON THE CORNEAL EPITHELIUM	2R01 EY02360-04	75,276
NEUFELD, ARTHUR H.	MEDIATORS THAT REGULATE AQUEOUS HUMOR DYNAMICS	5R01 EY02367-04	104,534
PARK, NO HEE	NEW ANTIVIRAL THERAPY FOR ORAL AND OTHER HERPES	1R23 DE05572-01	38,869
PECZON, BENIGNO D.	OCULAR BASEMENT MEMBRANES IN DIABETIC RETINOPATHY	5R01 EY01564-06	93,649
POMERANTZEFF, OLEG	OPTICS APPLIED TO DIAGNOSIS AND TREATMENT OF EYE DISEASE	2R01 EY01975-04	134,563
POMERANTZEFF, OLEG	EVALUATE KRYPTON LASER IN PHOTOCOAGULATION THERAPY	5R01 EY02725-03	59,192
REFOJO, MIGUEL F.	SYNTHETIC HYDROPHILIC POLYMERS FOR EYE SURGERY	5R01 EY00327-15	107,708
REIF-LEHRER, LIANE	BIOCHEMICAL CONTROL IN NORMAL AND DISEASED RETINAS	5R01 EY02171-04	143,493
SCHEPENS, CHARLES L.	EYE RESEARCH CORE SERVICES SUPPORT	5P30 EY01784-05	374,177
SCHEPENS, CHARLES L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05527-18	116,055
SNODDERLY, D MAX, JR.	FUNCTIONAL DESCRIPTION OF VISUAL MECHANISMS	5R01 EY01520-05	65,906
THOFT, RICHARD A.	METABOLISM OF OCULAR SURFACE EPITHELIUM	2R01 EY01830-04	120,090
THOFT, RICHARD A.	EFFECTS OF DIABETES MELLITUS ON OCULAR SURFACE	5R01 EY03061-02	47,508
WEBB, ROBERT H.	HIGH RESOLUTION, WIDE-ANGLE TV OPHTHALMOSCOPE	5R01 EY02521-03	114,866
WEITER, JOHN J.	STUDIES OF NORMAL AND PATHOLOGICAL RETINAL P02	7R01 EY03698-01	37,302
WEITER, JOHN J.	AGING IN THE RETINAL PIGMENT EPITHELIUM	7R01 EY03699-01	73,090
ORGANIZATION TOTAL	38	3,520,527	
FAULKNER HOSPITAL ZIP CODE 02130			
MURPHY, RAYMOND L, JR.	LUNG SOUNDS	5R01 HL23318-02	88,031
ORGANIZATION TOTAL	1	88,031	
FORSYTH DENTAL CENTER ZIP CODE 02115			
BRUDEVOLD, FINN	MEASUREMENTS OF ENAMEL PERMEABILITY AS RELATED TO CARIES	5R01 DE05253-02	113,322
GIBBONS, RONALD J.	MICROBIAL ECOLOGY AND ITS RELATION TO DENTAL DISEASE	5P01 DE02847-12	522,176
GOODSON, JO M.	PERIODONTAL THERAPY BY CONTROLLED LOCAL DRUG DELIVERY	1R01 DE05334-01	84,953
GRON, POUL	INTERACTION OF TOPICAL FLUORIDE WITH HUMAN ENAMEL	5R01 DE05067-03	81,841
HAY, DONALD I.	TOOTH-SALIVA INTERFACE PHENOMENA AND DENTAL CARIES	2R01 DE03915-07	59,084
HEIN, JOHN W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05483-18	106,545
HILLMAN, JEFFREY D.	REPLACEMENT THERAPY OF DENTAL CARIES	2R01 DE04529-04A1	94,961
KASHKET, SHELBY	FLUORIDE AND THE METABOLISM OF PLAQUE BACTERIA	5R01 DE03917-06	48,841
LEES, SIDNEY	MECHANO-ULTRASONIC PROPERTIES OF BONE IN AGING	1R01 AG02325-01	154,436
MOORREES, COENRAAD F.	FACIAL AND DENTAL GROWTH IN PRE- AND POST-ADOLESCENTS	5R01 DE02873-13	164,267
MORENO, EDGARDO C.	TRANSPORT IN ENAMEL AND SOLUBILITY OF APATITES	2R01 DE03187-09	183,902
SKOBE, ZIEDONIS	COMPARATIVE ULTRASTRUCTURE OF MAMMALIAN AMELOGENESIS	5R01 DE04230-06	52,142
SOCRANSKY, SIGMUND S.	MICROBIAL COMPOSITION OF DEVELOPING DENTAL PLAQUE	5R01 DE03488-09	104,127
SOCRANSKY, SIGMUND S.	CENTER FOR CLINICAL RESEARCH IN PERIODONTAL DISEASES	5P50 DE04881-04	603,879
TAUBMAN, MARTIN A.	IMMUNE PHENOMENA IN EXPERIMENTAL PERIODONTAL DISEASE	5R01 DE03420-08	86,307
TAUBMAN, MARTIN A.	SECRETORY IMMUNE RESPONSE AND S. MUTANS ENZYME ANTIGENS	5R01 DE04733-04	120,886
ORGANIZATION TOTAL	16	2,581,669	
HARVARD UNIVERSITY ZIP CODE 02115			
ABBAS, ABUL K.	REGULATORY MECHANISMS IN ANTIBODY PRODUCTION	1R01 AI16349-01	109,474
ABRAMS, HERBERT L.	DIAGNOSTIC RADIOLOGY RESEARCH CENTER	5P50 GM18674-09	590,981
ADELSTEIN, S JAMES.	CYTOCHEMICAL AND MACROMOLECULAR RADIATION EFFECTS	3R01 AM04219-20S1	18,900
ADELSTEIN, S JAMES.	THERAPEUTIC/TOXIC ACTION OF ELECTRON-EMITTING NUCLIDES	2R01 CA15523-07	105,312
ADELSTEIN, S JAMES.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05381-19	189,787
ALBERTINI, DAVID F.	MEMBRANE DIFFERENTIATION DURING FOLLICULOGENESIS	5R01 HD11769-03	82,861
AMOS, HAROLD	SUGARS, GLYCOPROTEINS: NORMAL AND MALIGNANT CELLS	3R01 CA19015-04S1	3,058
AMOS, HAROLD	SUGARS, GLYCOPROTEINS: NORMAL AND MALIGNANT CELLS	5R01 CA19015-05	152,687
ANDERSON, EVERETT	COMPARATIVE CYTOLOGY STUDIES	3R01 HD06822-08S1	5,273
ANDERSON, EVERETT	AN ANALYSIS OF MAMMALIAN OOGENESIS AND FOLLICULOGENESIS	1R01 HD14574-01	156,860

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
AULD, DAVID S.	LOW TEMPERATURE ENZYME DYNAMICS	1R01 GM24967-01A1	50,638
AULD, DAVID S.	TRANSIENT INTERMEDIATES IN ENZYME CATALYSIS	5R01 GM24968-03	74,246
BAKKER, VERONICA M.	CONDYLECTOMY AND ANTERIOR POSITIONING OF THE MANDIBLE	5R23 DE05540-02	12,197
BARBER, FRANK E.	SCANNING ACOUSTIC MICROPROBE FOR CANCER DIAGNOSIS	5R01 CA25938-02	148,684
BARGER, A CLIFFORD	KIDNEY FUNCTION IN EXPERIMENTAL HEART FAILURE	2R01 HL02493-23	128,508
BARGER, A CLIFFORD	REGULATION OF BLOOD PRESSURE	5R01 HL19467-05	155,888
BAUGHMAN, ROBERT W.	NEUROTRANSMITTERS IN THE CENTRAL VISUAL PATHWAY	1R01 EY03502-01	110,799
BECKWITH, JONATHAN R.	REGULATION OF TRANSCRIPTION INITIATION AND TERMINATION	5R01 GM13017-16	54,169
BEEUWKES, REINIER, III	ELECTRON PROBE STUDIES OF THE RENAL MEDULLA	5R01 AM18249-06	82,599
BEGG, DAVID A.	CELLULAR AND MOLECULAR BASIS OF CYTOKINESIS	1R01 GM28307-01	120,796
BELLI, JAMES A.	RADIATION AND DRUG EFFECTS IN MAMMALIAN CELLS	5R01 CA25333-02	157,644
BELLVE, ANTHONY R.	MAMMALIAN SPERMIOGENESIS: ANALYSIS OF NUCLEAR PROTEIN	5R01 HD08270-07	137,125
BELLVE, ANTHONY R.	SERTOUI CELL FUNCTION IN MAMMALIAN SPERMATOGENESIS	5R01 HD12600-02	93,796
BENACERRAF, BARUJ	LYMPHOCYTE BIOLOGY PROGRAMS	5P01 AI14732-03	1,096,796
BENACERRAF, BARUJ	STUDY OF EXPERIMENTAL CANCER IMMUNOLOGY	5P01 CA14723-08	1,345,617
BENJAMIN, THOMAS L.	MECHANISM OF CELL TRANSFORMATION BY POLYOMA VIRUS	2R01 CA19567-04	179,479
BENJAMIN, THOMAS L.	EFFECTS OF HR-T MUTATIONS ON POLYOMA GENE EXPRESSION	3R01 CA25390-01S1	36,400
BENJAMIN, THOMAS L.	EFFECTS OF HR-T MUTATIONS ON POLYOMA GENE EXPRESSION	5R01 CA25390-02	73,223
BENOS, DALE J.	SODIUM ENTRY INTO AMILORIDE-SENSITIVE EPITHELIA	5R01 AM25886-02	67,087
BERSON, ELIOT L.	ELECTROPHYSIOLOGICAL STUDIES OF RETINAL DEGENERATIONS	5R01 EY00169-10	179,633
BERSON, ELIOT L.	STUDIES OF RETINITIS PIGMENTOSA AND ALLIED DISEASES	5P50 EY02014-04	242,968
BIGGERS, JOHN D.	PREIMPLANTATION SWELLING OF THE BLASTOCYST	5R01 HD12353-02	80,471
BIGNAMI, AMICO	BRAIN SPECIFIC PROTEIN (GFA PROTEIN) IN ASTROCYTES	5R01 NS13034-06	61,854
BLOUT, ELKAN R.	PEPTIDES AND PROTEINS	5R01 AM07300-19	159,909
BLOUT, ELKAN R.	SYNTHESIS OF OLIGOPEPTIDES AND CYCLIC PEPTIDES	5R01 AM10794-14	110,985
BLOUT, ELKAN R.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05446-19	197,787
BLUMBERG, PETER M.	MECHANISM OF ACTION OF PHORBOL DIESTERS IN VITRO	5R01 CA22895-03	68,246
BRAIN, JOSEPH D.	FACTORS INFLUENCING DEPOSITION OF INHALED PARTICLES	2R01 ES01016-06	117,207
BRAIN, JOSEPH D.	PULMONARY SCOR—CHRONIC DISEASES OF THE AIRWAYS	5P50 HL19170-04	540,372
BRAIN, JOSEPH D.	COUGH: MECHANICS AND PATHOPHYSIOLOGY	1R01 HL25728-01	96,064
BRAUNWALD, EUGENE	THE DEVELOPMENT AND REGRESSION OF CARDIAC HYPERTROPHY	5P01 HL20552-04	437,574
CALLARD, GLORIA V.	REPRODUCTIVE RHYTHMS: RELATION TO CNS AROMATIZATION	1R01 HD13066-01A1	90,409
CANICK, JACOB A.	REGULATION OF AROMATIZATION IN HYPOTHALAMIC CULTURES	5R01 HD12337-02	45,571
CARRAWAY, ROBERT E.	BIOCHEMISTRY OF BRAIN AND INTESTINAL NEUROTENSIN(S)	5R01 AM19428-05	37,459
CARRAWAY, ROBERT E.	STRUCTURE AND ROLE(S) OF GASTRIC AND THYMIC PEPTIDES	5R01 AM21271-03	22,715
CERNY, JAN.	IMMUNOLOGY OF A MAJOR IDIOTYPE	1R01 AI17201-01	78,230
CERNY, JAN.	REGULATORY MECHANISMS OF NEOPLASIA	5R01 CA14922-07	83,597
CHYLACK, LEO T, JR.	LENS METABOLISM AND CATARACT FORMATION	2R01 EY01276-07	253,228
COHEN, JONATHAN B.	NEUROCHEMICAL BASIS OF CHOLINERGIC EXCITABILITY	5R01 NS12408-06	71,741
COTRAN, RAMZI S.	PATHOPHYSIOLOGY OF THE ENDOTHELIUM	5P01 HL22602-03	492,615
DAVIES, PETER F.	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	5R01 HL24612-02	105,986
DAVIS, BERNARD D.	MEMBRANE-ASSOCIATED RIBOSOMES AND PROTEIN SECRETION	5R01 GM16835-12	147,884
DAWIDOWICZ, ELIEZAR A.	PHYSICAL STUDY OF LIPID MOTION IN RED CELL MEMBRANES	5R01 GM22175-05	88,369
DE PAMPHILIS, MELVIN L.	TUMOR VIRUS DNA REPLICATION: A PROBE INTO ONCOGENESIS	2R01 CA15579-07	159,526
DIAMANDOPOULOS, GEORGE T.	VIRAL CARCINOGENESIS WITH SPECIAL REFERENCE TO SV40	5R01 CA08731-15	169,452
DICE, JAMES F, JR.	PROTEIN DEGRADATION IN DIABETES AND STARVATION	5R01 AM25307-03	100,773
DORF, MARTIN E.	IDIOTYPES AND T LYMPHOCYTES	1R01 AI16677-01	66,658
DRAGER, URSULA C.	THE VISUAL SYSTEM IN NORMAL AND ABNORMAL MICE	2R01 EY01938-04	132,203
DYM, MARTIN	THE ROLE OF THE SERTOUI CELL IN SPERMATOGENESIS	2R01 HD06969-07	100,739
EDWARDS, ROSS B.	STUDIES OF PIGMENT EPITHELIUM IN VITRO PHAGOCYTOSIS	2R01 EY02028-04	134,580
EFSTRATIADIS, ARGIRIS.	STRUCTURE AND TRANSCRIPTION OF INSULIN GENES	5R01 AM25719-02	119,191
EISENSTADT, ERIC	MUTAGENIC SPECIFICITY OF ENVIRONMENTAL CARCINOGENS	5R01 CA26135-02	110,935
EISENSTADT, ERIC	MUTAGENICITY AND METABOLISM OF CYCLOPENTA(C,D)PYRENE	5R01 ES02021-02	80,459
ESSEX, MYRON E.	ONCORNAVIRUS-ASSOCIATED CELL MEMBRANE ANTIGENS	5R01 CA13885-06	67,296
ESSEX, MYRON E.	IMMUNE RESPONSE IN LEUKEMIA	2R01 CA18216-04	112,089
FALK, LAWRENCE A, JR.	STUDY OF HUMAN AND SIMIAN LYMPHOTROPIC HERPES VIRUSES	5R01 CA27225-02	116,514
FELDMAN, HENRY A.	MATHEMATICAL MODELS OF BRANCHING IN THE HUMAN LUNG	5R23 HL21855-03	31,905
FELDMAN, ROY S.	BONE IN VITRO: ULTRASTRUCTURE AND AUTORADIOGRAPHY	5R23 DE05332-02	45,500
FERRIS, BENJAMIN G, JR.	EFFECTS OF SO2 AND RESPIRABLE PARTICULATES ON HEALTH	5R01 ES01108-07	1,796,188
FIELDS, BERNARD N.	GENETICS OF REOVIRUS	5R01 AI13178-04S1	44,810
FIELDS, BERNARD N.	GENETICS OF REOVIRUS	5R01 AI13178-05	189,999

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
FISCHBACH, GERALD D	SYNAPSE FORMATION IN CELL CULTURE	5R01 NS11160-08	144,552
FOSSEL, ERIC T	DYNAMICS OF ENERGY METABOLISM IN THE MYOCARDIUM	5R01 HL22542-02	110,885
FRANKEL, DAN G	ENZYMES AND PATHWAYS IN GLYCOLYSIS MUTANTS	2R01 GM21098-07	107,372
FRANK, ERIC	DEVELOPMENT AND PLASTICITY OF SENSORY-MOTOR SYNAPSES	5R01 NS14451-03	17,758
FUJIWARA, KEIGI	MOLECULAR BASIS FOR CLEAVAGE	5R01 GM25637-03	102,160
FURSHPAN, EDWIN J	NEUROPHYSIOLOGICAL AND NEUROCHEMICAL STUDIES	2P01 NS02253-21	471,753
FURSHPAN, EDWIN J	CELL INTERCONNECTIONS	5R01 NS03273-20	121,425
GEISSELSODER, JANET	MECHANISM OF THE SWITCH BETWEEN TWO CAPSID SIZES	1R01 GM27143-01	41,360
GEYER, ROBERT P	SPECIFIC FATTY ACIDS AND CHOLESTEROL METABOLISM	5R01 HL12399-15	90,962
GEYER, ROBERT P	TOTAL BLOOD REPLACEMENT BY FLUOROCARBONS AND POLYOLS	5R01 HL15520-08	100,209
GEYER, ROBERT P	ARTIFICIAL BLOOD SUBSTITUTES: O ₂ -BINDING IRON CHELATES	5R01 HL17844-06	115,070
GILBERT, CHARLES D	INTRACORTICAL CONNECTIONS UNDERLYING CORTEX FUNCTION	1R01 NS16189-01	66,470
GIMBRONE, MICHAEL A, JR	CULTURED BLOOD VESSEL CELLS: PATHOPHYSIOLOGY	2R01 HL20054-04	108,096
GOLDBERG, ALFRED L	MECHANISMS OF GROWTH AND ATROPHY OF SKELETAL MUSCLE	3R01 NS10571-08S1	8,772
GOLDBERG, ALFRED L	MECHANISMS OF GROWTH AND ATROPHY OF SKELETAL MUSCLE	5R01 NS10571-09	234,518
GOLDBERG, IRVING H	MOLECULAR PHARMACOLOGY OF ANTICANCER DRUGS	5R01 GM12573-16	164,093
GOLDHABER, PAUL	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05318-19	37,883
GOLDIN, STANLEY M	RECONSTITUTION/ISOLATION OF MEMBRANE TRANSPORT SYSTEMS	5R01 NS15236-02	75,695
GOLDIN, STANLEY M	CA + + AND REGULATION OF NEUROTRANSMITTER RELEASE	1R01 NS16475-01	86,899
GOODENOUGH, DANIEL A	LENS METABOLIC COOPERATION, GAP JUNCTIONS & CATARACT	3R01 EY02430-02S1	475
GOODENOUGH, DANIEL A	LENS METABOLIC COOPERATION, GAP JUNCTIONS & CATARACT	5R01 EY02430-03	49,053
GOODENOUGH, DANIEL A	MOLECULAR BIOLOGY OF INTERCELLULAR COMMUNICATIONS	2R01 GM18974-09	95,544
GRANT, CHRISTOPHER K	TUMOR IMMUNITY AND LEUKEMIA	1R01 CA24608-01A1	65,415
GREENE, MARK I	INFLUENCE OF ANTIGEN & IDIOTYPE ON CELL IMMUNITY	1R01 AI16396-01	99,321
HABER, EDGAR	SPECIALIZED CENTER OF RESEARCH IN ISCHEMIC HEART DISEASE	1P50 HL26215-01	2,311,406
HAY, ELIZABETH D	ROLE OF EXTRACELLULAR MATRIX IN MORPHOGENESIS	2R01 HD00143-21	171,012
HAYES, KENNETH C	SELENIUM AND VITAMIN E NUTRITURE OF THE OWL MONKEY	1R01 AM26429-01	53,259
HECHTMAN, HERBERT B	CARDIOPULMONARY FAILURE FOLLOWING SHOCK AND TRAUMA	5R01 GM24891-04	205,608
HEGSTED, DAVID M	NUTRITIVE VALUE OF PROTEINS	5R01 AM09520-15	90,088
HELLMAN, SAMUEL	PROLIFERATION AND DIFFERENTIATION OF STEM CELLS	2R01 CA10941-13	280,111
HELLMAN, SAMUEL	CANCER RESEARCH CENTER	5P01 CA12662-09	881,819
HENNEMAN, ELWOOD	ORGANIZATION OF THE MOTONEURON-POOL AND ITS INPUTS	5R01 NS10857-07	54,458
HERRERA, M GUILLERMO	MALNUTRITION AND PSYCHOLOGIC DEVELOPMENT	5R22 HD06774-06	118,096
HERZFELD, JUDITH	KINETIC COOPERATIVITY AND HALF-SITE REACTIVITY	5R01 AM21077-03	42,915
HERZFELD, JUDITH	NMR STUDIES OF BIOLOGICAL MEMBRANES	5R01 GM23316-05	59,464
HIRSH, JAY	REGULATION OF THE DOPA DECARBOXYLASE GENE	1R01 GM27318-01	100,023
HOOVER, RICHARD L	LEUCOCYTE/ENDOTHELIAL ADHESION IN INFLAMMATION	1R01 HL26191-01	106,679
HUBEL, DAVID H	ORGANIZATION OF THE VISUAL SYSTEM	5R01 EY00605-21	274,106
HUTCHISON, GEORGE B	COOPERATIVE STUDY OF HODGKIN'S DISEASE	5R10 CA13607-09	47,753
HUTCHISON, GEORGE B	SECOND CANCERS IN PATIENTS WITH HODGKIN'S DISEASE	5R01 CA22849-03	57,829
HUTCHISON, GEORGE B	AN EPIDEMIOLOGIC STUDY OF CANCER OF THE OVARY	5R01 CA24209-02	80,553
ITO, SUSUMU	STUDY OF ISOLATED AND SEPARATED GASTRIC CELL TYPES	5R01 AM17255-08	109,122
ITO, SUSUMU	MECHANISM OF GASTRIC MUCUS SECRETION AND SYNTHESIS	5R01 AM26151-02	67,904
JANDL, JAMES H	DESTRUCTION OF RED BLOOD CELLS IN HEMOLYTIC ANEMIAS	5R01 HL07652-15	102,850
JOHNS, PAMELA R	NEUROGENESIS AND SYNAPTOGENESIS OF RETINAL PHOTORECEPTOR	5R01 EY03301-02	73,135
JONES, ALUN G	CHEMISTRY OF TECHNETIUM RELATED TO NUCLEAR MEDICINE	2R01 GM23270-04	188,360
JU, SHYR-TE	IDIOTYPE REGULATION IN IR GENE CONTROLLED RESPONSES	1R23 AI16980-01	54,600
KARNOVSKY, MANFRED L	BIOCHEMICAL BASIS OF PHAGOCYTOSIS	5R01 AI03260-21	84,933
KARNOVSKY, MORRIS J	ULTRASTRUCTURAL IMMUNOCYTOCHEMISTRY OF CELL SURFACES	5R01 AI10677-09	90,310
KARNOVSKY, MORRIS J	THE ULTRASTRUCTURAL BASIS OF GLOMERULAR PERMEABILITY	2R01 AM13132-11	132,531
KARNOVSKY, MORRIS J	ENDOTHELIAL INJURY AND REGENERATION	5R01 HL17747-06	159,171
KENNEDY, ANN R	RADIATION AND CHEMICAL IN VITRO MALIGNANT TRANSFORMATION	5R01 CA22704-03	138,195
KENNEDY, EUGENE P	METABOLISM AND FUNCTION OF COMPLEX LIPIDS	5R01 GM19822-21	93,559
KENNEDY, EUGENE P	BIOGENESIS AND FUNCTION OF MEMBRANES	2R01 GM22057-06	135,965
KITZ, RICHARD J	ANESTHESIOLOGY CENTER FOR RESEARCH AND TEACHING	5P50 GM15904-13	901,229
KLEINFELD, ALAN M	A FLUORESCENT PROBE STUDY OF BAND 3 VESICLES	5R01 GM26350-02	101,993
KRAVITZ, EDWARD A	STUDIES OF SYNAPTIC CHEMISTRY IN THE NERVOUS SYSTEM	5R01 NS07848-13	113,186
KUFFLER, STEPHEN W	MICROPHYSIOLOGY OF SYNAPTIC TRANSMISSION	5R01 NS13288-04	166,393
KUNDSIN, RUTH B	UREAPLASMA UREALYTICUM—THREAT TO PERINATAL SURVIVAL	5R01 HD10984-03	143,905
KUSHMERICK, MARTIN J	MUSCLE ENERGY METABOLISM	2R01 AM14485-09	145,805
LANDIS, STORY C	STUDIES OF SYNAPSE FORMATION	5R01 NS15549-02	74,033

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
LE VAY, SIMON	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM	2R01 EY01960-04	100,524
LECHENE, CLAUDE P.	ELECTRON PROBE MICROANALYSIS OF NEPHRON FUNCTION	2R01 AM16898-07	114,253
LECHENE, CLAUDE P.	ELECTRONPROBE MICROANALYSIS OF RED BLOOD CELLS	5R01 AM19449-05	47,950
LECHENE, CLAUDE P.	PANCREATIC ENZYMES IN INDIVIDUAL GRANULES AND CELLS	1R01 AM26488-01	87,454
LECHENE, CLAUDE P.	BIOTECHNOLOGY RESOURCE IN ELECTRONPROBE MICROANALYSIS	5P41 RR00679-09	466,248
LEEMAN, SUSAN E.	PURIFICATION AND FUNCTION OF HYPOTHALAMIC PEPTIDES	5R01 AM16510-09	163,821
LIN, EDMUND C.	GLYCEROL DISSIMILATION AND ITS REGULATION IN BACTERIA	2R01 GM11983-17	153,026
LINCK, RICHARD W.	MOLECULAR MECHANISM OF CILIARY AND FLAGELLAR MOTILITY	5R01 GM21527-06	120,591
LITTLE, JOHN B.	EFFECTS OF RADIATION ON STATIONARY CELLS	5R01 CA11751-11	189,608
LONG, SHEILA D.	BIOANALYSIS OF INTERACTION OF UV AND SUNSCREEN AGENTS	1R23 ES02358-01A1	48,965
LORING, STEPHEN H.	DYNAMIC AIRWAY BEHAVIOR	5R23 HL22920-03	43,453
LOWN, BERNARD	SUDDEN DEATH AND CARDIAC ARRHYTHMIAS	2R01 HL07776-17	152,642
LOWN, BERNARD	VPBS ELECTRICAL INSTABILITY & ANTIARRHYTHMIC MEASURE	5R01 HL18783-06	66,430
LOWN, BERNARD	DIGITALIS DRUGS FOR CONTROL OF VENTRICULAR ARRHYTHMIAS	5R01 HL24456-02	106,562
LYMAN, CHARLES P.	TEMPERATURE CONTROL AND SENSITIVITY IN HIBERNATION	1R01 AG02255-01	69,659
MACMAHON, BRIAN	CANCER EPIDEMIOLOGY AND PREVENTION RESEARCH CENTER	5P01 CA06373-19	428,173
MC ALISTER, ALFRED L.	FIELD STUDY OF YOUTH HEALTH PROMOTION PROCESS	5R01 HD12813-02	296,627
MEAD, JERE	PROGRAM PROJECT IN RESPIRATORY MECHANICS	5P01 HL14580-09	529,511
MOORE, PAUL A.	PSYCHOMOTOR IMPAIRMENT RELATED TO N2O EXPOSURE	1R23 DE05507-01	47,165
MORRISON, ALAN S.	BREAST PARENCHYMAL PATTERNS AND BREAST CANCER RISK	5R01 CA24797-02	77,952
MORRISON, ALAN S.	MORTALITY IN THE RENAISSANCE	5R01 LM03205-02	22,236
MURPHY, JOHN R.	VIRULENCE FACTORS OF CORYNEBACTERIUM DIPHTHERIAE	2R01 AI12500-06	109,107
MURPHY, JOHN R.	VIBRIO CHOLERA: DEVELOPMENT OF A LIVE ORAL VACCINE	2R22 AI13938-04	126,739
MURPHY, RICHARD A.	NERVE GROWTH FACTOR IN THE CENTRAL NERVOUS SYSTEM	3R01 NS14865-02S1	13,720
NEUTRA, MARIAN R.	MUCUS SECRETION IN CYSTIC FIBROSIS & NORMAL INTESTINE	5R01 AM21505-03	53,096
NICOLOSI, ROBERT J.	DIETARY CONTROL OF HIGH DENSITY LIPOPROTEINS	5R01 HL23792-02	87,250
PALAY, SANFORD L.	THE FINE STRUCTURE OF THE NERVOUS SYSTEM	5R01 NS03659-19	118,035
PATHAK, MADHUKAR A.	SKIN REACTION TO LIGHT—NORMAL, PHOTOSENSITIVITY, CANCER	2R01 CA05003-22	178,329
PATTERSON, PAUL H.	ENVIRONMENTAL DETERMINATION OF TRANSMITTER FUNCTIONS	5R01 NS11027-08	161,856
PATTERSON, PAUL H.	THE MOLECULAR DETERMINANTS OF SYNAPSE FORMATION	1R01 NS16527-01	71,446
PERLMAN, ROBERT L.	ADRENAL CATECHOLAMINE SECRETION	5R01 HL18148-06	96,364
PERLMUTER, LAWRENCE C.	COGNITIVE AND SENSORY DEFICITS IN THE AGING DIABETIC	1R01 AG02300-01	134,656
POTTER, DAVID D.	DEVELOPMENT OF SYMPATHETIC JUNCTIONS IN CULTURE	5R01 NS11576-07	50,634
RANDO, ROBERT R.	THE NEUROPHARMACOLOGY OF SPECIFIC ENZYME INACTIVATORS	5R01 NS11550-06	141,953
RAVIOLA, ELIO	FREEZE-FRACTURE STUDIES OF THE RETINA	5R01 EY01344-06	99,976
RAVIOLA, ELIO	CELL COMMUNICATION IN RETINA AND LENS	5R01 EY03011-02	45,203
REINHOLD, VERNON N.	GLYCOCONJUGATE STRUCTURAL STUDIES/PROGRAM PROJECT	5P01 GM26625-02	327,495
RICE, ROBERT H.	KERATINOCYTE CROSS-LINKED ENVELOPES: MOLECULAR BASIS	1R01 AM27130-01	98,471
RICE, ROBERT H.	VAGINAL AND CERVICAL EPITHELIAL CELL CULTURE MODEL	1R01 CA27287-01	63,965
RICHARDSON, CHARLES C.	STRUCTURE AND SYNTHESIS OF DNA	5R01 AI06045-17	204,411
RICHARDSON, U INGRID	ACTH SECRETION BY PITUITARY TUMOR CELLS IN CULTURE	5R01 CA24050-02	57,681
RICHIE, JEROME P.	ANTI-REFLUX SURGERY FOR LONG-TERM URINARY DIVERSION	5R01 AM25580-02	87,111
RIORDAN, JAMES F.	METALLOENZYMES AND DISEASE	5R01 HL22387-03	134,077
ROBERTS, BRYAN E.	ORGANIZATION AND EXPRESSION OF GENES IN VIRAL DNAs	5R01 CA27447-02	91,459
RYAN, KENNETH J.	CENTER FOR POPULATION RESEARCH	5P30 HD06645-09	397,498
RYAN, KENNETH J.	STEROID HORMONE METABOLISM	5R01 HD07923-08	129,531
SAKAMOTO, SEIZABURO	REGULATION OF COLLAGENASE AND BONE RESORPTION	5R01 DE05255-02	89,236
SALHANICK, HILTON A.	MODE OF ACTION & SYNTHESIS OF PROGESTATIONAL HORMONES	5R01 AM10081-15	82,126
SALZMAN, EDWIN W.	A PROGRAM IN THROMBOSIS AND ATHEROSCLEROSIS	5P01 HL25066-02	586,991
SANDOR, TAMAS	RECOGNITION OF VERY SMALL TUMORS	5R01 CA23246-03	84,744
SCHMIDT, SUSAN Y.	BIOCHEMICAL STUDIES OF RETINA AND PIGMENT EPITHELIUM	5R01 EY01687-05	93,984
SCHNITMAN, PAUL A.	THE BLADE IMPLANT: CLINICAL EFFICACY AND SAFETY	1R01 DE05563-01	322,302
SCHONBRUNN, AGNES	MODULATION OF SOMATOSTATIN AND INSULIN RECEPTORS	5R23 AM25961-02	51,099
SHKLAR, GERALD	ORAL CARCINOGENESIS, VITAMIN A AND RETINOLIDS	5R01 CA23524-03	93,876
SHKLAR, GERALD	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA26182-02	68,300
SILVERSTEIN, JACOB B.	DIFFUSION OF PREVENTIVE HEALTH MEASURES TO SCHOOLS	5R01 DE05115-03	216,775
SOLOMON, ARTHUR K.	STUDIES OF RED CELL ION TRANSPORT AND LIPID BILAYERS	5R01 GM15692-13	136,630
SOLOMON, ARTHUR K.	FACTORS AFFECTING PHYSIOLOGY OF BIOLOGICAL MEMBRANES	2R01 HL14820-09	148,915
SOLT, DENNIS B.	SEQUENTIAL ANALYSIS OF ORAL CARCINOGENESIS	1R01 CA28620-01	145,327
SPIELMAN, ANDREW	DEVELOPMENT OF BABESIA MICROTI IN THE TICK VECTOR	5R01 AI15886-02	94,417
SPRINGER, TIMOTHY A.	CHEMISTRY OF TUMORICIDAL MACROPHAGE SURFACE ANTIGENS	1R01 CA27547-01	57,232

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SYVANEN, MICHAEL	GENETIC ANALYSIS OF TRANSPOSABLE ELEMENTS	1R01 GM28142-01	132,775
SZABO, GEORGE	ULTRASTRUCTURE AND PHYSIOLOGY OF ORAL MUCOSA	5R01 AM20669-18	154,866
SZAMIER, ROBERT B	MORPHOLOGICAL STUDIES OF RETINAL DEGENERATIONS	5R01 EY02988-02	115,067
TAI, PHANG-CHENG	THE FUNCTIONS OF RIBOSOME RELEASE FACTOR	5R01 GM22030-05	67,211
TAI, PHANG-CHENG	SELECTIVE ACTIONS OF ANTIBIOTICS ON RIBOSOMES	1R01 GM28927-01	68,550
TASHJIAN, ARMEN H, JR	HORMONES AFFECTING MINERAL METABOLISM	5R01 AM10206-15	118,380
TASHJIAN, ARMEN H, JR	DIFFERENTIATED FUNCTION IN DISPERSED CELL CULTURES	2R01 AM11011-15	160,327
THENEN, SHIRLEY W	METABOLIC ASPECTS OF OBESITY	3R01 AM02911-21S1	31,375
TILNEY, NICHOLAS L	ALLOGRAFT REJECTION AND ENHANCEMENT	5R01 CA23024-07	166,175
TOSTESON, DANIEL C	ION TRANSPORT ACROSS LIPID BILAYER MEMBRANES	3R01 GM25277-02S1	81,267
TOSTESON, DANIEL C	ION TRANSPORT ACROSS LIPID BILAYER MEMBRANES	2R01 GM25277-03	152,513
TOSTESON, DANIEL C	MEMBRANES IN HYPERTENSION AND OTHER SYNDROMES	5R01 GM25686-03	129,649
TOSTESON, DANIEL C	NEW ENGLAND REGIONAL PRIMATE RESEARCH CENTER	5P51 RR00168-19	1,998,634
VALLEE, BERT L	THE BIOLOGICAL FUNCTION OF METALS	5P01 GM15003-19	256,142
VALLEE, BERT L	THE FUNCTION AND DETECTION OF ZINC IN CELL BIOLOGY	5R01 GM24989-03	166,173
VEATCH, WILLIAM R	MEMBRANE CHANNEL STRUCTURE: SPECTROSCOPIC APPROACHES	5R01 AI15311-03	39,741
VILLEE, CLAUDE A	HORMONE INDUCED AND DEPENDENT TUMORS	5R01 CA24615-02	94,890
VON LICHTENBERG, FRANZ C	SCHISTOSOMIASIS AND GRANULOMA FORMULATION	5R22 AI02631-22	157,352
WASSARMAN, PAUL M	MAMMALIAN OOGENESIS: PROGRAMMING OF PROTEIN SYNTHESIS	5R01 HD12275-02	121,636
WEICHSSELBAUM, RALPH R	INTERACTIONS OF DRUGS, RADIATION AND HORMONES	5R01 CA21848-03	75,798
WELLER, THOMAS H	REPLICATION AND PERSISTENCE OF VARICELLA VIRUS	5R01 AI16154-02	130,197
WELLER, THOMAS H	ENDEMIC SCHISTOSOMIASIS AND CHAGAS' DISEASE IN BRAZIL	5P01 AI16305-02	330,709
WHITTENBERGER, JAMES L	OCCUPATIONAL AND ENVIRONMENTAL HEALTH	5P30 ES00002-18	752,057
WIESEL, TORSTEN N	STUDIES OF THE VISUAL SYSTEM	5R01 EY00606-17	267,719
WIESEL, TORSTEN N	EXPERIMENTAL MYOPIA IN PRIMATES	5R01 EY01966-04	54,156
WIESEL, TORSTEN N	STUDIES OF BASIC MECHANISMS IN VISION	3P30 EY01995-03S1	3,840
WIESEL, TORSTEN N	VISION RESEARCH CENTER (CORE)	2P30 EY01995-04A1	408,531
WILMORE, DOUGLAS W	SURGICAL CARE: METABOLISM AND BIORHYTHMS	5P01 GM22085-23	297,014
WILSON, T HASTINGS	COMPARATIVE PHYSIOLOGY OF MEMBRANE TRANSPORT	5R01 AM05736-19	138,101
WYSHAK, GRACE	CANCER INCIDENCE IN MOTHERS OF DIZYGOTIC TWINS	5R01 CA25623-02	89,790
ZIEGLER, H KIRK	H-2-RESTRICTED SPECIFIC T CELL-MACROPHAGE BINDING	1R01 AI17259-01	81,332
ZIGMOND, RICHARD E	EXPERIENCE AND THE NEUROCHEMISTRY OF THE SYNAPSE	5R01 NS12651-05	84,695
ORGANIZATION TOTAL	225	39,076,202	
JOSLIN DIABETES FOUNDATION ZIP CODE 02215			
BRADLEY, ROBERT F	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20530-03	1,048,042
CAHILL, GEORGE F, JR	PHYSIOLOGY, PATHOLOGY, AND BIOCHEMISTRY OF DIABETES	2R01 AM15191-11	186,810
CHICK, WILLIAM L	PANCREATIC ISLET AND BETA CELL STUDIES	5R01 AM15398-10	142,466
RAND, LAWRENCE I	CASE CONTROL STUDY OF DIABETIC RETINOPATHY	5R01 EY02636-03	200,261
SOELDNER, JOHN S	DIABETES—PATHOGENESIS, DETECTION, AND ORAL AGENTS	5R01 AM09748-14	372,786
SOELDNER, JOHN S	THE DEVELOPMENT OF AN IMPLANTABLE GLUCOSE SENSOR	5R01 AM18352-05	326,332
SOELDNER, JOHN S	PATHOGENESIS OF MICROANGIOPATHY IN DIABETES	5R01 EY01421-19	98,568
SOELDNER, JOHN S	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05673-11	112,545
SPIRO, MARY J	COMPLEX CARBOHYDRATES IN DIABETES	5R01 AM23009-02	60,183
SPIRO, ROBERT G	STUDY OF THE STRUCTURE OF GLYCOPROTEINS	5R01 AM17325-08	100,141
SPIRO, ROBERT G	STUDY OF BIOSYNTHESIS OF GLYCOPROTEINS	5R01 AM17477-08	122,281
ORGANIZATION TOTAL	11	2,770,415	
LAHEY CLINIC FOUNDATION ZIP CODE 02215			
COLLER, JOHN A	METHOD FOR PROTECTION FROM RADIATION INJURY	1R01 CA27186-01	41,539
ORGANIZATION TOTAL	1	41,539	
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114			
ALBERT, DANIEL M	HISTOPATHOLOGIC STUDY OF PIGMENTED OCULAR TUMORS	2R01 EY01917-05	191,212
ALBERT, DANIEL M	NEW ANTIVIRAL NUCLEOSIDES FOR OCULAR AND OTHER HERPES	5R01 EY02268-03	159,718
ALBERT, DANIEL M	ANIMAL MODEL OF OCULAR MELANOMA	5R01 EY02678-03	83,797
CHYLACK, LEO T, JR	COOPERATIVE CATARACT RESEARCH CONSORTIUM	1R10 EY03247-01	206,613
DOHLMAN, CLAES H	OPHTHALMIC RESEARCH CORE FACILITIES	3P30 EY01537-05S1	30,095
DOHLMAN, CLAES H	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05485-18	104,371
DONLON, JOHN V, JR	STRESS RESPONSE TO EYE SURGERY: PLASMA CATECHOLAMINES	1R01 EY03241-01A1	37,888
DUEKER, DAVID K	PATHOGENESIS OF IRIS NEOVASCULARIZATION	5R01 EY01750-04	55,291

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
EPSTEIN, DAVID L.....	METABOLISM OF THE TRABECULAR MESHWORK.....	2R01 EY01894-04	183,654
GRANT, W. MORTON.....	PRESSURE-REGULATING MECHANISMS IN GLAUCOMA.....	2R01 EY00002-28	118,107
GRANT, W. MORTON.....	GLAUCOMA CLINICAL RESEARCH CENTER.....	5P50 EY02518-03	408,076
JEDZINIAK, JUDITH A.....	ISOLATION/CHARACTERIZATION OF PROTEINS FROM HUMAN LENS.....	3R01 EY01964-03S1	23,331
KIANG, NELSON Y.....	BASIC AND CLINICAL STUDIES OF THE AUDITORY SYSTEM.....	5P01 NS13126-05	782,184
KIMURA, ROBERT S.....	ELECTRON MICROSCOPY OF THE INNER EAR.....	5R01 NS03932-19	111,437
NADOL, JOSEPH B. JR.....	ELECTRON MICROSCOPY OF THE HUMAN INNER EAR.....	1R01 NS15840-01	38,462
RICHARDSON, THOMAS M.....	TISSUE ELEMENTS IN THE TRABECULAR MESHWORK.....	5R01 EY02655-03	76,981
SCHUKNECHT, HAROLD F.....	OTOPATHOLOGY BY LIGHT MICROSCOPY.....	5R01 NS05881-15	35,082
SCHUKNECHT, HAROLD F.....	REGIONAL TEMPORAL BONE BANK CENTERS.....	1R01 NS16028-01	45,807
WILSON, WILLIAM R.....	CLINICAL AND VIRAL STUDIES OF SUDDEN HEARING LOSS.....	5R01 NS15629-02	59,866
ORGANIZATION TOTAL	19 2,751,972		
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
ALPERT, ELLIOT E.....	IMMUNOCHEMICAL STUDIES OF GASTROINTESTINAL CANCER.....	5R01 CA12389-10	92,350
AMES, ADELBERT, III.....	ENERGY METABOLISM AND FUNCTION IN RETINA.....	5R01 EY02245-03	26,351
AUSIELLO, DENNIS A.....	STUDY OF PROTEIN PHOSPHORYLATION AND HORMONE ACTION.....	2R01 AM19406-04	80,648
AVRUCH, JOSEPH.....	RED CELL CATION TRANSPORT AND CONTRACTILE FUNCTIONS.....	5R01 AM16914-07	83,731
AVRUCH, JOSEPH.....	PHOSPHOPEPTIDE METABOLISM IN ADIPOCYTES.....	2R01 AM17776-06	114,097
AXELROD, LLOYD.....	ARACHIDONIC ACID METABOLITES IN DIABETES MELLITUS.....	1R01 AM26475-01A1	95,888
BADEN, HOWARD P.....	BIOSYNTHESIS OF KERATIN—BIOSYNTHETIC STUDIES.....	2R01 AM06838-18	138,753
BECK, WILLIAM S.....	HEMATOLOGIC ROLE OF VITAMIN B12 AND ITS ANALOGUES.....	1R01 AM26755-01	117,966
BECK, WILLIAM S.....	THE METABOLISM OF NORMAL AND LEUKEMIC LEUKOCYTES.....	5R01 CA03728-23	125,651
BEITINS, INESE Z.....	HETEROGENEITY OF GONADOTROPINS IN SERUM AND URINE.....	5R01 HD12328-02	93,441
BEITINS, INESE Z.....	EFFECTS OF NUTRITION ON GONADOTROPIN SECRETION.....	5R01 HD12722-02	67,087
BISWAS, CHITRA.....	MAMMALIAN COLLAGENASE IN TUMOR INVASION.....	5R01 CA19158-05	71,654
BLANK, IRVIN H.....	PHYSICAL AND CHEMICAL NATURE OF THE CUTANEOUS BARRIER.....	5R01 AM15461-15	113,530
BLOCH, KURT J.....	EXPERIMENTAL ALLERGIC GASTROENTEROPATHY.....	5R01 AM23099-02	60,150
BUCHER, NANCY L.....	THE ROLE OF NUCLEOTIDES IN CELL PROLIFERATION.....	5R01 AM19435-05	55,774
BUCHER, NANCY L.....	CYTOPLASMIC FACTORS IN CELLULAR GROWTH.....	5R01 CA02146-27	106,852
BURKE, JOHN F.....	BURN TRAUMA CENTER.....	5P50 GM21700-06	353,724
BURKE, JOHN F.....	GAS CHROMATOGRAPH-MASS SPECTROMETER.....	5P41 GM27377-02	16,378
BURTON, JAMES A.....	SYNTHESIS OF INHIBITORS FOR THE STUDY OF RENAL RENIN.....	5R01 HL19517-05	56,272
CAREY, ROBERT W.....	COOPERATIVE STUDY OF CANCER & ACUTE LEUKEMIA GROUP B.....	5R10 CA12449-10	97,122
CARTER, DENNIS R.....	FATIGUE DAMAGE AND REPAIR IN BONE.....	5R01 AM27117-02	82,166
CODINGTON, JOHN F.....	GLYCOPROTEINS FROM CANCER CELLS.....	5R01 CA08418-15	106,332
CODINGTON, JOHN F.....	MASKING OF ANTIGENS AT CANCER CELL SURFACES.....	5R01 CA18600-05	53,475
COGGINS, CECIL H.....	COLLABORATIVE STUDY OF ADULT GLOMERULAR DISEASE.....	1R01 AM26443-01A1	221,036
COLVIN, ROBERT B.....	CELL INTERACTION AND THE CLOTTING SYSTEM.....	3R01 CA20822-03S1	25,526
COLVIN, ROBERT B.....	CELL INTERACTION AND THE CLOTTING SYSTEM.....	2R01 CA20822-04A1	93,566
COOPER, JEFFREY B.....	NEW APPROACHES TO ANESTHESIA MANAGEMENT.....	5R01 GM22023-05	110,231
DAGGETT, WILLARD M.....	EXTRINSIC FACTORS INFLUENCING MYOCARDIAL PERFORMANCE.....	2R01 HL12322-12	178,740
DAGGETT, WILLARD M.....	MECHANISMS IN CARDIAC PERFORMANCE.....	3R01 HL12777-10S1	22,145
DIENSTAG, JULES L.....	PRIMARY BILIARY CIRRHOSIS: STUDIES OF PATHOGENESIS.....	5R01 AM25553-02	106,816
DONAHOE, PATRICIA K.....	MULLERIAN INHIBITING SUBSTANCE.....	5R01 CA17393-06	175,345
DONOFF, R. BRUCE.....	HYALURONIDASE IN NORMAL AND ABNORMAL WOUND HEALING.....	5R01 GM25850-02	40,033
EHRlich, H. PAUL.....	THE CONTROL AND MODIFICATION OF SCAR FORMATION.....	5R01 GM25561-03	43,103
ELMALEH, DAVID R.....	RADIOPHARMACEUTICALS FOR POSITRON TOMOGRAPHY IN CANCER.....	5R01 CA26371-02	59,844
EPP, EDWARD R.....	RADIATION SENSITIZATION APPLIED TO CANCER RADIOBIOLOGY.....	5R01 CA18614-05	191,926
ERBE, RICHARD W.....	FOLATE METABOLISM AND MENTAL RETARDATION.....	5R01 HD06356-09	112,444
FISHER, CHARLES M.....	A CLINICAL, RADIOLOGIC AND PATHOLOGIC STUDY OF STROKES.....	5R01 NS05152-17	131,191
FOOTE, WARREN E.....	STUDIES OF RETINAL AFFERENTS TO THE BRAIN STEM RAPHE.....	5R01 EY02979-02	81,018
GERWECK, LEO E.....	METABOLIC FACTORS IN HEAT AND RADIATION LETHALITY.....	5R01 CA22860-03	71,484
GINS, LEO C.....	LYMPHOCYTE RESPONSES IN TUBERCULOSIS.....	5R23 HL24581-02	41,787
GROSS, JEROME.....	CORNEAL COLLAGENASE: CELLULAR AND BIOCHEMICAL CONTROL.....	5R01 EY02552-03	70,938
HABENER, JOEL F.....	SYNTHESIS OF THYROID STIMULATING HORMONE.....	5R01 AM25532-02	98,579
HABER, EDGAR.....	SEQUENCE, SHAPE AND SPECIFICITY OF ANTIBODIES.....	5R01 CA24432-18	188,264
HABER, EDGAR.....	DIGOXIN-SPECIFIC ANTIBODY IN HUMAN THERAPY.....	5P01 HL19259-05	420,515
HALLETT, JOSEPH J.....	TERATOGENIC MECHANISM OF WARFARIN.....	1R23 ES02408-01	34,651
HARRIS, WILLIAM H.....	PREVENTION OF POSTOPERATIVE VENOUS THROMBI.....	5R01 HL18738-04	74,254
HARTLEY, LOREN H.....	EVALUATION OF EXERCISE CARDIAC REHABILITATION PROGRAM.....	1R01 HL25837-01	67,371

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
HIRSCH, MARTIN S.	IMMUNE REACTIVITY AND ONCOGENIC VIRUS INFECTIONS	5R01 CA12464-10	103,589
HOCHBERG, FRED H.	EPIDEMIOLOGY OF BRAIN TUMORS	5R01 CA22533-03	79,299
HOLICK, MICHAEL F.	SYNTHESIS AND METABOLISM OF VITAMIN D ANALOGUES	5R01 AM25506-02	39,813
HOLICK, MICHAEL F.	PHOTOBIOLOGY OF VITAMIN D	1R01 AM27334-01	101,779
HOMCY, CHARLES J.	PURIFICATION/CHARACTERIZATION—CARDIAC ADENYLATE CYCLASE	5R23 HL23660-02	38,156
HYLSLOP, NEWTON E. JR.	ALLERGY TO PENICILLIN AND CEPHALOSPORIN ANTIBIOTICS	2R01 AI14010-04	75,960
ISSELBACHER, KURT J.	INTESTINAL CELLS-MEMBRANE STRUCTURE AND FUNCTION	5R01 AM01392-24	136,239
ISSELBACHER, KURT J.	INTESTINAL MUCOSA: CELL MEMBRANES AND DIFFERENTIATION	2R01 AM03014-22	106,056
ISSELBACHER, KURT J.	TUMOR ASSOCIATED CHANGES OF INTESTINAL AND LIVER CELLS	5P01 CA14294-06	280,607
JACOBY, GEORGE A. JR.	STUDY OF INCP-2 PSEUDOMONAS PLASMIDS	5R01 AI16019-02	61,909
JACOBY, LEE B.	MUTATION AND REGULATION IN NORMAL OR NEOPLASTIC CELLS	5R01 GM25758-08	99,732
JEANLOZ, ROGER W.	STUDY OF MESENCHYMAL TISSUES AND THEIR DISEASES	5P01 AM03564-21	1,025,562
JEANLOZ, ROGER W.	BIOCHEMISTRY OF THE SIMIAN AND HUMAN CERVICAL MUCUS	5R01 HD12431-02	114,915
KEUTMANN, HENRY T.	PEPTIDE HORMONES OF REPRODUCTION: CHEMISTRY AND ASSAY	5R01 HD12851-02	97,008
KLIMAN, BERNARD	ANDROGEN RECEPTORS IN HUMAN PROSTATIC TISSUES	1R26 CA28090-01	65,599
KURNICK, JAMES T.	HUMAN T CELLS SPECIFIC FOR SOLUBLE ANTIGENS	1R01 AI17411-01	89,144
LAMONT-HAVERS, RONALD W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05486-18	189,787
LANDIS, DENNIS M.	MEMBRANE STRUCTURE IN NEURONS AND ASTROCYTES	5R01 NS15573-02	53,973
LEAF, ALEXANDER	SUPPORT FOR METABOLIC DISEASE RESEARCH CENTER	5P01 AM04501-19	350,232
LEAF, ALEXANDER	CARDIOPULMONARY FUNCTION IN REMEDIABLE VASCULAR DISEASE	5P01 HL06664-19	306,089
LEAF, ALEXANDER	GENERAL CLINICAL RESEARCH CENTER	5M01 RR01066-03	630,547
LIN, CHI-WEI	HISTAMINASE AS A BIOCHEMICAL MARKER FOR HUMAN CANCER	3R01 CA26652-02S1	18,045
LINSENMAYER, THOMAS F.	CORNEAL STROMA: SYNTHESIS AND ASSEMBLY OF COLLAGENS	5R01 EY02261-03	80,470
LIPPICELLO, LOUIS	EFFECT OF PROSTAGLANDINS ON ARTICULAR CARTILAGE	5R01 AM19111-05	5,846
MAHAFFEY, JANE E.	CALCITONIN STUDIES IN CULTURED KIDNEY CELLS	1R01 AM27361-01	71,793
MALOOF, FARAHE	SIGNIFICANCE OF ALTERED TSH SECRETION	5R01 AM16791-07	221,961
MALOOF, FARAHE	THYROID PEROXIDASE: CONTROL, MEMBRANE, IODIDE, GOITROGEN	5R01 AM21945-02	118,055
MALT, RONALD A.	STUDY OF NEPHRECTOMY AT BIRTH AND DURING GROWTH	5R01 AM12769-15	117,644
MANKIN, HENRY J.	NUCLEIC ACID AND PROTEIN METABOLISM IN CARTILAGE	3R01 AM16265-08S1	28,579
MANKIN, HENRY J.	NUCLEIC ACID AND PROTEIN METABOLISM IN CARTILAGE	2R01 AM16265-09	185,883
MANKIN, HENRY J.	BONE AND CARTILAGE ALLOGRAFTS IN BONE TUMOR TREATMENT	5R01 AM21896-02	95,437
MANKIN, HENRY J.	BIOCHEMICAL AND IMMUNOLOGIC STUDY OF CHONDROSARCOMA	3R01 CA15614-05S1	13,776
MARTIN, JOSEPH B.	PEPTIDES AND BRAIN FUNCTION	1R01 AM26252-01	151,526
MARTIN, JOSEPH B.	CLINICAL NEUROENDOCRINOLOGY WORKSHOP	1R13 NS15743-01	44,325
MARTIN, JOSEPH B.	RESEARCH CENTER WITHOUT WALLS FOR HUNTINGTON'S DISEASE	1P01 NS16367-01	782,198
MASLAND, RICHARD H.	NEUROTRANSMISSION IN MAMMALIAN RETINA	5R01 EY01075-07	47,330
MC CLUSKEY, ROBERT T.	IMMUNOPATHOGENETIC MECHANISMS IN RENAL DISEASE	2R01 AM18729-05	147,864
MEDEARIS, DONALD N. JR.	INFECTION OF THE CENTRAL NERVOUS SYSTEM	5R01 NS14763-03	46,237
MEGERMAN, JOSEPH	ANALYSIS OF FAILURES IN ARTERIAL BYPASS GRAFTS	5R01 HL23762-02	88,425
MILLER, KEITH W.	MEMBRANE EXPANSION AND GENERAL ANESTHESIA	5R01 GM25911-02	35,609
NATHANSON, JAMES A.	HORMONE REGULATION OF CEREBRAL BLOOD VESSELS AND CSF	1R01 NS16356-01	38,489
ORKIN, ROSLYN W.	HYALURONATE IN CARDIOVASCULAR DEVELOPMENT AND DISEASE	5R01 AM25527-02	111,213
PALMER, JOHN L.	INSULIN REGULATION OF PROTEIN PHOSPHORYLATION	5R23 AM26041-02	52,509
PARRISH, JOHN A.	OPTICS AND PHOTOTOXICITY OF SKIN IN PHOTOMEDICINE	5R01 AM25395-02	101,468
PARRISH, JOHN A.	PHOTOIMMUNOLOGY	1R01 AM25924-01	77,736
POHOST, GERALD M.	ANTIMYOSIN IN ISCHEMIA AND INFARCTION	5R01 HL21751-04	198,713
POLETTI, CHARLES E.	LIMBIC INFLUENCES ON PERIAQUEDUCTAL GRAY NEURONS	5R01 NS15238-02	33,180
POTTS, JOHN T. JR.	HORMONAL CONTROL OF CALCIUM METABOLISM	5P01 AM11794-12	535,783
POWELL, WILLIAM J. JR.	PHARMACOLOGIC STUDIES OF NEUROGENIC DIGITALIS EFFECTS	5R01 HL18657-05	90,434
PROUT, GEORGE R. JR.	CHEMOTHERAPY FOR PATIENTS WITH PROSTATIC CARCINOMA	5R26 CA15284-08	71,692
PROUT, GEORGE R. JR.	EVALUATION AND MANAGEMENT OF BLADDER CANCER PATIENTS	2R26 CA15944-07	124,055
PROUT, GEORGE R. JR.	NATIONAL BLADDER CANCER COLLABORATIVE STUDY	2R26 CA23082-03	152,498
QUARONI, ANDREA	INTESTINAL CELLS IN CULTURE: GROWTH REGULATION	5R01 AM25956-02	78,916
QUARONI, ANDREA	INTESTINAL CELLS: GROWTH REGULATION AND CARCINOGENESIS	5R26 CA26675-02	68,564
ROBINSON, DWIGHT R.	PROSTAGLANDINS IN RHEUMATIC DISEASES	5R01 AM19427-05	93,822
RONNER, STEVEN F.	PROSTHESIS RELATED STUDIES ON VISUAL CORTICAL NEURONS	1R01 NS16318-01	87,839
RUSSELL, PAUL S.	TISSUE SPECIFICITY	2R01 AM07055-18	153,580
RUSSELL, PAUL S.	STUDIES BASIC TO HEART TRANSPLANTATION	5P01 HL18646-05	437,333
SCHNEEBERGER, EVELINE E.	PERMEABILITY OF THE LUNG TO WATER SOLUBLE SOLUTES	7R01 HL25822-01	67,335
SCHOOLEY, ROBERT T.	CELL MEDIATED IMMUNE RESPONSE TO THE EPSTEIN-BARR VIRUS	1R23 AI17057-01	40,697
SHANNON, DANIEL C.	SIDS-RESPIRATORY CONTROL DEVELOPMENT	5R01 HD11965-03	65,192

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SHIH, VIVIAN E.....	NEW AMINO ACID DISORDERS IN CEREBRAL DISEASE.....	2R01 NS05096-18	253,215
STOSSEL, THOMAS P.....	PHAGOCYTOSIS—INGESTION IN PULMONARY ALVEOLAR MACROPHAGE.....	5R01 HL19429-05	105,845
STRAUSS, HARRY W.....	AMBULATORY MONITORING OF VENTRICULAR FUNCTION.....	5R01 HL24623-02	112,949
SUIT, HERMAN D.....	MODIFICATION OF TUMOR RESPONSE TO LOCAL IRRADIATION.....	5R01 CA13311-09	233,569
SUIT, HERMAN D.....	PROTON RADIATION THERAPY RESEARCH.....	3P01 CA21239-03S1	77,522
SUIT, HERMAN D.....	PROTON RADIATION THERAPY RESEARCH.....	5P01 CA21239-04	906,100
SWANN, DAVID A.....	MOLECULAR BASIS OF JOINT LUBRICATION.....	3R01 AM19834-03S1	29,729
SWANN, DAVID A.....	MOLECULAR BASIS OF JOINT LUBRICATION.....	5R01 AM19834-04	161,463
SWANN, DAVID A.....	CHEMISTRY AND BIOLOGY OF VITREOUS STRUCTURAL PROTEINS.....	2R01 EY01030-07	76,007
TAVERAS, JUAN M.....	AN INTERDEPARTMENTAL STROKE PROGRAM.....	2P50 NS10828-06	831,088
TOOLE, BRYAN P.....	MORPHOGENETIC ROLE OF GLYCOSAMINOGLYCANS.....	2R01 DE04220-06	25,668
TRELSTAD, ROBERT L.....	COLLAGEN FIBRILLOGENESIS—MOLECULAR AND CELLULAR STEPS.....	1R01 GM27060-01	34,818
TRELSTAD, ROBERT L.....	CARDIOVASCULAR MATRIX: MORPHOGENESIS AND MATURATION.....	5R01 HL18714-06	107,661
WALKER, W ALLAN.....	INTESTINAL UPTAKE OF MACROMOLECULES.....	5R01 AM16269-07	93,483
WALKER, W ALLAN.....	EFFECT OF COLOSTRUM ON GUT MATURATION AND HOST DEFENSE.....	5R01 HD12437-02	70,172
WANDS, JACK R.....	THE EFFECT OF AGE ON THE HEPATOCYTE CELLULAR RESPONSE.....	5R01 AG01454-02	65,394
WEYMAN, ARTHUR E.....	QUANTITATION OF INFARCT SIZE BY CROSS-SECTIONAL ECHO.....	7R01 HL27337-01	139,378
WINN, HENRY J.....	TUMOR IMMUNOLOGY.....	2R01 CA17800-06	109,653
WINN, HENRY J.....	TRANSPLANTATION IMMUNOLOGY.....	5R01 CA20044-15	154,792
WITTERS, LEE A.....	REGULATION OF HEPATIC METABOLISM BY INSULIN.....	2R01 AM19270-04	107,848
WOLFE, ROBERT R.....	GLUCOSE AND PROTEIN METABOLISM IN OBESE ADOLESCENTS.....	1R01 HD13590-01A1	67,495
WOOD, WILLIAM C.....	HUMORAL CYTOTOXIC RESPONSE IN GLIOMA PATIENTS.....	5R01 CA22613-01	69,519
YIN, HELEN L.....	PULMONARY MACROPHAGE MOVEMENT CALCIUM DEPENDENT CONTROL.....	1R23 HL25183-01	36,965
ZAPOL, WARREN M.....	PULMONARY SCOR: ADULT RESPIRATORY FAILURE.....	5P50 HL23591-03	1,073,346
ZERVAS, NICHOLAS T.....	TREATMENT OF POST-SURGICAL VASOCONSTRICTION.....	5R01 HL22573-03	154,363
ORGANIZATION TOTAL	133	18,996,787	
MASSACHUSETTS OFFICE OF HUMAN SERVICES—MASSACHUSETTS MENTAL HEALTH CENTER ZIP CODE 02115			
GRINSPOON, LESTER.....	PSYCHEDELIC DRUGS IN PERSPECTIVE.....	5R01 LM03118-03	18,393
ORGANIZATION TOTAL	1	18,393	
NEW ENGLAND DEACONESS HOSPITAL ZIP CODE 02215			
BISTRIAN, BRUCE R.....	METABOLIC RESPONSE TO ACUTE INFECTION.....	5R01 GM24401-03	90,310
BLACKBURN, GEORGE L.....	NEW CONCEPTS IN PARENTERAL PROTEIN SPARING THERAPY.....	5R01 GM22691-06	100,731
BLACKBURN, GEORGE L.....	BRANCHED CHAIN AMINO ACID FEEDING DURING INJURY.....	5R01 GM24206-03	75,078
BROWN, CLARK E.....	CANCER OF RAT PROSTATE: ITS INDUCTION AND PREVENTION.....	5R01 CA24893-02	58,468
HERZFELD, ANNEMARIE.....	LYMPHOMA: DIAGNOSIS BY BLOOD AND LIVER TESTS.....	5R01 CA22065-03	65,800
HERZFELD, ANNEMARIE.....	GROWTH AND DIFFERENTIATION OF SMALL INTESTINE.....	5R01 HD12552-02	69,638
KNOX, W EUGENE.....	REGULATION OF ENZYME CONCENTRATION IN TISSUES.....	5R01 AM00567-27	111,100
MAKI, TAKASHI.....	GENERATION OF EFFECTOR CELLS FOR TUMOR IMMUNOTHERAPY.....	5R23 CA25486-02	30,941
MC DERMOTT, WILLIAM V, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05591-16	52,046
MONACO, ANTHONY P.....	IMMUNOSUPPRESSION AND SPECIFIC UNRESPONSIVENESS.....	5R01 AI14551-04	118,269
MONACO, ANTHONY P.....	IMMUNODIAGNOSTIC ASSAY OF BLADDER CARCINOMA.....	5R26 CA20888-05	90,870
ORGANIZATION TOTAL	11	863,251	
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111			
AGNELLO, VINCENT.....	STUDY OF HUMAN IMMUNE COMPLEX DISEASES.....	5R01 AM16984-08	100,168
BABIOR, BERNARD M.....	THE FUNCTION OF NORMAL AND MALIGNANT PHAGOCYTIC CELLS.....	2R01 AI11827-08	86,952
BABIOR, BERNARD M.....	ADHERENCE-PROMOTING GLYCOPROTEIN OF NEUTROPHILS.....	5R01 AI15756-02	48,389
BABIOR, BERNARD M.....	STUDY OF COENZYME B12 AND RELATED COMPOUNDS.....	5R01 AM16589-08	99,801
BABIOR, BERNARD M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05598-15	153,276
BARTLETT, JOHN G.....	ROLE OF L-FORMS IN INFLAMMATORY BOWEL DISEASE.....	1R01 AM26369-01	49,779
BARZA, MICHAEL.....	OCULAR PENETRATION OF ANTIBIOTICS IN A MODEL.....	5R01 EY01517-06	121,317
BAUM, JULES L.....	BIOCHEMISTRY OF NORMAL AND DYSTROPHIC CORNEAS IN CULTURE.....	5R01 EY01793-05	132,252
BLANCHARD, RITA A.....	PROTHROMBIN PRECURSORS IN BLOOD COAGULATION.....	1R23 HL26206-01	39,330
BRENNER, JOHN.....	AUTOMATIC METAPHASE CELL LOCATION SYSTEM DEVELOPMENT.....	5R01 GM22965-04	126,090
CALLOW, ALLAN D.....	PLATELET-FIBRIN DYNAMICS IN HEALING ARTERIAL SURFACES.....	3R01 HL24447-01S1	7,027
CALLOW, ALLAN D.....	PLATELET-FIBRIN DYNAMICS IN HEALING ARTERIAL SURFACES.....	5R01 HL24447-02	95,877
COHEN, JORDAN J.....	REGULATION OF ELECTROLYTE AND ACID-BASE EQUILIBRIUM.....	5R01 HL00759-31	140,742
COHEN, JORDAN J.....	ELECTROLYTE PHYSIOLOGY AND RESPIRATORY ACID-BASE.....	5R01 HL15810-08	167,374
DONOWITZ, MARK.....	ABSORPTION AND SECRETION IN DIARRHEAL DISEASES.....	5R01 AM20700-03	32,325

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
DONOWITZ, MARK.....	DIARRHEAL DISEASES: A PHYSIOLOGIC APPROACH TO TREATMENT.....	1R01 AM26523-01	109,499
FANBURG, BARRY L.....	HUMORAL AND METABOLIC ASPECTS OF CARDIAC FUNCTION.....	5R01 HL06924-18	66,845
FANBURG, BARRY L.....	LUNG METABOLISM—ENZYMES IN THE PULMONARY CIRCULATION.....	2R01 HL14456-09	136,259
FANBURG, BARRY L.....	RADIATION INJURY TO PULMONARY ENDOTHELIUM.....	5R01 HL25261-02	60,663
FURIE, BARBARA C.....	METAL-DEPENDENT COMPLEXES IN BLOOD COAGULATION.....	5R01 HL18834-06	57,856
FURIE, BRUCE.....	STRUCTURE-FUNCTION RELATION OF BLOOD CLOTTING PROTEINS.....	2R01 HL21543-04	107,482
JACKSON, IVOR.....	SECRETION OF TRH AND OTHER NEURAL PEPTIDES.....	5R01 AM21863-03	79,143
LEVY, STUART B.....	HISTONE AND NUCLEOSOME PHASING DURING TRANSFORMATION.....	5R01 GM25792-02	56,762
MOLITCH, MARK E.....	SHORT-LOOP FEEDBACK CONTROL OF PITUITARY HORMONES.....	5R01 AM20870-03	81,000
PLAUT, ANDREW G.....	MUCOSAL DEFENSE AGAINST GONOCOCCAL INFECTIONS.....	5R01 AI14648-03	68,487
PLAUT, ANDREW G.....	PROTEOLYTIC MECHANISMS IN HUMAN COLON CONTENTS.....	5R01 AM17194-08	83,394
REICHLIN, SEYMOUR.....	NEURAL CONTROL MECHANISMS OF METABOLIC FUNCTIONS.....	5R01 AM16684-09	160,843
REICHLIN, SEYMOUR.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00054-19	647,175
RUDDERS, RICHARD A.....	RECEPTORS FOR IMMUNOGLOBULIN ON HUMAN LYMPHOMA-LEUKEMIA.....	1R01 CA28416-01	97,660
SCHWARTZ, BERNARD.....	RESPONSE OF OCULAR PRESSURE TO CORTICOSTEROIDS.....	5R01 EY00024-12	112,977
SCHWARTZ, BERNARD.....	CHANGES IN THE OPTIC DISC IN PATIENTS WITH GLAUCOMA.....	3R01 EY00936-06S1	29,899
SCHWARTZ, BERNARD.....	CHANGES IN THE OPTIC DISC IN PATIENTS WITH GLAUCOMA.....	2R01 EY00936-07	189,622
SCHWARTZ, ROBERT S.....	SYSTEMIC LUPUS ERYTHEMATOSUS.....	5R01 AM09351-15	262,199
SCHWARTZ, ROBERT S.....	EXPERIMENTAL MODEL OF MALIGNANT LYMPHOMA.....	5R01 CA10018-14	212,805
SOKOL, SAMUEL.....	ERG AND VECP AS INDICES OF PHOTOPIC DYSFUNCTION.....	5R01 EY00926-07	104,381
TALLY, FRANCIS P.....	DETERMINANTS OF VIRULENCE IN BACTEROIDES FRAGILIS.....	5R01 AI15389-02	81,418
THORNE, GRACE M.....	VIRULENCE FACTORS OF E. COLI DIARRHEAGENIC FOR MAN.....	5R22 AI15871-02	67,951
WEITER, JOHN J.....	STUDIES OF NORMAL AND PATHOLOGICAL RETINAL PD2.....	5R01 EY02246-03	25,127
ORGANIZATION TOTAL	38	4,300,146	
NORTHEASTERN UNIVERSITY ZIP CODE 02115			
ARMINGTON, JOHN C.....	STIMULUS ALTERNATION AND VISUAL POTENTIALS.....	5R01 EY00589-13	86,336
COHEN, PERRIN S.....	IMPROVING ANIMAL CARE AT NORTHEASTERN UNIVERSITY.....	1P40 RR01269-01	184,369
DAVIS, MICHAEL A.....	SYNTHESIS OF NEW 75SE ORGAN SPECIFIC IMAGING AGENTS.....	5R01 CA19898-05	93,180
FINE, SAMUEL.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07143-09	41,285
GIESE, ROGER W.....	NEW ANALYTICAL METHODOLOGY FOR HORMONE ANALYSIS.....	5R01 AM21797-03	101,805
GOZZO, JAMES J.....	INDUCTION OF SPECIFIC UNRESPONSIVENESS TO ALLOGRAFTS.....	1R01 AI16591-01	59,855
HANSON, ROBERT N.....	RADIOLABELED B1-ANTAGONISTS: MYOCARDIAL IMAGING AGENTS.....	5R01 HL24666-02	75,734
KARGER, BARRY L.....	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY.....	5R01 GM15847-11	74,352
LANE, HARLAN L.....	PROCESSING UNITS IN AMERICAN SIGN LANGUAGE OF THE DEAF.....	1R01 NS14923-01A2	128,077
MEYER, CAROL D.....	RUTHENIUM-97 DIAGNOSTIC RADIOPHARMACEUTICALS.....	1R01 GM28180-01	61,959
MILLER, JOANNE L.....	TUNING PROPERTIES OF FEATURE DETECTORS FOR SPEECH.....	5R01 NS14394-03	44,300
NEUMEYER, JOHN L.....	DEVELOPMENT OF NEW ANTICONVULSANT COMPOUNDS.....	5R01 NS15439-02	35,121
NEUMEYER, JOHN L.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05830-01	32,727
SCHARF, BERTRAM.....	LOUDNESS SUMMATION, LATERALIZATION, AND FUSION.....	5R01 NS07270-09	52,287
SKAVENSKI, ALEXANDER A.....	EYE MOVEMENT AND MECHANISMS OF VISUAL LOCALIZATION.....	5R01 EY02409-03	48,808
STRAUSS, PHYLLIS R.....	THYMIDINE METABOLISM AT THE CELL SURFACE.....	5R01 CA24283-03	69,039
VOUROS, PAUL.....	MASS SPECTROMETRY OF BIOLOGICALLY SIGNIFICANT COMPOUNDS.....	5R01 GM22787-05	78,311
YERGANIAN, GEORGE.....	CELL TYPE/HOST ASSAY OF MUTAGEN-CARCINOGEN ACTIVITY.....	5R01 CA25772-03	94,565
ORGANIZATION TOTAL	18	1,362,110	
SIDNEY FARBEN CANCER INSTITUTE ZIP CODE 02115			
BAST, ROBERT C, JR.....	SPECIFIC IMMUNOTHERAPY WITH MONOCLONAL ANTIBODIES.....	1R01 CA28740-01	92,615
BURAKOFF, STEVEN J.....	INDUCTION AND SPECIFICITY OF CYTOLYTIC T LYMPHOCYTES.....	1R01 AI17258-01	124,449
CANTOR, HARVEY I.....	T-CELL SUBPOPULATIONS IN TRANSPLANTATION IMMUNITY.....	5R01 AI12184-06	82,191
CANTOR, HARVEY I.....	IMMUNOBIOLOGY OF LY + T CELL SUBCLASSES.....	5R01 AI13600-05	117,269
CANTOR, HARVEY I.....	ANTIGEN-SPECIFIC T-CELL CLONES: GENERATION AND ANALYSIS.....	1R01 CA26695-01	134,869
CHEN, LAN B.....	STUDIES OF PROTEINS INVOLVED IN CELL INTERACTION.....	5R01 CA22659-03	87,281
COOPER, GEOFFREY M.....	INFECTIOUS DNA FOR ENDOGENOUS RNA TUMOR VIRUS GENES.....	5R01 CA18689-05	112,408
DUBEY, DEVENDRA P.....	GENETICS OF CYTOTOXICITY TO VIRUS MODIFICATION IN MAN.....	5R01 CA27063-02	50,958
FRANTZ, CHRISTOPHER N.....	REGULATION OF CELL GROWTH BY MEMBRANE ION FLUX.....	5R23 CA26889-02	36,450
FREI, EMIL, III.....	COMPREHENSIVE CANCER CENTER SUPPORT.....	5P30 CA06516-17	2,858,333
FREI, EMIL, III.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17979-06	292,942
FREI, EMIL, III.....	CLINICAL CANCER RESEARCH CENTER.....	5P01 CA19589-05	1,784,882
FREI, EMIL, III.....	COLLABORATIVE THERAPEUTIC RESEARCH IN HUMAN LEUKEMIA.....	5P01 CA22719-03	213,319
GREENBERGER, JOEL S.....	STEM CELL AGE AND X-RAY/CHEMOTHERAPY LEUKEMOGENESIS.....	5R01 CA25412-02	84,589

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
GREENBERGER, JOEL S.....	REQUIREMENTS FOR SPONTANEOUS LEUKEMOGENESIS IN VITRO.....	1R01 CA26785-01	84,455
GUDAS, LORRAINE J.....	GENETICS/DNA PRECURSOR METABOLISM, MUTAGENESIS, REPAIR.....	1R01 CA27953-01	131,088
HANLEY, JAMES A.....	EXPLORATORY STUDIES IN CANCER PATIENT DATA CONTROL.....	5R10 CA24996-02	98,293
HANLEY, JAMES A.....	RTG STATISTICAL COORDINATING CENTER.....	5R10 CA25287-02	511,535
HASELTINE, WILLIAM A.....	MOLECULAR BIOLOGY OF REPLICATION RNA TUMOR VIRUSES.....	5R01 CA19341-05	81,507
HASELTINE, WILLIAM A.....	THE MOLECULAR BIOLOGY OF ANTITUMOR DRUGS.....	5R01 CA25118-02	83,785
HOWELL, NEIL.....	MUTATIONAL ANALYSIS OF RESISTANCE TO ANTICANCER DRUGS.....	1R01 CA28608-01	83,630
ISRAEL, MERVYN.....	PREPARATION OF ADRIAMYCIN ANALOGS AND DERIVATIVES.....	5R01 CA17263-06	198,970
ISRAEL, MERVYN.....	BIOCHEMICAL PHARMACOLOGY OF A NEW ADRIAMYCIN ANALOG.....	5R01 CA19118-05	166,966
KOLODNER, RICHARD D.....	ENZYMATIC MECHANISMS OF GENETIC RECOMBINATION.....	5R01 GM26017-02	102,743
KUFE, DONALD W.....	METABOLIC ENHANCEMENT OF 5-FLUOROURACIL CHEMOTHERAPY.....	1R01 CA28488-01	62,338
LAMPIDIS, THEODORE J.....	ANTHRACYCLINE CARDIAC TOXICITY: AN IN VITRO MODEL.....	5R23 CA24771-02	40,745
LANE, MARY-ANN L.....	ANTIGEN SPECIFIC NK ACTIVITY AND SUPPRESSION IN MMTV.....	5R01 CA26825-02	40,457
LAZARUS, HERBERT.....	CYSTINE AUXOTROPHY IN HUMAN MALIGNANCY—IMPLICATIONS.....	5R01 CA19126-05	114,488
LIVINGSTON, DAVID M.....	STRUCTURE AND FUNCTION OF SV40 NON-VIRION PROTEINS.....	5R01 CA15751-07	117,277
LIVINGSTON, DAVID M.....	ISOLATION AND FUNCTION OF SMALL SV40 T ANTIGEN.....	5R01 CA24715-02	40,998
NATHAN, DAVID G.....	CHILDHOOD LEUKEMIA—ABELSON VIRUS.....	3P01 CA18662-05S1	323,440
PAGANO, MARCELLO.....	STATISTICAL COMPUTING AND CLINICAL TRIALS OF CANCER.....	1R01 CA28066-01	93,098
PARDEE, ARTHUR B.....	MOLECULAR ANALYSIS OF MALIGNANT TRANSFORMATION.....	5P01 CA22427-03	369,283
PARDEE, ARTHUR B.....	BIOCHEMISTRY OF G0/G1 REGULATION IN ANIMAL CELLS.....	5R01 GM24571-03	121,091
REINISCH, CAROL L.....	IMMUNOSUPPRESSION BY ADJUVANT-STIMULATED T CELLS.....	3R01 CA21100-03S1	18,043
REINISCH, CAROL L.....	SELECTIVE MANIPULATION OF T CELL SUBSETS BY ADJUVANT.....	2R01 CA21100-04	107,901
RHEINWALD, JAMES G.....	SENESCENCE IN CULTURE: KERATINOCYTE VS FIBROBLAST.....	5R01 AG02048-02	82,523
RHEINWALD, JAMES G.....	CELL CULTURE ANALYSIS OF HUMAN EPIDERMAL NEOPLASIA.....	5R01 CA26656-02	81,896
ROSENBERG, ROBERT D.....	HYPERCOAGULABILITY & THE HEPARIN-ANTITHROMBIN MECHANISM.....	5R01 HL19131-06	293,460
ROSOWSKY, ANDRE.....	BRANCHED SUGAR NUCLEOSIDES AS ANTICANCER AGENTS.....	5R01 CA22738-03	32,951
ROSOWSKY, ANDRE.....	DEVELOPMENT OF POTENTIAL NEW AGENTS AGAINST MELANOMA.....	5R01 CA23151-03	129,965
ROSOWSKY, ANDRE.....	NEW APPROACHES TO ANTIFOLATE CHEMOTHERAPY.....	5R01 CA25394-02	114,802
RUBIN, GERALD M.....	CONTROL OF GENE EXPRESSION IN ANIMAL CELLS.....	2R01 GM23614-04	109,416
SAGER, RUTH.....	GENETIC ANALYSIS OF TUMORIGENESIS.....	5R01 CA24828-02	120,934
SAGER, RUTH.....	CYTOPLASMIC GENETIC CONTROL SYSTEMS.....	5R01 GM22874-06	153,860
SAMY, T S.....	BIOCHEMICAL PHARMACOLOGY OF NEOCARZINOSTATIN.....	5R01 CA17305-06	114,591
SAMY, T S.....	BIOCHEMICAL PHARMACOLOGY OF ANTITUMOR PROTEIN MACROMYCIN.....	5R01 CA24406-03	53,062
SANFORD, BARBARA H.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RM05526-18	189,787
SCHAFER, PRISCILLA A.....	TRANSFORMING GENES OF HERPES SIMPLEX VIRUS.....	3R01 CA20260-03S1	21,115
SCHAFER, PRISCILLA A.....	TRANSFORMING GENES OF HERPES SIMPLEX VIRUS.....	2R01 CA20260-04	131,166
SCHER, CHARLES D.....	MOLECULAR ANALYSIS OF PLATELET-DERIVED GROWTH FACTOR.....	1R01 CA27113-01	124,162
SCHLOSSMAN, STUART F.....	HUMAN T CELL SUBSETS—ISOLATION AND CHARACTERIZATION.....	5R01 A12069-07	229,077
SCHLOSSMAN, STUART F.....	HUMAN LEUKEMIA ANTIGENS: ISOLATION & CHARACTERIZATION.....	5R01 CA25369-02	212,948
SCHOENFELD, DAVID A.....	REGRESSION ANALYSIS TECHNIQUES FOR CANCER RESEARCH.....	5R23 CA25162-02	40,400
SLAYTER, HENRY S.....	ELECTRON MICROSCOPY OF MACROMOLECULAR STRUCTURES.....	5R01 GM14237-13	65,791
SLAYTER, HENRY S.....	PLATELET GLYCOPROTEIN.....	5R01 HL22270-03	90,878
STEELE, GLENN D, JR.....	MINIMAL RESIDUAL DISEASE AFTER RAT COLON CA. EXCISION.....	5R01 CA22513-03	76,954
STILES, CHARLES D.....	MOLECULAR ANALYSIS OF PROGRESSION THROUGH G1.....	2R01 CA22042-04	101,506
STROMINGER, JACK L.....	CHEMICAL AND SEROLOGICAL STUDIES OF LYMPHOCYTE SURFACES.....	5R01 A115669-03	92,745
STROMINGER, JACK L.....	MOLECULAR BASIS OF VIRAL ONCOGENESIS.....	3P01 CA21082-03S1	17,370
STROMINGER, JACK L.....	MOLECULAR BASIS OF VIRAL ONCOGENESIS.....	2P01 CA21082-04	119,559
STROMINGER, JACK L.....	STUDY OF EPSTEIN-BARR NUCLEAR ANTIGEN.....	1R01 CA24926-01	66,051
STUX, STEPHEN V.....	THE IMMUNOGENETICS OF MACROPHAGE SUPPRESSION IN MAN.....	5R23 CA26158-02	39,431
SZOSTAK, JACK W.....	MECHANISMS OF SEQUENCE RECTIFICATION IN YEAST RDNA.....	1R01 GM27862-01	80,826
TENEN, DANIEL G.....	SV40 T ANTIGEN BINDING SITES IN CELLULAR DNA.....	5R23 CA26018-02	31,206
TERHORST, CORNELIS P.....	CELL SURFACE RECEPTORS ON HUMAN CYTOTOXIC T CELLS.....	5R01 A115066-03	98,082
THORLEY-LAWSON, DAVID A.....	HOST IMMUNITY TO EBV INFECTION IN VITRO AND IN VIVO.....	5R01 A115310-03	73,182
THORLEY-LAWSON, DAVID A.....	EPSTEIN BARR VIRUS MEMBRANE ANTIGEN.....	1R01 CA28737-01	77,235
WICK, MICHAEL M.....	L-DOPA ANALOGS AS NEW ANTITUMOR AGENTS.....	5R01 CA24988-02	72,426
WICK, MICHAEL M.....	LEVODOPA AND DOPAMINE AS THERAPY FOR HUMAN MELANOMA.....	1R01 CA27128-01	59,966
YUNIS, EDMOND J.....	IMMUNOLOGICAL ASPECTS OF AGING.....	9R01 AG02329-04	79,314
YUNIS, EDMOND J.....	HUMAN TL HTL REGION IN THE HLA LINKAGE GROUP.....	1R01 A117120-01	103,149
YUNIS, EDMOND J.....	GENETIC ANALYSIS OF NORMAL AND MALIGNANT LYMPHOCYTES.....	5R01 CA20531-04	176,143
ZELIN, MARVIN.....	ECOG STATISTICAL COORDINATING CENTER.....	5R10 CA23318-04	901,452
ORGANIZATION TOTAL	74	13,724,067	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
ST. ELIZABETH'S HOSPITAL OF BOSTON ZIP CODE 02135			
COHEN, CARL M.....	ORGANIZATION OF ACTIN IN THE RED CELL CYTOSKELETON	5R01 HL24382-02	72,243
DAINIAK, NICHOLAS, JR.....	HORMONAL CONTROL OF HUMAN ERYTHROPOIESIS.....	1R01 AM27071-01	44,913
GUREWICH, VICTOR.....	FIBRINOGEN DEGRADATION AND CATABOLISM.....	5R01 HL23367-02	125,445
PALEK, JIRI.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1508 RR09223-01	147,449
ORGANIZATION TOTAL	4 390,050		
ST. MARGARET'S HOSPITAL FOR WOMEN ZIP CODE 02125			
MITCHELL, GEORGE W, JR.....	HOST-PARASITE RELATIONSHIPS IN PREGNANCY	5R01 HD01805-14	48,028
THOMAS, GAIL B.....	AIR POLLUTANTS AND CHRONIC RESPIRATORY DISEASE.....	5R23 ES02420-02	47,083
ORGANIZATION TOTAL	2 95,111		
TUFTS UNIVERSITY ZIP CODE 02111			
BACHOVCHIN, WILLIAM W.....	NMR STUDIES OF ENZYME MECHANISMS.....	1R01 GM27927-01	29,358
BLAIR, MURRAY R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05382-19	170,421
BLUMENSTEIN, MICHAEL.....	¹³ C NMR STUDIES OF PEPTIDE-MACROMOLECULE INTERACTION	2R01 HD10616-04	58,805
BOYD, DANA H.....	FUNCTION OF STRUCTURES INVOLVED IN TRANSCRIPTION.....	5R01 GM22170-06	75,063
BRAWERMAN, GEORGE.....	THE ROLE OF NUCLEIC ACIDS IN CELL DIFFERENTIATION	5R01 GM17973-11	106,540
CATALDO, EDMUND F.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA20849-03	44,171
CATHOU, RENATA E.....	CONFORMATION AND STRUCTURAL DYNAMICS OF ANTIBODIES.....	5R01 AI10115-10	57,263
COFFIN, JOHN M.....	RELATIONSHIP OF AVIAN TUMOR VIRUS RNA AND HOST GENOME.....	5R01 CA17659-05	106,747
COFFIN, JOHN M.....	MECHANISMS OF VARIABILITY OF TUMOR VIRUS RNA	1R01 CA27108-01	64,768
DAMASSA, DAVID A.....	GONADOTROPIN REGULATION AND REPRODUCTION IN THE MALE.....	1R01 HD14356-01	46,620
DATTA, SYAMAL K.....	GENETIC-VIRAL-IMMUNOLOGIC STUDIES IN NEW ZEALAND MICE.....	5R01 CA19575-05	93,436
DATTA, SYAMAL K.....	A THYMUS DETERMINED MECHANISM OF LEUKEMIA RESISTANCE.....	5R01 CA24950-02	80,003
DINARELLO, CHARLES A.....	THE PATHOGENESIS OF FEVER IN HUMANS.....	5R01 AI15614-02	92,103
DOUGLAS, WILLIAM H.....	PRIMARY CULTURE OF PROSTATIC EPITHELIAL CELLS.....	5R01 CA26063-02	82,778
DOUGLAS, WILLIAM H.....	MUCOUS CELLS: CULTURE, DIFFERENTIATION AND CONTROL.....	5R01 HL24718-02	104,880
DRYSDALE, JAMES W.....	MAMMALIAN ISO-FERRITINS—STRUCTURE AND METABOLISM.....	2R01 AM17775-07	117,642
DUCIBELLA, THOMAS.....	PREIMPLANTATION EMBRYO CELL SURFACE ORGANIZATION.....	5R01 HD13984-02	46,724
DUNLAP, KATHLEEN L.....	PRESYNAPTIC RECEPTORS ON EMBRYONIC SENSORY NEURONS.....	1R01 NS16483-01	84,884
EL-BERMANI, AL-WALID I.....	INNERVATION OF THE LUNG.....	5R01 HL20548-04	73,802
GILL, D MICHAEL.....	MECHANISM OF ACTION OF CHOLERA TOXIN.....	5R22 AI16928-02	112,792
GOLDBERG, EDWARD B.....	GENETIC CONTENT AND RECOMBINATION OF DNA FRAGMENTS.....	5R01 GM13511-15	100,294
GOLDBERG, EDWARD B.....	STRUCTURE OF PHAGE T4 TAIL FIBERS.....	1R01 GM27222-01	59,991
GOLDBERG, EDWARD B.....	MULTIUSER ELECTRON MICROSCOPE FACILITY.....	5P41 GM27490-02	20,236
HABER, JEROME.....	IMMUNOLOGICAL STUDIES—CARIES AND PERIODONTAL DISEASE.....	5R23 DE05240-02	36,886
HUBER, BRIGITTE T.....	B LYMPHOCYTES: DIFFERENTIATION AND TRIGGERING.....	5R01 AI14910-03	69,757
KING, JOAN C.....	GONADOTROPIN RELEASING HORMONE DYNAMICS AND BEHAVIOR.....	5R01 HD14092-02	28,299
KISLIUK, ROY L.....	FOATE ENZYMES, COENZYMES, AND ANALOGS.....	5R01 CA10914-12	94,204
KLEIN, ROBERT.....	NEW ENGLAND HYPOTHYROIDISM COLLABORATIVE FOLLOW-UP STUDY.....	5R01 HD11959-02	165,112
KRISCHER, JEFFREY P.....	CRANIOFACIAL ANOMALIES: TREATMENT EVALUATION.....	5R23 DE04551-03	34,646
LESKOWITZ, SIDNEY.....	CELLULAR ASPECTS OF TOLERANCE & DELAYED HYPERSENSITIVITY.....	5R01 AI10895-08	153,927
LEVY, STUART B.....	MICROBIAL RESISTANCE TO TETRACYCLINES.....	1R01 AI16756-01	88,101
MALAMY, MICHAEL H.....	ROLE OF THE HOST IN THE REGULATION OF VIRUS GROWTH.....	5R01 AI15840-02	100,392
MC ADAM, KEITH P.....	THE PATHOPHYSIOLOGY OF SERUM AMYLOID A PROTEIN.....	1R01 AM26501-01	96,393
NAJJAR, VICTOR A.....	TISSUE ENZYMES AND PLASMA PROTEINS.....	2R01 AI09116-12	131,160
NATHANSON, LARRY.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17983-06	155,682
OFNER, PETER.....	PROSTATIC DIFFERENTIATION AND SEX HORMONE METABOLISM.....	5R01 CA15776-06	86,942
ONDERDONK, ANDREW B.....	EXPERIMENTAL MODEL FOR ULCERATIVE COLITIS.....	5R01 AM26453-02	60,184
OWEN, FRANCES L.....	DIFFERENTIATION AND SPECIFICITY OF T CELL RECEPTORS.....	5R01 AI15262-03	73,180
PARK, JAMES T.....	CHEMISTRY AND BIOSYNTHESIS OF MICROBIAL CELL WALLS.....	5R01 AI05090-18	79,474
PINCUS, STEPHANIE H.....	THE EOSINOPHIL PEROXIDASE SYSTEM.....	1R01 AI16432-01	55,246
RESNICK, ROBERT H.....	DISTAL SPLENORENAL VS PORTALSYSTEMIC ANASTOMOSIS.....	5R01 AM18702-06	69,275
ROCKLIN, ROSS E.....	MECHANISMS OF CELLULAR HYPERSENSITIVITY IN MAN.....	5R01 AI15912-03	116,429
ROCKLIN, ROSS E.....	ROLE OF HISTAMINE AS A MODULATOR OF IMMUNE FUNCTION.....	1R01 AI16362-01	66,410
ROFFLER-TARLOW, SUZANNE K.....	EFFECTS OF PURKINJE CELL LOSS ON THE DEEP NUCLEI.....	7R01 NS17322-01	61,812
ROSENBERG, NAOMI E.....	ABELSON LEUKEMIA VIRUS TRANSFORMATION OF LYMPHOCYTES.....	5R01 CA24220-02	56,499
SCHAECHTER, MOSELIO.....	BACTERIAL CELL MEMBRANE ROLE IN GROWTH AND CELL DIVISION.....	5R01 AI09465-11	88,303
SCHWARTZ, EDITH R.....	METABOLISM OF OSTEOARTHRITIC ARTICULAR CARTILAGE.....	3R01 AM22057-03S1	31,637

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SCHWARTZ, EDITH R.....	VITAMIN C EFFECT ON SURGICALLY INDUCED OSTEOARTHRITIS.....	5R01 AM22149-03	91,548
SCHWARTZ, ROBERT S.....	HYBRIDOMA-PRODUCED AUTOANTIBODIES—SYSTEMIC LUPUS E.....	1R01 AM27232-01	138,085
SCHWARTZ, ROBERT S.....	EXPERIMENTAL LEUKEMOGENESIS.....	5P01 CA24530-02	463,600
SHAPIRO, EVERETT.....	PULSATING FORCES IN ORTHODONTICS.....	5R01 DE04487-04	66,640
SILBERT, JEREMIAH E.....	BIOSYNTHESIS OF PROTEOGLYCANS.....	5R01 AM08816-16	84,604
SONENSCHEIN, ABRAHAM L.....	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION.....	2R01 GM19168-09	83,804
SONNENSCHN, CARLOS.....	MECHANISM OF HORMONE ACTION ON TARGET CELLS IN CULTURE.....	2R01 CA13410-07	157,676
STADECKER, MIGUEL J.....	THE ROLE OF MACROPHAGES IN TUMOR GROWTH CONTROL.....	5R23 CA24481-03	39,000
STOLBACH, LEO L.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA07190-18	185,644
TAKAMOTO, TAKENORI.....	PHOTOGRAMMETRY OF THE OCULAR FUNDUS.....	1R01 EY03661-01	118,790
TALAMO, BARBARA R.....	NEURONAL MODULATION OF DIFFERENTIATION AND FUNCTION.....	7R01 NS17311-01	73,008
TERRES, GERONIMO, JR.....	SOMATIC CELL HYBRIDIZATION OF IMMUNE CYTOLYTIC T-CELLS.....	5R01 CA22664-03	83,848
TISCHLER, ARTHUR S.....	PLASTICITY OF CHROMAFFIN AND PHEOCHROMOCYTOMA CELLS.....	1R23 CA27808-01	47,000
TOOLE, BRYAN P.....	MORPHOGENETIC ROLE OF GLYCOSAMINOGLYCANS.....	7R01 DE05838-01	103,642
VAAGE, JAN.....	IMMUNOTHERAPY OF MAMMARY TUMORS.....	5R01 CA15960-06	40,405
WOLFE, HUBERT J.....	C-CELL HYPERPLASIA AND MEDULLARY CARCINOMA OF THYROID.....	5R01 CA17389-06	124,946
WORTIS, HENRY H.....	LYMPHOCYTE DEVELOPMENT IN NUDE MICE.....	5R01 AI15803-02	119,445
WRIGHT, ANDREW.....	STRUCTURE AND FUNCTION OF THE CELL MEMBRANE.....	5R01 GM15837-13	71,970
WYLER, DAVID J.....	CELL-MEDIATED IMMUNITY IN LEISHMANIASIS.....	1R01 AI17151-01	91,985
ORGANIZATION TOTAL	66 6,014,911		
TUFTS-NEW ENGLAND MEDICAL CENTER ZIP CODE 02111			
BRENNER, JOHN F, III.....	AUTOMATED ANALYSIS OF MUSCLE AND NERVE FIBERS.....	5R01 NS15584-02	150,868
GORBACH, SHERWOOD L.....	DIET AND ITS EFFECT ON ENZYMES LINKED TO COLON CANCER.....	5R26 CA17511-06	101,311
LIN, PECK-SUN.....	ENHANCEMENT OF CYTOTOXICITY BY DRUG SCHEDULING.....	1R01 CA26897-01	77,798
MARCHANT, DOUGLAS J.....	CANCER CENTER SUPPORT (CORE) GRANT.....	3P30 CA23776-01S1	11,022
MARCHANT, DOUGLAS J.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA23776-02	608,559
MIKKELSEN, ROSS B.....	CALCIUM-2-IONS AND PLASMAID-INFECTED ERYTHROCYTES.....	5R01 AI16087-02	59,999
MIKKELSEN, ROSS B.....	CA2 + METABOLISM IN NORMAL AND TRANSFORMED LYMPHOCYTES.....	3R01 CA22269-03S1	1,721
SCHMIDT-ULLRICH, RUPERT.....	CHARACTERIZATION OF SV40-SPECIFIC MEMBRANE ANTIGENS.....	5R01 CA23642-03	72,155
WALLACH, DONALD F.....	RADIOTHERAPY ONCOLOGY CENTER.....	5P01 CA12178-10	456,328
ORGANIZATION TOTAL	9 1,539,761		
UNIVERSITY HOSPITAL ZIP CODE 02118			
CLARK, ROBERT A.....	NEUTROPHIL-MEDIATED TUMOR CELL CYTOTOXICITY.....	5R01 CA24353-03	112,049
COFFMAN, JAY D.....	ANTIPLATELET REGIMES IN PERIPHERAL ARTERIOSCLEROSIS.....	5R01 HL13654-10	66,573
COFFMAN, JAY D.....	DIGITAL BLOOD FLOW AND VASCULAR TONE.....	1R01 HL26320-01	53,282
COFFMAN, JAY D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RM05487-18	108,379
DECKERS, PETER J.....	ADJUVANT PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA22489-03	8,780
DENSEN, PETER.....	INTERACTION OF N GONORRHOEA WITH PMNS AND SERUM.....	1R01 AI16476-01	94,548
DIAMOND, RICHARD D.....	PULMONARY AND SYSTEMIC KILLING OF OPPORTUNISTIC FUNGI.....	5R01 AI15338-03	126,819
GOODMAN, MICHAEL N.....	PROTEIN SPARING IN STARVATION: EFFECT OF AGE & OBESITY.....	2R01 AM19469-04A1	91,471
HOLLANDER, WILLIAM.....	DRUG TREATMENT OF ATHEROSCLEROSIS.....	5R01 HL16437-07	125,040
KRAMSCH, DIETER M.....	DRUG TREATMENT OF STENOSING PRIMATE ATHEROSCLEROSIS.....	5R01 HL15512-08	70,159
KRAMSCH, DIETER M.....	EXERCISE AND REVERSAL OF CARDIOVASCULAR ATHEROSCLEROSIS.....	2R01 HL18060-06	94,575
LAMONT, JOHN T.....	STRUCTURE AND FUNCTION OF COLONIC GLYCOPROTEINS.....	7R01 AM28195-01	116,850
LEVINSKY, NORMAN G.....	HYPOTENSION, RENAL ISCHEMIA AND EFFECT OF MANNITOL.....	5R01 HL22172-03	189,360
LEVINSKY, NORMAN G.....	RENAL KALLIKREIN IN KIDNEY FUNCTION AND DISEASE.....	5R01 HL23304-02	49,664
LEVY, ELINOR M.....	CONTROL OF IMMUNOSUPPRESSOR CELL ACTIVATION FUNCTION.....	5R01 CA25039-03	96,303
LOWENSTEIN, LEAH M.....	A NEW CYCLE FOR AMMONIA PRODUCTION IN THE KIDNEY.....	5R01 AM17713-05	99,161
LOWENSTEIN, LEAH M.....	REGULATION OF RENAL COMPENSATORY ADAPTATION.....	3R01 AM21596-02S1	17,093
LOWENSTEIN, LEAH M.....	THE REGULATION OF RENAL COMPENSATORY ADAPTATION.....	5R01 AM21596-03	107,241
MC CAFFREY, RONALD P.....	GLUCOCORTICOID BINDING MATERIALS IN LEUKEMIA CELLS.....	1R01 CA28818-01	182,842
MELBY, JAMES C.....	MECHANISMS REGULATING ADRENOCORTICAL SECRETION.....	5R01 AM12027-13	148,750
MELBY, JAMES C.....	CORE CENTER FOR ENDOCRINE-DIABETES-METABOLIC RESEARCH.....	5P30 AM21683-02	550,973
OLSSON, CARL A.....	STEROID HORMONE RECEPTORS IN HUMAN PROSTATE TISSUE.....	5R26 CA23666-03	106,697
OSBAND, MICHAEL E.....	HISTAMINE H2 RECEPTOR T-SUPPRESSOR CELLS IN CANCER.....	1R01 CA27168-01A1	178,527
POCHI, PETER E.....	SEBACEOUS GLANDS, ACNE AND ANDROGEN METABOLISM.....	5R01 HD11632-03	78,782
REDINGER, RICHARD N.....	INTERRELATION OF BILIARY LIPID AND PLASMA LIPOPROTEIN.....	5R01 AM21986-03	118,408
RUDERMAN, NEIL B.....	GLUCOSE AND AMINO ACID METABOLISM IN SKELETAL MUSCLE.....	5R01 AM19514-04	118,183
RYAN, THOMAS J.....	THE CARDIOVASCULAR PHYSIOLOGY OF ANGIOTENSIN BLOCKADE.....	1R01 HL26272-01	87,906

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SULLIVAN, FRED R.....	MODULATION OF HUMAN GRANULOPOIESIS BY LYMPHOCYTES.....	1R01 AM27455-01	71,378
WEINTRAUB, LEWIS R.....	IRON METABOLISM.....	5R01 AM18550-05	182,990
WOTIZ, HERBERT H.....	CELLULAR KINETICS OF CLINICAL CANCER CHEMOTHERAPY.....	3P01 CA18837-03S3	103,720
YABLON, ISADORE G.....	THE CAUSE OF JOINT REPLACEMENT FAILURE.....	5R01 AM17730-04	119,986
ORGANIZATION TOTAL	31 3,676,853		
UNIVERSITY OF MASSACHUSETTS AT BOSTON ZIP CODE 02125			
EACHUS, H TODD.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07199-01	20,545
LAUFER, DANIEL A.....	CYCLODEXTRIN-CINNAMIC ACID SERIES COMPLEXES.....	5R01 GM26004-02	39,197
LIPKE, HERBERT.....	SCLEROTIN PRECURSORS IN DIPTERANS.....	5R01 AI14753-03	63,746
ORGANIZATION TOTAL	3 123,488		
BROOKLINE			
HELLENIC COLLEGE ZIP CODE 02146			
BOSSE', RAYMOND.....	THE EFFECT OF RETIREMENT ON PHYSICAL HEALTH.....	5R01 AG02287-02	66,231
ORGANIZATION TOTAL	1 66,231		
CAMBRIDGE			
BIO-RESEARCH INSTITUTE ZIP CODE 02141			
HOMBURGER, FREDDY.....	SYRIAN HAMSTER MODEL OF PANCREATIC CARCINOGENESIS.....	5R01 CA24696-02	65,906
HOMBURGER, FREDDY.....	INBRED LINES AND MUTANT STOCKS OF THE SYRIAN HAMSTER.....	3P40 RR01033-03S2	45,003
ORGANIZATION TOTAL	2 110,909		
HARVARD UNIVERSITY ZIP CODE 02138			
BLOCH, KONRAD E.....	BIOSYNTHESIS AND FUNCTION OF LIPIDS.....	5R01 HL02477-25	183,035
BOGORAD, LAWRENCE.....	MOLECULAR MECHANISMS OF INTRACELLULAR INTEGRATION.....	5R01 GM20470-08	98,040
BRANTON, DANIEL.....	ORGANIZATION OF NORMAL AND TRANSFORMED CELL MEMBRANES.....	5R01 GM20396-08	102,980
BRANTON, DANIEL.....	MOLECULAR STUDIES OF RED BLOOD CELL SPECTRIN.....	5R01 HL17411-06	66,647
CALABRESE, RONALD L.....	NEURONAL CONTROL OF HEARTBEAT.....	5R01 NS15101-02	34,014
CANTLEY, LEWIS C, JR.....	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS.....	5R01 GM26199-02	49,985
COOPER, WILLIAM E.....	SEGMENTAL TIMING IN SPEECH.....	5R01 NS15059-02	62,590
COREY, ELIAS J.....	ANTITUMOR/ANTIBIOTIC SUBSTANCES: SYNTHESIS & CHEMISTRY.....	2R01 CA16421-06	360,968
COREY, ELIAS J.....	COMPUTER-ASSISTED ANALYSIS OF CHEMICAL SYNTHESIS.....	5R01 GM18519-10	152,611
CREWS, DAVID P.....	HORMONE-BEHAVIOR INTERACTIONS REGULATING REPRODUCTION.....	5R01 HD12709-02	60,408
CREWS, DAVID P.....	NEUROENDOCRINE CONTROL OF REPRODUCTIVE BEHAVIOR.....	5R01 NS15305-03	74,427
DOBSON, CHRISTOPHER M.....	NMR STUDIES OF THE STRUCTURE AND DYNAMICS OF LYSOZYME.....	5R01 GM26272-02	40,051
DOTY, PAUL M.....	REGULATORY STATES OF COLLAGEN GENE EXPRESSION.....	5R01 AM23073-02	20,660
DOTY, PAUL M.....	CHROMATIN, SPECIAL GENES AND RNA IN DEVELOPMENT.....	3R01 HD01229-28S1	80,526
DOTY, PAUL M.....	STRUCTURE AND EXPRESSION OF COLLAGEN GENES.....	2R01 HD01229-29	171,374
DOWLING, JOHN E.....	ANATOMICAL ORGANIZATION OF THE VISUAL SYSTEM.....	5R01 EY00811-09	62,723
DOWLING, JOHN E.....	FUNCTIONAL ORGANIZATION OF VERTEBRATE VISUAL SYSTEMS.....	5R01 EY00824-10	73,494
DOWLING, JOHN E.....	PHYSIOLOGY OF PHOTORECEPTORS OF THE RETINA.....	5R01 EY02418-03	37,743
DRESSLER, DAVID H.....	MOLECULAR MECHANISMS IN DNA REPLICATION.....	5R01 GM17088-11	86,328
ELGIN, SARAH C.....	NONHISTONE CHROMOSOMAL PROTEINS OF DROSOPHILA.....	3R01 GM20779-06S1	13,073
ELGIN, SARAH C.....	NONHISTONE CHROMOSOMAL PROTEINS OF DROSOPHILA.....	5R01 GM20779-07	101,004
ELGIN, SARAH C.....	CHROMATIN STRUCTURE AND CELL COMMITMENT.....	1R01 GM27327-01	34,936
GELBART, WILLIAM M.....	GENETIC CONTROL OF DROSOPHILA ACETYLCHOLINESTERASE.....	2R01 GM23522-04	111,224
GILBERT, WALTER.....	ROLE OF RIBONUCLEIC ACID IN PROTEIN SYNTHESIS.....	5R01 GM09541-19	400,188
GILBERT, WALTER.....	INTERACTION OF PROTEINS WITH DNA.....	5R01 GM21514-06	82,900
GREEN, DAVID M.....	TEMPORAL FACTORS IN MASKING.....	5R01 NS11620-07	93,500
GREER, HELEN A.....	GENE REGULATION OF HISTIDINE BIOSYNTHESIS IN YEAST.....	5R01 GM25207-03	50,491
GUIDOTTI, GUIDO.....	STRUCTURE AND FUNCTION OF MEMBRANE PROTEINS.....	2R01 HL08893-16	247,222
HARRISON, STEPHEN C.....	VIRUS STRUCTURE AND ASSEMBLY.....	5R01 CA13202-09	143,705
HASTINGS, JOHN W.....	MOLECULAR AND CELLULAR MECHANISMS OF BIOLOGICAL RHYTHMS.....	5R01 GM19536-08	81,638
HOLM, RICHARD H.....	BIOLOGICALLY RELATED IRON-SULFUR CHEMISTRY.....	7R01 GM28856-01	185,218
HUBBARD, RUTH.....	CHEMISTRY AND PHYSIOLOGY OF PHOTORECEPTORS.....	5R01 EY03104-02	95,730
KAFATOS, FOTIS C.....	REGULATION AND EVOLUTION OF MULTIGENE FAMILY.....	2R01 GM24225-04	119,654
KAGAN, JEROME.....	EVALUATION OF CATEGORICAL KNOWLEDGE IN INFANCY.....	2R01 HD10094-04	66,405

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
KARPLUS, MARTIN	THEORETICAL STUDIES OF BIOMOLECULES	5R01 EY00062-11	94,093
KESSIN, RICHARD H	CONTROL OF AGGREGATION IN D. DISCOIDEUM	5R01 GM21809-06	97,944
KISHI, YOSHITO	SYNTHESIS OF ANTITUMOR NATURAL PRODUCTS	5R01 CA22215-03	125,961
KISHI, YOSHITO	CHEMISTRY OF NATURAL PRODUCTS	5R01 GM04229-26	327,426
KISHI, YOSHITO	SYNTHETIC STUDIES ON COMPLEX NATURAL PRODUCTS	5R01 NS12108-06	166,699
KLECKNER, NANCY E	ILLEGITIMATE RECOMBINATION BY DRUG RESISTANCE ELEMENTS	5R01 GM25326-03	65,320
KNOWLES, JEREMY R	MECHANISMS OF ENZYME CATALYSIS	5R01 GM21659-06	127,306
KRONAUER, RICHARD E	CONE INPUTS TO SPATIAL DETECTORS	2R01 EY01808-04A1	67,918
LEVINE, ROBERT A	CULTURAL FACTORS IN FAMILY SUPPORT FOR THE ELDERLY	5R01 AG01095-03	101,527
LEWONTIN, RICHARD C	GENETIC VARIATION OF PROTEINS IN NATURAL POPULATIONS	5R01 GM21179-07	149,839
LIPSCOMB, WILLIAM N	STRUCTURE & FUNCTION OF BIOLOGICALLY ACTIVE MOLECULES	2R01 GM06920-22	306,501
LOSICK, RICHARD M	ROLE OF RNA POLYMERASE IN BACTERIAL DIFFERENTIATION	2R01 GM18568-08	135,888
MC CLURE, WILLIAM R	MECHANISM AND REGULATION OF E. COLI RNA POLYMERASE	2R01 GM21052-06	146,283
MC MAHON, THOMAS A	BALLISTIC WALKING: NORMAL AND PATHOLOGICAL GAITS	5R01 AM25829-02	75,692
MC MAHON, THOMAS A	SERVO-SIMULATED COMPLIANCE CHANGES: A REVERSIBLE M.I.	5R01 HL21425-04	100,816
MESELSON, MATTHEW S	NUCLEAR AND MESSENGER RNA OF DROSOPHILA	2R01 GM22274-06	239,521
PERSHAN, PETER S	ORIENTED MULTILAMELLA LIPID BILAYERS: POLARIZED RAMAN	5R01 GM24081-02	65,994
PETERS, KEVIN S	PICOSECOND STUDY OF THE VISUAL PROTEIN RHODOPSIN	5R01 EY02922-02	46,898
PTASHNE, MARK S	BACTERIOPHAGE REPRESSORS	3R01 GM22526-04S1	47,957
PTASHNE, MARK S	BACTERIOPHAGE REPRESSORS	5R01 GM22526-05	115,365
ROSOVSKY, HENRY	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07046-15	189,787
SATO, VICKI L	IMMUNOBIOLOGY OF EARLY LYMPHOCYTE DEVELOPMENT	5R01 CA24368-02	70,692
STROMINGER, JACK L	BIOCHEMISTRY—MECHANISM OF ACTION OF ANTIBIOTICS	5R01 AI09152-12	92,516
STROMINGER, JACK L	STRUCTURAL AND BIOSYNTHETIC STUDIES OF HL-A DETERMINANTS	5R01 AI10736-06	145,442
STROMINGER, JACK L	BIOSYNTHESIS OF COMPLEX GLYCOPROTEINS	2R01 AM13230-12	98,083
TAYLOR, C RICHARD	LOCOMOTION: IDLING METABOLISM AND GAIT DYNAMICS	5R01 AM18140-06	76,799
TAYLOR, D LANSING	STRUCTURAL AND CHEMICAL DYNAMICS OF CELL MOVEMENT	3R01 AM18111-05S1	19,700
TAYLOR, D LANSING	STRUCTURAL AND CHEMICAL DYNAMICS OF CELL MOVEMENT	5R01 AM18111-06	60,652
ULAM, ADAM B	RETIREMENT AND AGING IN CROSS-CULTURAL PERSPECTIVE	1R01 AG02160-01	179,714
VAIDA, VERONICA	KINETICS & MECHANISMS OF PHOTOAFFINITY LABELING REAGENTS	5R01 GM26620-02	44,695
WANG, JAMES C	PHYSICOCHEMICAL STUDIES OF NUCLEIC ACIDS	2R01 GM24544-04	206,630
WENDER, PAUL A	SYNTHETIC STUDIES ON CYTOTOXIC SESQUITERPENES	5R01 CA21136-04	67,992
WENDER, PAUL A	SYNTHETIC STUDIES ON TUMOR PROMOTERS AND INHIBITORS	1R01 CA28178-01	107,823
WESTHEIMER, FRANK H	MECHANISM OF ENZYME ACTION	5R01 GM04712-24	75,009
WILEY, DON C	VIRAL MEMBRANE AND GLYCOPROTEIN STRUCTURE	2R01 AI13654-04	127,524
WILEY, DON C	HUMAN HISTOCOMPATIBILITY ANTIGEN STRUCTURE	1R01 AI17237-01	63,380
ORGANIZATION TOTAL	70	7,876,878	
INTERNATIONAL SPORES CONFERENCE ZIP CODE 02138			
LOSICK, RICHARD M	EIGHTH INTERNATIONAL SPORES CONFERENCE	1R13 AI17299-01	5,000
ORGANIZATION TOTAL	1	5,000	
JOHN C. SHEEHAN INSTITUTE FOR RESEARCH ZIP CODE 02138			
QUICK, JAMES E	SYNTHESIS OF THE LYTHRACEAE ALKALOIDS	5R01 NS15343-02	76,122
QUICK, JAMES E	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05820-01	13,768
RAZDAN, RAJ K	DEVELOPMENT OF NOVEL ANTIEPILEPTIC DRUGS	5R01 NS15346-02	30,723
ORGANIZATION TOTAL	3	120,613	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139			
AMDUR, MARY O	FACTORS AFFECTING IRRITANT POTENCY OF GASES AND AEROSOLS	5R01 ES01939-03	103,498
AMDUR, MARY O	TOXICOLOGY OF INORGANIC COAL COMBUSTION AEROSOLS	1P01 ES02429-01	650,691
BAKER, RAYMOND M	GENETIC STUDIES OF MEMBRANE TRAITS AND TRANSFORMATION	5R01 GM21665-05	72,282
BALTIMORE, DAVID	MOLECULAR BIOLOGY OF RNA VIRUSES	5R01 AI08388-13	139,062
BALTIMORE, DAVID	MOLECULAR ANALYSIS OF ONCOGENIC VIRUSES	1P01 CA26717-01	474,302
BARRETT, ALAN H	NON-INVASIVE SENSING OF SUBCUTANEOUS TEMPERATURES	9R01 CA28873-08	60,490
BAUM, MICHAEL J	MATING BEHAVIOR, ANDROGEN METABOLISM, AND MONOAMINES	5R01 HD12002-03	65,796
BAUM, MICHAEL J	DIFFERENTIATION OF SEXUAL BEHAVIOR	1R01 HD13634-01	69,218
BELL, EUGENE	ANALYSIS OF AGING IN CELL LINEAGES	5P01 AG00354-04	208,737
BENEDEK, GEORGE B	PHYSICAL AND CHEMICAL BASIS OF LENS OPACITY	2R01 EY00797-09	169,385
BERCHTOLD, GLENN A	ANTICANCER AGENTS: SYNTHESIS AND ACTIVITY STUDIES	5R01 CA18888-05	80,401
BERCHTOLD, GLENN A	INVESTIGATIONS OF METABOLIC SYSTEMS	5R01 GM19103-08	82,457

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
BERCHTOLD, GLENN A	ARENE OXIDES IMPORTANCE IN BIOLOGICAL REACTIONS	5R01 GM26388-02	75,104
BEVAN, MICHAEL J	CYTOTOXIC RESPONSE TO HISTOCOMPATIBILITY ANTIGENS	2R01 AI14269-04	106,336
BIEMANN, KLAUS	MASS SPECTROMETRIC SEQUENCING OF PROTEINS	5R01 GM05472-22	119,356
BIEMANN, KLAUS	MASS SPECTROMETRY FACILITY FOR BIOMEDICAL RESEARCH	5P41 RR00317-14	377,071
BISTRIAN, BRUCE R	DETERMINATION OF OPTIMAL HYPOCALORIC DIET	1R01 AM26349-01	99,413
BIZZI, EMILIO	PROCESSES UNDERLYING ARM TRAJECTORY FORMATION	1R01 AM26710-01	89,942
BIZZI, EMILIO	STUDY OF EYE-HEAD COORDINATION	5R01 NS09343-11	156,071
BJARNGARD, BENGT E	OPTIMIZE DOSE DISTRIBUTION IN CANCER RADIATION THERAPY	2P01 CA17588-05	466,016
BOTSTEIN, DAVID	MOLECULAR GENETICS WITH PHAGE P22	2R01 GM18973-09	71,459
BOTSTEIN, DAVID	MOLECULAR GENETICS OF MORPHOGENETIC PATHWAYS	5R01 GM21253-06	116,568
BOWMAN, H FREDERICK	MEASUREMENT OF PERFUSION FROM TISSUE THERMAL PROPERTIES	5R01 HL20304-02	98,102
BRAIDA, LOUIS D	MATCHING SPEECH TO RESIDUAL AUDITORY FUNCTION	5R01 NS12846-05	225,564
BROWN, GENE M	BIOSYNTHESIS OF B VITAMINS	5R01 AM03442-22	99,542
BROWNELL, GORDON L	STUDIES OF BORON NEUTRON CAPTURE THERAPY	5R01 CA19665-04	143,599
BRUNENGRABER, HENRI	CONTINUOUS MS MONITORING OF LIVER ALCOHOL METABOLISM	1R01 GM27723-01	66,444
BUCHI, GEORGE H	THE CHEMISTRY OF NATURAL PRODUCTS	5R01 GM09686-19	153,310
CAREY, SUSAN E	DEVELOPMENT OF VISUAL FORM RECOGNITION IN CHILDREN	5R01 HD09179-06	59,497
CATSIMPOOLAS, NICHOLAS	LYMPHOID CELL PURINE NUCLEOSIDE PHOSPHORYLASE	5R01 CA24915-02	14,347
COHEN, DAVID	CLEARANCE OF MAGNETIC DUST FROM LUNGS OF SMOKERS	5R01 HL24540-02	99,991
COHEN, DAVID	MAGNETIC MEASUREMENTS OF INJURY CURRENTS OF THE HEART	5R01 HL24541-02	66,591
COLBURN, H STEVEN	BINAURAL HEARING	5R01 NS10916-06	182,482
COLTON, CLARK K	TRANSPORT OF LDL IN ARTERIAL WALL	5R01 HL21429-04	201,443
CUFFIN, BENJAMIN N	ACCURACY OF ELECTRIC & MAGNETIC HEART MEASUREMENTS	5R23 HL24645-02	51,731
DANHEISER, RICK L	SYNTHETIC APPROACHES TO CYCLIC NATURAL PRODUCTS	5R01 GM25950-02	61,084
DANHEISER, RICK L	PERICYCLIC REACTIONS FOR ORGANIC SYNTHESIS	1R01 GM28273-01	67,829
DEMAIN, ARNOLD L	CELL-FREE B-LACTAM BIOSYNTHESIS: A BREAKTHROUGH	1R01 AI16640-01	19,249
DEUTSCH, MARTIN	BIOLOGICAL CRYSTALLOGRAPHY, A PRECISION AREA DETECTOR	5R01 GM24918-03	148,318
DEWEY, C FORBES, JR	UNSTEADY FLOW IN ARTERIAL BIFURCATIONS	5R01 HL21859-03	90,895
DEWEY, C FORBES, JR	VASCULAR ENDOTHELIUM AND FLUID SHEAR STRESS IN VITRO	1R01 HL25536-01	118,905
DURLACH, NATHANIEL I	TACTILE COMMUNICATION OF SPEECH: STUDY OF TADOMA	5R01 NS14092-02	118,090
EISEN, HERMAN N	IMMUNITY TO MYELOMA TUMORS	5R01 CA15472-07	183,555
FERNSTROM, JOHN D	PROTEIN NUTRITION, SEROTONIN, AND PITUITARY FUNCTION	5R01 HD11417-02	37,885
FODOR, JERRY A	PROCESSES IN UNDERSTANDING AND PRODUCING SENTENCES	5R01 HD05168-08	186,152
FOX, JAMES G	RESEARCH ANIMAL DIAGNOSTIC LABORATORY	5P40 RR01046-05	142,679
FOX, MAURICE S	GENETIC RECOMBINATION AND MICROBIAL DNA SYNTHESIS	5R01 AI05388-18	137,592
GETTER, MALCOLM L	REGULATORY MECHANISMS IN NORMAL AND NEOPLASTIC CELLS	5R01 AI13357-05	112,799
GETTER, MALCOLM L	MECHANISM AND CONTROL OF DNA REPLICATION	5R01 GM20363-08	113,477
GOTTLIEB, PAUL D	GENETIC MARKERS, LEUKEMOGENESIS, AND THYMIC FUNCTION	5R01 CA15808-07	50,096
GRAYBIEL, ANN M	AN ANALYSIS OF EXTRAGENICULATE VISUAL MECHANISMS	5R01 EY02866-02	99,703
GREEN, HOWARD	THE ADIPOSE CONVERSION OF 3T3 CELLS	5R01 AM21997-03	78,887
GREEN, HOWARD	STUDY OF GROWTH AND CELL CONTROL PROCESSES	5P01 CA12174-11	374,625
GREEN, HOWARD	GROWTH AND DIFFERENTIATED FUNCTION IN MAMMALIAN CELLS	5R01 CA12187-11	210,818
GREENE, FREDERICK D	CYCLIC AZO DIOXIDES, POTENTIAL IN CANCER CHEMOTHERAPY	5R01 CA23550-03	63,676
GRIFFIN, ROBERT G	SOLID STATE NMR STUDIES OF LIPID BILAYER STRUCTURE	5R01 GM23289-05	90,120
GRIFFIN, ROBERT G	SOLID STATE NMR STUDIES OF PEPTIDES AND PROTEINS	2R01 GM23403-04	212,374
GRIFFIN, ROBERT G	DEUTERIUM NMR INVESTIGATIONS OF LIPID ASSOCIATION	5R01 GM25505-03	50,725
HELD, RICHARD M	VISION AND VISUOMOTOR MECHANISMS	3R01 EY01191-06S2	7,302
HELD, RICHARD M	VISION AND VISUOMOTOR MECHANISMS	2R01 EY01191-07	115,880
HELD, RICHARD M	CENTRAL VISUAL PROCESSES	5P30 EY02621-03	142,197
HELD, RICHARD M	DEVELOPMENT OF AMBLYOPIA IN EARLY CATARACT & STRABISMUS	5R01 EY02649-03	58,606
HOPKINS, NANCY H	ENDOGENOUS C-TYPE VIRUSES OF BALB/C & AKR MICE	5R01 CA19308-05	81,933
HORVITZ, H ROBERT	GENETIC ANALYSIS OF NEMATODE EGG-LAYING	5R01 GM24663-03	35,584
HORVITZ, H ROBERT	CONTROL OF CELL DIVISION IN THE NEMATODE C. ELEGANS	5R01 GM24943-03	36,540
HOUSMAN, DAVID E	ERYTHROID DIFFERENTIATION IN FRIEND LEUKEMIA CELLS	5R01 CA17575-06	75,459
HOUSMAN, DAVID E	GENETIC STRUCTURE AND FUNCTION OF HUMAN CHROMOSOME II	1R01 GM27882-01	67,544
HOUTSMA, ADRIANUS J	AUDITORY PITCH PROCESSING OF COMPLEX SOUND SIGNALS	2R01 NS11680-04	77,490
HYNES, RICHARD O	CELL SURFACE STRUCTURE AND TRANSFORMATION	3R01 CA17007-05S1	15,276
HYNES, RICHARD O	GLYCOPROTEINS, THE CYTOSKELETON AND CANCER	1P01 CA26712-01	196,164
INGRAM, VERNON M	DIFFERENTIATION OF ERYTHROPOIESIS AND MYOGENESIS	3R01 AM13945-10S1	99,144
INGRAM, VERNON M	DIFFERENTIATION OF ERYTHROPOIESIS AND MYOGENESIS	2R01 AM13945-11	106,254
INGRAM, VERNON M	DIFFERENTIATION OF VIRUS TRANSFORMED EMBRYONIC CELLS	1R01 HD13900-01	135,156

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
JANGHORBANI, MORTEZA.....	DIETARY BIOAVAILABILITY OF SELENIUM IN MAN.....	1R01 CA27917-01	81,926
KAMM, ROGER D.....	HYDRODYNAMICS OF AQUEOUS OUTFLOW.....	5R01 EY03141-02	97,073
KAREL, MARCUS.....	FREE RADICAL REACTIONS OF LIPOPEROXIDES AND PROTEINS.....	1R01 GM26472-01A1	56,622
KEMP, DANIEL S.....	SYNTHESIS AND REACTIONS OF PEPTIDES.....	5R01 GM13453-15	165,481
KHORANA, HAR G.....	STUDIES OF BIOLOGICAL MEMBRANES.....	5R01 A11479-08	89,935
KHORANA, HAR G.....	SYNTHETIC AND BIOLOGICAL STUDIES OF NUCLEIC ACIDS.....	3R01 CA11981-10S1	93,469
KING, JOHN G.....	SURFACE STUDIES IN BIOLOGY BY MOLECULE MICROSCOPY.....	5R01 GM23678-03	105,842
KING, JONATHAN A.....	BACTERIOPHAGE ASSEMBLY AND ITS GENETIC CONTROL.....	5R01 GM17980-11	134,885
LANGER, ROBERT S.....	A SYSTEM FOR HEPARIN REMOVAL.....	5R01 GM25810-02	58,307
LANGER, ROBERT S.....	SURGICAL IMPLANTS FOR SUSTAINED MACROMOLECULAR RELEASE.....	5R01 GM26698-02	78,234
LEES, ROBERT S.....	LIPOPROTEINS, HEMOSTASIS AND ATHEROSCLEROSIS.....	5R01 HL21460-04	152,307
LELE, PADMAKAR P.....	TUMOR & NORMAL TISSUE RESPONSE TO LOCAL HYPERTHERMIA.....	1R01 CA26232-01	185,905
LEVIN, DANIEL H.....	CONTROL OF PROTEIN SYNTHESIS BY DOUBLE-STRANDED RNA.....	5R01 GM24825-03	101,374
LODISH, HARVEY F.....	TRANSLATION OF VIRAL MESSENGER RNAs.....	5R01 AI08814-13	130,345
LODISH, HARVEY F.....	STRUCTURE AND BIOSYNTHESIS OF AN HEPATIC RECEPTOR.....	1R01 GM27989-01	98,127
LODISH, HARVEY F.....	CHROMATIN STRUCTURE IN DICTYOSTELIUM DISCOIDEUM.....	1R01 GM28097-01	61,845
LONDON, IRVING M.....	REGULATION OF HEMOGLOBIN SYNTHESIS AND ERYTHROPOIESIS.....	5R01 AM16272-09	194,420
LURIA, SALVADOR E.....	CELL CONTROL FUNCTIONS AND BACTERIOCIN ACTION.....	5R01 AM03038-22	106,885
LURIA, SALVADOR E.....	CANCER CENTER SUPPORT (CORE) GRANT.....	2P30 CA14051-09	982,681
MAGASANIK, BORIS.....	SYNTHESIS OF HISTIDINE DEGRADING ENZYMES.....	2R01 AM13894-10S1	30,200
MAGASANIK, BORIS.....	SYNTHESIS OF HISTIDINE DEGRADING ENZYMES.....	3R01 GM27989-01	119,239
MAGASANIK, BORIS.....	REGULATION AND FUNCTION OF GLUTAMINE SYNTHETASE.....	5R01 GM07446-22	105,409
MARCUS, RICHARD S.....	NETWORKS FOR AIDING BIOMEDICAL INFORMATION TRANSFER.....	5R01 LM03120-03	116,217
MASAMUNE, SATORU.....	SYNTHESIS OF MACROLIDE NATURAL PRODUCTS.....	5R01 AI15403-02	207,432
MOSKOWITZ, MICHAEL A.....	ARACHIDONIC ACID METABOLISM BY BRAIN BLOOD VESSELS.....	5R01 HL25368-02	119,219
MOSKOWITZ, MICHAEL A.....	NEUROTRANSMITTERS AND CEREBRAL BLOOD VESSELS.....	5R01 NS15201-02	42,219
MUNRO, HAMISH N.....	NUTRITIONAL REGULATION OF PROTEIN METABOLISM.....	5R01 AM15364-10	86,420
NEURINGER, LEO J.....	NMR STUDIES OF NORMAL AND TRANSFORMED CELL MEMBRANES.....	5R01 GM25689-03	88,454
NEURINGER, LEO J.....	A NATIONAL NMR FACILITY FOR BIOMOLECULAR RESEARCH.....	3P41 RR00995-04S1	93,622
NEURINGER, LEO J.....	A NATIONAL NMR FACILITY FOR BIOMOLECULAR RESEARCH.....	5P41 RR00995-05	301,512
NEWBERNE, PAUL M.....	ZINC, NITROSAMINE AND ESOPHAGEAL CANCER.....	5R01 CA25382-02	94,781
NEWBERNE, PAUL M.....	DIETARY FAT IN COLON CARCINOGENESIS.....	1R01 CA26917-01	109,503
ORME-JOHNSON, NANETTE R.....	MOLECULAR BASIS OF ACTH CONTROL OF P-450 REACTIONS.....	1R01 AM27381-01	57,392
ORME-JOHNSON, WILLIAM, III.....	STRUCTURES & MECHANISMS OF ELECTRON TRANSFER.....	5R01 GM28358-02	114,341
OSHIMA, ROBERT G.....	CHROMATIN PROTEINS OF EMBRYONAL CARCINOMA CELLS.....	5R01 CA27580-02	154,007
PARDUE, MARY L.....	GENE FUNCTION ANALYSIS BY POLYTENE CHROMOSOMES.....	2R01 GM21874-06	119,177
PARDUE, MARY L.....	ORGANIZATION OF SPECIFIC SEQUENCES IN EUKARYOTIC DNA.....	5R01 GM24635-03	68,618
PENMAN, SHELTON.....	CELL ARCHITECTURE AND MACROMOLECULAR METABOLISM.....	2R01 CA08416-15	203,014
PETSKO, GREGORY A.....	AN ENZYME MECHANISTIC PATHWAY AT ATOMIC RESOLUTION.....	5R01 GM26788-02	60,496
PETSKO, GREGORY A.....	CRYSTALLOGRAPHIC STUDIES OF PROTEIN DYNAMICS.....	1R01 GM27123-01	26,883
RAJBHANDARY, UTTAM L.....	STRUCTURE AND FUNCTION OF TRANSFER RIBONUCLEIC ACIDS.....	5R01 GM17151-11	119,161
RASTETTER, WILLIAM H.....	REACTIVE HETEROCYCLES—CANCER AND BIOMECHANISM.....	2R01 CA20574-04	90,169
RASTETTER, WILLIAM H.....	CHELATION-ANTIBIOTICS/TREATMENT OF IRON OVERLOAD.....	9R01 GM28828-04	72,051
RHA, CHOKYUN.....	SYNTHESIS OF POLYPEPTIDES FOR PHENYLKETONUREA THERAPY.....	5R01 AM27118-02	68,118
RICH, ALEXANDER.....	BIOSYNTHESIS OF PARATHYROID HORMONE AND CALCITONIN.....	5R01 AM21529-02	77,922
RICH, ALEXANDER.....	MOLECULAR STRUCTURE OF NUCLEIC ACIDS AND PROTEINS.....	5R01 CA04186-22	188,314
ROBBINS, PHILLIPS W.....	CELL AND VIRUS GLYCOPROTEINS—SYNTHESIS AND FUNCTION.....	5R01 CA14142-18	145,830
ROBERTS, MARY F.....	INTERFACIAL ACTIVATION OF SOLUBLE PHOSPHOLIPASES.....	5R01 GM26762-02	40,721
ROGERS, ADRIANNE E.....	DIETARY FAT, PROLACTIN AND MAMMARY CANCER.....	5R01 CA25538-02	124,938
ROSE, ROBERT M.....	POLYETHYLENE BEHAVIOR IN JOINT REPLACEMENTS.....	1R01 GM28829-01	128,043
ROSENBLUTH, WALTER A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07047-15	189,787
ROUSH, WILLIAM R.....	SYNTHESIS OF ANTITUMOR AGENTS.....	1R01 CA26830-01	74,722
ROUSH, WILLIAM R.....	INTRAMOLECULAR DIELS-ALDER REACTIONS.....	5R01 GM26782-02	62,452
ROWELL, DEREK.....	MOBILITY, ENHANCEMENT FOR THE BLIND.....	5R01 EY02463-02	95,205
SAKITT, BARBARA.....	PROBLEMS IN HUMAN VISION.....	5R01 EY03412-02	66,300
SAKITT, BARBARA.....	UNDERLYING MECHANISMS IN HUMAN MOTOR CONTROL.....	1R01 NS16300-01	61,365
SALZMAN, EDWIN W.....	THROMBORESISTANT MATERIALS.....	5R01 HL20079-04	454,860
SAUER, ROBERT T.....	VIRAL PROTEINS: STRUCTURE AND ASSEMBLY PATHWAYS.....	5R01 AI15706-02	67,861
SAUER, ROBERT T.....	REPRESSOR AND ANTIREPRESSOR PROTEINS OF BACTERIOPHAGE.....	1R01 AI16892-01	68,877
SCHILLER, PETER H.....	STUDIES OF INTERACTION BETWEEN EYE MOVEMENT AND VISION.....	5R01 EY00676-10	139,131
SCHIMMEL, PAUL R.....	INVESTIGATIONS OF REACTIONS OF PHYSIOLOGICAL IMPORTANCE.....	5R01 GM15539-13	150,161

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
SCHIMMEL, PAUL R.....	GENETIC APPROACHES TO PROTEIN-NUCLEIC ACIDS INTERACTIONS.....	2R01 GM23562-04	63,248
SCHNEIDER, GERALD E.....	NEUROPSYCHOLOGICAL STUDIES OF THE VISUAL SYSTEM.....	5R01 EY00126-11	167,720
SCRIMSHAW, NEVIN S.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00088-17	809,276
SIGNER, ETHAN R.....	NODULATION SPECIFICITY AND PHYSIOLOGY IN RHIZOBIUM.....	1R01 AI16873-01	126,711
SOLOMON, EDWARD I.....	SPECTROSCOPIC STUDIES OF BINUCLEAR COPPER PROTEINS.....	2R01 AM20406-04	96,177
SOLOMON, FRANK E.....	CYTOPLASMIC DETERMINATION OF DETAILED CELL MORPHOLOGY.....	1R01 GM27894-01	69,331
STANBURY, JOHN B.....	GOITER AND RETARDATION IN RURAL ECUADOR.....	5R01 AM17266-06	42,171
STEINER, LISA A.....	STRUCTURE AND DIVERSITY IN THE IMMUNE SYSTEM.....	5R01 AI08054-14	135,033
STEVENS, KENNETH N.....	PHYSIOLOGICAL AND ACOUSTICAL STUDIES OF SPEECH.....	5R01 NS04332-18	292,672
SZOLOVITS, PETER.....	ARTIFICIAL INTELLIGENCE AND CLINICAL PROBLEM SOLVING.....	5P01 LM03374-02	316,696
TANAKA, TOYOICHI.....	PHASE SEPARATION OF CYTOPLASMA IN SUGAR CATARACTS.....	5R01 EY01696-05	72,619
TANAKA, TOYOICHI.....	QUANTITATIVE CHARACTERIZATION OF LENS OPACITIES.....	5R01 EY02433-03	55,597
TANNENBAUM, STEVEN R.....	DIET AND INTESTINAL FORMATION OF NITRITE IN MAN.....	5R26 CA25025-02	67,387
TANNENBAUM, STEVEN R.....	CARCINOGENIC NITROSAMINES FROM PRIMARY AMINES.....	5R01 CA26156-02	81,181
TANNENBAUM, STEVEN R.....	ENDOGENOUS NITRITE CARCINOGENESIS IN MAN.....	1P01 CA26731-01	540,363
TORRIANI-GORINI, ANNAMARIA.....	GENETICS OF ALKALINE PHOSPHATASE EXPRESSION IN E. COLI.....	5R01 GM25854-02	60,029
UNDERWOOD, BARBARA A.....	OCULAR HEALTH, INFECTION AND VITAMIN A DEFICIENCY.....	1R01 EY03126-01A1	163,943
VARSHAVSKY, ALEXANDER J.....	STRUCTURE OF CELLULAR AND VIRAL CHROMATIN STUDIES.....	5R01 GM26086-02	85,949
WALKER, GRAHAM C.....	MUTAGENESIS AND REPAIR OF DNA.....	2R01 CA21615-04	86,020
WALSH, CHRISTOPHER T.....	ENZYME REACTION MECHANISMS.....	5R01 GM20011-08	75,138
WALSH, CHRISTOPHER T.....	COENZYME ANALOGUES AS PROBES OF FLAVOENZYME CATALYSIS.....	5R01 GM21643-06	61,288
WAUGH, DAVID F.....	BLOOD COAGULATION: PHYSICOCHEMICAL INTERACTIONS.....	5R01 HL13198-23	79,987
WAUGH, JOHN S.....	HIGH RESOLUTION NMR IN SOLIDS.....	5R01 GM16552-12	125,148
WEINBERG, ROBERT A.....	INTERACTION OF SARCOMA AND LEUKEMIA GENOMES.....	5R01 CA17537-06	63,876
WHITESIDES, GEORGE M.....	SYNTHESIS OF PROTEIN-PROTEIN CONJUGATES.....	5R01 GM24025-03	74,777
WHITESIDES, GEORGE M.....	MAGNETIC SEPARATIONS IN BIOCHEMISTRY.....	2R01 GM24540-03	36,074
WHITESIDES, GEORGE M.....	ENZYMES AS CATALYSTS IN ORGANIC SYNTHESIS.....	5R01 GM26543-02	105,329
WHITESIDES, GEORGE M.....	FOURIER TRANSFORM INFRARED SPECTROMETER.....	5P41 GM27551-02	13,173
WOGAN, GERALD N.....	STUDY OF FOOD-BORNE ENVIRONMENTAL TOXICANTS.....	5P01 ES00597-10	751,966
WOGAN, GERALD N.....	HEALTH EFFECTS OF FOSSIL FUELS UTILIZATION.....	5P01 ES01640-03	549,090
WOGAN, GERALD N.....	ENVIRONMENTAL HEALTH SCIENCES CENTER.....	5P30 ES02109-03	427,697
WOLF, GEORGE D.....	VITAMIN A-GLYCOPHOSPHOLIPIDS AND GLYCOPROTEINS.....	3R01 AM20476-03S1	9,764
WOLF, GEORGE D.....	VITAMIN A AND GLYCOPROTEINS OF SKIN TUMORS.....	2R01 CA13792-04	67,175
WOLF, GEORGE D.....	CORNEAL GLYCOPROTEINS, COLLAGENASE AND VITAMIN A.....	5R01 EY00515-12	87,441
WORDEN, FREDERIC G.....	NEUROSCIENCES RESEARCH PROGRAM.....	5R21 NS15690-02	439,140
WURTMAN, RICHARD J.....	CONTROL OF AROMATIC AMINO ACID UTILIZATION IN MAMMALS.....	2R01 AM14228-11	173,432
WURTMAN, RICHARD J.....	CONTROL OF ARGININE VASOTOCIN AND MELANIN SECRETION.....	5R01 HD11722-02	77,550
YANNAS, IOANNIS V.....	DESIGN AND EVALUATION OF AN ARTIFICIAL SKIN.....	2R01 GM23946-04	168,566
YANNAS, IOANNIS V.....	THROMBOGENIC/NONTHROMBOGENIC COLLAGEN FIBERS.....	5R01 HL24036-02	83,504
YOUNG, LAURENCE R.....	INSTRUMENTATION FOR CLINICAL VESTIBULAR TESTING.....	1R01 NS15862-01	81,032
YOUNG, VERNON R.....	ALBUMIN SYNTHESIS IN AGING MAN.....	5R01 AG01125-02	62,976
YOUNG, VERNON R.....	QUANTITATIVE GLUCOSE METABOLISM IN AGING HUMANS.....	5R01 AG01481-02	71,356
YOUNG, VERNON R.....	DIETARY PROTEIN INTAKE AND HUMAN PROTEIN METABOLISM.....	5R22 AM15856-09	103,633
ORGANIZATION TOTAL	177	24,237,401	
NATIONAL BUREAU OF ECONOMIC RESEARCH ZIP CODE 02138			
ROSEN, SHERWIN.....	SOCIOECONOMIC DETERMINANTS OF MORTALITY.....	2R01 AG00913-03	104,863
ORGANIZATION TOTAL	1	104,863	
RADCLIFFE COLLEGE ZIP CODE 02138			
STEWART, ABIGAIL J.....	COPING AND ADAPTATION IN OLDER BLACK WOMEN.....	1R01 AG02223-01	88,217
ORGANIZATION TOTAL	1	88,217	
CANTON			
DERMATOPATHOLOGY FOUNDATION ZIP CODE 02021			
OKUN, MILTON R.....	PEROXIDASE IN NORMAL AND NEOPLASTIC MELANOGENESIS.....	7R01 CA28872-01	74,043
ORGANIZATION TOTAL	1	74,043	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
CHESTNUT HILL			
BOSTON COLLEGE	ZIP CODE 02167		
BADE, MARIA L.....	BIOCHEMISTRY OF INSECT CUTICLE.....	5R01 ES00650-08	55,834
CLARKE, MICHAEL J.....	SYNTHESIS, CHEMISTRY OF TECHNETIUM RADIOPHARMACEUTICALS.....	5R23 CA24344-02	39,400
CLARKE, MICHAEL J.....	STABLE HEAVY-METAL COMPLEXES OF NUCLEOTIDE AND COENZYME.....	5R01 GM26390-02	43,873
HAJDU, JOSEPH.....	ACTIVE-SITE DIRECTED INHIBITORS OF PHOSPHOLIPASE A2.....	5R01 AM26165-02	46,047
KANTROWITZ, EVAN R.....	THE MOLECULAR BASIS OF CELLULAR CONTROL MECHANISMS.....	5R01 GM26237-02	53,019
KELLY, T ROSS.....	PRACTICAL SYNTHESIS OF THE ANTICANCER DRUG ADRIAMYCIN.....	5R01 CA17631-06	104,542
KELLY, T ROSS.....	SYNTHESIS OF THE ANTICANCER AGENT TRIPDIOLIDE.....	5R01 CA22936-03	83,299
KELLY, T ROSS.....	SYNTHESIS OF SESBANINE AND BERNINAMYCINIC ACID.....	1R01 CA27871-01	25,795
NICHOLAS, KENNETH M.....	SYNTHETIC UTILITY OF METAL-STABILIZED CARBENIUM IONS.....	5R01 GM26760-02	49,658
NUMAN, MICHAEL.....	MATERNAL BEHAVIOR: NEURAL AND HORMONAL BASIS.....	5R01 HD10395-04	38,165
PETRI, WILLIAM H.....	CONTROL OF DIFFERENTIATION: DROSOPHILA CHORION GENES.....	2R01 GM24185-04	106,727
PLOCKE, DONALD J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07156-05	49,106
SARDELLA, DENNIS J.....	PROBING CARCINOGENS' ACTIVE SITES BY F-SUBSTITUTION.....	5R01 CA23454-02	57,394
ORGANIZATION TOTAL	13	752,859	
MEDFORD			
TUFTS UNIVERSITY	ZIP CODE 02155		
APRILLE, JUNE R.....	DEVELOPMENT OF NEONATAL THERMOREGULATION.....	5R01 HD11697-03	77,176
APRILLE, JUNE R.....	PATHOGENIC ROLE OF A SERUM FACTOR IN REYE'S SYNDROME.....	5R01 NS14936-02	81,291
APRILLE, JUNE R.....	ANIMAL RESOURCE IMPROVEMENT CENTER.....	1P40 RR01232-01A1	184,896
BERNHEIM, HARRY A.....	MECHANISM AND FUNCTION OF FEVER.....	1R01 AI17279-01	93,996
FELDBERG, ROSS S.....	NATURE AND REPAIR OF A NEW FORM OF DNA DAMAGE.....	5R01 CA19419-05	90,226
HECHT, NORMAN B.....	GENE EXPRESSION DURING SPERMATOGENESIS.....	1R01 GM29224-01	68,972
HECHT, NORMAN B.....	RNA SYNTHESIS IN SPERMATOZOA.....	5R01 HD11878-02	80,043
KANAREK, ROBIN B.....	DIET SELECTION AND OBESITY.....	2R01 AM19821-04	55,433
KUIPERS, BENJAMIN J.....	COGNITIVE REPRESENTATIONS OF MEDICAL EXPERTISE.....	1R23 LM03603-01	41,459
SAMPSON, PHILIP B.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07179-03	38,652
SIEGEL, ELI C.....	GENETIC CONTROL OF MUTATION IN ESCHERICHIA COLI.....	5R01 GM25921-02	62,051
ORGANIZATION TOTAL	11	874,195	
NORTHAMPTON			
SMITH COLLEGE	ZIP CODE 01063		
OLIVO, MARGARET A.....	A SINGLE SARCOMERE.....	5R01 NS12196-06	41,193
TEGHTSOONIAN, MARTHA.....	MODELS OF APPARENT SIZE AND DISTANCE.....	5R01 HD10857-03	43,918
ORGANIZATION TOTAL	2	85,111	
NORTH DARTMOUTH			
SOUTHEASTERN MASSACHUSETTS UNIVERSITY	ZIP CODE 02747		
THOMAS, GEORGE J, JR.....	MOLECULAR STRUCTURE AND INTERACTIONS OF VIRUSES.....	5R01 AI11855-06	45,195
ORGANIZATION TOTAL	1	45,195	
SHREWSBURY			
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY	ZIP CODE 01545		
ABERHART, DONALD J.....	LEUCOGENENOL.....	1R01 CA25377-01A1	81,713
ABERHART, DONALD J.....	STEREOCHEMICAL STUDIES OF AMINOMUTASES.....	5R01 GM25919-02	68,371
BARIL, EARL F.....	DNA SYNTHESIS: REGULATION IN NORMAL AND CANCER CELLS.....	5R01 CA15187-05	91,700
BERGER, EDWARD A.....	A SURFACE LECTIN AND CELL COHESION IN DICTYOSTELIUM.....	5R01 GM25588-02	60,483
CALVET, JAMES P.....	PATTERNS OF GENE TRANSCRIPTION IN HELA CELLS.....	1R01 GM27265-01A1	77,272
CASPI, ELIAHU.....	STUDIES WITH STEREOSPECIFICALLY LABELED MEVALONATES.....	5R01 AM12156-13	172,217
CASPI, ELIAHU.....	BIOSYNTHESIS OF CARDENOLIDES AND RELATED STEROLS.....	5R01 GM19882-13	73,591
CRAIN, WILLIAM R, JR.....	DNA SEQUENCE ARRANGEMENT AND CHROMATIN STRUCTURE.....	5R01 GM24620-02	85,469
CRAIN, WILLIAM R, JR.....	SYNTHESIS & PROCESSING OF HNRNA & MRNA IN HELA CELLS.....	5R01 GM25492-03	66,646

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
FAIRBANKS, GRANT.....	PLASMA MEMBRANE AND METASTASIS IN RAT MAMMARY CANCER.....	1R01 CA27314-01	96,317
FAIRBANKS, GRANT.....	MEMBRANE AND RED CELL DYSFUNCTION IN HEMOLYTIC ANEMIA.....	5R01 HL19933-04	80,686
GUT, MARCEL.....	SYNTHESIS OF LABELED ADRENAL HORMONES.....	5R01 AM03419-20	174,189
HALL, PETER F.....	STRUCTURE AND REGULATION OF CYTOCHROMES P-450.....	7R01 AM28113-01	92,142
HALL, PETER F.....	AN ADRENAL TUMOR: CYTOCHROME P-450 AND STEROIDOGENESIS.....	7R01 CA29497-01	60,555
HOAGLAND, MAHLON B.....	CANCER CENTER SUPPORT (CORE) GRANT.....	2P30 CA12708-10	743,839
HOAGLAND, MAHLON B.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05528-18	149,098
JAHAN-PARWAR, BEHRUS.....	NEURAL BASES OF BEHAVIOR.....	2R01 NS12483-04A3	74,982
JAHAN-PARWAR, BEHRUS.....	NEURAL CONTROL OF FEEDING BEHAVIOR.....	5R01 NS14388-02	74,717
KLAIBER, EDWARD L.....	GONADAL, BEHAVIORAL AND EEG CORRELATES OF SMOKING.....	1R01 CA29320-01	106,255
KUPFER, DAVID.....	EFFECTS OF CHLORINATED HYDROCARBONS ON MAMMALIAN SYSTEMS.....	5R01 ES00834-07	128,533
KUPFER, DAVID.....	PROSTAGLANDINS: INTERACTIONS WITH MONOOXYGENASES.....	5R01 GM22688-05	98,250
LAU, IN-FAI.....	CADMIUM CONTAMINATION AND FERTILITY IN THE RAT.....	1R01 HD14091-01	85,067
LEAVITT, WENDELL W.....	HORMONE RECEPTOR ONTOGENY AND CANCER.....	5R01 CA23362-03	74,274
LEAVITT, WENDELL W.....	ESTROGEN AND PROGESTERONE RECEPTORS IN DECIDUOMA.....	5R01 HD13152-02	80,640
LONGCOPE, CHRISTOPHER L.....	CATECHOL ESTROGENS: PRODUCTION ACTION METABOLISM.....	5R01 AM20915-02	114,796
LONGCOPE, CHRISTOPHER L.....	REPRODUCTIVE FUNCTION AND GONADAL STEROID DYNAMICS.....	5R01 HD08034-06	88,156
MACRIDES, FOTEOS.....	OLFACTORY AND NEUROENDOCRINE FUNCTIONS.....	5R01 NS12344-06	175,811
MAUDSLEY, DAVID V.....	DIAMINES AND POLYAMINES IN TISSUE GROWTH.....	5R01 HD07476-06	79,123
O'CONNELL, ROBERT J.....	MECHANISMS OF OLFACTORY COMMUNICATION.....	5R01 NS14453-04	115,741
PEDERSON, THORU.....	GENE TRANSCRIPTION IN EUKARYOTES.....	5R01 GM21595-06	172,819
PEDERSON, THORU.....	GENE TRANSCRIPTION IN DROSOPHILA.....	1R01 GM28274-01	72,335
RESNICK, OSCAR.....	MATERNAL PROTEIN RESTRICTION AND MENTAL RETARDATION.....	2P01 HD06364-09	503,800
ROBERTS, JOHN S.....	OXYTOCIN SECRETION AND ACTION.....	5R01 HD09345-06	127,086
ROBINSON, HARRIET L.....	INHERITANCE AND EXPRESSION OF AVIAN C-TYPE VIRUSES.....	2R01 CA23086-04	100,318
ROBINSON, HARRIET L.....	AVIAN LEUKOSIS VIRUSES AND CANCER.....	1R01 CA27223-01	100,762
SKARNES, ROBERT C.....	HOST DEFENSE MECHANISMS AGAINST BACTERIAL ENDOTOXINS.....	5R01 AI15458-02	99,478
TREISTMAN, STEVEN N.....	CYCLOC NUCLEOTIDE MODULATION OF NEURONAL ACTIVITY.....	7R01 NS16975-01	30,503
VALLEE, RICHARD B.....	HM WEIGHT, PROTEIN, MICROTUBULES, & CELLULAR FILAMENTS.....	5R01 GM26701-02	88,649
VOGLMAYR, JOSEF K.....	SPERM MATURATION, AND ENDOCRINE FUNCTION OF THE TESTIS.....	5R01 HD09356-06	109,351
WADSWORTH, SAMUEL C.....	TRANSCRIPTIONAL CONTROL OF HEAT SHOCK GENES.....	5R01 GM26710-02	98,074
WEIHING, ROBERT R.....	ACTIN & TUBULIN CANCER CELLS (HUMAN, ADENOVIRUS).....	5R01 CA15229-05	88,951
WILLIAMS, KENNETH I.....	ANTIESTROGEN ACTION AND CANCER.....	5R01 CA25614-02	122,761
WU, JUNG-TSUNG.....	THE EFFECT OF BLASTOCYSTS ON THE UTERUS.....	5R01 HD12047-02	91,272
ORGANIZATION TOTAL	43	5,276,792	
SOUTH HADLEY			
MOUNT HOLYOKE COLLEGE ZIP CODE 01075			
COHEN, JOSEPH D.....	ADAPTATION IN NORMAL AND DEFICIENT COLOR VISION.....	5R01 EY02025-03	30,104
HIRSCH, EDWARD S.....	THE MECHANISMS AND CORRELATES OF DIETARY OBESITY.....	1R01 AM26316-01	62,060
KOHLER, SUSAN J.....	31P AND 2H NMR INVESTIGATION OF PHOSPHOLIPID BILAYERS.....	1R01 GM27140-01	45,368
WILLIAMSON, KENNETH L.....	CONFORMATIONAL ANALYSIS BY NMR.....	5R01 AM21381-16	39,015
ORGANIZATION TOTAL	4	176,547	
WALTHAM			
BRANDEIS UNIVERSITY ZIP CODE 02154			
ABELES, ROBERT H.....	ANTITUMOR DRUG DEVELOPMENT.....	5R01 CA23496-03	81,802
ABELES, ROBERT H.....	ENZYME MECHANISMS AND ENZYME INHIBITORS.....	5R01 GM12633-17	112,936
ABELES, ROBERT H.....	HMG-CoA REDUCTASE-INHIBITION AND ACTION.....	1R01 GM26975-01	81,546
AREND, LAWRENCE E.....	ANALYSIS OF FREQUENCY CHANNELS IN VISION.....	5R01 EY01797-05	49,068
CANNON, LOVICK E.....	STRUCTURE AND GENETICS OF ANTIBODY VARIABLE REGIONS.....	5R01 CA25049-03	71,638
CASPAR, DONALD L.....	ASSEMBLY OF VIRUSES, MEMBRANES, AND TISSUE.....	2R01 CA15468-07	288,785
COHEN, CAROLYN.....	MUSCLE STRUCTURE AND THE CONTRACTILE MECHANISM.....	5R01 AM17346-08	204,495
COHEN, JOEL M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07044-15	168,124
COHEN, SAUL G.....	ACETYLCHOLINESTERASE AND ACETYLCHOLINE RECEPTOR.....	1R01 NS16041-01	67,237
DE ROSIER, DAVID J.....	STRUCTURAL STUDIES OF BIOLOGICAL COMPLEXES.....	2R01 GM21189-08	136,011
DE ROSIER, DAVID J.....	STRUCTURAL STUDIES OF CELLULAR ASSEMBLIES OF ACTIN.....	5R01 GM26357-02	34,559
EPSTEIN, HERMAN T.....	BRAIN DEFICITS AND THEIR REHABILITATION.....	5R01 NS15171-02	50,526

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
FASMAN, GERALD D.....	PROTEIN NUCLEIC ACID INTERACTIONS: CHROMATIN STUDIES.....	2R01 GM17533-19	200,144
FREIFELDER, DAVID M.....	PHYSICO-CHEMICAL AND GENETIC STUDIES OF DNA FUNCTION.....	5R01 GM14358-14	70,754
FULTON, CHANDLER M.....	CELL DIFFERENTIATION AND ORGANELLE MORPHOGENESIS.....	5R01 GM24444-03	130,858
HABER, JAMES E.....	CONTROL OF GAMETOGENESIS.....	5R01 GM20056-08	134,229
HALL, JEFFREY C.....	NEUROGENETICS OF DROSOPHILA REPRODUCTIVE BEHAVIOR.....	5R01 GM21473-06	62,731
HALVORSON, HARLYN O.....	REGULATION OF DIFFERENTIATION IN BACILLUS SPORES.....	2R01 GM18904-09	132,069
HENDRICKSON, JAMES B.....	TOTAL SYNTHESIS OF QUASSINOIDS.....	5R01 CA24058-03	90,002
HEREFORD, LYNNA M.....	THE YEAST CELL CYCLE.....	1R01 GM27334-01	92,082
HONG, JEN-SHIANG.....	BIOCHEMISTRY AND GENETICS OF MEMBRANE FUNCTIONS.....	5R01 GM22576-05	86,495
INGLE, DAVID J.....	MOTOR FUNCTIONS OF TECTUM, PRETECTUM, AND CORTEX.....	5R01 NS13592-05	79,580
JENCKS, WILLIAM P.....	CHEMISTRY AND BIOCHEMISTRY OF ENERGY TRANSFER.....	5R01 GM20888-23	119,037
KARRER, KATHLEEN M.....	GERM LINE SPECIFIC DNA SEQUENCES IN TETRAHYMENA.....	1R01 GM27864-01	92,686
KUSTIN, KENNETH.....	CHEMICAL KINETICS STUDIED BY RELAXATION SPECTROMETRY.....	5R01 GM08893-17	54,752
LEVINE, LAWRENCE.....	PROSTAGLANDINS & ENZYMES IN NORMAL AND MALIGNANT TISSUES.....	2R01 CA17309-06	92,150
LEVINE, LAWRENCE.....	PROSTAGLANDIN BIOSYNTHESIS BY CELLS IN CULTURE.....	1R01 GM27256-01	107,435
LISMAN, JOHN E.....	MECHANISMS OF ADAPTATION.....	5R01 EY01496-07	134,082
LOWENSTEIN, JOHN M.....	LIPOGENESIS AS A FUNCTION OF AGING.....	5R01 AG00120-06	86,337
LOWENSTEIN, JOHN M.....	ENZYMATIC & CHEMICAL REACTIONS OF ADENOSINE TRIPHOSPHATE.....	5R01 GM07261-20	252,549
LOWEY, SUSAN.....	CHEMISTRY OF MUSCLE PROTEINS.....	5R01 AM17350-08	120,131
MILLER, CHRISTOPHER.....	IONOPHORES OF THE SARCOPLASMIC RETICULUM MEMBRANE.....	2R01 AM19826-04	95,525
NISONOFF, ALFRED.....	IDIOTYPE AND GENETIC CONTROL OF ANTIBODY BIOSYNTHESIS.....	2R01 AI12895-06	129,822
NISONOFF, ALFRED.....	STRUCTURE AND BIOSYNTHESIS OF ANTIBODIES.....	5R01 AI12907-06	118,840
PRESS, JOAN L.....	IMMUNOGENETIC ANALYSIS OF B CELL DIFFERENTIATION.....	5R01 AI13725-04	79,141
RAYMENT, IVAN.....	X-RAY DIFFRACTION STUDIES ON POLYOMA VIRUS.....	5R23 CA27260-02	31,919
REDFIELD, ALFRED G.....	STRUCTURAL KINETIC STUDIES BY NUCLEAR MAGNETIC RESONANCE.....	5R01 GM20168-08	129,415
ROSBASH, MICHAEL M.....	ORGANIZATION OF YEAST RIBOSOMAL PROTEIN GENES.....	2R01 GM23549-04	72,835
ROSBASH, MICHAEL M.....	MACROMOLECULAR SYNTHESIS IN OÖGENESIS AND DEVELOPMENT.....	5R01 HD08887-06	79,177
ROSENBLUM, MYRON.....	ORGANOMETALLIC REAGENTS IN ORGANIC SYNTHESIS.....	5R01 GM16395-13	77,657
ROSENBLUM, MYRON.....	NIGMS SHARED INSTRUMENTATION PROGRAM—NMR SPECTROMETER.....	5P41 GM27438-02	1,500
SCHIFF, JEROME A.....	STUDIES OF THE CONTINUITY OF CELLULAR ORGANELLES.....	5R01 GM14595-15	101,847
SCHLEIF, ROBERT F.....	REGULATORY MECHANISMS OF THE ARABINOSE OPERON.....	5R01 GM18277-10	105,686
STEVENSON, ROBERT.....	BISARYLPROPANOIDS OF CHEMICAL AND MEDICINAL INTEREST.....	5R01 GM19566-10	76,937
STOUT, ROBERT D.....	EFFECTOR AND SUPPRESSOR MECHANISMS OF TUMOR IMMUNITY.....	1R01 CA26467-01	68,140
STUBBS, GERALD J.....	STRUCTURE AND ASSEMBLY OF TOBACCO MOSAIC VIRUS.....	5R01 GM25236-03	84,870
SZENT-GYÖRGYI, ANDREW G.....	REGULATION IN STRIATED, SMOOTH AND CARDIAC MUSCLES.....	5R01 AM15963-15	176,120
TIMASHEFF, SERGE N.....	TUBULIN ASSOCIATIONS AND EFFECTS OF ANTICANCER DRUGS.....	2R01 CA16707-06	194,299
TIMASHEFF, SERGE N.....	STRUCTURE AND INTERACTIONS OF PROTEINS IN SOLUTION.....	5R01 GM14603-14	112,196
WENSINK, PIETER C.....	SEQUENCE ARRANGEMENT IN EUKARYOTIC DNA & CHROMOSOMES.....	5R01 GM21626-06	68,179
WINGFIELD, ARTHUR.....	OVERLOAD OF CENTRAL CAPACITY IN SPEECH PERCEPTION.....	5R01 NS14662-03	27,087
ORGANIZATION TOTAL	51 5,316,022		
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154			
ADAMS, RAYMOND D.....	RESEARCH IN MENTAL RETARDATION.....	5P30 HD04147-12	506,393
ADAMS, RAYMOND D.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05730-09	75,044
CAVINESS, VERNE S, JR.....	DEVELOPMENTAL NEUROPATHOLOGY.....	5R01 NS12005-06	123,854
IRWIN, CAROL C.....	MITOCHONDRIAL PROTEIN SYNTHESIS AND HERITABLE DISEASE.....	1R01 NS16045-01	23,815
IRWIN, LOUIS N.....	HIPPOCAMPAL GANGLIOSIDES.....	1R01 NS15924-01	69,030
JUNGALWALA, FIROZE B.....	ASSEMBLY OF CEREBRAL MYELIN MEMBRANES.....	5R01 NS10437-08	92,240
LEES, MARJORIE B.....	RELATIONSHIP BETWEEN BRAIN PROTEINS AND LIPIDS.....	5R01 NS13649-05	134,265
LEES, MARJORIE B.....	CARBONIC ANHYDRASE AND MYELIN DEVELOPMENT.....	5R01 NS13710-03	19,598
MC CLUER, ROBERT H.....	BIOCHEMICAL AND GENETIC ASPECTS OF MENTAL RETARDATION.....	5P01 HD05515-11	491,747
MC CLUER, ROBERT H.....	HORMONE INDUCED EFFECTS ON GLYCOLIPID METABOLISM.....	5R01 NS15037-02	56,855
MC CLUER, ROBERT H.....	MICRO-HPLC AND LC/MS METHODS FOR NEURAL SYSTEMS.....	1R01 NS16447-01	148,226
RAGHAVAN, SRINIVASA.....	SPHINGOLIPID METABOLISM IN HUMAN SKIN FIBROBLASTS.....	1R01 GM28207-01	85,394
SAPIRSTEIN, VICTOR S.....	BIOSYNTHESIS OF BRAIN CARBONIC ANHYDRASE.....	1R01 NS16186-01	92,714
SCHWARTING, GERALD A.....	GLYCOLIPIDS OF NORMAL & TRANSFORMED MOUSE LYMPHOCYTES.....	5R01 CA25532-02	57,169
SIDMAN, MURRAY.....	MENTAL RETARDATION: BASIC AND APPLIED RESEARCH.....	5P01 HD05124-10	442,454
ORGANIZATION TOTAL	15 2,418,798		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
WELLESLEY			
WELLESLEY COLLEGE ZIP CODE 02181			
PLECK, JOSEPH	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07186-02	16,691
WEBB, ANDREW C.	MITOCHONDRIAL GENE EXPRESSION DURING OOGENESIS.....	1R01 HD14552-01	39,780
ORGANIZATION TOTAL	2 56,471		
WILLIAMSTOWN			
WILLIAMS COLLEGE ZIP CODE 01267			
DRICKAMER, LEE C.	FACTORS AFFECTING SEXUAL MATURATION IN MAMMALS.....	2R01 HD08585-06	32,717
MC GILL, THOMAS E.	THE GENETICS AND PHYSIOLOGY OF BEHAVIORAL DIFFERENCES.....	5R01 GM07495-19	54,769
TAYLOR, ALLEN	STUDY OF LENS LEUCINE AMINOPEPTIDASE.....	5R01 EY02842-02	35,513
ORGANIZATION TOTAL	3 122,999		
WOODS HOLE			
MARINE BIOLOGICAL LABORATORY ZIP CODE 02543			
COPELAND, DONALD E.	SECRETION OF AQUEOUS, VITREOUS HUMOR IN FISH EYE.....	5R01 EY02647-03	39,222
FEIN, ALAN	MECHANISMS OF VISION.....	2R01 EY01362-06	111,770
GROSS, PAUL R.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05547-12	24,531
MACNICHOL, EDWARD F., JR.	STUDIES OF SINGLE VISUAL RECEPTOR CELLS	5R01 EY02399-03	152,015
STEPHENS, RAYMOND E.	THE FORMATION AND FUNCTION OF MICROTUBULES.....	5R01 GM20644-08	103,795
ORGANIZATION TOTAL	5 431,333		
WORCESTER			
CLARK UNIVERSITY ZIP CODE 01610			
COMER, M MARGARET.....	MOLECULAR GENETICS OF TRNA AND ACTIVATING ENZYMES.....	5R01 GM24774-02	38,746
GOODGLASS, HAROLD	NEW MEASURES OF APHASIC SYMPTOM VARIABLES	3R01 NS07615-20S1	15,220
RICHELLE, LEON J	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07177-02	16,108
STEIN, DONALD G.	AGING, NERVE GROWTH FACTOR AND BRAIN FUNCTION.....	5R01 AG00295-05	56,288
ORGANIZATION TOTAL	4 126,362		
COLLEGE OF THE HOLY CROSS ZIP CODE 01610			
CAMPBELL, DOUGLAS A.	GENETIC CONTROL OF MITOTIC SEGREGATION IN YEAST	5R01 GM25749-02	38,387
ORGANIZATION TOTAL	1 38,387		
ST. VINCENT HOSPITAL ZIP CODE 01604			
COHEN, SAMUEL M.	EXPERIMENTAL BLADDER TUMOR STUDIES.....	2R26 CA15945-07	152,619
DRISCOLL, WALTER G.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05660-06	27,233
FRIEDEL, GILBERT H.	ADMINISTRATION OF THE NATIONAL BLADDER PROJECT.....	2R26 CA13859-09	358,589
FRIEDEL, GILBERT H.	NBCCGA: CENTRAL CYTOLOGY AND PATHOLOGY LABORATORY.....	2R26 CA15490-07	114,149
GREENFIELD, ROBERT E.	BLADDER CANCER MODEL: AID FOR PLANNING & EVALUATION.....	1R26 CA28874-01	39,565
ORGANIZATION TOTAL	5 692,155		
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER ZIP CODE 01605			
APPEL, MICHAEL A.	CARBOHYDRATE METABOLISM IN DIABETES.....	5R01 AM25433-02	66,878
BRATT, MICHAEL A.	MOLECULAR BIOLOGY OF NEWCASTLE DISEASE VIRUS INFECTION.....	5R01 AI12467-05	103,735
BRAVERMAN, LEWIS E.	REGULATION OF THYROID FUNCTION, T4 AND T3 KINETICS.....	5R01 AM18919-06	136,450
BROWN, NEAL C.	THE STRUCTURE AND FUNCTION OF A DNA REPLICASE.....	5R01 CA15915-08	86,124
CARRAWAY, ROBERT E.	STRUCTURE AND ROLE(S) OF GASTRIC AND THYMIC PEPTIDES.....	7R01 AM28557-01	38,200
CARRAWAY, ROBERT E.	BIOCHEMISTRY OF BRAIN AND INTESTINAL NEUROTENSIN (S)	7R01 AM28565-01	57,012
CHLAPOWSKI, FRANCIS J.	CYCLIC AMP METABOLISM IN TRANSITIONAL EPITHELIUM.....	2R26 CA21612-04	121,759
DAVIS, MICHAEL A.	AN IONIC GA-68 GENERATOR FOR USE IN NUCLEAR MEDICINE.....	7R01 GM29267-01	58,963
DE GIROLAMI, UMBERTO	ISCHEMIA, DIABETES, AND THE MICROCIRCULATION.....	5R01 HL21843-03	93,204
DOBSON, JAMES G., JR.	REGULATION OF CARDIAC CONTRACTILITY AND METABOLISM.....	5R01 HL18280-05	46,342
DOBSON, JAMES G., JR.	ADENOSINE AND CATECHOLAMINE INTERACTION IN THE HEART.....	5R01 HL22828-03	41,342
EASTWOOD, GREGORY L.	EPITHELIAL RENEWAL IN PEPTIC AND NEOPLASTIC DISORDERS.....	5R01 AM21951-03	47,607
FAY, FREDRIC S.	GENERATION AND REGULATION OF FORCE IN SMOOTH MUSCLE.....	5R01 HL14523-09	132,319

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
FLATT, JEAN-PIERRE.....	FAT MOBILIZATION AND PROTEIN SPARING THERAPY.....	3R01 AM17456-06S1	15,752
FLATT, JEAN-PIERRE.....	COMPOSITION OF EXPENDED ENERGY AND WEIGHT MAINTENANCE.....	5R01 AM25205-02	57,943
FRAY, JOHN C.....	CONTROL OF RENIN RELEASE FROM PERFUSED RAT KIDNEY.....	5R01 HL23516-02	30,397
GAUTHIER, GERALDINE F.....	CYTOLOGICAL HETEROGENEITY OF SKELETAL MUSCLE FIBERS.....	2R01 AM26727-02	104,322
GOODMAN, H MAURICE.....	MECHANISM OF ACTION OF GROWTH HORMONE.....	5R01 AM19392-05	89,446
GOODMAN, H MAURICE.....	INSULIN EFFECT ON AMINO ACID METABOLISM IN ADIPOCYTES.....	3R01 AM21216-03S1	11,232
GOODMAN, H MAURICE.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05712-09	135,002
GRIGG, PETER.....	MECHANICAL SENSITIVITY OF JOINT AFFERENT NEURONS.....	5R01 NS10783-08	53,651
HNATOWICH, DONALD J.....	IMPROVED TUMOR IMAGING WITH NEW RADIOACTIVE LIPOSOMES.....	1R01 CA26968-01	65,650
HONEYMAN, THOMAS W.....	ROLE OF CALCIUM IN INSULIN AND CATECHOLAMINE ACTION.....	5R01 AM26013-02	62,000
HUMPHREYS, ROBERT E.....	MEMBRANE PROTEINS OF HUMAN LEUKEMIAS AND LYMPHOMAS.....	5R01 CA25873-02	100,909
JACOBSON, ALLAN S.....	THE RELATIONSHIP OF ELONGATION FACTOR.....	5R01 GM24755-03	55,979
JACOBSON, ALLAN S.....	MESSANGER RNA METABOLISM IN DICTYOSTELIUM DISCOIDEUM.....	1R01 GM27757-01	96,940
KELLY, LEWIS A.....	CELLULAR GROWTH, FUNCTION AND AGING IN DIABETES.....	5R01 AG02110-02	46,506
KRANT, MELVIN J.....	CLINICAL CANCER EDUCATION GRANT.....	5R25 CA22068-03	115,002
LIKE, ARTHUR A.....	ULTRASTRUCTURAL AND PHYSIOLOGIC STUDIES OF DIABETES.....	2R01 AM19155-06	282,152
MAJNO, GUIDO.....	PATHOPHYSIOLOGY OF ARTERIAL STENOSIS.....	1R01 HL25973-01	39,684
MARINUS, MARTIN G.....	FUNCTION OF METHYLATED BASES IN NUCLEIC ACIDS.....	5R01 GM22055-06	58,521
MARKS, SANDY C. JR.....	MONONUCLEAR CELLS, BONE RESORPTION AND TOOTH ERUPTION.....	2R01 DE03818-07	67,170
MILLER, THOMAS B, JR.....	REGULATION OF HEPATIC GLYCOGEN SYNTHESIS.....	5R01 AM18269-06	39,107
MILLER, THOMAS B, JR.....	EFFECTS OF DIABETES ON CARDIAC PERFORMANCE.....	2R01 HL20476-04A1	59,527
MORRISON, TRUDY G.....	SYNTHESIS AND ASSEMBLY OF VIRAL MEMBRANES.....	5R01 AI13847-03	61,251
PADYKULA, HELEN A.....	CYCLOC UTERINE DIFFERENTIATION—ALBINO RAT AND HUMAN.....	2R01 HD13941-02	96,772
PARKER, DAVID C.....	ACTIVATION OF MOUSE B CELLS BY INSOLUBLE ANTI-IG.....	5R01 AI13447-05	54,507
PRICE, JAMES M.....	STUDIES OF MULLERIAN INHIBITING SUBSTANCE.....	1R01 HD13779-01	71,255
PURTILO, DAVID T.....	IMMUNOPATHOLOGY X-LINKED LYMPHOPROLIFERATIVE SYNDROME.....	5R01 CA23561-03	132,711
ROSSINI, ALDO A.....	EXPERIMENTAL JUVENILE-TYPE DIABETES.....	5R01 AM25306-03	83,882
SCHNEIDER, GARY B.....	THE ROLE OF LYMPHOID CELLS IN ALVEOLAR BONE RESORPTION.....	5R01 DE05291-02	50,484
SINGER, ROBERT H.....	MESSANGER RNA CONTROL IN DIFFERENTIATING MUSCLE CELLS.....	5R01 NS11329-06	78,536
SMITH, EMIL R.....	SECRETORY PROCESSES IN THE PROSTATE GLAND.....	5R01 CA21607-03	47,181
SUSSKIND, MIRIAM M.....	INTERACTING REGULATORS OF GENE EXPRESSION.....	5R01 GM22877-05	85,161
SZYMAJSKI, IRMA O.....	MECHANISM OF DESTRUCTION OF TRANSFUSED RED CELLS.....	5R01 HL23841-02	61,774
TIPPER, DONALD J.....	STRUCTURE AND BIOSYNTHESIS OF BACTERIAL SPORE COMPONENTS.....	5R01 AI10806-07	71,432
TIPPER, DONALD J.....	REPLICATION OF DSRNA VIRUS-LIKE PARTICLES IN YEAST.....	5R01 GM20755-05	62,963
VILLA-KOMAROFF, LYDIA.....	THE STRUCTURE OF DEVELOPMENTALLY REGULATED GENES.....	5R01 GM26028-02	56,742
WAUD, DOUGLAS R.....	DRUG-RECEPTOR INTERACTIONS.....	5R01 NS12255-07	41,407
WELSH, RAYMOND M, JR.....	DEFECTIVE VIRUS, IMMUNITY, AND CHRONIC DISEASE.....	7R01 AI17672-01	54,285
WHITE, RAYMOND L.....	HUMAN LINKAGE MAPPING WITH DNA POLYMORPHISM.....	1R01 GM27313-01	106,275
WOLF, MERRILL K.....	DEVELOPMENT OF CENTRAL NERVOUS SYSTEM.....	5R01 NS11425-06	76,301
WOODLAND, ROBERT T.....	IDIOTYPIC RESTRICTIONS ON T AND B CELL INTERACTIONS.....	5R01 AI16118-02	96,545
WRIGHT, GEORGE E.....	STRUCTURE OF NOVEL INHIBITORS OF A DNA REPLICASE.....	5R01 GM21747-06	52,265
YOUNG, RUTH A.....	THYROID FUNCTION AND HIBERNATION.....	1R01 AM27196-01	70,875
ZIVIN, JUSTIN A.....	NEUROCHEMISTRY AND NEUROPATHOLOGY OF CNS ISCHEMIA.....	1R01 NS15827-01	50,610
ORGANIZATION TOTAL	56	4,180,659	
WORCESTER POLYTECHNIC INSTITUTE ZIP CODE 01609			
BROWNE, DOUGLAS T.....	ENZYME CONFORMATION AND MECHANISM.....	5R01 GM22008-05	57,052
GILES, KENNETH L.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07198-01	15,668
MUGGLETON-HARRIS, AUDREY L.....	NUCLEO-CYTOPLASMIC CONTROL OF AGING AND MALIGNANCY.....	5R01 AG01212-02	104,993
MUGGLETON-HARRIS, AUDREY L.....	CATARACT AND LENS DETERIORATION DUE TO MATURATION.....	5R01 EY02523-03	109,772
ORGANIZATION TOTAL	4	287,485	
STATE TOTAL	1,608	207,412,890	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN			
ANN ARBOR			
UNIVERSITY OF MICHIGAN AT ANN ARBOR ZIP CODE 48109			
AGRANOFF, BERNARD W.....	BIOCHEMICAL CONCOMITANTS OF NERVE REGENERATION.....	2R01 NS13743-04	118,533
AGRANOFF, BERNARD W.....	METABOLISM OF CDP-DIGLYCERIDES IN BRAIN.....	5R01 NS15413-02	62,432
ALLEN, SALLY L.....	NUCLEAR DIFFERENTIATION IN TETRAHYMENA.....	1R01 GM27703-01	95,924
ALPERN, MATHEW.....	PSYCHOPHYSIOLOGICAL STUDIES OF OCULAR ABNORMALITIES.....	5R01 EY00197-23	118,008
AMINOFF, DAVID.....	BIOSYNTHESIS AND DEGRADATION OF BLOOD GROUP SUBSTANCES.....	5R01 HL17881-17	68,466
ANTONUCCI, TONI.....	ATTACHMENT IN THE AGING PROCESS: A LIFE SPAN FRAMEWORK.....	5R01 AG01100-02	48,891
ASGAR, KAMAL.....	NATURE OF ALLOY SYSTEMS FOR CROWN & BRIDGE RESTORATIONS.....	5R01 DE04883-03	134,218
ASHE, ARTHUR J. III.....	ARSENIC ANALOGUES OF IMPORTANT DRUGS.....	5R01 GM20992-05	35,025
AVERY, JAMES K.....	DEVELOPMENT SUPPORT FOR DENTAL RESEARCH INSTITUTE.....	5P50 DE02731-14	1,500,000
AXELROD, DANIEL.....	MOLECULAR MOTION IN DEVELOPING NERVE AND MUSCLE.....	5R01 DE04883-03	50,173
BAER, MELVYN J.....	PUBLICATION: POSTNATAL DEVELOPMENT OF THE RAT SKULL.....	1R01 LM03464-01	16,400
BALLOU, DAVID P.....	RAPID KINETICS STUDY OF BIOLOGICAL OXYGENASES.....	5R01 GM20877-06	73,819
BARENBERG, SUMNER A.....	POLYORGANOPHOSPHAZENES, MOLECULAR MOTION & THROMBOSIS.....	5R01 HL23288-02	99,623
BARTLETT, ROBERT H.....	MEMBRANE OXYGENATION IN NEONATAL RESPIRATORY FAILURE.....	7R01 HD15434-01	61,660
BEAUDOIN, ALLAN R.....	BIOCHEMICAL TERATOGENESIS.....	1R01 HD14321-01	47,542
BEER, ALAN E.....	IMMUNOREGULATION OF MAMMALIAN REPRODUCTION.....	5R01 HD14234-02	126,985
BEIERWALTES, WILLIAM H.....	RADIONUCLIDE ADRENAL IMAGING IN HYPERTENSION.....	5R01 AM21477-03	153,595
BEIERWALTES, WILLIAM H.....	PET STUDY OF BIOCHEMISTRY AND METABOLISM OF THE CNS.....	1P01 NS15655-01	2,305,834
BENDER, ROBERT A.....	REGULATION OF MICROBIAL NITROGEN METABOLISM.....	5R01 AI15822-02	42,176
BENDER, ROBERT A.....	CONTROL OF DNA REPLICATION IN CAULOBACTER DEVELOPMENT.....	1R01 GM27111-01	67,540
BERNSTEIN, ISADORE A.....	NEOPLASTIC AND HYPERPLASTIC EPIDERMAL METABOLISM.....	2R01 AM15206-09	157,496
BOHR, DAVID F.....	MECHANISMS OF VASCULAR CHANGES IN HYPERTENSION.....	5P01 HL18575-05	401,792
BOLE, GILES G. JR.....	MULTIPURPOSE ARTHRITIS CENTER.....	2P60 AM20557-04	592,957
BOOKSTEIN, FRED L.....	ORTHODONTIC TREATMENT EFFECTS ON CRANIOFACIAL GROWTH.....	1R01 DE05410-01	45,107
BRABEC, MICHAEL J.....	REPLACEMENT OF SULFITE OXIDASE AFTER CC14 DAMAGE.....	5R01 ES01919-03	73,784
BREWER, GEORGE J.....	GENETICS OF RBC, DIPHOSPHOGLYCERATE & BETA GLOBIN.....	5R01 AM23002-02	90,734
BREWER, GEORGE J.....	ZINC AND ZN-CA ANTAGONISM ON CELL MEMBRANE ATPASE.....	5R01 AM24075-02	75,043
BREWER, GEORGE J.....	TREATMENT OF WILSON'S DISEASE WITH ZINC.....	5R01 AM26050-02	56,448
BRINKLEY, LINDA L.....	TISSUE INTERACTION IN PALATAL SHELF CLOSURE.....	5R01 DE02774-12	87,166
BROCKMAN, WILLIAM W.....	ROLE OF SV40 GENE A IN CELLULAR TRANSFORMATION.....	5R01 CA19816-05	76,730
BURKEL, WILLIAM E.....	DEVELOPMENT OF CELL-LINED VASCULAR PROSTHESES.....	5R01 HL23345-02	166,556
BURT, BRIAN A.....	PLAQUE BACTERIA AS PREDICTORS OF HUMAN DENTAL CARIES.....	5R01 DE04504-02	88,006
CAREY, THOMAS E.....	HUMAN SQUAMOUS CELL CARCINOMA: CULTURE AND SEROLOGY.....	1R01 CA28564-01	70,054
CARLSON, BRUCE M.....	ADAPTIVE MECHANISMS IN FREE MUSCLE TRANSPLANTS.....	5R01 NS13116-05	45,758
CARLSON, BRUCE M.....	REGENERATION OF A HORMONE-SENSITIVE MUSCLE.....	5R01 NS14358-03	43,324
CARLSON, DAVID S.....	GROWTH AND FUNCTION OF THE MUSCLES OF MASTICATION.....	5R23 DE05232-02	38,441
CASEY, KENNETH L.....	MECHANISMS OF THERMAL PAIN: BEHAVIORAL ANALYSIS.....	5R01 NS12015-05	69,423
CASTOR, C WILLIAM.....	CONNECTIVE TISSUE ACTIVATION IN RHEUMATIC DISEASES.....	5R01 AM10728-14	126,829
CASTOR, C WILLIAM.....	PATHOGENESIS OF INFLAMMATION IN THE LUNG.....	5R01 HL19685-05	91,240
CHRISTENSEN, ALBERT K.....	LOCALIZATION OF HORMONE RECEPTORS IN THE TESTIS.....	5R01 HD12349-03	90,246
CHRISTENSEN, HALVOR N.....	SITES AND REACTANTS IN AMINO ACID TRANSPORT.....	5R01 HD01233-25	120,243
CHU, ERNEST H.....	GENETIC CONTROL OF MAMMALIAN CELL METABOLISM.....	2R01 GM20608-06A1	78,623
CLAFLIN, J LATHAM.....	REGULATION OF CLONOTYPE EXPRESSION.....	5R01 AI12533-06	86,062
CLEWELL, DON B.....	PLASMID-RELATED GENE AMPLIFICATION IN STREPTOCOCCI.....	5R01 AI10318-09	58,456
COHEN, BENNETT J.....	A UNIVERSITY RESOURCE IN LABORATORY ANIMAL MEDICINE.....	2P40 RR00200-17	276,097
COON, MINOR J.....	FUNCTION OF HYDROXYLASES AND OTHER OXIDATIVE ENZYMES.....	5R01 AM10339-15	111,693
COOPER, STEPHEN.....	CAMP AND THE DIFFERENTIATION OF DICTYOSTELIUM DISCOIDEUM.....	1R01 GM28208-01	59,849
COUNSELL, RAYMOND E.....	POTENTIAL TUMOR OR ORGAN IMAGING AGENTS.....	5R01 CA08349-14	128,526
CREVEY, BARRY J.....	MATRIX STRUCTURES IN NORMAL AND HYPERTROPHIC MYOCARDIUM.....	1R01 HL26152-01	57,728
DADDONA, PETER E.....	REGULATION OF ADENOSINE DEAMINASE IN HUMAN CELLS.....	5R01 CA26284-02	65,562
DATTA, PRASANTA.....	ALLOSTERIC ENZYMES AND METABOLIC REGULATION.....	2R01 GM21436-06	81,179
DEKKER, EUGENE E.....	ENZYMATIC PATHS & MECHANISMS IN AMINO ACID METABOLISM.....	5R01 AM03718-21	113,015
DIAZ, LUIS A.....	PEMPHIGUS AND PEMPHIGOID ANTIGENS.....	5R01 AM21608-02	78,609
EASTER, STEPHEN S. JR.....	RETINAL GROWTH AND ITS CONSEQUENCES.....	5R01 EY00168-11	41,083
ENSMINGER, WILLIAM D.....	INNOVATIONS IN HEPATIC ARTERIAL DRUG INFUSIONS.....	1R01 CA28490-01	36,364
ERICKSON, ROBERT P.....	CONTROL OF GENE EXPRESSION DURING SPERMATOGENESIS.....	5R01 HD11738-03	73,315
ERNST, STEPHEN A.....	TRANSPORT PROCESSES IN ION TRANSPORTING EPITHELIA.....	9R01 AM27559-02	113,306

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
FAJANS, STEFAN S.	LONG-TERM STUDY OF ASYMPTOMATIC AND FUTURE DIABETES.....	5R01 AM00888-25	127,334
FAJANS, STEFAN S.	CARBOHYDRATE METABOLISM.....	3R01 AM02244-21S1	51,155
FAJANS, STEFAN S.	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20572-04	1,391,487
FAULKNER, JOHN A.	TEMPORALIS FLAPS IN THE TREATMENT OF FACIAL PARALYSIS.....	1R01 DE04857-01A1	51,021
FEЕ, JAMES A.	MECHANISMS OF SUPEROXIDE DISMUTASES.....	2R01 GM21519-06	123,342
FEKETY, F ROBERT, JR.	PATHOGENESIS, PREVENTION AND THERAPY OF ENTEROCOLITIS.....	5R01 AM21076-02	64,569
FISHER, LESLIE J.	DEVELOPMENTAL ANALYSIS OF RETINAL SYNAPTIC ORGANIZATION.....	3R01 EY01281-05S1	6,230
FLYNN, GORDON L.	PERMEATION OF BURN WOUNDS, METHODOLOGY AND MECHANISM.....	5R01 GM24611-03	65,821
FOLK, WILLIAM R.	MAMMALIAN CELL TRANSFORMATION BY ONCOGENIC VIRUSES.....	5R01 CA13978-08	76,778
FOSTER, DOUGLAS L.	MECHANISMS GOVERNING INITIATION OF OVULATION.....	5R01 HD12502-02	15,924
FOX, IRVING H.	REGULATION OF HUMAN PURINE CATABOLISM.....	2R01 AM19674-04	101,739
FREEDMAN, DEBORAH S.	LONGITUDINAL STUDY OF CORRELATES OF FERTILITY: 1962-77.....	5R01 HD10407-04	131,761
FRETER, ROLF G.	THE ROLE OF BACTERIAL CHEMOTAXIS IN INFECTIONS.....	5R22 AI15279-03	90,776
FRETER, ROLF G.	MECHANISMS THAT CONTROL HUMAN AND ANIMAL GUT FLORA.....	1R01 AI17154-01	88,823
FRIEDMAN, DAVID I.	HOST & VIRAL INFLUENCES ON PHAGE LAMBDA DEVELOPMENT.....	5R01 AI11459-08	92,281
FRIEDMAN, DAVID I.	GENETICS OF HOST FACTORS IN INTEGRATIVE RECOMBINATION.....	2R01 AI14363-04	59,442
GANS, CARL	MUSCLE ACTIVITY AND CONTROL IN MASTICATION.....	5R01 DE05112-02	75,066
GARN, STANLEY M.	DETERMINANTS OF CONTINUITIES AND CHANGES IN FATNESS.....	1R01 HD13823-01	89,987
GAY, HELEN	CHROMOSOME STRUCTURE IN RELATION TO GENE ACTION.....	5R01 GM10499-18	57,880
GELEHRTER, THOMAS D.	CELLULAR MARKERS OF GENETIC HETEROGENEITY IN DIABETES.....	5R01 AM22028-03	65,108
GELEHRTER, THOMAS D.	HORMONAL REGULATION OF MEMBRANE PHENOTYPE.....	5R01 CA22729-03	159,461
GILLIAM, THOMAS B.	PHYSICAL ACTIVITY EFFECT ON CORONARY HD RISK IN CHILDREN.....	5R01 HL22886-02	95,777
GOLDSTEIN, GARY W.	METABOLIC ACTIVITY OF BRAIN CAPILLARIES.....	5R01 ES02380-02	101,295
GOLDSTEIN, GARY W.	RETINAL MICROVESSELS: BASIS FOR INJURY IN DIABETES.....	9R01 EY03772-02	151,683
GOLDSTEIN, IRWIN J.	PROTEIN-CARBOHYDRATE INTERACTION.....	5R01 AM10171-15	90,831
GOLDSTEIN, IRWIN J.	MURINE ASCITES TUMOR CELL GLYCOPROTEINS.....	2R01 CA20424-04	86,754
GRABER, LEE W.	PSYCHOLOGICAL IMPLICATIONS OF DENTOFACIAL MALOCCLUSION.....	5R01 DE05095-02	78,159
GREEN, DANIEL G.	FUNCTIONAL ORGANIZATION OF THE RETINA.....	5R01 EY00379-13	82,190
GREENBERG, G ROBERT	MEMBRANE PROTEINS IN DEOXYRIBONUCLEOTIDE SYNTHESIS.....	5R01 GM25973-02	82,997
GRIFFITH, ROBERT K.	MECHANISM-BASED INHIBITORS OF DIAMINE OXIDASE.....	1R01 CA27244-01A1	67,318
GRONVALL, JOHN A.	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00042-20	1,268,349
GRONVALL, JOHN A.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05383-19	193,787
GROSSMAN, LAWRENCE I.	MITOCHONDRIAL DNA FROM NEOPLASTIC AND NORMAL CELLS.....	5R01 GM26179-03	82,097
GROSSMAN, LAWRENCE I.	GENES ON MITOCHONDRIAL DNA.....	5R01 GM26546-03	216,852
GROVES, JOHN T.	MOLECULAR PROBES OF THE MECHANISM OF CYTOCHROME P-450.....	5R01 GM25923-02	85,470
GUMUCIO, JORGE J.	HETEROGENEITY OF THE LIVER ACINUS AND CHOLESTASIS.....	5R01 AM18409-06	101,051
HAJRA, AMIYA K.	METABOLISM OF PHOSPHATIDIC ACID & ITS ANALOGS IN BRAIN.....	2R01 NS08841-12	94,752
HAJRA, AMIYA K.	GLYCEROLIPID METABOLISM IN MICROBODIES.....	1R01 NS15747-01	77,328
HANSEN, BARBARA C.	OBESITY AND THE REGULATION OF APPETITE.....	5R01 AM20493-04	223,569
HANSEN, BARBARA W.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05796-03	34,028
HARVIE, NANCY R.	CLOSTRIDIAL TOXINS IN POSTANTIBIOTIC COLITIS.....	5R01 AI16243-02	70,155
HAWKINS, JOSEPH E, JR.	MICROSCOPIC STUDIES OF THE INNER EAR.....	2R01 NS05065-16	116,893
HELLING, ROBERT B.	CHLOROPLAST DNA FROM EUGLENA.....	2R01 GM25565-03	75,797
HERMALIN, ALBERT I.	POPULATION STUDIES CENTER.....	5P30 HD10003-05	178,618
HERZOG, A REGULA	SURVEY METHODOLOGY AND THE AGED: SECONDARY ANALYSES.....	1R01 AG02038-01	95,761
HEYN, RUTH M.	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA02971-24	164,755
HEYN, RUTH M.	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19762-05	152,663
HICKS, SAMUEL P.	DEVELOPMENT OF CORTICOSPINAL SYSTEM.....	5R01 NS10531-08	15,181
HIGUCHI, WILLIAM I.	PRODRUG BASED METHODS FOR TOPICAL DELIVERY OF ARA-A.....	3R01 AI14987-02S1	12,613
HIGUCHI, WILLIAM I.	PRODRUG BASED METHODS FOR TOPICAL DELIVERY OF ARA-A.....	5R01 AI14987-03	66,634
HIGUCHI, WILLIAM I.	MECHANISMS OF CHOLESTEROL GALLSTONE DISSOLUTION.....	5R01 AM16694-07	70,742
HIGUCHI, WILLIAM I.	QUANTITATION OF ENAMEL DEMINERALIZATION MECHANISMS.....	5R01 DE01830-18	99,430
HOUSE, JAMES S.	PSYCHOSOCIAL FACTORS AND CHRONIC DISEASE.....	5R01 HL24545-02	97,519
HUARD, THOMAS K.	FC-RECEPTOR FUNCTION IN IMMUNOLOGICAL DISEASE.....	1R23 AI17139-01	47,400
HULTQUIST, DONALD E.	REDOX SYSTEMS OF ERYTHROCYTES.....	5R01 AM09250-15	64,875
ISAACSON, RICHARD E.	COLONIZATION OF SMALL INTESTINES BY ESCHERICHIA COLI.....	5R22 AI16191-02	68,673
JACKSON, ETHEL N.	VIRAL REGULATORY MECHANISMS IN INFECTION AND LYSOGENY.....	5R01 AI12369-06	51,192
JACKSON, JAMES S.	A NATIONAL INTRA-FAMILY COHORT STUDY OF BLACK AGING.....	5R01 AG01294-02	147,072
JACQUEZ, JOHN A.	IDENTIFICATION OF TRANSPORT ASSOCIATED PROTEINS.....	5R01 GM24507-03	42,612
JOURDAN, GEORGE W.	BIOCHEMISTRY OF MUROPOLYSACCHARIDES.....	5R01 AM10531-15	74,630
JULIUS, STEVO	BLOOD VOLUME DISTRIBUTION IN HYPERTENSION.....	5R01 HL21893-03	86,432

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
JUNI, ELLIOT	GENETICS AND METABOLISM OF GRAM-NEGATIVE COCCOBACILLI	5R01 AI10107-10	99,774
KAHN, ROBERT L.	SUPPORTS OF THE ELDERLY: FAMILY/FRIENDS/PROFESSIONALS	5R01 AG01632-02	229,111
KELLEY, WILLIAM N.	REGULATION OF PURINE METABOLISM IN HUMAN CELLS	2R01 AM19045-06	182,888
KEYES, JOHN W., JR.	QUANTIFICATION OF INFARCT SIZE BY EMISSION TOMOGRAPHY	5R01 HL21707-03	37,959
KEYES, JOHN W., JR.	QUANTIFICATION OF INFARCT SIZE BY EMISSION TOMOGRAPHY	2R01 HL21707-04	120,739
KEYES, PAUL L.	REGULATION OF OVARIAN FUNCTION DURING PREGNANCY	5R01 HD07127-09	57,336
KEYES, PAUL L.	ESTRADIOL ACTION IN THE RABBIT CORPUS LUTEUM	1R01 HD13645-01	60,778
KIM, SUN-KEE	AGE-RELATED CHANGES IN SALIVARY GLAND SECRETORY CELLS	5R01 AG00944-03	33,445
KLUGER, MATTHEW J.	THE ROLE OF ENDOGENOUS CRYOGEN IN THERMOREGULATION	1R01 GM28242-01	77,918
KOPelman, RAUL	EXCITATIONS IN MOLECULAR AGGREGATES	5R01 NS08116-12	85,105
KORAL, KENNETH F.	N-PIN HOLE GAMMA-EMISSION COMPUTED TOMOGRAPHY	1R01 GM28305-01	79,765
KORAN, ANDREW, III	MAXILLOFACIAL MATERIALS—COLOR STUDY	5R01 DE04136-06	94,345
KOREEDA, MASATO	CHEMICAL AND BIOSYNTHETIC STUDIES OF STEROID HORMONES	5R01 AI15664-03	68,778
KOREEDA, MASATO	STUDIES OF ARENE OXIDES AND THEIR ANALOGUES	5R01 CA25185-02	94,156
KOREEDA, MASATO	BIOTOXICITY OF ACTIVATED OLEFINS	5R01 ES02133-03	61,925
KOSTYO, JACK L.	ACTIVITIES OF RECOMBINED PEPTIDES OF GROWTH HORMONE	5R01 AM26511-02	124,319
KOSTYO, JACK L.	ANABOLIC ACTIONS OF ADENOHYPOPHYSEAL HORMONES	5R01 AM27126-02	36,075
LANDEFELD, THOMAS D.	GONADOTROPIN BIOSYNTHESIS	5R01 HD12016-03	63,228
LANGMORE, JOHN P.	CHROMOSOME STRUCTURE	1R01 GM27937-01	79,448
LAWRENCE, MERLE	CAUSES OF DEAFNESS	2P01 NS05785-16	1,040,717
LAWRENCE, MERLE	CONTROL OF INNER EAR MICROCIRCULATION	2R01 NS11731-07	64,237
LAWTON, RICHARD G.	REAGENTS FOR EQUILIBRIUM PROTEIN CROSS-LINKS	5R01 GM23679-02	91,300
LICHTER, PAUL R.	CARBONIC ANHYDRASE INHIBITORS IN TREATING GLAUCOMA	5R01 EY02450-03	45,459
LICHTER, PAUL R.	CARBONIC ANHYDRASE INHIBITORS IN TREATING GLAUCOMA	1R01 EY03608-01	170,070
LILLIE, JOHN H.	HUMAN ORAL MUCOSA IN VITRO: SUBSTRATE INTERACTIONS	5R23 DE04945-03	18,662
LO BUGLIO, ALBERT F.	BIOCHEMICAL MECHANISMS OF LEUCOCYTE CYTOTOXICITY	1R01 AI16524-01	90,143
LO BUGLIO, ALBERT F.	EFFECT OF CANCER ON HUMAN MONOCYTE CYTOTOXIC MECHANISMS	5R01 CA25641-03	77,662
LO BUGLIO, ALBERT F.	SOUTHWEST ONCOLOGY GROUP	1R10 CA27057-01	184,646
LOCKRIDGE, OKSANA	GENETIC ASPECTS OF DRUG METABOLISM BY CHOLINESTERASE	1R01 NS15871-01	50,350
LOESCHE, WALTER J.	EFFECT OF CHEMOTHERAPY ON PLAQUE AND MICROBIAL ECOLOGY	5R01 DE03011-12	110,848
LUCCHESI, BENEDICT R.	ANALYSIS OF ANTIARRHYTHMIC AGENTS	5R01 HL05806-20	62,366
LUDWIG, MARTHA L.	STRUCTURE AND ACTIVITY OF ENZYMES IN CRYSTALLINE STATE	5R01 GM16429-13	109,432
LUTTER, LEONARD C.	THE STRUCTURE OF TRANSCRIBING CHROMATIN	1R01 GM27117-01	58,556
MACDONALD, ROBERT L.	ANTICONSULSANT-CONSULSANT ACTIONS IN CULTURED NEURONS	5R01 NS15225-02	39,840
MANN, WILLIAM R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05321-19	64,056
MARCELO, CYNTHIA L.	MODULATION OF KERATINOCYTE GROWTH AND SPECIALIZATION	5R01 AM26009-02	99,843
MARINO, JOSEPH P.	SYNTHETIC METHODS—SITE SPECIFIC/LATENT ANTITUMOR AGENTS	5R01 CA22237-03	56,812
MARSHALL, JOHN C.	MODULATION OF GNRH INDUCED GONADOTROPIN SECRETION	5R01 HD11489-03	97,712
MASON, MERLE	REGULATION OF TRYPTOPHAN AND LYSINE CATABOLISM	5R01 AM18647-05	71,405
MASSEY, VINCENT	BIOLOGICAL OXIDATION MECHANISMS	5R01 GM11106-18	209,983
MATTHEWS, KENNETH P.	INHIBITOR DEFICIENCIES IN ANAPHYLACTOID REACTIONS	5R01 AI14950-03	63,400
MATTHEWS, ROWENA G.	REGULATION OF FOLATE METABOLISM	5R01 GM24908-03	35,787
MC NAMARA, JAMES A., JR.	ADAPTATIONS TO CHANGES IN MASTICATORY MUSCLE LENGTH	5R01 DE04227-06	83,037
MC REYNOLDS, JOHN S.	FUNCTIONAL ORGANIZATION OF THE RETINA	5R01 EY01653-05	65,791
MEISLER, MIRIAM H.	GENETIC REGULATION OF MOUSE ENZYMES	5R01 MD24872-04	51,885
MENGE, ALAN C.	IMMUNOLOGIC-INDUCED INFERTILITY	2R01 HD05200-07A1	77,941
MENON, K. M.	REGULATION OF OVARIAN FUNCTION BY GONADOTROPINS	5R01 HD06656-08	73,772
MENON, K. M.	REGULATION OF GONADOTROPIN SECRETION	5R01 HD07729-06	68,179
MIDGLEY, A REES, JR.	GONADOTROPINS IN FERTILITY REGULATION	5P50 HD11311-02	748,093
MILLER, ARTHUR H.	AGE IDENTIFICATION AMONG THE AGING	1R01 AG02425-01	43,687
MISTRETTE, CHARLOTTE M.	NERVE-EPITHELIUM INTERACTION IN OROFACIAL DEVELOPMENT	5R01 DE04491-05	35,194
MOUV, DAVID R.	MECHANISMS OF CNS-INDUCED CHANGES IN SODIUM EXCRETION	5R01 NS12825-05	80,877
MOYERS, ROBERT E.	CRANIOFACIAL GROWTH AND DEVELOPMENT	5P01 DE03610-14	257,683
MURPHY, WILLIAM H.	MECHANISMS OF IMMUNITY IN LEUKEMIA	5R01 CA13701-08	105,421
NEEL, JAMES V.	PROGRAM PROJECT: THE STUDY OF HUMAN MUTATION RATES	1P01 CA26803-01A1	539,011
NEIDHARDT, FREDERICK C.	REGULATION OF BACTERIAL METABOLISM	5R01 GM17892-11	104,020
NIEDERHUBER, JOHN E.	IMMUNE RESPONSES IN VITRO-H-2 (IR) LOCUS FUNCTION	5R01 CA25052-04	93,548
NORDMAN, CHRISTER E.	X-RAY STRUCTURE ANALYSIS OF BIOLOGICAL COMPOUNDS	5R01 GM15259-17	96,683
NORTHCUTT, RICHARD G.	VISION IN GARS—ANATOMICAL & BEHAVIORAL ORGANIZATION	5R01 EY02485-03	51,009
NORTHCUTT, RICHARD G.	EVOLUTION OF THE TELENCEPHALON	5R01 NS11006-08	56,081
NUTTALL, ALFRED L.	INTRACELLULAR STUDIES OF THE ORGAN OF CORTI	5R01 NS15107-02	48,317

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
O'BRIEN, WILLIAM J.	DIFFUSE REFLECTANCE BY ESTHETIC DENTAL MATERIALS	1R01 DE05423-01	54,757
OAKLEY, BRUCE	NEURAL PLASTICITY IN TASTE AND CUTANEOUS SENSES	5R01 NS07072-14	79,731
OAKLEY, DEBORAH J.	AMBIVALENCE AND UNCERTAINTY IN CHILDBEARING DECISIONS	1R01 HD14611-01	95,347
OLSEN, RONALD H.	EVOLUTION AND EPIDEMIOLOGY OF ANTIBIOTIC RESISTANCE	5R01 AI14880-03	59,665
OLSON, GARY M.	INFANT MEMORY PROCESSES	2R01 HD10486-04	72,409
OSTRANDER, LEON D. JR.	EPIDEMIOLOGY OF DIABETES IN TECUMSEH, MICHIGAN	1R01 AM26331-01	84,712
OTTO, CHARLOTTE A.	CHAIN MODIFIED FATTY ACIDS FOR HEART IMAGING AGENTS	1R23 HL25459-01	42,751
OVERBERGER, CHARLES G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07050-15	211,787
OXENDER, DALE L.	CELL SURFACE AUTOANTIBODIES TO ISLET CELLS	1R01 AM26315-01	69,336
OXENDER, DALE L.	MEMBRANE TRANSPORT COMPONENTS IN BACTERIA	2R01 GM11024-17	111,689
OXENDER, DALE L.	TRANSPORT COMPONENTS FROM EUKARYOTES	5R01 GM20737-07	58,979
PAUL, ARA G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05571-16	40,864
PAYNE, ANITA H.	MECHANISM OF ACTION OF GONADOTROPINS IN THE TESTIS	5R01 HD08358-05	115,117
PEK, SUMER	PROSTAGLANDINS AND SECRETION OF GLUCAGON AND INSULIN	2R01 AM21192-04	121,895
POLITSER, PETER E.	SINGLE-PEAKED FUNCTIONS AND DIAGNOSTIC SCREENING	1R23 LM03366-01A1	45,095
PRATT, WILLIAM B.	STEROID RECEPTORS IN MOUSE CELLS CULTURED IN VITRO	5R01 CA16041-06	48,413
PRATT, WILLIAM B.	STEROID RECEPTOR TRANSFORMATION	1R01 CA28010-01	61,679
RADIN, NORMAN S.	CHEMOTHERAPY AND MODELS OF HERITABLE SPHINGOLIPIDOSES	2R01 HD07406-07	52,784
RADIN, NORMAN S.	BRAIN GLYCOLIPIDS: METABOLISM AND PATHOLOGY	5R01 NS03192-21	144,777
REMINGTON, RICHARD D.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05447-19	62,565
RICHARDS, JOANNE S.	OVARIAN FOLLICULAR DEVELOPMENT AND HORMONE ACTION	5R01 HD09110-05	79,837
RICHARDSON, RUDY J.	NEUROTOXIC ESTERASE: NORMAL AND PATHOGENIC ROLES	5R01 ES01611-04	70,641
RIZKI, TAHIR M.	DEVELOPMENTAL GENETICS OF ADIPOSE CELLS IN DROSOPHILA	5R01 AG01945-02	112,842
ROBINSON, TERRY E.	MODULATION OF STRIATAL ACTIVITY BY GONADAL STEROIDS	1R01 NS16437-01	106,327
ROGERS, W. LESLIE	RADIONUCLIDES RADIATION, DETECTION AND QUANTITATION	5R01 GM16188-10	114,633
RUCKNAGEL, DONALD L.	BIOCHEMICAL GENETICS OF HUMAN HEMOGLOBIN VARIANTS	5R01 AM20964-03	165,071
RUDOLPH, PAUL H.	CROSS-FERTILIZATION IN BULINUS (PHYSOPSIS) GLOBOSUS	5R01 AI16219-02	41,823
RUSOFF, ANNE C.	PATHS OF INDIVIDUAL AXONS IN THE VISUAL SYSTEM	1R01 EY03333-01	11,291
SANDS, RICHARD H.	REDOX REACTIONS BY OPTICAL AND EPR SPECTROMETRY	5R01 GM12176-17	201,544
SCHACHT, JOCHEN H.	DISORDERS OF COCHLEAR HOMEOSTASIS AND FUNCTION	5R01 NS12881-05	69,429
SCHACHT, JOCHEN H.	MECHANISMS OF ANTIBIOTIC INDUCED HEARING LOSS	2R01 NS13792-04	107,969
SCHMICKEL, ROY D.	ORGANIZATION AND EXPRESSION OF REPEATED HUMAN GENES	5P01 HD13506-02	470,554
SCHNITZER, THOMAS J.	REOVIRUS ARTHRITIS: PATHOGENETIC MECHANISMS	1R01 AM27521-01	115,461
SCHULTZ, JEROME S.	IMPLANTABLE SENSORS FOR GLUCOSE AND OTHER METABOLITES	1R01 AM26858-01	60,952
SCHULTZ, JEROME S.	EFFECT OF FLOW ON FIBRIN FORMATION	5R01 HL23379-02	49,806
SCHULTZ, JEROME S.	BLOOD MATERIAL INTERFACE INTERACTIONS	5R01 HL24039-02	144,015
SCHWARTZ, JESSICA	ENDOGENOUS GROWTH HORMONE AND CARBOHYDRATE METABOLISM	1R23 AM26898-01	45,954
SCHWARTZ, STANLEY A.	SUPPRESSOR CELLS IN CANCER AND IMMUNODEFICIENCIES	1R01 AI16216-01	70,170
SELLINGER, OTTO Z.	BRAIN METHYLATION AND EPILEPTOGENESIS	5R01 NS06294-12	119,342
SHAFFER, JULES A.	REACTION MECHANISMS FOR ENZYMES	5R01 AM09276-16	80,318
SHAFFER, JULES A.	MACROMOLECULES FOR ISOLATING PROTEIN ON CELL SURFACES	9R01 AM27659-06	90,371
SHAFFER, JULES A.	MACROMOLECULES FOR ISOLATING PROTEIN ON CELL SURFACES	3R01 CA24439-05S1	10,546
SIEGEL, GEORGE J.	NEUROCYTOLOGY OF (NA,K)-ATPASE	1R01 NS15935-01	101,825
SING, CHARLES F.	GENETIC ANALYSIS OF GLYCOLYSIS IN DROSOPHILA	5R01 AG01804-02	67,402
SINSHEIMER, JOSEPH E.	EPOXIDE TOXICITY IN ALKENE METABOLISM	5R01 CA25770-02	68,440
SMITH, AARON	CHANGING EFFECTS OF HEMISPHERECTOMY	5R01 NS10089-08	6,947
SOLOMON, WILLIAM R.	ALLERGENICITY OF AIRBORNE PARTICULATES	2R01 AI10181-10	91,281
STEBBINS, WILLIAM C.	CHANGES IN HEARING RELATED TO INNER EAR PATHOLOGY	5R01 NS15108-02	95,277
TANNEN, RICHARD L.	HYDROGEN ION REGULATION BY THE MAMMALIAN NEPHRON	5R01 AM25248-03	122,552
TANNEN, RICHARD L.	INTERNATIONAL WORKSHOP ON AMMONIAGENESIS—1981	1R13 AM27638-01	7,000
TASHIAN, RICHARD E.	EVOLUTION OF MAMMALIAN CARBONIC ANHYDRASES	5R01 GM24681-03	174,257
THOENE, JESS G.	PROTEIN DEGRADATION IN INFANTILE NEPHROPATHIC CYSTINOSIS	1R01 AM25548-01A1	43,434
THORNTON, ARLAND D.	INTERGENERATIONAL CONSEQUENCES OF FERTILITY BEHAVIOR	3R01 HD12798-01S1	183,231
THORNTON, ARLAND D.	INTERGENERATIONAL CONSEQUENCES OF FERTILITY BEHAVIOR	5R01 HD12798-02	71,493
TOWNSEND, LEROY B.	CELLULAR-BIOCHEMICAL STUDIES ON ANTIMETABOLITES	2R01 CA26032-02A1	61,006
TOWNSEND, LEROY B.	SYNTHESIS OF CERTAIN AZOLO(1,3)OXAZINE NUCLEOSIDES	1R01 CA28381-01	72,572
UEDA, TETSUFUMI	CHARACTERIZATION OF CYCLIC AMP MEDIATED SYNAPSES	3R01 NS15113-01S1	4,002
UEDA, TETSUFUMI	CHARACTERIZATION OF CYCLIC AMP MEDIATED SYNAPSES	5R01 NS15113-02	55,202
VARANI, JAMES	TUMOR CELL WITH VARYING DEGREES OF MALIGNANCY	7R01 CA29550-01	21,722
VINOVSIS, MARIS A.	THE DEVELOPMENT OF RETIREMENT IN EARLY AMERICA	1R01 AG02692-01	22,482
WAGNER, JOHN G.	EFFECT OF ASSAY SPECIFICITY ON DIGOXIN CONCENTRATIONS	5R01 HL23862-02	42,840

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
WARD, PETER A.....	LEUKOCYTE CHEMOTAXIS.....	7R01 AI17690-01	103,922
WARD, PETER A.....	MECHANISMS OF PENETRATION OF RBC BY PROTOZOA.....	7R01 AI17691-01	71,075
WARD, PETER A.....	COMPLEMENT MEDIATED TUMOR CELL CHEMOTAXIS.....	7R01 CA29551-01	48,213
WEBER, WENDELL W.....	EXPERIMENTAL AND CLINICAL PHARMACOGENETICS.....	1P01 GM27028-01	284,834
WEINHOLD, PAUL A.....	PHOSPHOLIPID METABOLISM DURING LUNG DEVELOPMENT.....	5R01 HD02871-14	46,177
WELLMAN, HENRY M.....	DEVELOPMENT OF LARGE-SCALE SPATIAL COGNITION.....	5R01 HD13317-02	69,175
WHITFIELD, HARVEY J.....	HEXOSE TRANSPORT IN MUTANT HAMSTER CELLS.....	1R01 AM26899-01	66,678
WILLIAMS, CHARLES H, JR.....	PYRIDINE NUCLEOTIDE-DISULFIDE OXIDOREDUCTASES.....	5R01 GM21444-16	60,803
WINANS, SARAH S.....	OLFACTORY AND VOMERONASAL PATHWAYS.....	5R01 NS14071-02	47,436
WISEMAN, JOHN R.....	SYNTHESIS OF ANTHRACYCLINE ANTIBIOTICS.....	5R01 CA21935-03	71,012
WOTRING, LINDA L.....	CYTOTOXICITY MECHANISMS OF ADENOSINE ANALOGS.....	1R01 CA28756-01	77,483
WUTS, PETER G.....	ALLYLBORANES IN THE SYNTHESIS OF IONOMYCIN AND ANALOGS.....	1R01 GM28056-01	74,117
YOUNG, ANNE B.....	SPASTICITY AND SPINAL CORD NEUROTRANSMITTERS.....	5R01 NS15140-02	40,274
ORGANIZATION TOTAL	253	30,921,926	
AUGUSTA			
FOUNDATION FOR BEHAVIORAL RESEARCH ZIP CODE 49012			
LONG, JOETTA J.....	DEVELOPING A HEALTH-ORIENTED LIFE STYLE IN CHILDREN.....	5R01 HD13170-02	169,719
ORGANIZATION TOTAL	1	169,719	
DETROIT			
CHILDREN'S HOSPITAL OF MICHIGAN ZIP CODE 48201			
KAPI AN, JOSEPH.....	LYMPHOCYTE DIFFERENTIATION IN CHILDHOOD LEUKEMIA.....	3R01 CA17534-05S1	14,888
ORGANIZATION TOTAL	1	14,888	
DETROIT HEALTH DEPARTMENT ZIP CODE 48202			
GODLEY, ALEGRO J.....	DETROIT HYPERTENSION CONTROL PROGRAM.....	5R01 HL22380-03	358,523
ORGANIZATION TOTAL	1	358,523	
HENRY FORD HOSPITAL ZIP CODE 48202			
BEHER, WILLIAM T.....	ENZYMATIC DETERMINATION OF FECAL BILE ACIDS.....	2R01 AM20522-02	21,183
BICHER, HAIM I.....	HYPERTHERMIC OXYGENATION AS RADIATION SENSITIZER.....	5R01 CA25780-02	48,891
CARRETERO, OSCAR A.....	PHYSIOLOGICAL ROLE OF ISORENIN AND KALLIKREIN.....	5R01 HL15839-07	129,258
CARRETERO, OSCAR A.....	TONIN IN THE PATHOGENESIS OF HYPERTENSION.....	2R01 HL21092-04	123,614
GOLDSTEIN, SIDNEY.....	PROSPECTIVE STUDY OF RESUSCITATED SUDDEN DEATH VICTIMS.....	5R01 HL18800-06	152,506
HALVORSON, HERBERT R.....	RELAXATION KINETICS OF SUBUNIT INTERACTIONS.....	5R01 GM23302-05	83,867
HETZEL, FREDRICK W.....	MULTICELLULAR SPHEROIDS: A TUMOR MODEL TEST SYSTEM.....	5R01 CA25781-02	60,493
HETZEL, FREDRICK W.....	CHEMOTHERAPEUTIC DRUGS AS RADIATION SENSITIZERS.....	5R23 CA25782-03	31,636
JACKSON, CHARLES E.....	DETECTION OF MEDULLARY THYROID CANCER IN FAMILIES.....	5R01 CA22595-03	89,646
KAHN, RAYMOND H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05490-18	67,679
O'BRYAN, ROBERT M.....	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY.....	5R10 CA04915-21	213,083
OWNBY, DENNIS R.....	BIOCHEMICAL CORRELATES OF HUMAN LYMPHOCYTE FUNCTION.....	3R23 AI17741-01S1	1,547
PARFITT, A MICHAEL.....	BONE MASS AND BONE CELL FUNCTION IN DIABETES MELLITUS.....	5R01 AM21296-03	33,036
PREUSS, LUTHER E.....	AN ADIPOSITY INDEX FOR DIABETICS.....	1R01 AM26735-01	40,917
SCICLI, ALFONSO G.....	KININS AND BLOOD PRESSURE REGULATION.....	5R01 HL24650-02	72,866
SHORE, JOSEPH D.....	MOLECULAR MECHANISMS OF BLOOD COAGULATION ACTIVATION.....	1R01 HL25670-01	87,916
STEIN, PAUL D.....	PULMONARY PRESSURE AND VALVE ASSESSMENT BY SOUND.....	5R01 HL23669-02	73,773
WALBURN, FREDERICK J.....	PULSATILE FLOW SEPARATION IN BRANCHING TUBES.....	1R23 HL25839-01	38,044
ORGANIZATION TOTAL	18	1,369,955	
MICHIGAN CANCER FOUNDATION ZIP CODE 48201			
BRENNAN, MICHAEL J.....	BREAST CANCER PROGNOSTIC STUDY.....	5P01 CA16175-06	532,297
BRENNAN, MICHAEL J.....	CANCER CENTER SUPPORT GRANT.....	3P30 CA22453-02S1	60,000
BRENNAN, MICHAEL J.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA22453-03	566,566
BUTLER, W BARKLEY.....	ROLE OF ESTROGEN AND OTHER HORMONES IN BREAST CANCER.....	2R01 CA21606-04	70,701
CHLADEK, STANISLAV.....	THE STUDY OF PEPTIDYL TRANSFERASE RECOGNITION SITES.....	5R01 GM19111-09	111,926
DIEZT, MICHAEL I.....	IMMUNOLOGICAL CONTROL OF DORMANT LEUKEMIA.....	1R01 CA25391-01A1	59,902
HEPPNER, GLORIA H.....	IMMUNOPHARMACOLOGIC CONSEQUENCES OF TUMOR HETEROGENEITY.....	5R01 CA27419-02	52,905

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
HEPPNER, GLORIA H.	IMMUNE REACTIVITY AND MAMMARY NEOPLASIA	3R01 CA27437-01S1	4,623
HEPPNER, GLORIA H.	IMMUNE REACTIVITY AND MAMMARY NEOPLASIA	5R01 CA27437-02	115,119
HINES, DAVID L.	DIFFERENTIATION OF ABELSON VIRUS LEUKEMIC CELLS	5R01 CA25234-02	59,631
HOROWITZ, SAMUEL B.	REGULATION OF NUCLEAR-CYTOPLASMIC SOLUTE TRANSPORT	5R01 GM19548-09	116,942
HOROWITZ, SAMUEL B.	POTASSIUM, SODIUM, AND WATER IN OOCYTE MATURATION	5R01 HD12512-02	110,108
HORWITZ, JEROME P.	STEROID SULFURYLATION INHIBITORS AS ANTITUMOR AGENTS	5R01 CA23079-03	100,817
KING, CHARLES M.	MECHANISTIC APPROACHES TO CARCINOGENESIS	5R01 CA23386-03	135,014
MC GRATH, CHARLES M.	ENDOGENOUS VIRUS AND HORMONES IN MAMMARY CANCER	5R01 CA18175-05	73,429
MC GRATH, CHARLES M.	HORMONAL CONTROL OF METASTASIS	5R01 CA25482-02	97,183
MILLER, FRED R.	NATURAL SITE PREFERENCE IN MAMMARY CANCER BIOLOGY	1R01 CA28366-01	78,598
MORTENSEN, RICHARD F.	C-REACTIVE PROTEIN REGULATION OF TUMOR IMMUNITY	1R01 CA26827-01	7,385
PAINE, PHILIP L.	MECHANISMS OF NUCLEOCYTOPLASMIC PROTEIN DISTRIBUTION	5R01 GM26734-02	70,803
POWERS, WILLIAM E.	COMMITTEE FOR RADIATION ONCOLOGY STUDIES	5R01 CA25791-03	191,992
RICH, MARVIN A.	THE VIRAL ETIOLOGY OF CANCER	5R01 CA41100-08	185,347
RICH, MARVIN A.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05529-18	109,882
RUSSO, JOSE	STUDIES OF MAMMARY GLAND REFRACTORINESS TO CANCER	5R01 CA23539-03	58,442
RUSSO, JOSE	BASIS FOR MAMMARY GLAND SUSCEPTIBILITY TO CARCINOGENESIS	1R01 CA27026-01	60,399
VAITKEVICIUS, VAINUTIS K.	COMPREHENSIVE CANCER CTR OF METROPOLITAN DETROIT CCPDS	1R10 CA28295-01	132,694
VAUGHT, JIMMIE B.	MECHANISMS OF PHENACETIN CARCINOGENESIS	5R26 CA25904-02	101,887
WANG, CHING Y.	PREVENTION OF FANFT URINARY BLADDER TUMORIGENESIS	5R26 CA23800-03	94,474
WEIGAND, RAY A.	ASSEMBLY AND MATURATION OF MURINE LEUKEMIA VIRUSES	5R01 CA26740-03	63,314
YANG, NING-SUN	ISOZYMES SPECIFIC TO HUMAN BREAST NEOPLASIA	5R01 CA25574-02	68,049
ZEMLICKA, JIRI	TRANSITION STATE MODELS OF PROTEIN SYNTHESIS	5R01 GM21093-05	47,776
ORGANIZATION TOTAL	30	3,538,205	
MICHIGAN STATE DEPARTMENT OF MENTAL HEALTH—LAFAYETTE CLINIC ZIP CODE 48207			
FREEDMAN, ROBERT R.	BEHAVIORAL TREATMENT OF RAYNAUD'S PHENOMENON	1R01 HL23828-01A1	74,271
ORGANIZATION TOTAL	1	74,271	
WAYNE STATE UNIVERSITY ZIP CODE 48202			
ANDERSON, GORDON F.	CELL MECHANISMS CONTROLLING URINARY BLADDER CONTINENCE	5R01 AM21012-03	31,710
BACH, ROBERT D.	THE CHEMICAL BEHAVIOR OF ORGANOMERCURY COMPOUNDS	2R01 ES00761-08A1	53,932
BAGCHI, MIHIR	CELL BIOLOGY OF MAMMALIAN EYE LENS IN CULTURE	2R01 EY01848-04A1	53,000
BAGSHAW, JOSEPH C.	TRANSCRIPTIONAL REGULATION IN EMBRYONIC DEVELOPMENT	5R01 GM21376-04	67,014
BAKER, LAURENCE H.	SOUTHWEST ONCOLOGY GROUP	5R10 CA14028-07	111,816
BEESLEY, ROBERT C.	ILEAL ABSORPTION OF BILE SALTS AND VITAMIN B-12	5R01 AM25343-02	43,029
BENJAMINS, JOYCE A.	MYELINATION: ASSEMBLY OF LIPIDS AND PROTEINS	2R01 NS13143-04	70,535
BERK, RICHARD S.	PSEUDOMONAS EYE INFECTIONS—AN EXPERIMENTAL MODEL	3R01 EY01935-03S1	15,273
BOECKMAN, ROBERT K. JR.	SYNTHESIS OF ANTILEUKEMIC AND ANTITUMOR LACTONES	5R01 CA17154-05	21,095
BOECKMAN, ROBERT K. JR.	METHODOLOGY FOR CONSTRUCTION OF COMPLEX MOLECULES	5R01 GM25982-02	67,118
BOROS, DOV L.	IMMUNOREGULATION OF THE SCHISTOSOME EGG GRANULOMA	5R22 AI12913-05	71,694
BOURGUIGNON, LILLY Y.	IMMUNOCYTOCHEMICAL STUDIES ON LYMPHOCYTE MEMBRANES	5R01 AI15258-03	62,612
BROOKS, SAM C.	FATE OF STEROID HORMONES IN BREAST TUMOR CELLS	5R01 CA22828-03	61,209
BROWN, ELLEN B.	RAMAN SPECTROSCOPIC STUDIES OF MEMBRANE COMPONENTS	1R01 GM27243-01	17,386
BROWN, ELLEN B.	POLAR HEAD GROUP INTERACTIONS AND LIPID PROPERTIES	1R01 GM27744-01	34,755
CHOE, BYUNG-KIL	IMMUNOCHEMICAL STUDIES OF PROSTATIC ACID PHOSPHATASE	5R26 CA18748-06	62,604
CHURCHILL, PAUL C.	CONTROL OF RENIN SECRETION	1R01 HL24880-01	70,276
COHEN, MARGO P.	BASEMENT MEMBRANES: METABOLISM AND COMPOSITION	1R01 AM26435-01	57,020
CROSSLAND, WILLIAM J.	DEVELOPMENT AND MAINTENANCE OF VISUAL CONNECTIONS	5R01 EY01796-05	57,051
DRESCHER, DENNIS G.	IDENTIFICATION OF ACOUSTICO-LATERALIS TRANSMITTERS	1R01 NS16166-01	60,198
ENDICOTT, JOHN F.	REACTION MECHANISMS OF CYCLIC TETRAMINE COMPLEXES	5R01 AM14341-12	77,264
ESSNER, EDWARD S.	STRUCTURE AND PERMEABILITY OF THE CHORIOCAPILLARIS	1R01 EY03418-01	48,499
EVANS, DAVID R.	CONTROL OF PYRIMIDINE BIOSYNTHESIS IN MAMMALIAN CELLS	1R01 CA27674-01	71,653
FITZGERALD, JOSEPH M.	IMAGERY AND AUTOBIOGRAPHICAL MEMORY IN ADULTHOOD	1R23 AG01617-01A1	21,913
FITZPATRICK, JOYCE J.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05718-09	14,680
FRANK, ROBERT N.	RETINAL MICROVESSELS: TISSUE CULTURE AND BIOCHEMISTRY	5R01 EY01857-05	104,874
FRANK, ROBERT N.	A PROPOSED MODEL FOR DIABETIC RETINOPATHY	2R01 EY02566-03	76,884
FUNG, LESLIE W.	MOLECULAR STUDIES OF HUMAN ERYTHROCYTE MEMBRANES	5R01 HL22432-03	51,449
GALA, RICHARD R.	PROLACTIN-ADRENAL INVOLVEMENT IN DMBA MAMMARY TUMORS	5R01 CA21597-03	66,723
GETCHELL, THOMAS V.	ODORANT-RECEPTOR INTERACTIONS IN OLFACTORY NEURONS	1R01 NS16340-01	81,323
GIACOMELLI, FILIBERTO	PRIMARY MYOCARDIAL DISEASE IN THE DIABETIC MOUSE	5R01 AM25632-03	51,303

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
GOSHGARIAN, HARRY G.	FUNCTIONAL PLASTICITY IN THE SPINAL CORD	5R01 NS14705-02	37,027
HARDING, CLIFFORD V.	TISSUE GROWTH IN THE NORMAL AND INJURED EYE	3R01 EY01874-03S1	5,864
HARDING, CLIFFORD V.	CELL BIOLOGY OF THE NORMAL AND CATARACTOUS LENS	2R01 EY01874-04	88,445
HAZLETT, LINDA D.	ALTERATION WITH AGE OF RESISTANCE TO EYE INFECTIONS	5R01 EY02986-02	52,239
HONG, FELIX T.	STUDY OF THE EARLY RECEPTOR POTENTIAL IN VISION	1R01 EY03334-01	46,935
HONG, FELIX T.	PHOTOBIOLOGICAL SYSTEMS AND MEMBRANE INTERFACES	2R01 GM25144-03	73,361
HONN, KENNETH V.	STUDIES ON PROSTACYCLIN AND TUMOR METASTASIS	1R23 CA29405-01	41,388
HUDSON, RICHARD A.	MECHANISM OF VENOM ALPHA-NEUROTOXIN ACTION	5R01 NS14491-03	29,965
HULL, FRANKLIN E.	FATTY ACID BETA-OXIDATION IN NORMAL & ISCHEMIC HEART	5R01 HL14730-09	79,763
JAY, JAMES M.	MINORITY BIOMEDICAL SUPPORT	5S06 RR08167-02	251,058
JOHNSON, PAUL H.	RESTRICTION ENDONUCLEASE MECHANISMS AND DNA STRUCTURE	2R01 GM23690-04	91,081
KESSEL, DAVID H.	CELL-SURFACE AND MEMBRANE EFFECTS OF ANTITUMOR AGENTS	5R01 CA23243-03	81,949
KESSEL, DAVID H.	MODE OF ACTION OF THE PHOTO-ACTIVATED PORPHYRINS	5R01 CA23378-03	51,564
KIMURA, TOKUJI.	STEROID HYDROXYLASES STUDIES	5R01 AM12713-12	130,039
KING, ALBERT I.	STRUCTURAL AND MECHANICAL PROPERTIES OF THE SPINE	2R01 GM20201-07A1	83,460
LANDE, MAURICIO A.	STUDIES OF HUMAN AND RABBIT KERATOCYTES IN CULTURE	5R01 EY02339-03	44,457
LEE, CHUAN-PU.	SUBCELLULAR RESPIRATORY FUNCTIONS OF CARDIAC MUSCLE	5R01 GM22751-04	92,011
LEE, CHUAN-PU.	CELLULAR ENERGY METABOLISM IN DYSTROPHIC MUSCLE	5R01 NS14559-02	89,668
LEFFORD, MAURICE J.	CELLULAR DEFENSE MECHANISMS	3R01 AI17306-01S1	76,622
LEON, MYRON A.	BIOLOGICAL ACTIVITIES OF HOMOGENEOUS MITOGENS	5R01 CA20812-06	50,502
LERMAN, STEPHEN P.	RETICULUM CELL SARCOMA: GROWTH AND THERAPEUTIC CONCEPTS	1R01 CA27047-01	60,956
LEVINE, SEYMOUR	RESPIRATORY SYNCYTIAL VIRUS AND MATURATION	5R01 AI10996-05	58,032
LIM, EDWARD C.	ELECTRONIC RELAXATION OF DNA BASES	1R01 GM27767-01	58,120
LOEWENFELD, IRENE E.	HANDBOOK ON THE PUPIL (EYE)	5R01 LM03217-02	64,610
LOUIS-FERDINAND, ROBERT T.	EFFECTS OF LEAD EXPOSURE ON THE DEVELOPING RAT BRAIN	5R01 ES01638-03	38,588
LUCKINBILL, LEO S.	SELECTION AND GENETICS OF LONGEVITY IN DROSOPHILA	5R01 AG01812-02	66,175
LYNNE-DAVIES, PATRICIA	STUDIES OF RESPIRATORY MUSCLE FATIGUE	7R01 HL26327-01	39,715
LYONS, H JAY	THE MECHANISM OF STIMULATED RENIN RELEASE IN VITRO	5R01 AM21418-02	27,260
MAISEL, HARRY	A STUDY OF STRUCTURAL LENS PROTEINS	5R01 EY01417-07	56,948
MAISEL, HARRY	THE PLASMA MEMBRANE OF THE LENS CELLS	2R01 EY01855-04	76,897
MARNETT, LAWRENCE J.	PROSTAGLANDIN SYNTHETASE	2R01 GM23642-04	84,511
MARRAZZI, MARY A.	HYPOTHALAMIC GLUCORECEPTOR POTENTIALS—PHARMACOLOGY	3R01 AM21476-03S1	9,996
MARRAZZI, MARY A.	REYE'S SYNDROME (RS) AND METABOLIC PROFILES	1R01 NS16276-01	44,741
MC CAULEY, ROY B.	IMMUNOCHEMICAL STUDIES OF MULTIPLE FORMS OF MAO	5R01 AM19701-03	46,098
MC COY, LOWELL E.	PROCOAGULANT LIPOPROTEINS: BIOCHEMISTRY & BIOACTIVITY	5R01 HL20317-04	56,474
MILLETTE, ROBERT L.	HERPES SIMPLEX VIRUS GENE REGULATION	5R01 CA21065-05	75,902
PENNEY, DAVID G.	EFFECT OF CARBON MONOXIDE ON THE DEVELOPING HEART	5R01 HL22859-03	56,870
PONTES, J EDSON	CHEMOTHERAPY IN CARCINOMA OF THE PROSTATE	5R26 CA22508-03	74,633
POURCHO, ROBERTA G.	RETINAL NEUROTRANSMITTERS AND SYNAPTIC CIRCUITRY	5R01 EY02267-02	49,446
RABAN, MORTON	CHEMICAL MODELS FOR ACTIVE TRANSPORT OF ALKALI METALS	1R01 GM28123-01	43,642
RAM, JEFFREY L.	NEURONAL TARGETS OF A POLYPEPTIDE HORMONE	5R01 NS15041-02	57,265
RAUCH, HELENE C.	IMMUNOLOGIC RESPONSES IN DEMYELINATING DISEASES	5R01 NS12754-04	76,043
REED, MELVIN L.	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA17952-06	123,728
RILLEMA, JAMES A.	HORMONAL CONTROL OF METABOLISM IN THE MAMMARY GLAND	5R01 HD06571-09	43,121
ROMERO-HERRERA, ALEJO E	SEQUENCE ANALYSIS OF HUMAN MYOFIBRILLAR PROTEINS	1R01 AM25579-01A1	48,900
ROSE, NOEL R.	GENETICS OF THE RESPONSE TO SELF ANTIGENS	5R01 AM20023-03	115,798
ROSE, NOEL R.	AUTOIMMUNE THYROIDITIS IN OS CHICKENS	5R01 AM20028-04	153,511
ROSE, NOEL R.	ANTIGENIC COMPONENTS OF HUMAN PROSTATIC ADENOCARCINOMA	5R26 CA16426-07	133,167
ROSE, NOEL R.	PROGRAM IN CANCER IMMUNOLOGY	3P01 CA18900-03S1	97,120
ROSEN, RUTH A.	PREGNANCY RESOLUTION DECISION-MAKING AMONG MINORS	5R01 HD11099-03	78,554
ROTHSTEIN, HOWARD	HORMONAL CONTROL OF LENS GROWTH	5R01 EY02492-03	121,628
ROTHSTEIN, HOWARD	THE CELL CYCLE OF CORNEAL ENDOTHELIUM	5R01 EY02711-02	46,417
SACCO, ANTHONY G.	IMMUNOCONTRACEPTION—ANTIBODIES TO ZONA PELLUCIDA	5R01 HD10189-03	53,408
SCHAAP, A PAUL	ENZYMATICALLY GENERATED SINGLET OXYGEN IN CARCINOGENESIS	5R01 CA15874-06	48,489
SHOPE, THOMAS C.	AGING AND T-CELL CONTROL OF CELLULAR PROLIFERATION	1R01 AG02017-01	67,998
SIEGEL, ALBERT	MAPPING THE TOBACCO RATTLE VIRUS GENOME	1R01 GM27064-01	68,712
SKOFF, ROBERT P.	THE STUDY OF NORMAL AND ABNORMAL GLOGENESIS	2R01 NS15338-03	82,080
STEVENS, CALVIN L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07051-15	69,502
SWANBORG, ROBERT H.	ENCEPHALITOGENIC NATURE OF ALTERED BRAIN PREPARATION	5R01 NS06985-14	63,742
SWANSON, CURTIS J.	LIQUID CRYSTAL THERMOGRAPHY OF CELL HEAT PRODUCTION	1R01 GM28213-01	20,616
TCHEN, TCHÉ-TSING	BIOCHEMICAL BASIS OF THE ACTION OF ACTH AND MSH	2R01 AM13724-11	122,596

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
TIMBERLAKE, WILLIAM E	REGULATION OF THE LACTASE GENE OF ASPERGILLUS	5R01 GM26638-02	82,235
VINOGRADOV, SERGE N	INVERTEBRATE EXTRACELLULAR HEMOGLOBINS	1R01 HL25952-01	30,203
WEINER, LAWRENCE M	BIOMEDICAL RESEARCH SUPPORT	2507 RR05384-19	175,424
WHITTEN, CHARLES F	COMPREHENSIVE SICKLE CELL CENTER SUPPORT	5P60 HL16008-08	1,034,196
WIENER, JOSEPH	MORPHOGENESIS OF HYPERTENSIVE VASCULAR DISEASE	5R01 HL23603-03	120,876
WIENER, JOSEPH	CARDIAC MYOSIN SUBUNIT FUNCTION—REGULATOR ROLE OF LC2	5R01 HL24424-02	47,134
YAMAZAKI, RUSSELL K	HORMONAL REGULATION OF MITOCHONDRIAL FUNCTION	5R01 AM25258-03	57,566
YUREWICZ, EDWARD C	HUMAN CERVICAL MUCIN: OLIGOSACCHARIDE STRUCTURE	5R01 HD12519-02	42,763
ZWAS, FRED	PSYCHOPHYSICAL STUDIES OF RETINITIS PIGMENTOSA	3R01 EY01707-04S1	7,310
ORGANIZATION TOTAL	101	7,633,006	
EAST LANSING			
MICHIGAN STATE UNIVERSITY ZIP CODE 48824			
AKERA, TAI	CARDIAC GLYCOSIDES: MECHANISM OF INOTROPIC ACTION	5R01 HL16052-07	115,436
ALLEN, RONALD E	PROPERTIES OF SATELLITE CELLS IN AGING MUSCLE	5R23 AG01467-02	40,663
ASHER, JAMES H, JR	GENETIC AND MOLECULAR ANALYSIS OF MESODERMAL INDUCTION	5R01 HD08134-05	61,293
AUST, STEVEN D	XENOBIOTIC CONJUGATION BY THE INTESTINE	5R01 GM22535-05	30,222
BABCOCK, GERALD T	BIOENERGETIC MECHANISMS IN MULTICENTER REDOX ENZYMES	5R01 GM25480-02	50,519
BENNETT, JAMES L	DRUG DISRUPTION OF SCHISTOSOME REPRODUCTIVE PROCESSES	2R22 AI14294-04	50,134
BENNETT, JAMES L	SCHISTOSOMIASIS: MODE OF ACTION OF NEW DRUGS	5R01 AI14993-03	48,194
BIEBER, LORAN L	SHORT-CHAIN ACYL-CARNITINES—FUNCTION AND ENZYMOLOGY	5R01 AM18427-06	71,929
BREDECK, HENRY E	BIOMEDICAL RESEARCH SUPPORT	2507 RR07049-15	114,818
BRUBAKER, ROBERT R	IRON-DEPENDENT ENHANCEMENT OF VIRULENCE IN YERSINIA	2R01 AI13590-04	83,659
BULL, ROBERT W	IMMUNOHEMATOLOGICAL REFERENCE CENTER SUPPORT	3P40 RR00931-05S1	3,831
BULL, ROBERT W	IMMUNOHEMATOLOGICAL REFERENCE CENTER SUPPORT	5P40 RR00931-06	99,048
CHANG, CHIA-CHENG	MECHANISM OF MUTAGENESIS IN HUMAN AND MAMMALIAN CELLS	5R23 ES01809-03	40,235
CHIMOSKEY, JOHN E	LEFT HEART FAILURE MODEL FOR TESTING ASSIST DEVICES	5R01 HL24503-02	69,776
CHOU, CHING-CHUNG	MECHANISMS OF HEMODYNAMIC CHANGES DURING DIGESTION	2R01 HL15231-07	51,124
CLEMENS, LYNWOOD G	NEURAL CONTROL OF SEXUAL BEHAVIOR	5R01 HD06760-09	84,777
CLOUD, GARY L	IN VIVO OCULAR TONOMETRY USING LASER DOPPLER VELOCIMETRY	1R01 EY03293-01	58,414
COX, HERBERT W	IMMUNOCONGLUTININ AND IMMUNITY TO MALARIA	1R01 AI17018-01	37,729
DEAL, WILLIAM C, JR	FATTY ACID SYNTHETASE AND A NEW HEMOPROTEIN, H-450	5R01 AM20523-03	49,489
DODGSON, JERRY B	CONTROL OF GENE EXPRESSION IN AVIAN ERYTHROPOIESIS	1R01 GM28837-01	85,407
DUKELOW, W RICHARD	CYTOGENETIC STUDIES OF PRIMATE DEVELOPMENT	5R01 HD07534-06	69,337
DUKELOW, W RICHARD	PREIMPLANTATION DEVELOPMENT OF THE PRIMATE EMBRYO	5R01 HD11410-02	58,101
EDWARDS, JAMES L	NEURAL CONTROL OF LOCOMOTION	1R01 NS16270-01	53,780
ELSTEIN, ARTHUR S	STUDIES IN CLINICAL REASONING & INFORMATICS THEORY	5P01 LM03396-02	170,609
EMERSON, THOMAS E, JR	PERIPHERAL GLUCOSE UTILIZATION DURING ENDOTOXIN SHOCK	5R01 GM26394-02	44,796
ENKE, CHRISTIE G	STRUCTURE DETERMINATION BY TRIPLE QUAD MASS SPECTROMETRY	1R01 GM28254-01	101,667
ESSELMAN, WALTER J	EXPRESSION OF T LYMPHOCYTE DIFFERENTIATION ANTIGENS	5R01 CA24437-06	68,814
FERGUSON-MILLER, S	ORGANIZATION AND CONTROL OF ELECTRON TRANSFER CHAINS	5R01 GM26916-02	53,784
FINK, GREGORY D	NEURAL CONTROL OF FLUID HOMEOSTASIS IN HYPERTENSION	5R01 HL24111-02	43,208
FLUCK, MICHELE M	THE ROLE OF TWO POLYOMA EARLY GENES IN TRANSFORMATION	5R23 CA27453-02	34,500
FRAKER, PAMELA J	DIETARY ZINC: ITS EFFECT ON THE IMMUNE RESPONSE	2R01 HD10586-04	72,799
FRIEDMAN, THOMAS B	REGULATION OF URATE OXIDASE ACTIVITY IN DROSOPHILA	5R01 AM26131-02	28,848
FRITSCH, EDWARD F	ISOLATION AND EXPRESSION OF ERYTHROID-SPECIFIC GENES	1R01 GM28836-01	97,871
GARDINER, JOSEPH C	STOPPING RULES IN COMPETING RISK ANALYSES	1R01 GM28030-01	9,581
GEPPER, GERARD L	CENTRAL NEURAL CONTROL OF CARDIOVASCULAR FUNCTION	5R01 HL13187-11	92,610
GERHARDT, PHILIPP	BIOMEDICAL RESEARCH SUPPORT	2507 RR05772-06	65,217
GOODMAN, JAY I	REPAIR SYNTHESIS OF DNA IN PRECANCEROUS RAT LIVER	3R01 CA13344-07S1	8,335
HART, HAROLD	STUDIES IN ORGANIC SYNTHESIS	5R01 GM15997-11	70,964
HATTON, GLENN I	INTERNAL SENSING SYSTEMS AND DRINKING BEHAVIOR	2R01 NS09140-10	69,009
HÖFFERT, JACK R	COMPARATIVE PHYSIOLOGICAL STUDIES OF VERTEBRATE EYES	5R01 EY00009-17	54,178
HOOK, JERRY B	FACTORS AFFECTING RENAL PHYSIOLOGY IN THE NEWBORN	5R01 AM10913-14	67,924
HOOK, JERRY B	PERINATAL PESTICIDE TOXICITY	2R01 ES00560-09	111,684
KIERSZENBAUM, FELIPE	TRYPANOSOMIASIS: MECHANISMS OF IMMUNITY AND RESISTANCE	5R01 AI14848-02	88,037
KIERSZENBAUM, FELIPE	IMMUNOLOGY OF METACYCLIC TRYPANOSOMA CRUZI	1R01 AI17041-01	86,748
KIERSZENBAUM, FELIPE	IMMUNOLOGY OF THY-1-BEARING LYMPHOCYTE SUBSETS	5R01 CA25042-03	46,866
KITAI, STEPHEN T	EXPERIMENTAL STUDIES OF SENSORY PATHWAYS	2R01 NS14866-03	113,144

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
KOUL, HIRA L.....	HYPOTHESIS IN RELIABILITY; RANDOMLY CENSORED DATA.....	5R01 GM25449-02	11,905
KUNG, HSING-JIEN.....	RECOMBINATION AND REPLICATION OF AVIAN SARCOMA VIRUSES.....	5R01 CA24798-02	62,881
LITTLE, ROBERT W.....	AGING OF SOFT CONNECTIVE TISSUE.....	5R01 AG01471-02	53,372
LOVELL, KATHRYN L.....	NEUROTOXICITY OF KAINIC ACID.....	1R01 NS15761-01	6,503
MAGEE, PAUL T.....	DEVELOPMENT OF A GENETIC SYSTEM FOR CANDIDA ALBICANS.....	1R01 AI16567-01	57,974
MAGEE, PAUL T.....	STRUCTURE OF CHROMATIN FROM MEIOTIC YEAST.....	5R01 GM25258-02	41,671
MAHER, VERONICA M.....	ROLE OF MUTAGENESIS IN CHEMICAL CARCINOGENESIS.....	5R01 CA21247-05	132,201
MAHER, VERONICA M.....	INTERACTION OF CARCINOGENS WITH DNA—REPAIR OF LESIONS.....	3R01 CA21253-03S2	21,004
MAHER, VERONICA M.....	INTERACTION OF CARCINOGENS WITH DNA—REPAIR OF LESIONS.....	2R01 CA21253-04A1	125,423
MATSUMURA, FUMIO.....	TOXIC EFFECT OF CHLORINATED AND PYRETHROID PESTICIDES.....	5R01 ES01963-03	64,467
MEITES, JOSEPH.....	HYPOTHALAMO-PITUITARY-GONADAL RELATIONSHIP IN AGING RAT.....	2R01 AG00416-06	82,676
MEITES, JOSEPH.....	CONTROL OF SECRETION OF HYPOTHALAMO-PITUITARY HORMONES.....	5R01 AM04784-20	53,598
MEITES, JOSEPH.....	NEUROENDOCRINE CONTROL OF MAMMARY AND PITUITARY TUMORS.....	5R01 CA10771-13	92,034
MELA, LEEA M.....	INTRACELLULAR CHANGES INDUCED BY SHOCK AND TRAUMA.....	1R01 GM28889-01	145,460
MICHELAKIS, ANDREW M.....	RENAL AND CARDIOVASCULAR HYPERTENSIVE FACTORS.....	1R01 HL25995-01	91,303
MILLER, HAROLD C.....	IMMUNOGENESIS FROM BONE MARROW CELLS.....	3R01 CA13396-08S1	214
MILLER, HAROLD C.....	IMMUNOGENESIS FROM BONE MARROW CELLS.....	5R01 CA13396-09	102,284
MOON, ROBERT J.....	ANTIMICROBIAL PROPERTIES OF THE LIVER.....	5R01 AI15452-02	45,811
MOORE, KENNETH E.....	THE ROLE OF CATECHOLAMINES IN DRUG TOXICITY.....	5R01 NS09174-15	70,973
MOORE, KENNETH E.....	CATECHOLAMINES AS CENTRAL NERVOUS TRANSMITTERS.....	3R01 NS15911-13	82,300
MORRIS, ALLAN J.....	THE EFFECTS OF MESSENGER RNA STRUCTURE ON TRANSLATION.....	5R01 AM08575-15	78,985
NILSON, JOHN H.....	ONTOGENY OF BOVINE PITUITARY HORMONE-SPECIFIC MRNAs.....	1R01 AM26986-01	58,515
PADGETT, GEORGE A.....	ANIMAL MODEL CENTER FOR SIGNIFICANT HUMAN DISORDERS.....	5P40 RR01173-02	125,373
PENNER, JOHN A.....	CONTROL OF CLOTTING ON BIOMATERIALS BY ANTICOAGULANTS.....	7R01 HL27042-01	73,604
PINNAVAIA, THOMAS J.....	ALKALI METAL ION SPECIFICITY IN GUANINE NUCLEOTIDES.....	5R01 GM24516-02	37,145
REVZIN, ARNOLD.....	REGULATORY AND STRUCTURAL PROTEIN-DNA INTERACTIONS.....	5R01 GM25498-02	35,174
RHEUBEN, MARY B.....	SYNAPSE FUNCTION DURING GROWTH AND DEGENERATION.....	7R01 NS17132-01	48,134
RIGLE, GAIL D.....	SNAPSE EFFECTS ON PREGNANCY AND FETAL NORMALCY.....	5R01 HD10521-03	46,974
RIVERA, EVELYN M.....	THE BIOLOGY OF RAT MAMMARY HYPERPLASIAS.....	5R01 CA17862-05	99,672
ROBINSON, NORMAN E.....	DEVELOPMENT OF COLLATERAL VENTILATION.....	5R01 HL17768-06	39,254
ROMSOS, DALE R.....	EFFECT OF MEAL PATTERN AND DIET ON ENERGY METABOLISM.....	5R01 AM15847-10	65,077
ROMSOS, DALE R.....	DIETARY-INDUCED THERMOGENESIS.....	1R01 AM26851-01	71,500
ROSENBERG, BARNETT.....	METAL COORDINATION COMPLEXES IN CANCER CHEMOTHERAPY.....	5R01 CA11349-12	98,279
ROTH, ROBERT A, JR.....	ENVIRONMENTAL AGENTS AND NONRESPIRATORY LUNG FUNCTION.....	5R23 ES01861-03	39,960
ROTTMAN, FRITZ M.....	MRNA PROCESSING IN NORMAL AND TRANSFORMED CELLS.....	2R01 CA13175-09	140,828
SADOFF, HAROLD L.....	CELL DIFFERENTIATION OF PROCARYOTIC ORGANISMS.....	2R01 AI01863-23A1	79,483
SCOTT, JERRY B.....	ROLE OF CHEMICALS IN LOCAL BLOOD FLOW REGULATION.....	5R01 HL10879-12	54,167
SCOTT, JERRY B.....	EFFECTS OF HISTAMINE ON THE MICROVASCULATURE.....	5R01 HL24363-02	47,874
SMITH, WILLIAM L.....	PROSTAGLANDIN SYNTHESIS IN KIDNEY COLLECTING TUBULES.....	5R01 AM22042-03	51,594
SMITH, WILLIAM L.....	REGULATION OF UTERINE PROSTAGLANDIN BIOSYNTHESIS.....	2R01 HD10013-04A1	45,220
SNYDER, LOREN R.....	INTRACELLULAR DNA STRUCTURES AND TRANSCRIPTION.....	1R01 GM28001-01	86,453
SPARKS, HARVEY V.....	MECHANISM OF EXERCISE HYPEREMIA.....	1R01 HL25779-01	67,071
STEINDLER, DENNIS A.....	BRAINSTEM PROJECTIONS TO CEREBRUM AND CEREBELLUM.....	1R01 NS15931-01A1	44,854
SUELTER, CLARENCE H.....	COMPARATIVE ENZYMOLOGY OF NORMAL AND ABNORMAL TISSUE.....	2R01 GM20716-07	77,724
SWEETLEY, CHARLES C.....	CHEMISTRY AND METABOLISM OF SPHINGOLIPIDS.....	5R01 AM12434-13	111,856
SWEETLEY, CHARLES C.....	METABOLIC PRODUCTS IN DIABETES: GC-MS QUANTITATION.....	5R01 AM23012-03	66,379
TANAKA, DUKE, JR.....	DEVELOPMENT OF FRONTAL LOBE CONNECTIONS.....	7R01 NS16991-01	54,025
TIEN, H TI.....	BILAYER LIPID MEMBRANES IN AQUEOUS MEDIA.....	2R01 GM14971-15	110,789
TOLBERT, N EDWARD.....	PEROXISOMES IN DEVELOPING LIVER AND KIDNEY.....	3R01 HD06441-08S1	21,844
TOLBERT, N EDWARD.....	PEROXISOMES IN DEVELOPING LIVER AND KIDNEY.....	2R01 HD06441-09	101,550
TULINSKY, ALEXANDER.....	RESOLUTION STUDIES OF MOTIONS IN CHYMOTRYPSIN.....	5R01 GM21225-05	58,315
TULINSKY, ALEXANDER.....	CRYSTAL AND SOLUTION STUDIES OF ALDOLYTIC MECHANISM.....	5R01 GM26360-02	50,290
UFFEN, ROBERT L.....	MEMBRANE MORPHOGENESIS AND DIFFERENTIATION IN BACTERIA.....	5R01 GM24672-03	23,567
VELICER, LELAND F.....	MAREK'S DISEASE HERPES VIRUS ANTIGENS.....	5R01 CA23408-03	85,442
VELICER, LELAND F.....	EXPRESSION OF GENES FOR TUMOR-SPECIFIC ANTIGENS.....	5R01 CA24937-02	105,563
WALKER, BRUCE E.....	TERTOGENICITY OF TRANSPLACENTAL DES IN MICE.....	5R01 CA27535-02	65,215
WATSON, J THROCK.....	BIOCHEMICAL APPLICATIONS OF MASS SPECTROMETRY.....	1R01 GM28921-01	58,431
WATSON, J THROCK.....	MASS SPECTROMETRY FACILITY.....	5P41 RR00480-12	157,116
WEAVER, LYNNE C.....	AUTONOMIC CONTROL OF RENAL FUNCTION.....	5R01 HL21436-04	48,545
WELLS, WILLIAM W.....	ENERGY RELATIONSHIPS IN INBORN ERRORS OF METABOLISM.....	5R01 AM10209-15	92,629
WELSCH, FRANK.....	EFFECTS OF PRENATAL EXPOSURE TO ORGANOPHOSPHATES.....	1R01 ES02256-01A1	101,637

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
WELSCH, FRANK	PCBS: EMBRYOTOXIC INTERACTIONS WITH KNOWN TERATOGENS.....	1R01 ES02461-01	57,983
WELSER, JOHN R.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05623-14	89,310
WESTON, W DONALD	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA20441-02	143,906
WESTON, W DONALD	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05656-13	105,365
WILLIAMS, JEFFREY F	IMMUNOLOGY OF LARVAL TAPEWORM INFECTION	5R01 AI10842-09	124,930
WILLIAMS, JEFFREY F	COLLABORATIVE RESEARCH ON PARASITIC DISEASES IN SUDAN	5P01 AI16312-02	400,931
WILSON, JOHN E	HEXOKINASE AND ENERGY METABOLISM IN THE BRAIN	5R01 NS09910-10	98,075
ORGANIZATION TOTAL	114	8,309,769	
HOLLAND			
HOPE COLLEGE ZIP CODE 49423			
DOYLE, MICHAEL P	METALLOPROTEIN NITROSYL FORMATION AND REACTIVITY.....	5R01 ES01673-02	35,800
GENTLE, JAMES M.....	IN VITRO ACTIVATION OF PROMUTAGENS BY GREEN PLANTS.....	1R01 ES02384-01	67,884
ORGANIZATION TOTAL	2	103,684	
MARQUETTE			
NORTHERN MICHIGAN UNIVERSITY ZIP CODE 49855			
SMITH, TEMPLE F	MOLECULAR SEQUENCE ANALYSIS: DATA AND STRUCTURE	1R01 GM27056-01	31,200
ORGANIZATION TOTAL	1	31,200	
MIDLAND			
MICHIGAN MOLECULAR INSTITUTE ZIP CODE 48640			
HAWKES, SUSAN P	EARLY DETECTION OF TRANSFORMED CELLS.....	1R01 CA27283-01	41,660
MEEHAN, THOMAS D	SPECIFICITY IN BAP DIOL EPOXIDE COVALENT BINDING TO DNA.....	5R01 CA25106-02	125,849
ORGANIZATION TOTAL	2	167,509	
ROCHESTER			
OAKLAND UNIVERSITY ZIP CODE 48063			
CALLEWAERT, DENIS M	MOLECULAR MECHANISMS IN CELLULAR IMMUNOLOGY	5R01 AI12766-05	49,746
CHOPP, MICHAEL	WAVEFORM ANALYSIS OF INTRACRANIAL PRESSURE.....	5R01 NS15555-02	49,660
GIBLIN, FRANK J	ROLE OF SULFHYDRYL GROUPS IN X-RAY AND OTHER CATARACTS	1R23 EY03637-01	49,949
LINDEMANN, CHARLES B	CONTROLLING FACTORS IN MAMMALIAN SPERM MOTILITY.....	5R01 HD12535-02	35,812
MOSTAFAPOUR, M KAZEM	BETA-CRYSTALLINS IN NORMAL AND CATARACTOUS LENSES.....	1R01 EY03319-01	66,403
MOUDGIL, VIRINDER K	INTERACTION OF NUCLEOTIDES AND STEROID RECEPTORS.....	5R01 AM20893-02	42,455
OBEAR, FREDERICK W	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07131-11	52,453
REDDAN, JOHN R	CONTROL OF CELL DIVISION IN THE OCULAR LENS	5R01 EY00362-14	85,551
REDDY, VENKAT N.....	INTRAOCULAR FLUID DYNAMICS	5R01 EY00483-12	91,352
REDDY, VENKAT N.....	STUDY OF INTRAOCULAR TRANSPORT	5R01 EY00484-13	178,611
REDDY, VENKAT N.....	PROTEINS OF NORMAL AND CATARACTOUS LENSES.....	5R01 EY02027-04	22,768
RILEY, MICHAEL V	CONTROL OF CORNEAL HYDRATION AND TRANSPARENCY.....	5R01 EY00541-11	95,525
ROY, ARUN K	HORMONAL CONTROL OF ALPHA GLOBULIN SYNTHESIS IN LIVER	5R01 AM14744-10	101,108
UNAKAR, NALIN J	MORPHOLOGICAL STUDIES IN EXPERIMENTAL CATARACTS.....	5R01 EY01680-05	62,550
WINKLER, BARRY S	PHOTORECEPTOR ELECTROGENESIS: DYNAMICS AND CONTROLS	5R01 EY01219-06	75,161
ORGANIZATION TOTAL	15	1,059,104	
ROYAL OAK			
WILLIAM BEAUMONT HOSPITAL ZIP CODE 48072			
BERNSTEIN, JAY.....	RENAL DIFFERENTIATION IN METANEPHRIC TISSUE CULTURE	1R01 AM26480-01	57,507
POULIK, MIROSLAV D	URINARY PROTEIN COMPONENTS: DIAGNOSTIC AND THEORETICAL	5R01 AI11335-09	43,356
ORGANIZATION TOTAL	2	100,863	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MICHIGAN—Continued			
SOUTHFIELD			
PROVIDENCE HOSPITAL	ZIP CODE 48075		
VAUGHN, CLARENCE B	SOUTHWEST ONCOLOGY GROUP	5R01 CA22416-03	97,700
ORGANIZATION TOTAL	1	97,700	
STATE TOTAL	543	53,950,322	
MINNESOTA			
DULUTH			
UNIVERSITY OF MINNESOTA AT DULUTH	ZIP CODE 55812		
FITZGERALD, THOMAS J	TREPONEMA PALLIDUM: PATHOGENESIS AND IMMUNE RESPONSES	1R01 AI16585-01	72,935
MARCHAND, GARY R	REGULATION OF GLOMERULAR FILTRATION RATE	1R23 HL25390-01	36,064
MOHRMAN, DAVID E	DYNAMICS OF AUTOREGULATION OF MUSCLE BLOOD FLOW	5R23 HL22975-03	41,168
ZIEGLER, RICHARD J	HERPES VIRUS INFECTIONS OF NERVE TISSUE IN VITRO	5R01 NS13326-04	59,944
ORGANIZATION TOTAL	4	210,111	
MINNEAPOLIS			
HENNEPIN COUNTY MEDICAL CENTER	ZIP CODE 55415		
KEANE, WILLIAM F	EFFECTS OF GLOMERULAR INJURY ON RENAL FUNCTION	1R01 AM27325-01	42,655
MICHEL, LESTER D	GLOMERULAR FUNCTION IN EXPERIMENTAL DIABETES MELLITUS	1R23 AM27282-01	31,023
SCHWARTZ, SAMUEL	PORPHYRINS AND HEMES: METABOLISM AND BIOLOGICAL EFFECTS	5R01 AM12466-16	120,088
ORGANIZATION TOTAL	3	193,766	
MOUNT SINAI HOSPITAL	ZIP CODE 55404		
BERMAN, REUBEN	CONTROL OF HYPERTENSION BY NON-PHARMACOLOGIC MEANS	1R01 HL24998-01	158,352
ORGANIZATION TOTAL	1	158,352	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER	ZIP CODE 55417		
SILVIS, STEPHEN E	IMPEDANCE AND COMPUTERIZED ELECTROCOAGULATION	1R01 AM27140-01	54,110
ORGANIZATION TOTAL	1	54,110	
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL	ZIP CODE 55455		
ABUL-HAJJ, YUSUF J	EFFECT OF MAMMARY TUMORS ON STEROID METABOLISM	5R01 CA22467-03	28,225
ACKERMAN, EUGENE	MONOGRAPH: INFECTIOUS DISEASE: SIMULATION OF EPIDEMICS	1R01 LM03582-01	28,658
ADOLPH, KENNETH W	NONHISTONE PROTEINS AND HELA CHROMOSOME STRUCTURE	5R01 GM26440-02	50,838
AHMED, KHALIL	STUDIES OF NORMAL AND NEOPLASTIC PROSTATE	5R01 CA15062-07	69,757
AMPLATZ, KURT	MOVING SLOT CHEST RADIOGRAPHY	5R01 GM26180-02	19,656
AMPLATZ, KURT	RADIOGRAPHIC VENTRICULOMETRY FOR CORONARY HEART DISEASE	5R01 HL16484-06	44,618
ANDERS, MARION W	ENVIRONMENTAL CHEMICALS AS CO-TOXICANTS	5R01 ES00953-06	79,526
ANDERS, MARION W	METABOLISM AND TOXICITY OF HALOGENATED HYDROCARBONS	5R01 ES01082-06	72,672
ANDERSON, DWIGHT L	MORPHOGENESIS OF BACTERIOPHAGE PHI-29	5R01 DE03606-12	105,158
ANDERSON, JOHN H	CENTRAL MECHANISMS CONTROLLING GAZE AND HEAD POSTURE	1R01 NS16567-01	39,445
ANDERSON, JOHN S	ENZYMOLGY OF BACTERIAL CELL MEMBRANES	5R01 AI08295-12	57,670
ANDERSON, PAUL M	CYANATE-REACTION WITH CYANASE & AMINOTRANSFERASES	2R01 GM22434-04	62,198
ANDERSON, ROBERT W	VENTRICULAR DYSFUNCTION AND CARDIAC SURGERY	5R01 HL22152-04	153,088
ANDERSON, V ELVING	CONFERENCE ON GENETICS AND EPILEPSY	1R13 NS16085-01	26,135
BACH, FRITZ H	MANIPULATION OF ANTITUMOR IMMUNITY IN VITRO	1R01 CA27826-01	142,719
BACHE, ROBERT J	THE CORONARY VASCULAR RESPONSE TO ISCHEMIA	5R01 HL20598-05	64,666
BACHE, ROBERT J	MYOCARDIAL PERFUSION IN THE HYPERTROPHIED HEART	5R01 HL21872-03	65,231
BAKER, ABE B	CEREBROVASCULAR WORKSHOP	5R13 NS08328-09	16,720
BALFOUR, HENRY H, JR	THE ROLE OF VIRUSES IN RENAL TRANSPLANT PATIENTS	5R01 AM18883-05	81,355
BALFOUR, HENRY H, JR	CELL-MEDIATED IMMUNITY IN CONGENITAL CMV INFECTIONS	5R01 HD12342-02	74,629
BANDT, CARL L	PERIODONTITIS: MICROBIAL ETIOLOGY AND PREDICTION	1R01 DE05104-01A1	105,471
BARBOSA, JOSE J	GENETIC AND HLA STUDIES IN DIABETES MELLITUS	2R01 AM20729-04	105,907

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
BARBOSA, JOSE J.	STUDY OF EFFECTS OF DIABETIC CONTROL ON RENAL DISEASE	3R01 AM20742-02S1	20,516
BARBOSA, JOSE J.	STUDY OF EFFECTS OF DIABETIC CONTROL ON RENAL DISEASE	5R01 AM20742-03	124,374
BAUER, G ERIC	INSULIN SYNTHESIS AND RELEASE BY RAT-ISLET ADENOMAS	5R01 AM24090-03	36,597
BAUMANN, WOLFGANG J	UNUSUAL LIPIDS IN CANCER TISSUES	5R01 CA12150-09	64,564
BENSON, ELLIS S	HEMOGLOBIN AND RED CELL SYSTEM IN HEMOGLOBINOPATHIES	5P01 HL16833-07	652,423
BIRNBAUM, GARY	SUPPRESSOR LYMPHOCYTES IN NEUROLOGICAL DISEASE	5R01 NS14787-03	28,949
BISTNER, STEPHEN I	HEREDITARY CATARACT: ANATOMIC-METABOLIC CHANGES	5R01 EY02613-03	42,405
BLACKBURN, HENRY W	COMMUNITY SURVEILLANCE OF CARDIOVASCULAR DISEASE	5R01 HL23727-02	605,001
BLACKBURN, HENRY W	COMMUNITY PREVENTION PROGRAM FOR CARDIOVASCULAR DISEASES	1R01 HL25523-01	1,801,121
BLACKSHEAR, PERRY L, JR	PULSATORY WATER FLUX AND ENDOTHELIAL CELL DESQUAMATION	3R01 HL21188-03S1	15,834
BLACKSHEAR, PERRY L, JR	PULSATORY WATER FLUX AND ENDOTHELIAL CELL DESQUAMATION	2R01 HL21188-04	87,412
BLOEDEL, JAMES R	PATTERNS OF INTEGRATION ALONG CEREBELLAR AFFERENT SYSTEM	5R01 NS09447-11	59,640
BLOEDEL, JAMES R	NEUROPHYSIOLOGIC-PSYCHOPHYSICAL STUDY OF PAIN SYSTEMS	5R01 NS13002-05	72,585
BLOOMER, JOSEPH R	PROTOPHYRIA: STUDY WITH CULTURED SKIN FIBROBLASTS	5R01 AM26466-02	122,076
BLOOMFIELD, CLARA D	GLUCOCORTICOID RECEPTORS IN ADULT MALIGNANT LYMPHOMA	1R01 CA26273-01	124,944
BLOOMFIELD, VICTOR A	PHYSICAL CHEMISTRY OF BACTERIAL VIRUSES	5R01 GM17855-10	94,006
BLOOMFIELD, VICTOR A	POLYAMINE-POLYNUCLEOTIDE INTERACTIONS	1R01 GM28093-01	63,421
BLOOMFIELD, VICTOR A	HUMAN BRONCHIAL GLYCOPROTEINS	5R01 HL24952-02	73,812
BLOOMFIELD, VICTOR A	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07052-15	195,787
BLUMENFELD, MARTIN S	SATELLITE DNA & MOLECULAR ORGANIZATION OF CHROMOSOMES	5R01 GM22138-06	76,622
BLUMENTHAL, MALCOLM N	IMMUNOGENETIC FACTORS IN ALLERGIC RESPIRATORY DISEASES	5R01 HL23631-03	96,777
BODLEY, JAMES W	GUANINE NUCLEOTIDES AND PROTEIN CHAIN GROWTH	5R01 GM21359-05	73,943
BODLEY, JAMES W	AMINO ACID X-STRUCTURE/DISTR/BIOSYNTHESIS/FUNCTION	5R01 GM26832-02	64,946
BORCH, RICHARD F	REDUCTION OF TOXICITY IN CANCER CHEMOTHERAPY	5R01 CA22925-03	75,285
BOWERS, LARRY D	COMBINED SEPARATION-IMMOBILIZED ENZYME SYSTEMS	5R01 GM26214-02	37,999
BRAMBL, ROBERT M	MITOCHONDRIAL BIOGENESIS AND FUNGAL SPORE GERMINATION	2R01 GM19398-07	54,835
BRAND, K GERHARD	SEQUENTIAL CELL STUDIES IN FOREIGN BODY TUMORIGENESIS	5R01 CA10712-13	83,382
BRAND, K GERHARD	ETIOLOGIC CO-FACTORS IN ASBESTOS-CARCINOGENESIS	5R01 ES02101-02	61,742
BRANDA, RICHARD F	FOLATE METABOLISM IN BLOOD AND BONE MARROW CELLS	1R01 CA28234-01	55,811
BROCKMAN, HOWARD L, JR	REGULATION OF CHOLESTERYL ESTER LEVELS IN THE AORTA	2R01 HL17371-07	80,346
BROCKMAN, HOWARD L, JR	BULK-SURFACE DISTRIBUTION OF CHOLESTERYL ESTERS	5R01 HL23003-03	34,319
BROWN, DAVID M	ISLET TRANSPLANTATION AND DIABETIC VASCULAR DISEASE	3R01 AM17697-06S1	41,032
BROWN, DAVID M	ISLET TRANSPLANTATION AND DIABETIC VASCULAR DISEASE	2R01 AM17697-07	137,596
BRYANT, ROBERT G	SOLVENT AND SMALL SOLUTES IN TISSUES AND PROTEINS	5R01 GM18719-09	57,659
BRYANT, ROBERT G	CROSS POLARIZATION NMR OF RARE SPINS IN PROTEIN SYSTEMS	5R01 GM25441-03	34,054
BRYANT, ROBERT G	ALKALINE EARTH ION NUCLEAR MAGNETIC RESONANCE	5R01 GM25757-03	39,898
BUCHSBAUM, DONALD J	RADIOLABELED ANTIBODY TUMOR LOCALIZATION	1R01 CA23967-01A2	95,692
BUCHWALD, HENRY	METHOD OF TREATMENT AND NEPHROPATHY IN DIABETICS	3R01 AM23060-02S1	20,516
BUCHWALD, HENRY	METHOD OF TREATMENT AND NEPHROPATHY IN DIABETICS	5R01 AM23060-03	117,102
BUCHWALD, HENRY	EFFECTS OF METABOLIC SURGERY ON THE HYPERLIPIDEMIAS	5R01 HL11901-14	125,155
BUCHWALD, HENRY	SURGICAL CONTROL OF THE HYPERLIPIDEMIAS	2R10 HL15265-08	4,096,836
BURKHARDT, DWIGHT A	VISION AND INTRARETINAL POTENTIALS	5R01 EY00460-12	43,029
CARPENTER, ANNA M	MICROANGIOPATHY IN DIABETIC HUMAN EAR	5R01 AM25469-02	41,118
CARR, PETER W	FUNDAMENTAL STUDIES IN AFFINITY CHROMATOGRAPHY	1R01 GM27581-01	39,483
CAVERT, H MEAD	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00400-12	1,127,422
CERVENKA, JAROSLAV	CYTOGENETICS OF HEPATOCELLULAR CARCINOMA IN NIGERIA	1R01 CA28168-01	19,847
CLICK, ROBERT E	TOLERANCE OF BONE MARROW GRAFTS	5R01 CA23678-03	52,011
COHN, JAY N	ROLE OF VASOCONSTRICTOR MECHANISMS IN HEART FAILURE	5R01 HL22977-03	136,856
COLLINS, W ANDREW	CHILD PSYCHOLOGY SYMPOSIUM SUPPORT	5R13 HD10650-04	11,694
CRADDOCK, PHILIP R	LEUKEMIA THERAPY AND NEUTROPHIL DYSFUNCTION	2R01 CA15627-03	83,903
CROW, RICHARD S	RISK REDUCTION AND EXERCISE FITNESS IN A POPULATION	5R01 HL21307-03	33,961
CSALLANY, A SAARI	OZONE TOXICITY IN NORMAL AND ANTIOXIDANT FED ANIMALS	1R01 ES02325-01	103,522
CUSSLER, EDWARD L, JR	RATE PROCESSES INVOLVING BILE	7R01 AM28168-01	142,823
DAGLEY, STANLEY	ENZYMOLGY OF PATHWAYS OF PHENYLALANINE CATABOLISM	5R01 AM21981-03	66,250
DAGLEY, STANLEY	THE ENZYMATIC DEGRADATION OF AROMATIC COMPOUNDS	5R01 ES00678-14	60,636
DEMPSEY, MARY E	ENZYMIC CHOLESTEROL SYNTHESIS	3R01 HL08634-16S1	26,510
DUANE, WILLIAM C	ASCORBIC ACID NUTRITION AND STEROL METABOLISM	5R01 AM25811-02	49,103
DUVALL, ARNDT J, III	FLUID BARRIERS AND PATHWAYS WITHIN THE COCHLEA	2R01 NS04615-18	58,846
DUVALL, ARNDT J, III	MECHANISMS OF AUDITORY AND VES	2P50 NS12125-06A1	637,675
DWORKIN, MARTIN	CELL INTERACTIONS DURING MYXOBACTERIAL DEVELOPMENT	5R01 GM19957-08	64,454
EINZIG, STANLEY	BLOOD FLOW AND CARDIAC FUNCTION IN VIRAL MYOCARDITIS	5R01 HL18204-05	58,449

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
ENFIELD, FRANKLIN D.	INVESTIGATIONS IN QUANTITATIVE GENETICS.	2R01 GM16074-12	72,363
ERLANDSEN, STANLEY L.	LYSOZYME SECRETION AND PANETH CELL FUNCTION.	5R01 AM18344-06	44,271
ESTENSEN, RICHARD D.	PMA-A COCARCINOGEN AS A LYMPHOCYTE MITOGEN	2R01 CA22195-04	99,003
FAN, DAVID P.	ANTIGEN RECOGNITION BY CYTOTOXIC T LYMPHOCYTES	5R01 AI15067-03	73,383
FAN, DAVID P.	VIRAL ANTIGENS FOR CYTOLYTIC T LYMPHOCYTES	1R01 AI16587-01	55,536
FAN, DAVID P.	CELL GROWTH AND DIVISION	5R01 GM19483-11	94,471
FARAS, ANTHONY J.	RNA-DIRECTED DNA POLYMERASE & 70S RNA OF ONCONAVIRUSES	2R01 CA18303-06A1	77,094
FARAS, ANTHONY J.	MECHANISM OF RETROVIRUS PROVIRAL DNA SYNTHESIS	5R01 CA20011-04	49,633
FARAS, ANTHONY J.	REVERSION OF ROUS SARCOMA VIRUS-TRANSFORMED CELLS	5R01 CA26587-02	80,534
FERGUSON, RONALD M.	UTILIZING SUPPRESSOR CELLS IN ALLOGRAFT REACTIONS	5R23 AI14012-03	33,722
FERRIERI, PATRICIA	HOST RESPONSES TO GROUP B STREPTOCOCCI	2R01 AI13926-04	82,131
FISHER, JED F.	CHEMICAL MECHANISMS OF REDUCTIVE METABOLISM	1R01 GM28339-01	54,983
FLETCHER, THOMAS F.	DEVELOPMENTAL NERVOUS DISORDERS: KRABBE'S DISEASE	5R01 NS06756-14	28,655
FOXWIS, W. L.	BIOCHEMICAL STUDIES OF THE BLOOD-VITREOUS BODY BARRIER	5R01 EY01258-06	111,109
FOX, IRWIN J.	THE FUNCTION OF THE LEFT VENTRICULAR MECHANORECEPTORS	5R01 HL23947-02	30,797
FRADLEY, ELWIN E.	INTERNATIONAL SYMPOSIUM ON HUMAN TESTICULAR CANCER	1R13 CA28398-01	26,972
FRITZ, H. BACH	GENETIC FACTORS IN TRANSPLANT SURVIVALS	7R01 AI17687-01	190,383
FUCHS, JAMES A.	DEOXYRIBONUCLEOTIDE METABOLISM IN ESCHERICHIA COLI	2R01 GM20884-07	83,685
FURCHT, LEO T.	PATHOBIOLOGY OF THE CELL MEMBRANE IN CANCER	3R01 CA21463-03S1	13,552
FURCHT, LEO T.	STERIOD CORRECTION OF THE CELL MATRIX IN NEOPLASIA	2R01 CA21463-04	91,888
GAJL-PECZALSKA, KAZIMIERA	IMMUNOLOGY OF HUMAN LYMPHOID TUMORS OF B-CELL ORIGIN	5R01 CA17034-06	86,650
GANDER, JOHN E.	FUNGAL GLYCOPOLYMER BIOSYNTHESIS	5R01 GM19978-07	78,085
GASSMAN, PAUL G.	STEREOSPECIFIC FUNCTIONALIZATION OF AROMATIC AMINES	5R01 GM22346-04	40,654
GAULT, N. L. JR.	BIOCHEMICAL RESEARCH SUPPORT	2S07 RR05385-19	195,787
GEISSER, SEYMOUR	PREDICTIVE SAMPLE REUSE METHODOLOGY	5R01 GM25271-03	47,146
GIEBINK, G. SCOTT	VIRAL INFECTION: PATHOGENESIS OF PNEUMOCOCCAL DISEASE	1R01 AI17160-01	68,356
GILLUM, RICHARD F.	DIETARY CONTROL AND PREVENTION OF HYPERTENSION	5R01 HL23512-02	43,693
GOLDBERG, NELSON D.	KREBS CYCLE AND CYCLIC NUCLEOTIDE CONTROL	9R01 GM28818-15	165,777
GOLDBERG, NELSON D.	KREBS CYCLE AND CYCLIC NUCLEOTIDE CONTROL	5R01 NS05979-14S1	81,245
GOODALE, ROBERT L. JR.	CANCER DETECTION PROGRAM	5R26 CA20115-05	56,104
GRAY, BEULAH H.	BACTERICIDAL MECHANISMS OF HUMAN PMN LEUKOCYTES	5R01 AI16248-02	53,865
GRAY, ERNEST D.	PATHOGENESIS OF RHEUMATIC HEART DISEASE	5R01 AI15845-02	139,846
GRAY, GARY R.	ANTITUMOR ACTIVE COMPONENTS OF BCG CELL WALLS	2R01 CA15325-07	79,178
GUILFOYLE, THOMAS J.	REGULATION OF RNA POLYMERASES DURING DEVELOPMENT	2R01 GM24096-04	60,806
GUMMIT, ROBERT J.	MINNESOTA COMPREHENSIVE EPILEPSY PROGRAM	1P50 NS16308-01	892,391
HALBERG, FRANZ	MEAL-TIMING, CIRCADIAN RHYTHMS AND LIFE SPAN	5R01 AG00158-04	83,659
HALBERG, FRANZ	CARCINOSTATIC TREATMENT ACCORDING TO SPECTRUM OF RHYTHMS	3R01 CA14445-07S1	14,847
HALBERG, FRANZ	CARCINOSTATIC TREATMENT ACCORDING TO SPECTRUM OF RHYTHMS	5R01 CA14445-08	186,426
HALLER, EDWIN W.	CENTRAL REGULATION OF OXYTOCIN SECRETION	1R01 HD13906-01	37,685
HAMILTON, DAVID W.	EFFECT OF DIABETES IN THE MALE	5R01 AM22182-03	75,482
HAMILTON, DAVID W.	STRUCTURE AND FUNCTION OF EPIDIDYMIS AND VAS DEFERENS	5R01 HD11962-03	55,883
HAMMERSCHMIDT, DALE E.	COMPLEMENT-PMN INTERACTIONS: A MECHANISM OF DISEASE	1R23 HL25043-01	39,900
HAMMERSCHMIDT, DALE E.	COMPLEMENT AND PMNS IN THE GENESIS OF SICKLE CRISIS	1R01 HL26218-01	49,917
HANDWERGER, BARRY S.	IMMUNE FUNCTION IN EXPERIMENTAL DIABETES MELLITUS	5R01 AM25879-02	54,391
HANNA, PATRICK E.	CARCINOGEN ACTIVATION VIA ACYL TRANSFER	5R01 CA21659-03	64,604
HANNA, PATRICK E.	BIOACTIVATION OF ARYLHYDROXYACIDS: SAR STUDIES	5R01 CA24427-03	62,703
HANSON, RUSSELL F.	METABOLISM OF BILE ACIDS	5R01 AM15077-10	125,851
HARTUP, WILLARD W.	RESEARCH IN DEVELOPMENTAL PSYCHOLOGY	2P01 HD05027-11	388,151
HEBBEL, ROBERT P.	ERYTHROCYTE ENDOTHELIAL INTERACTIONS IN SICKLE DISEASE	1R01 HL26139-01	95,400
HEGRE, ORION D.	FETAL PANCREATIC TRANSPLANTATION	5R01 AM19899-04	84,391
HEGRE, ORION D.	FETAL ENDOCRINOLOGY AND DIABETES	5R01 HD00412-23	74,243
HENDERSON, LA VELL M.	NIACIN AND VITAMIN B6 METABOLISM IN RAT INTESTINE	3R01 AM19012-04S1	4,603
HENDERSON, LA VELL M.	CARNITINE BIOSYNTHESIS AND METABOLISM	2R01 AM19764-04	63,628
HERMAN, ROBERT K.	DEVELOPMENTAL GENETICS OF CAENORHABDITIS ELEGANS	5R01 GM2387-05	53,993
HERZBERG, MARK C.	PLATELET-STREPTOCOCCAL INTERACTIONS IN ENDOCARDITIS	1R23 DE05501-01A1	42,504
HOGENKAMP, HENRICUS P.	STRUCTURE AND REACTIONS OF THE COBAMIDE COENZYMES	5R01 GM23773-05	104,745
HOGENKAMP, HENRICUS P.	HEALTH SCIENCES NMR SPECTROSCOPY FACILITY	5P41 GM27423-02	19,584
HOLMAN, RALPH T.	CHEMICAL AND BIOLOGICAL PROPERTIES OF LIPIDS	5P01 HL08214-17	628,291
HOLMAN, RALPH T.	THE METABOLISM OF TRANS FATTY ACIDS	2R01 HL21513-04	84,797
HOLTZMAN, JORDAN L.	CYTOCHROME-REDUCTASE ACTIVATION IN HYDROXYLATION	5R01 GM21310-06	70,227
HOLTZMAN, JORDAN L.	DRUG METABOLISM IN THE ISOLATED HEPATOCYTE	5R01 GM24535-02	34,701

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
HOWARD, JAMES B.	STRUCTURE AND MECHANISM OF ALPHA 2-MACROGLOBULIN	5R01 HL24505-02	73,045
HOYE, THOMAS R.	SYNTHESIS OF ANTINEOPLASTIC CHEMOTHERAPEUTIC AGENTS	5R01 CA24056-03	63,041
JACOB, HARRY S.	ABNORMAL BLOOD CELL MEMBRANES IN DISEASE	5R01 AM15730-12	60,693
JACOB, HARRY S.	COMPLEMENT-INDUCED PULMONARY INJURY	5R01 HL19725-05	94,170
JEFFERY, ROBERT W.	MONETARY INCENTIVES IN WEIGHT REDUCTION	5R01 AM26542-01	59,511
JENDRISAK, JEROME J.	REGULATION OF EUKARYOTIC GENE TRANSCRIPTION	2R01 GM24294-04	63,769
JOHNSON, RODNEY L.	EPOXY-POLYPEPTIDES: INACTIVATORS OF RENIN & PRO-RENIN	1R01 HL25465-01	51,103
JOHNSON, ROSS G.	DEVELOPING IMMUNOLOGICAL PROBES FOR GAP JUNCTIONS	1R01 CA28548-01	57,905
JOHNSON, RUSSELL C.	PATHOGENIC AND SAPROPHYTIC LEPTOSPIRAE	5R01 AI06589-15	52,356
JOHNSON, RUSSELL C.	PERIODONTAL DISEASE—ROLE OF SPIROCHETES	5R01 DE05144-02	36,077
JUHN, S. K.	MECHANISMS OF INNER EAR DYSFUNCTION IN DIABETES	5R01 NS14911-02	37,499
KENNEDY, BYRL J.	CANCER & LEUKEMIA GROUP B—MEDICAL ONCOLOGY SUPPORT	5R10 CA16450-06	121,692
KENNEDY, BYRL J.	MINNESOTA CLINICAL CANCER EDUCATION PROGRAM	5R25 CA19527-05	146,970
KENNEDY, WILLIAM R.	FINE STRUCTURE OF MUSCLE SPINDLES	5R01 NS10969-06	54,672
KERSEY, JOHN H.	EPIDEMIOLOGY OF CANCER IN IMMUNODEFICIENCY FAMILIES	3R01 CA18083-03S1	20,540
KERSEY, JOHN H.	DIFFERENTIATION OF IMMUNE SYSTEM: CELL SURFACE ANTIGENS	5R01 CA25097-02	111,490
KEYS, ANCEL	DEATHS AMONG FINNS WITH 1956 LIPOPROTEIN DATA (TO 1980)	1R01 HL25823-01	18,575
KIRKWOOD, SAMUEL	USE OF ENZYMES IN STRUCTURAL CARBOHYDRATE CHEMISTRY	2R01 GM09293-18	57,263
KNOEDLL, ROBERT G.	CHARACTERIZATION OF HEPATIC CATION TRANSPORT	1R01 AM26697-01	29,776
KRIVIT, WILLIAM	PEDIATRIC ONCOLOGY PROGRAM PROJECT	2P01 CA21737-04	853,871
KRZYZEK, RICHARD A.	CONTROL OF AVIAN ONCORNAVIRUS GENES IN MAMMALIAN CELLS	5R23 CA23833-03	31,327
LE BIEN, TUCKER W.	ANALYSIS OF HUMAN LEUKEMIA CELLS WITH HYBRIDOMAS	1R23 CA28526-01	33,734
LEE, JUI S.	VILLUS PRESSURES AND LYMPH FLOW OF INTESTINE	5R01 AM18085-06	45,036
LEETE, EDWARD	METABOLISM OF NATURAL PRODUCTS OF MEDICINAL INTEREST	5R01 GM13246-23	85,335
LEGGE, GORDON E.	BINOCULAR INTERACTIONS IN PATTERN VISION	5R01 EY02857-02	38,887
LEGGE, GORDON E.	MATRIX DISPLAYS IN LOW VISION READING AIDS	5R01 EY02934-02	38,582
LEON, ARTHUR S.	EFFECTS OF EXERCISE AND WEIGHT LOSS ON BLOOD LIPIDS	1R01 AM26879-01	155,813
LEUNG, BENJAMIN S.	HORMONAL INTERACTION IN MAMMARY CARCINOMA	5R01 CA25998-02	60,538
LEVITT, DAVID G.	BEHAVIOR AND EXISTENCE OF CELL MEMBRANE PORES	5R01 GM25938-02	54,764
LEVITT, MICHAEL D.	PRODUCTION AND ABSORPTION OF INTESTINAL GASES	5R01 AM13309-12	51,371
LEVITT, SEYMOUR H.	RADIATION ONCOLOGY RESEARCH AND CLINICAL CENTER	5P01 CA15548-05	331,744
LI, JONATHAN J.	ESTROGEN CARCINOGENICITY AND HORMONE DEPENDENT TUMORS	2R01 CA22008-04	71,505
LIENER, IRVIN E.	THE AVAILABILITY OF AMINO ACIDS OF LEGUMES	5R01 AM18324-06	43,760
LIENER, IRVIN E.	ROLE OF COLLAGENASES IN TUMOR INVASION AND METASTASIS	5R01 CA16231-07	45,497
LIENER, IRVIN E.	BIOCHEMICAL STUDIES ON THE PATHOGENESIS OF EMPHYSEMA	5R01 HL14865-09	74,515
LIFSON, NATHAN	BLOOD FLOW TO THE ISLETS OF LANGERHANS	5R01 AM25697-02	43,518
LILLEMARK, WILLIAM F.	ADHERENCE OF DENTAL PLAQUE BACTERIA TO HYDROXYAPATITE	2R01 DE04614-04	66,497
LILLEHEI, RICHARD C.	RENAL CRYOPRESERVATION	5R01 AM16830-05	76,173
LILLEHEI, RICHARD C.	MECHANISMS OF RES STIMULATION IN EXPERIMENTAL SHOCK	5R01 HL18731-04	87,976
LIMAS, CATHERINE	CELL SURFACE CHANGES IN TRANSITIONAL CELL TUMORS	3R01 CA22753-03S1	1,661
LIMAS, CONSTANTINOS J.	CALCIUM TRANSPORT IN THE HYPERTROPHIED MYOCARDIUM	5R01 HL21850-03	68,702
LIMAS, CONSTANTINOS J.	NONHISTONE NUCLEAR PROTEINS IN CARDIAC HYPERTROPHY	5R01 HL24317-02	61,310
LIPSCOMB, JOHN D.	OXYGENASE ENZYME MECHANISM	5R01 GM24689-03	38,477
LOUIS, CHARLES F.	SARCOPLASMIC RETICULUM AGGREGATES	1R01 HL25880-01	56,700
LUEPKER, RUSSELL V.	PREVENTION OF CIGARETTE SMOKING IN CHILDREN	5R01 HD12801-02	74,912
LUEPKER, RUSSELL V.	COMMUNICATION OF CARDIOVASCULAR RISK CONCEPTS	5R01 HL22763-02	74,216
MALEJKA-GIGANTI, DANUTA	MAMMARY CARCINOGENESIS BY ARYLHYDROXAMIC ACIDS	1R01 CA28000-01	75,282
MANNERING, GILBERT J.	FUNCTIONS OF P-450-LINKED DRUG-METABOLIZING SYSTEMS	5R01 GM27780-01	154,786
MANNING, PATRICK J.	ANIMAL RESOURCE FACILITY IMPROVEMENT	5P40 RR01187-02	35,562
MANNING, PATRICK J.	ANIMAL DISEASE DIAGNOSTIC AND INVESTIGATIVE LABORATORY	1P40 RR01234-01	92,370
MARIANI, TONI N.	INTERRELATIONSHIP BETWEEN MALIGNANCY AND IMMUNITY	5R01 CA12929-09	117,736
MAUER, S. MICHAEL	HEMODYNAMIC & PERMEABILITY IN DIABETIC GLOMERULOPATHY	5R01 HL23749-02	129,574
MC KINNEL, ROBERT G.	RANA PIPIS: ABUNDANCE, HEALTH AND REPRODUCTION	5R24 RR01072-03	92,646
MESSER, HAROLD H.	MINERAL NUTRITION AND ALVEOLAR BONE LOSS	5R01 DE04475-03	47,432
MESSNER, RONALD P.	T CELL SUBCLASS DISCRIMINATION BY MONOCLONAL ANTIBODY	5R01 AM26683-02	110,479
MESSNER, RONALD P.	ANTIBODIES AND LYMPHOCYTE FUNCTION IN LUPUS FAMILIES	2R01 AM26696-02	117,231
MICHAEL, ALFRED F.	STUDY OF RENAL DISEASE IN CHILDHOOD	5R01 AI10704-20	129,956
MICHAEL, ALFRED F.	STUDIES OF THE MESANGIUM	3R01 AM25518-01S1	27,354
MICHAEL, ALFRED F.	STUDIES OF THE MESANGIUM	5R01 AM25518-02	92,718
MICHAEL, ALFRED F.	PATHOGENESIS OF DIABETIC NEPHROPATHY	5R01 AM26149-02	78,822
MILLER, JACK W.	OXYTOCIN AND NEUROPHYSIN STORAGE AND RELEASE	5R01 HD10268-05	78,487

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
MILLER, LARRY L.....	ELECTROCHEMICAL MEDICINAL SYNTHESIS.....	5R01 GM24493-03	44,841
MILLER, WILMER G.....	CHOLESTERIC BIOPOLYMER LIQUID CRYSTALS.....	5R01 GM16922-12	55,477
MUNCK, ECKARD.....	STUDIES OF O ₂ ACTIVATION BY MOSSBAUER SPECTROSCOPY.....	5R01 GM22701-05	50,819
NAJARIAN, JOHN S.....	STUDIES OF ORGAN TRANSPLANTATION IN ANIMALS AND MAN.....	5P01 AM13083-13	794,855
NAJARIAN, JOHN S.....	ISOLATION AND TRANSPLANTATION OF PANCREATIC ISLETS.....	5R01 AM16566-07	138,751
NELSESTUEN, GARY L.....	THE VITAMIN K-DEPENDENT PLASMA PROTEINS.....	2R01 HL15728-08	114,328
NELSON, DAVID A.....	AUDITORY ANALYSIS AND SENSORINEURAL HEARING LOSS.....	5R01 NS15451-02	49,920
NELSON, ROBERT D.....	CHRONIC CANDIDIASIS: EFFECT OF MANNAN ON HOST DEFENSE.....	1R01 AI16785-01	71,913
NELSON, ROBERT D.....	MECHANISM OF HUMAN LEUKOCYTE CHEMOTAXIS.....	2R01 CA23707-04	89,277
NESBIT, MARK E, JR.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA07306-17	255,304
NESBIT, MARK E, JR.....	INTERGROUP EWING'S SARCOMA STUDY.....	5R10 CA25474-02	79,755
OEGEMA, THEODORE R.....	BIOSYNTHESIS OF INTERVERTEBRAL DISC PROTEOGLYCANS.....	1R01 AM27262-01	60,325
OEGEMA, THEODORE R.....	COMPARATIVE BIOCHEMISTRY OF CARILAGE TUMORS.....	5R01 CA22558-03	73,536
OEGEMA, THEODORE R.....	BIOCHEMISTRY OF LUNG PROTEOGLYCANS.....	2R01 HL21612-04	59,842
OKEN, MARTIN M.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA20365-03	140,604
OLIVER, RICHARD C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05322-19	59,606
OPPENHEIMER, JACK H.....	THYROXINE-PROTEIN INTERACTIONS.....	5R01 AM19812-05	242,253
PARSONS, JONATHAN A.....	DIABETES: ROLE OF GH ON GEP CELLS AND SECRETION.....	1R01 AM26962-01	70,437
PASS, FRANKLIN.....	HUMAN PAPILLOMA VIRUS AND MALIGNANT DISEASE.....	5R01 CA25462-02	70,796
PEDERSON, JONATHAN E.....	PATHOPHYSIOLOGIC MECHANISMS IN OCULAR HYPOTONY.....	5R01 EY03277-02	85,362
PERLMUTTER, MARION A.....	DEVELOPMENT OF MEMORY IN THE PRESCHOOL YEARS.....	5R01 HD11776-03	58,463
PEIFFER, DOUGLAS R.....	LIPIDS OF LENTICULAR MEMBRANES.....	5R01 EY02307-03	47,847
PEIFFER, DOUGLAS R.....	KINETIC MECHANISM OF CATION TRANSPORT—IONOPHORE A23187.....	5R01 GM24701-02	55,533
PLAGEMANN, PETER G.....	LDH-VIRUS GROWTH AND EFFECT ON MACROPHAGE FUNCTIONS.....	5R01 AI15267-14	72,529
PLAGEMANN, PETER G.....	HEXOSE TRANSPORT AND PHOSPHORYLATION IN ANIMAL CELLS.....	5R01 AM23001-03	69,180
PLAGEMANN, PETER G.....	MECHANISMS OF UPTAKE OF METHOTREXATE AND OTHER DRUGS.....	5R01 CA25283-02	44,280
PLAGEMANN, PETER G.....	NUCLEOSIDE TRANSPORT IN ANIMAL CELLS.....	5R01 GM24468-02	42,511
PRINEAS, RONALD J.....	PREVENTION OF HIGH BLOOD PRESSURE IN CHILDREN.....	5R01 HL19877-04	20,616
PRIVETT, ORVILLE S.....	RELATIONSHIPS OF DIET AND AIR POLLUTANTS TO AGING.....	5R01 AG00174-06	45,028
PRIVETT, ORVILLE S.....	ULTRAMICROANALYSIS OF PROSTAGLANDINS & RELATED COMPOUNDS.....	3R01 HL21764-02S1	4,161
QUEBBEMANN, ALOYSIUS J.....	THE PHARMACOLOGY OF RENAL TUBULAR EXCRETORY TRANSPORT.....	2R01 AM14145-10	54,536
QUIE, PAUL G.....	HOST REACTIONS TO MICROORGANISMS IN CHRONIC DISEASE.....	5R01 AI06931-15	117,840
QUIST, EUGENE E.....	FUNCTIONS OF CA + MG-ATPASE ACTIVITIES IN ERYTHROCYTES.....	1R01 HL23753-01A2	42,119
RAMSAY, ROBERT C.....	OCULAR STATUS OF DIABETIC RENAL TRANSPLANT RECIPIENTS.....	5R01 EY02204-03	37,119
RAMSAY, ROBERT C.....	INVOLUTIONAL DIABETIC RETINOPATHY STUDY.....	5R01 EY02316-04	26,749
RAMSAY, ROBERT C.....	HLA AND GENETIC STUDIES IN DIABETIC RETINOPATHY.....	5R01 EY02455-03	102,516
RATHBUN, WILLIAM B.....	GLUTATHIONE METABOLISM IN OCULAR TISSUES.....	5R01 EY01197-07	123,880
ROGERS, PALMER.....	DUAL-CONTROL OF THE EXPRESSION OF ARGININE OPERONS.....	5R01 GM25320-03	61,687
ROSENBERG, MURRAY D.....	CELL SURFACE ECTOATPASES.....	5R01 GM25880-02	79,992
RUBENSTEIN, IRWIN.....	EUKARYOTIC GENE EXPRESSION—THE ZEIN LOCUS IN MAIZE.....	5R01 GM24756-03	92,142
SAUERBIER, WALTER.....	TRANSCRIPTIONAL ORDER IN EUKARYOTIC CHROMOSOMES.....	5R01 GM25715-03	52,483
SCHACHTELE, CHARLES F.....	MOLECULAR BASIS OF DENTAL CARIES.....	5R01 DE03654-08	73,492
SCHNEINMAN, JON I.....	GLOMERULAR MESANGIAL MYOSIN IN DIABETIC NEPHROPATHY.....	5R01 AM21956-02	81,839
SCHLENK, HERMANN.....	BIOCHEMISTRY OF FURAN FATTY ACIDS.....	5R01 GM22880-05	62,816
SCHMID, HARALD H.....	LIPID METABOLISM IN ISCHEMIC & INFARCTED MYOCARDIUM.....	5R01 HL24312-02	71,367
SCHUMAN, LEONARD M.....	EPIDEMIOLOGIC STUDY OF ALZHEIMER'S DISEASE.....	5R01 AG01529-02	84,611
SCHWARTZ, JEFFREY S.....	VASOMOTION OF CORONARY STENOSES.....	2R01 HL21298-04	45,416
SHAPIRO, BURTON L.....	CYSTIC FIBROSIS AND FIBROBLASTS: INTRACELLULAR CALCIUM.....	5R01 AG02114-02	66,317
SHARP, HARVEY L.....	INTRALUMINAL INFLUENCES UPON ENTEROCYTE DEVELOPMENT.....	5R01 HD12227-02	40,285
SHEPPARD, JOHN R.....	PATHOBIOLOGY OF MYELIN MEMBRANE IN MULTIPLE SCLEROSIS.....	5R01 NS14436-03	58,449
SHERIDAN, JUDSON D.....	CELL JUNCTION FORMATION & ROLE IN CELL PROLIFERATION.....	2R01 CA16335-06	106,277
SHERIDAN, JUDSON D.....	JUNCTIONAL COMMUNICATION BETWEEN VASCULAR CELLS.....	5R01 HL21166-03	88,795
SIEGEL, GERALD M.....	CENTER FOR RESEARCH IN HUMAN LEARNING.....	5P01 HD01136-17	280,719
SIMMONS, MICHAEL J.....	MUTATION AND SELECTION IN DROSOPHILA POPULATIONS.....	5R01 ES01960-03	38,104
SIMMONS, RICHARD L.....	PATHOGENESIS AND TREATMENT OF EXPERIMENTAL PERITONITIS.....	5R01 AI14032-03	88,321
SIMMONS, RICHARD L.....	EFFECTORS IN THE ALLOGRAFT RESPONSE.....	1R01 AI16869-01	119,764
SIMMONS, RICHARD L.....	IMMUNOLOGICAL REACTIVITY IN SPECIAL CIRCUMSTANCES.....	5R01 CA11605-12	175,113
SIMON, GEZA.....	PATHOPHYSIOLOGY OF VENOUS CHANGES IN HYPERTENSION.....	5R01 HL21673-03	47,260
SINGER, LEON.....	FLUORIDE METABOLISM—BONE MINERAL AMORPHOUS FRACTION.....	5P01 DE01850-17	198,312
SLADEK, NORMAN E.....	ONCOTOXIC SPECIFICITY OF CYCLOPHOSPHAMIDE.....	5R01 CA26357-02	26,385
SNUSTAD, D PETER.....	GENETICS OF VIRUS-INDUCED SHUTOFF OF HOST METABOLISM.....	5R01 GM25417-03	76,291

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
SOECHTING, JOHN F.....	ORGANIZATION AND CONTROL OF MOVEMENTS.....	5R01 NS15018-02	45,347
SOLTIS, RONALD D.....	STUDIES OF IN VIVO IMMUNOGLOBULIN AGGREGATION.....	5R01 AM26086-02	91,218
SONG, CHANG W.....	VASCULARITY AND REOXYGENATION IN X-IRRADIATED TUMORS.....	3R01 CA13353-06S1	13,245
SONG, CHANG W.....	VASCULARITY AND REOXYGENATION IN X-IRRADIATED TUMORS.....	2R01 CA13353-07	140,540
SONG, CHANG W.....	USE OF 5-THIO-D-GLUCOSE IN RADIOTHERAPY.....	5R01 CA21281-03	78,024
SORENSEN, ROBERT L.....	ISLET SOMATOSTATIN SECRETION AND ITS PARACRINE ROLE.....	5R01 AM24006-03	82,026
STAUFFER, LEE D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05448-19	67,121
SUTHERLAND, DAVID E.....	TRANSPLANTATION FOR ENZYMIC AND METABOLIC DEFICIENCIES.....	5R01 AM19113-05	57,334
SUTHERLAND, DAVID E.....	PANCREATIC ISLET TRANSPLANTATION IN DIABETIC PATIENTS.....	5R01 AM19269-05	168,648
SUTHERLAND, DAVID E.....	COMPARISON OF PANCREAS AND ISLET TRANSPLANTATION.....	5R01 AM24065-02	22,273
SUTHERLAND, DAVID E.....	TOTAL LYMPHOID IRRADIATION AND RENAL TRANSPLANTATION.....	1R01 AM27540-01	140,322
TAN, AGNES W.....	CONTROL OF GLYCOGEN SYNTHASE BY PROTEIN MODIFICATION.....	5R01 AM21277-03	40,212
THOMAS, DAVID D.....	BIOPHYSICAL STUDIES OF MEMBRANE MOLECULAR DYNAMICS.....	1R01 GM27906-01	96,039
THOMPSON, ROBY C.....	CLINICAL AND BIOCHEMICAL PARAMETERS IN OSTEOARTHRITIS.....	1R01 AM25606-01A1	66,560
TOBIAN, LOUIS.....	KIDNEY, NA, CARDIAC OUTPUT, ARTERIOLES, & HYPERTENSION.....	3P01 HL17871-05S1	146,025
TOBIAN, LOUIS.....	KIDNEY, NA, HUMORAL AGENTS, ARTERIOLES & HYPERTENSION.....	2P01 HL17871-06	612,589
TOBIAN, LOUIS.....	KIDNEY, NA, HUMORAL AGENTS, ARTERIOLES & HYPERTENSION.....	1R01 HL25210-01	26,132
TOWLE, HOWARD C.....	NUTRITIONAL AND HORMONAL REGULATION OF MALIC ENZYME.....	1R01 AM26919-01	58,931
TUCKER, ROBERT D.....	IN VITRO IMPEDANCE BIOASSAY FOR THE CF FACTOR.....	5R01 AM25665-02	43,902
VERNIER, ROBERT L.....	DEVELOPMENTAL STUDIES OF THE KIDNEY.....	3R01 AM25425-01S1	27,354
VERNIER, ROBERT L.....	DEVELOPMENTAL STUDIES OF THE KIDNEY.....	5R01 AM25425-02	98,673
VINCE, ROBERT.....	INHIBITORS OF RIBOSOMAL FUNCTIONS.....	5R01 CA13592-11	98,837
VINCE, ROBERT.....	CARBOCYCLIC NUCLEOSIDE CHEMOTHERAPEUTIC AGENTS.....	5R01 CA23263-02	46,649
VOSIKA, GERALD J.....	STUDY OF BACTERIAL COMPONENT IMMUNOTHERAPY IN CANCER.....	5R01 CA25307-02	16,687
WANGENSTEEN, O DOUGLAS.....	BLOOD-GAS BARRIER STUDIES IN FETAL & NEONATAL LUNGS.....	5R01 HD08981-06	33,097
WANGENSTEEN, O DOUGLAS.....	BLOOD-GAS BARRIER SOLUTE AND WATER TRANSPORT.....	5R01 HL21376-04	68,368
WANNAMAKER, LEWIS W.....	BIOLOGY OF STREPTOCOCCI.....	5P01 AI08724-25	295,207
WARNER, HUBER R.....	METABOLISM OF DNA.....	5R01 GM25615-03	53,104
WATSON, DENNIS W.....	STREPTOCOCCAL PYROGENIC EXOTOXINS: HOST INTERACTIONS.....	5R01 AI06487-16	93,908
WATTENBERG, LEE W.....	MICROSOMAL INDUCTION AND RESPONSE TO CARCINOGENS.....	5R01 CA09599-22	127,200
WATTENBERG, LEE W.....	INHIBITION OF CHEMICAL CARCINOGENESIS.....	5R01 CA14146-08	84,947
WATTENBERG, LEE W.....	INHIBITION OF NEOPLASIA OF THE LARGE BOWEL.....	2R26 CA15638-07	114,236
WEAVER, LAWRENCE C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05634-13	31,983
WEIR, EDWARD K.....	ACTIVE NORMOXIC PULMONARY VASODILATION.....	5R01 HL23211-03	26,526
WHITE, JAMES G.....	STRUCTURAL PHYSIOLOGY & PATHOLOGY OF BLOOD PLATELETS.....	5R01 HL11880-12	246,438
WILSMAN, NORMAN J.....	THE ROLE OF THE CILIUM IN THE ARTICULAR CHONDROCYTE.....	5R01 AM25282-02	18,610
WILSON, IVAN D.....	IMMUNOLOGIC ASPECTS OF PANETH CELL FUNCTION.....	5R01 AM19710-04	92,708
WILSON, LEONARD G.....	THE CHANGING CONCEPT OF FEVER IN THE 19TH CENTURY.....	5R01 LM03245-02	28,559
WIRTSCHAFTER, JONATHAN D.....	ANTERIOR CHAMBER FLUID ACETYLCHOLINE CONCENTRATION.....	5R01 EY02602-03	50,352
WITKOP, CARL J, JR.....	ALBINISM.....	2P01 GM22167-06	234,765
WITKOP, CARL J, JR.....	OCULOCUTANEOUS PIGMENT DEFECTS.....	5R01 GM24558-08	103,464
WOLD, FINN.....	PROTEIN STRUCTURE AND FUNCTION.....	5R01 GM15053-14	148,758
WOOD, JOHN M.....	CHEMICAL STUDIES WITH FREE AND BOUND VITAMIN B12.....	2R01 AM18101-07	85,457
WOODWARD, CLARE K.....	SINGLE PROTON EXCHANGE KINETICS IN PROTEINS.....	5R01 GM26242-02	50,732
XAVIER, ANTONIO V.....	STRUCTURE AND FUNCTION OF PROTEINS IN SULFATE REDUCTION.....	5R01 GM25879-02	56,165
YUNIS, JORGE J.....	TRANSCRIPTIONAL ORGANIZATION OF PROPHASE CHROMOSOMES.....	5R01 GM26800-02	68,914
ZANJANI, ESMAIL D.....	REGULATION OF FETAL AND ADULT ERYTHROPOIESIS.....	5R01 AM24027-02	43,868
ZANJANI, ESMAIL D.....	REGULATION OF CELLULAR PROLIFERATION IN NEOPLASTIC STATE.....	5R01 CA23021-04	35,736
ZARLING, JOYCE M.....	CELLULAR IMMUNITY TO TUMORS.....	1R01 CA26738-01	88,428
ZARLING, JOYCE M.....	CELLULAR IMMUNITY TO TUMORS AND HERPES INFECTIONS.....	3R01 CA27477-01S1	4,778
ZELICKSON, ALVIN S.....	PSORALEN-PHOTOTHERAPY OF NORMAL AND PSORIATIC SKIN.....	5R01 AM21681-03	37,912
ZIMMERMAN, BEN G.....	PHARMACOLOGIC AND REFLEX INFLUENCE ON VASCULAR TONE.....	5R01 HL08570-17	61,822
ORGANIZATION TOTAL	318 35,900,384		

NORTHFIELD

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HENDRICKSON, H STEWART.....	PROTEIN-LIPID INTERACTIONS.....	5R01 NS11777-07	23,728
ORGANIZATION TOTAL	1 23,728		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
ROCHESTER			
INDIVIDUAL AWARD—SIEKERT, ROBERT G. ZIP CODE 55901			
SIEKERT, ROBERT G.	CEREBROVASCULAR RESEARCH STATUS REPORT—5TH EDITION	5R01 NS14831-03	22,414
ORGANIZATION TOTAL	1	22,414	
MAYO FOUNDATION ZIP CODE 55901			
AN, KAI-NAN	STATIC FORCE & STABILITY ANALYSIS OF HUMAN ELBOW	1R01 AM26287-01	94,280
ANDERSON, WILLIAM L	EFFECT OF AGING ON IMMUNOSUPPRESSION	1R01 AG02320-01	42,339
ATASSI, M ZOUHAIR	IMMUNOCHEMICAL STUDIES ON HEMOGLOBIN AND MYOGLOBIN	2R01 AM18920-05A1	89,075
BAKER, HILLIER L, JR	XII SYMPOSIUM NEURORADIOLOGICUM	5R13 NS15989-02	15,311
BLACK, LEO F.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00585-09	699,385
BLACK, LEO F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05530-18	193,787
BLINKS, JOHN R.	CALCIUM TRANSIENTS IN STRIATED MUSCLE AND OTHER CELLS	5R01 HL12186-11	120,895
BOURNE, WILLIAM M.	STUDIES OF THE CORNEA	5R01 EY02037-03	82,898
BOWIE, E J.	CONTROL OF COAGULATION	5P01 HL17430-07	659,635
BRIMJOIN, WILLIAM S.	AXONAL TRANSPORT IN ADRENERGIC AND CHOLINERGIC NERVES	5R01 NS11855-09	50,118
BRUBAKER, RICHARD F.	PATHOLOGY OF THE BLOOD-AQUEOUS BARRIER	2R01 EY00634-10	154,283
CHAO, EDMUND Y.	FUNCTIONAL FORCES IN NORMAL AND ABNORMAL FINGERS	5R01 AM17172-06	103,243
CHESEBRO, JAMES H.	PLATELET INHIBITOR DRUG IN CORONARY SURGERY	2R01 HL21533-04	207,706
CHESEBRO, JAMES H.	PLATELET DRUG TRIAL IN CORONARY DISEASE PROGRESSION	1R01 HL23550-01A1	122,861
DAVID, CHELLA S.	GENETICS & SEROLOGY OF H-2 (IR)-LINKED IA ANTIGENS	2R01 AI14764-04	137,504
DAVID, CHELLA S.	GENETICS & FUNCTIONS OF (H-2 LINKED) I REGION	5R01 CA24473-03	110,910
DEWANJEE, MRINAL K.	PLATELET INHIBITORS AND INTIMAL PROLIFERATION	5R01 HL24602-02	123,668
DI MAGNO, EUGENE P.	PANCREATIC CARCINOGENESIS: ROLE OF DUODENAL REFLUX	5R26 CA25064-03	81,974
DICKSON, EDGAR R.	PRIMARY BILIARY CIRRHOSIS: PENICILLAMINE TRIAL	5R01 AM19448-05	115,029
DONALD, DAVID E.	RESPONSE OF THE TOTALLY DENERVATED HEART TO EXERCISE	5R01 HL06143-20	117,545
DOUSA, THOMAS P.	CELLULAR ACTION OF VASOPRESSIN IN THE KIDNEY	2R01 AM16105-09	104,437
DYCK, PETER J.	PERIPHERAL NEUROPATHY CLINICAL RESEARCH CENTER SUPPORT	5P01 NS14304-03	659,347
EDMONSON, JOHN H.	PLAN FOR CANCER EDUCATION	1R25 CA28566-01	96,982
ENGEL, ANDREW G.	ELECTRON MICROSCOPY OF MYOPATHIES	2R01 NS06277-15	142,511
FATHMAN, C GARRISON	CHARACTERIZATION OF CLONES OF ALLOREACTIVE T-CELLS	1R01 AI16569-01	58,595
FITZGERALD, ROBERT H, JR.	ANTIBIOTIC PATHWAYS TO BONE IN ORTHOPEDIC SEPSIS	1R01 AM26928-01	61,606
GERICH, JOHN E.	ALPHA AND BETA CELL FUNCTION IN HUMAN DIABETES	2R01 AM20411-04	143,793
GETZ, MICHAEL J.	REGULATION OF MRNA ABUNDANCE	5R01 GM25510-02	73,567
GILCHRIST, GERALD S.	CHILDRENS CANCER STUDY GROUP	1R10 CA28412-01	77,735
GLEICH, GERALD J.	THE FUNCTIONS OF EOSINOPHILS	5R01 AI09728-11	80,926
GLEICH, GERALD J.	ASTHMA AND ALLERGIC DISEASE CENTER PROGRAM GRANT	5P50 AI11483-08	228,757
GLEICH, GERALD J.	EOSINOPHILS IN HUMAN DISEASE	5R01 AI15231-03	77,155
GREENLEAF, JAMES F.	BREAST DIAGNOSIS QUANTITATIVE IMAGING BY ULTRASOUND	5R01 CA24085-02	207,511
GRONERT, GERALD A.	METABOLIC EFFECTS OF ANESTHESIA AND SURGERY	2R01 GM21729-21	125,685
HAHN, RICHARD G.	EASTERN COOPERATIVE ONCOLOGY GROUP	3R10 CA13650-07S1	12,358
HAHN, RICHARD G.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA13650-08	361,515
HARRISON, CARLOS E, JR.	MYOCARDIAL DEFECTS INDUCED BY POTASSIUM DEPLETION	3R01 HL12997-08S1	12,438
HAYMOND, MOREY W.	CONTROL OF BCAA METABOLISM IN NORMAL AND DIABETIC MAN	1R01 AM26989-01	175,096
HEATH, HUNTER, III.	CONTROL OF PARATHYROID HORMONE AND CALCITONIN SECRETION	5R01 AM19607-03	60,678
HEATH, HUNTER, III.	PTH SECRETION AND METABOLISM AND CA HOMEOSTASIS	1R01 AM27440-01	75,149
HYATT, ROBERT E.	RESPIRATORY MECHANICS IN NORMAL AND ABNORMAL STATES	5P01 HL21584-04	675,323
INGLE, JAMES N.	NORTH CENTRAL CANCER TREATMENT GROUP PROGRAM	1R10 CA25224-01	188,001
KAYE, MICHAEL P.	PLATELET INHIBITORS: EFFECT ON CORONARY BYPASS GRAFTS	5R01 HL22445-03	129,249
KELLY, KEITH A.	MOTILITY OF THE DIGESTIVE TRACT IN HEALTH AND DISEASE	5R01 AM18278-06	79,171
KELLY, PATRICK J.	HEMODYNAMIC FACTORS IN FRACTURES AND BONE DISEASE	5R01 AM15980-08	77,557
KERR, FREDERICK W.	SYNAPTOTOLOGY AND ORGANIZATION OF NOCICEPTIVE PATHWAYS	5R01 NS14853-02	85,248
KLINE, BRUCE C.	GENETICS OF PLASMID REPLICATION AND INCOMPATIBILITY	5R01 GM25604-03	72,739
KNOX, FRANKLYN G.	INTRARENAL REGULATION OF PHOSPHATE METABOLISM	5R01 AM19715-04	83,069
KNOX, FRANKLYN G.	INTRARENAL ELECTROLYTE METABOLISM	5R01 HL14133-10	112,108
KOTTKE, BRUCE A.	INTRACELLULAR STEROL METABOLISM IN ATHEROGENESIS	5R01 HL23465-02	105,318
KOTTKE, BRUCE A.	EPIDEMIOLOGY OF ATHEROSCLEROSIS	5R01 HL24489-02	68,036
KUMAR, RAJIV	SIDE CHAIN METABOLISM OF 1,25 DIHYDROXYVITAMIN D3	5R01 AM25409-02	76,495
KUMAR, RAJIV	HEPATOBIILIARY METABOLISM OF VITAMIN D3 HOMOLOGUES	1R01 AM26808-01	45,910

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
KURLAND, LEONARD T	STUDY OF MALES EXPOSED IN UTERO TO DIETHYLSTILBESTROL	5R01 CA25441-02	180,605
KURLAND, LEONARD T	NATURAL HISTORY OF HEART, CANCER & STROKE—EPIDEMIOLOGY	5P01 GM14231-15	571,355
KURLAND, LEONARD T	CHD INCIDENCE, MORTALITY, RISK FACTOR RELATIONSHIPS	3R01 HL24326-01S1	8,389
KURLAND, LEONARD T	CHD INCIDENCE, MORTALITY, RISK FACTOR RELATIONSHIPS	5R01 HL24326-02	123,727
KYLE, ROBERT A	CHEMOTHERAPY OF ACUTE LEUKEMIA AND RELATED DISORDERS	5R10 CA04646-21	78,945
KYLE, ROBERT A	MONOCLONAL GAMMOPATHIES—HUMORAL IMMUNE STATUS	5P01 CA16835-05	152,474
LA RUSSO, NICHOLAS F	BILIARY EXCRETION OF LYSOSOMAL PROTEIN	5R01 AM24031-02	73,327
LENNON, VANDA A	EXPERIMENTAL NEUROIMMUNOLOGY	2R01 NS15057-03	188,520
LYNCH, JAMES C	OCULOMOTOR CONTROL MECHANISMS OF THE CEREBRAL CORTEX	5R01 EY02640-03	74,314
MALAGELADA, JUAN-RAMON	ANTRAL MOTOR RESPONSE TO SOLIDS IN HEALTH AND DISEASE	1R01 AM26428-01	52,691
MANN, KENNETH G	AMINO ACID SEQUENCE—BETA-HYDROXYBUTYRATE DEHYDROGENASE	5R01 GM25000-02	52,667
MANN, KENNETH G	PRIMARY STRUCTURE OF PROTHROMBIN	5R01 HL16150-07	73,096
MC KEAN, DAVID J	MOLECULAR BASIS OF ANTIBODY FUNCTION AND DIVERSITY	5R01 AI15414-02	38,693
MC KEAN, DAVID J	PRIMARY STRUCTURE OF MHC I REGION ASSOCIATED ANTIGENS	1R01 CA26297-01	78,796
MEYERS, PAUL	TOLERANCE & IMMUNITY TO AVIAN RNA TUMOR VIRUSES & VISA	5R01 CA15494-07	96,371
MICHENFELDER, JOHN D	CEREBRAL METABOLISM AND BLOOD FLOW	5R01 NS07507-14	100,297
MOERTEL, CHARLES G	CANCER CENTER SUPPORT GRANT (COMPREHENSIVE)	2P30 CA20679-04	1,107,296
MOSES, HAROLD L	MECHANISM OF CHEMICAL CARCINOGENESIS IN VITRO	5R01 CA16816-06	101,376
MOSES, HAROLD L	GROWTH FACTORS AND RECEPTORS IN CHEMICAL TRANSFORMATION	1R01 CA27217-01	112,338
NESHEIM, MICHAEL E	KINETICS OF HEPARIN-AT-III ACTION MEASURED WITH DAPA	1R23 HL26070-01	37,680
OWEN, CHARLES A	COPPER METABOLISM IN ANIMALS	5R01 AM21738-03	66,383
PALUMBO, PASQUALE J	PERIPHERAL ARTERIAL DISEASE IN THE DIABETIC	5R01 HL20522-05	328,449
PEARSON, GARY R	EBV AND HERPESVIRUS SAIMIRI INDUCED MEMBRANE ANTIGENS	2R01 CA20679-04	105,321
PENNISTON, JOHN T	VACUOLE FORMATION IN HUMAN ERYTHROCYTES AND GHOSTS	5R01 AM19785-05	70,721
PENNISTON, JOHN T	INTRACELLULAR CA ²⁺ + RECEPTORS IN ERYTHROCYTES AND TISSUE	5R01 AM21820-03	79,226
PENNISTON, JOHN T	PURIFICATION AND PROPERTIES OF CA ²⁺ + PUMPING ATPASE	1R01 GM25835-01	92,867
POWIS, GARTH	DRUGS AND FLAVOPROTEIN MEDIATED SUPEROXIDE FORMATION	5R01 CA25337-02	49,798
POWIS, GARTH	ROLE OF CYTOCHROME P-450 IN DRUG REDUCTION	1R01 GM27590-01	107,654
QUALTIERE, LOUIS F	HUMORAL RESPONSE TO HERPES AND EPSTEIN-BARR VIRUS	5R01 CA24123-02	46,007
REBOUCHE, CHARLES J	CARNITINE BIOSYNTHESIS AND METABOLISM IN MAMMALS	1R01 AM27451-01	68,106
RIGGS, B LAWRENCE, JR	EPIDEMIOLOGY OF BONE LOSS, OSTEOPOROSIS AND FRACTURES	1R01 AM27065-01	118,332
RITMAN, ERIK L	CARDIOVASCULAR AND LUNG DYNAMICS	3P01 HL04664-19S1	732,348
RITMAN, ERIK L	STRUCTURE AND FUNCTION BY NON-INVASIVE VIVISECTION	2P01 HL04664-20	1,470,269
RITTS, ROY E, JR	LABORATORY AND CLINICAL STUDY OF LAI IN HUMAN CANCER	5R01 CA26299-02	131,802
ROBB, RICHARD A	COMPUTER ANALYSES OF BIOSYSTEM STRUCTURES AND FUNCTIONS	5R24 RR00007-17	435,820
ROBERTSON, DENNIS M	CHORIORETINOPATHY	5R01 EY01709-04	42,794
ROHRBACH, MICHAEL S	PULMONARY ANGIOTENSIN CONVERTING ENZYME STUDIES	5R23 HL21894-03	41,544
ROMERO, JUAN C	PATHOGENIC FACTORS IN RENOVASCULAR HYPERTENSION	5R01 HL16496-06	87,919
RORIE, DUANE K	PULMONARY ARTERY NEUROEFFECTOR JUNCTIONS	5R01 HL23217-02	80,041
RYAN, ROBERT J	MODE OF ACTION OF REPRODUCTIVE HORMONES—SPRCG (P50)	2P50 HD09140-06	610,025
SCOTT, ROBERT E	MEMBRANE PATHOLOGY IN CARCINOGENESIS	5R01 CA21722-03	68,599
SCOTT, ROBERT E	PATHOLOGY IN CELL CYCLE CONTROL OF DIFFERENTIATION	1R01 CA28240-01	104,145
SERVICE, F JOHN	GASTRIC INHIBITORY POLYPEPTIDE IN HEALTH AND DIABETES	5R01 AM20973-03	76,424
SHEPHERD, JOHN T	REFLEX CONTROL OF RESISTANCE AND CAPACITANCE VESSELS	5R01 HL05883-20	177,259
SMITH, LYNNWOOD H	SPECIALIZED CENTER OF RESEARCH IN UROLITHIASIS	5P01 AM20605-04	211,830
SMITH, LYNNWOOD H	FOURTH INTERNATIONAL SYMPOSIUM ON UROLITHIASIS RESEARCH	1R13 AM26949-01	20,000
SOUTHORN, PETER A	EFFECT OF ANESTHESIA ON RESPIRATORY MECHANICS IN ANIMALS	5R23 GM25196-03	37,120
SPELSBERG, THOMAS C	CARCINOGEN-CHROMATIN INTERACTION IN CULTURED CELLS	5R01 CA22272-03	83,768
SPELSBERG, THOMAS C	A NEW CLASS OF EPSTEIN-BARR VIRUS NUCLEAR ANTIGEN	5R01 CA25340-02	79,694
STAUFFER, RICHARD N	BIOMECHANICAL EVALUATION OF TOTAL KNEE ARTHROPLASTY	2R01 AM18029-05	108,674
STEINMULLER, DAVID	CELLULAR AUTOIMMUNITY IN HUMAN SKIN DISEASE	5R01 AM21414-03	81,808
STEINMULLER, DAVID	SKIN-SPECIFIC ALLOANTIGENS AND SKIN ALLOGRAFT REJECTION	1R01 AM26783-01	75,336
SZURSZEWSKI, JOSEPH H	GASTROINTESTINAL HORMONES AND GASTRIC SMOOTH MUSCLE	5R01 AM17238-07	101,338
SZURSZEWSKI, JOSEPH H	EXTRINSIC CONTROL OF GASTROINTESTINAL MOTILITY	2R01 AM17632-07	91,387
TAYLOR, STUART R	EXCITATION-CONTRACTION COUPLING IN MUSCLE	5R01 NS14268-03	69,287
TAYLOR, WILLIAM F	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES	2R10 CA21184-04	140,767
THISTLE, JOHNSON L	HUMAN GALLSTONES—THERAPEUTIC TRIAL WITH BILE ACIDS	5R01 AM15887-08	71,121
TINKER, JOHN H	ORGAN PROTECTION: ROLE OF ANESTHETICS	5R23 GM24531-03	36,442
TOFT, DAVID O	INTERACTION OF PROGESTERONE RECEPTOR WITH ATP	5R01 AM20214-03	60,384
TOFT, DAVID O	BIOCHEMICAL ACTION OF STEROID HORMONES IN EUKARYOTES	5R01 AM25625-02	73,461
TOMASI, THOMAS B, JR	IGA OF SERUM GLOBULINS AND EXTERNAL SECRETIONS	5R01 AM17554-07	182,273

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MINNESOTA—Continued			
TOMASI, THOMAS B. JR.	STUDIES OF MATERNAL AND NEONATAL IMMUNITY	2R01 HD09720-04A1	107,854
TYCE, GERTRUDE M.	METABOLISM OF AROMATIC AMINES AFTER HEPATECTOMY	5R01 NS09143-08	69,690
VAN DYKE, RUSSELL A.	METABOLISM OF VOLATILE ANESTHETICS	5R01 GM17158-10	107,332
VENEZIALE, CARLO M.	GUINEA PIG SEMINAL VESICLE EPITHELIUM: ANDROGEN ACTION	5R01 HD12657-02	118,696
WEINSHILBOUM, RICHARD M.	INHERITED VARIATIONS IN DRUG METABOLIZING ENZYMES	1R01 GM28157-01	88,251
WEINSHILBOUM, RICHARD M.	ADRENERGIC VASOREGULATORY INTERACTIONS IN HYPERTENSION	5R01 HL17487-06	47,279
WEINSHILBOUM, RICHARD M.	BIOCHEMICAL GENETICS OF NEUROTRANSMITTER SYSTEMS	5R01 NS11014-06	82,721
WELLS, DAVID J.	HUMAN CARDIOMYOPATHY AND NERVE GROWTH FACTOR	1R23 HL25694-01	45,101
WHISNANT, JACK P.	CEREBROVASCULAR CLINICAL RESEARCH CENTER	2P50 NS06663-14A1	610,936
YAKSH, TONY L.	IN VIVO RELEASE OF SUBSTANCE P FROM SPINAL CORD	5R01 NS14629-03	55,078
YAKSH, TONY L.	PAIN EVOKED RELEASE OF AMINES AND ENKEPHALINS IN CNS	1R01 NS16541-01	119,163
YUNGINGER, JOHN W.	CHEMICAL & CLINICAL ASPECTS OF ALTERNARIA ALLERGENS	1R01 AI16791-01	96,560
ORGANIZATION TOTAL	126 19,524,672		
SAINT PAUL			
RAMSEY COUNTY WELFARE DEPARTMENT—ST. PAUL—RAMSEY MEDICAL CENTER ZIP CODE 55101			
FREY, WILLIAM H. II.	THE ROLE OF GTPASE IN HUMAN BRAIN	5R01 NS14583-03	62,466
ORGANIZATION TOTAL	1 62,466		
UNITED HOSPITALS ZIP CODE 55102			
EDWARDS, JESSE E.	FUNCTIONAL PATHOLOGY OF CARDIOVASCULAR DISEASE	5R01 HL05694-22	111,976
ORGANIZATION TOTAL	1 111,976		
STATE TOTAL	457 56,261,979		
MISSISSIPPI			
HATTIESBURG			
UNIVERSITY OF SOUTHERN MISSISSIPPI ZIP CODE 39401			
YARBROUGH, KAREN M.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09083-03	65,343
ORGANIZATION TOTAL	1 65,343		
HOLLY SPRINGS			
MISSISSIPPI INDUSTRIAL COLLEGE ZIP CODE 38635			
DRUMMOND, LARRY	MINORITY BIOMEDICAL SUPPORT	3S06 RR08133-04S2	38,403
DRUMMOND, LARRY	MINORITY BIOMEDICAL SUPPORT	5S06 RR08133-05	84,317
ORGANIZATION TOTAL	2 122,720		
JACKSON			
JACKSON STATE UNIVERSITY ZIP CODE 39217			
MACK, ROBERT W.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08047-10	782,693
ORGANIZATION TOTAL	1 782,693		
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER ZIP CODE 39216			
BERNDT, WILLIAM O.	NEPHROTOXIC EFFECTS OF ENVIRONMENTAL MYCOTOXINS	5R01 ES01643-03	61,765
BYERS, BENJAMIN R.	IRON METABOLISM IN CULTURED HEART CELLS	5R01 AM26163-02	36,707
BYERS, BENJAMIN R.	TRACE METAL UPTAKE IN CARIOGENIC STREPTOCOCCUS MUTANS	5R01 DE04903-02	33,744
BYERS, BENJAMIN R.	MICROBIAL IRON TRANSPORT	5R01 GM23778-09	50,522
CASE, STEVEN T.	THE ORGANIZATION AND EXPRESSION OF CHROMOMERES	5R01 GM26362-02	71,195
COLEMAN, THOMAS G.	REGIONAL HEMODYNAMICS AND THERAPY	1R01 HL26412-01	43,766
CUCHENS, MARVIN A.	THE IMMUNOREGULATORY ROLE OF IGD	5R23 CA28046-02	28,731
DWYER, TERRY M.	IONIC BASIS OF SYNAPTIC POTENTIALS	1R01 NS16462-01	22,977
GAFFORD, LANELLE G.	BIOCHEMISTRY OF FOWLPOX REPLICATION AND HYPERPLASIA	5R01 AI02031-22	61,867
GATIPON, GLENN B.	ANALGESIC IONTOPHORESIS ON CNS PAIN PATHWAYS	5R01 NS14147-03	63,150

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSISSIPPI—Continued			
GENTRY, GLENN A.....	ORAL HERPES SIMPLEX: AN APPROACH TO DENTAL THERAPY.....	5R01 DE05089-02	66,488
GROGAN, JAMES B.....	ANTIGEN EXPOSURE VIA THE ANTERIOR CHAMBER OF THE EYE.....	1R01 EY03146-01A1	92,424
GUYTON, ARTHUR C.....	CARDIOVASCULAR DYNAMICS AND THEIR CONTROL.....	5P01 HL11678-13	501,992
HALL, JOHN E.....	HORMONAL CONTROL OF RENAL FUNCTION.....	5R01 HL23502-02	23,875
HAYES, A WALLACE.....	TERATOGENICITY OF ENVIRONMENTAL MYCOTOXINS.....	5R01 ES02191-02	84,844
HO, ING-KANG.....	MECHANISMS OF NEUROTOXICITY INDUCED BY KEPONE AND MIREX.....	5R01 ES01899-03	60,218
JACKSON, JOHN F.....	SPINOCEREBELLAR ATAXIA LINKAGE TO HL-A AND OTHER LOC!.....	5R01 NS13279-04	2,799
LANGFORD, HERBERT G.....	EFFECT OF DIETARY MODIFICATION ON BLOOD PRESSURE CONTROL.....	1R01 HL24369-01	1,154,351
MC CAA, ROBERT E.....	MECHANISMS RELATED TO CONGESTIVE HEART FAILURE.....	5R01 HL09921-15	78,971
MEHENDALE, HARIHARA M.....	MODIFICATION OF BILIARY EXCRETION BY TOXIC CHEMICALS.....	5R01 ES01369-03	65,620
MEHENDALE, HARIHARA M.....	PULMONARY UPTAKE AND ACCUMULATION OF DRUGS.....	2R01 HL20622-04	94,027
MORRISON, FRANCIS S.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA16385-06	147,052
NELSON, NORMAN C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05386-19	114,706
O'CALLAGHAN, DENNIS J.....	STUDY OF NUCLEIC ACIDS OF HERPES VIRUS-INFECTED CELLS.....	5R01 AI02032-23	82,276
OLSON, MARK O.....	NUCLEAR NONRIBOSOMAL, NONHISTONE PROTEINS FUNCTION.....	1R01 GM28349-01	89,991
PARKS, LEON C.....	SURGICALLY INDUCED HYPERTHERMIA: SURVEILLANCE.....	1R01 CA27194-01	93,685
PULLEN, D JEANETTE.....	SOUTHWEST ONCOLOGY GROUP, PEDIATRIC DIVISION.....	2R10 CA15989-06	79,541
SAUER, BARRY W.....	POROUS POLYETHYLENE—TISSUE TRACHEAL PROSTHESIS.....	3R01 GM26963-01S1	4,975
SAUER, BARRY W.....	POROUS POLYETHYLENE—TISSUE TRACHEAL PROSTHESIS.....	5R01 GM26963-02	34,991
SLOBIN, LAWRENCE I.....	CONTROL OF POLYPEPTIDE CHAIN ELONGATION IN EUKARYOTES.....	5R01 GM25434-03	48,929
SRIDHARA, S.....	GENE ACTIVITY DURING INSECT METAMORPHOSIS.....	5R01 GM26549-02	56,464
THIGPEN, JAMES T.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA13633-09	115,173
THIGPEN, JAMES T.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19541-02	78,646
TUCKER, PHILIP W.....	HEAVY CHAIN GENE ORGANIZATION TRANSFORMED LYMPHOCYTES.....	1R01 AI16547-01	64,702
WAHBA, ALBERT J.....	PROTEIN SYNTHESIS IN PROKARYOTES AND EUKARYOTES.....	5R01 GM25451-03	61,954
WATSON, ROBERT L.....	BLOOD PRESSURE—PRECURSORS AND CONSEQUENCES.....	5R01 HL19858-05	99,660
WILKINSON, J SIDNEY.....	RADIOIMMUNOASSAY OF ANGIOTENSINOGEN.....	5R01 HL18561-05	57,564
YOUNG, DAVID B.....	CONTROL, CARDIOVASCULAR AND RENAL EFFECTS OF POTASSIUM.....	2R01 HL21435-04	41,836
ORGANIZATION TOTAL	38	3,972,178	
LORMAN			
ALCORN STATE UNIVERSITY		ZIP CODE 39096	
RUSSELL, ALICE.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08095-09	175,028
ORGANIZATION TOTAL	1	175,028	
MISSISSIPPI STATE			
MISSISSIPPI STATE UNIVERSITY		ZIP CODE 39762	
BLAIR, WILLIAM D.....	STUDIES OF CERVICAL MUSCULAR ACTIVITY IN THE BABOON.....	5R01 HD12382-03	62,161
CHAMBERS, JANICE E.....	NEUROPHARMACOLOGY OF CHLORINATED ALICYCLIC COMPOUNDS.....	5R01 NS14905-02	69,470
GLICK, BRUCE.....	LONG-LIVED LYMPHOCYTES AND SECRETORY BURSAL CELLS.....	5R01 CA20169-05	34,497
ORGANIZATION TOTAL	3	166,128	
TOUGALOO			
TOUGALOO COLLEGE		ZIP CODE 39174	
SRINIVASAN, ASOKA.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08110-09	127,641
ORGANIZATION TOTAL	1	127,641	
UNIVERSITY			
UNIVERSITY OF MISSISSIPPI		ZIP CODE 38677	
GILMORE, W FRANKLIN.....	NOVEL A-AMINO SULFONAMIDES-AMINO ACID ANTIMETABOLITES.....	5R01 NS14898-02	60,606
WALLER, COY W.....	CANNABINOIDS IN THE TREATMENT OF GLAUCOMA.....	1R01 EY03353-01	117,455
ORGANIZATION TOTAL	2	178,061	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSISSIPPI—Continued			
WINONA			
CENTRAL MISSISSIPPI, INC.	ZIP CODE 38967		
FRATE, DENNIS A.....	COMMUNITY CONTROL OF HYPERTENSION IN MISSISSIPPI.....	1R01 HL25623-01	411,633
ORGANIZATION TOTAL	1 411,633		
STATE TOTAL	50 6,001,425		
MISSOURI			
COLUMBIA			
CANCER RESEARCH CENTER	ZIP CODE 65201		
ALSPAUGH, MARGARET A.....	CHARACTERIZE CERTAIN ANTIGENS INVOLVED IN ARTHRITIS.....	1R01 AM28541-01	75,786
BERKELHAMMER, JANE.....	SWINE MELANOMA: IN VITRO GROWTH AND IN VIVO PATHOLOGY.....	5R01 CA25718-02	83,594
DOSS, LARRY.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA22486-02	116,915
JOHNSTON, WILLIAM D.....	CLINICAL CANCER EDUCATION—MEDICAL.....	5R25 CA17946-05	159,300
PAPERMASTER, BEN W.....	LYMPHOKINE MEDIATED TUMOR IMMUNOTHERAPY.....	5R01 CA25740-03	114,413
PAPERMASTER, BEN W.....	MOUSE TUMOR ASSAYS FOR LYMPHOKINE IMMUNOTHERAPY.....	5R01 CA26224-02	108,377
RODES, NED D.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05824-01	35,500
TYRER, HARRY W.....	CELL POSITIONING SYSTEM: DEVELOPMENT AND USE IN CANCER.....	1R01 CA28706-01	84,902
ORGANIZATION TOTAL	8 778,787		
EYE RESEARCH FOUNDATION OF MISSOURI	ZIP CODE 65201		
WALKENBACH, RONALD J.....	CONTROL OF CORNEAL PHYSIOLOGY BY CYCLIC NUCLEOTIDES.....	5R01 EY02597-03	85,061
ORGANIZATION TOTAL	1 85,061		
UNIVERSITY OF MISSOURI-COLUMBIA	ZIP CODE 65201		
AGRIS, PAUL F.....	TRANSFER RNA STRUCTURE DURING PROTEIN SYNTHESIS.....	2R01 GM23037-03	50,511
BARBERO, GIULIO J.....	MUCUS ABNORMALITY IN CYSTIC FIBROSIS.....	5P50 HL19160-04	194,853
BLOUNT, DON H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07053-15	73,554
BROWN, CHARLES H.....	PERCEPTUAL ADAPTATIONS FOR COMMUNICATION.....	1R01 NS16632-01	64,940
BRUNNGRABER, ERIC G.....	CARBOHYDRATE-CONTAINING MACROMOLECULES IN AGING BRAIN.....	5R01 AG00803-02	23,982
CAMPBELL, BENEDICT J.....	CHARACTERIZATION OF KIDNEY PEPTIDASES.....	5R01 AM08511-15	29,146
CAMPBELL, BENEDICT J.....	IMMUNOBIOCHEMISTRY OF LOXOSCELES RECLUSA VENOM.....	5R01 ES00598-08	36,328
COOPERSTOCK, MICHAEL S.....	PATHOGENESIS OF NEONATAL ENDOTOXEMIA.....	5R23 AI14552-03	37,730
CSAKY, T Z.....	EPITHELIAL TRANSPORT AND DIABETES MELLITUS.....	1R01 AM27041-01	43,598
DAVID, JOHN D.....	STRUCTURE AND ACTIVITY OF MYOSIN HEAVY CHAIN GENE.....	5R01 GM25162-03	43,599
DAVIS, JAMES O.....	HUMORAL FACTORS IN HYPERTENSION AND HEART FAILURE.....	5R01 HL10612-15	157,857
FEENEY, LYNETTE.....	SYNTHESIS AND PHAGOCYTOSIS IN OCULAR NEUROEPITHELIA.....	5R01 EY03274-02	94,971
FINKELSTEIN, RICHARD A.....	THE CRITICAL ROLE OF IRON IN GONOCOCCAL VIRULENCE.....	5R01 AI16764-02	58,350
FINKELSTEIN, RICHARD A.....	ESCHERICHIA COLI DIARRHEAGENIC ENTEROTOXIN(S).....	5R22 AI16776-02	63,957
FINKELSTEIN, RICHARD A.....	CHOLERA AND RELATED DIARRHEAS: PATHOGENESIS/IMMUNITY.....	1R22 AI17312-01	88,138
FORKER, EDSON L.....	MECHANISMS OF BILE FORMATION.....	7R01 AM27623-01	75,290
FORTE, LEONARD R.....	MOLECULAR PHARMACOLOGY OF RENAL PLASMA MEMBRANES.....	5R01 AM14787-11	78,202
FRANKLIN, DEAN.....	PATHOPHYSIOLOGY OF PROGRESSIVE CORONARY OCCLUSION.....	7R01 HL26436-01	71,310
GAYLOR, JAMES L.....	STEROL BIOSYNTHESIS.....	2R01 AM21336-04	151,242
GEHRKE, CHARLES W.....	BIOLOGIC MARKERS FOR MELANOMA.....	1R01 CA28668-01	60,567
GEHRKE, CHARLES W.....	RNA CHARACTERIZATION BY NUCLEOSIDE ANALYSIS.....	1R01 GM27662-01A1	50,256
GOLDBERG, HERBERT S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05387-19	122,362
GOLDSTEIN, DAVID E.....	VASCULAR CHANGES IN DIABETES MELLITUS.....	3R01 HL13632-09S1	22,361
GOLDSTEIN, DAVID E.....	VASCULAR CHANGES IN DIABETES MELLITUS.....	5R01 HL13632-10	88,504
GRIGGS, DOUGLAS M, JR.....	REGIONAL MYOCARDIAL BLOOD FLOW AND METABOLISM.....	5R01 HL11876-13	86,181
HEIMBERG, MURRAY.....	REGULATORY MECHANISMS IN LIPID METABOLISM.....	5R01 HL25800-07	175,483
HENRY, PATRICK H.....	CANCER AND LEUKEMIA GROUP B.....	3R10 CA12046-09S2	9,469
HENRY, PATRICK H.....	CANCER AND LEUKEMIA GROUP B.....	5R10 CA12046-10	132,228
HOKK, REUEL R, JR.....	SWINE MELANOMA ANTIGENS: ISOLATION AND EVALUATION.....	1R01 CA28230-01	64,033
JENG, INGMING.....	STUDIES OF THE CATABOLISM OF PLASMA LIPOPROTEINS.....	5R01 HL25817-02	40,669
JONES, ALLAN W.....	HYPERTENSIVE MECHANISMS AND VASCULAR ION EXCHANGE.....	5R01 HL15852-08	64,764

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
KAUSLER, DONALD H.	ADULT AGE DIFFERENCES IN AUTOMATIC MEMORY PROCESSES	5R01 AG01485-02	30,466
KNOWLES, CHARLES O.	METABOLISM AND MODE OF ACTION OF ACARICIDE CHEMICALS	2R01 ES01316-04	40,577
LOBECK, CHARLES C, JR.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00287-14	527,882
LOEPKY, RICHARD N.	NITROSAMINE FRAGMENTATION AND NITROSAMINE CARCINOGENESIS	2R01 CA22289-04	56,868
LOEPKY, RICHARD N.	CARCINOGENESIS: NITROSAMINE FORMATION AND INHIBITION	1R01 CA26914-01	71,314
LOWER, WILLIAM R.	DETECTION OF CARCINOGENS WITH ZEA AND TRADESCANTIA	5R01 CA23387-02	40,731
MARTINEZ, J RICARDO	METABOLIC & SECRETORY INTERACTIONS IN EXOCRINE GLANDS	2R01 AM18150-04A1	59,483
MARTINEZ, J RICARDO	FUNCTIONAL DEVELOPMENT OF SALIVARY GLANDS	1R01 DE04897-01A1	67,142
MORRIS, STEVEN J.	TRACE-ELEMENT EXPOSURE FROM HUMAN MILK AND FORMULA	5R01 HD12464-02	36,487
MULLEN, HELEN B.	CELLULAR AND GENETIC REGULATION OF AUTOIMMUNE DISEASE	5R01 AI16350-05	58,784
MULLEN, HELEN B.	CELLULAR MECHANISMS REGULATING ANTIBODY PRODUCTION	5R01 CA25054-06	36,610
O'DELL, BOYD L.	TRACE ELEMENTS IN NUTRITION	5R01 HL11614-13	92,825
ORTWERTH, BERYL J.	MODIFICATION OF TRNA/LYS CONTROLS CELL PROLIFERATION	5R01 CA26423-02	73,342
ORTWERTH, BERYL J.	LENS INHIBITOR PROTEINS AND CATARACTOGENESIS	5R01 EY02035-04	63,895
PARKER, CHARLOTTE D.	PATHOGENIC MECHANISMS OF VIBRIO CHOLERA	1R22 AI17669-01	70,322
PARKER, CHARLOTTE D.	NEW APPROACHES TO PERTUSSIS VACCINE	7R01 AI17682-01	75,751
REBER, HOWARD A.	THE PANCREATIC DUCT MUCOSAL BARRIER	1R26 CA27019-01A1	45,847
RIDDLE, DONALD L.	DEVELOPMENTAL GENETICS OF THE C. ELEGANS DAUER LARVA	2R01 HD11239-04	77,120
ROBBINS, JEFFREY	MECHANISMS OF CELLULAR CONTROL DURING MYOGENESIS	5R01 HD13225-02	40,114
ROVETTO, MICHAEL J.	MYOCARDIAL FUNCTION AND METABOLISM FOLLOWING ISCHEMIA	7R01 HL27336-01	28,180
SALTHOUSE, TIMOTHY A.	AGE, EXPERIENCE, AND PERCEPTUAL-MOTOR PERFORMANCE	5R01 AG00694-02	17,587
SCHMIDT, FRANCIS J.	GENE STRUCTURE OF AN RNA PROCESSING ENZYME	1R01 GM26756-01A1	45,317
SCHROEDER, FRIEDHELM	MEMBRANE LIPID ASYMMETRY IN A TUMORIGENIC CELL LINE	5R01 CA24339-03	46,226
SCHUDER, JOHN C.	WAVEFORM DEPENDENCY IN DEFIBRILLATION	5R01 HL18040-06	50,113
SCHUDER, JOHN C.	DEVELOPMENT OF AUTOMATIC IMPLANTED DEFIBRILLATOR	5R01 HL21674-03	73,152
SHARP, GORDON C.	NUCLEAR ACIDIC PROTEIN ANTIGENS IN RHEUMATIC DISEASES	2R01 AM20305-04	66,875
SHARP, GORDON C.	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20658-03	215,113
SHERMAN, LOUIS A.	GENETICS AND PHOTOSYNTHESIS IN BLUE-GREEN ALGAE	5R01 GM21827-06	64,945
SMITH, GEORGE P.	MOLECULAR GENETICS OF NEMATODE DEVELOPMENT	5R01 GM25626-03	32,839
STARK, WILLIAM S.	NORMAL AND ANOMALOUS VISUAL RECEPTOR FUNCTION	5R01 EY03408-02	36,937
STOUT, SAMUEL D.	HISTOMORPHOMETRIC STANDARDS FOR HUMAN CORTICAL BONE	5R01 AM22118-02	14,795
SUN, ALBERT Y.	CHLORINATED WATER AND MEMBRANE FUNCTIONS AND NEOPLASIA	5R01 CA26586-02	69,793
VORBECK, MARIE L.	MITOCHONDRIAL STRUCTURE AND FUNCTION IN AGING	5R01 AG00590-04	38,864
WAGNER, JOSEPH E.	HAGEMAN TRAIT IN AN ANIMAL MODEL	1R01 HL25512-01	24,971
WAGNER, JOSEPH E.	RESEARCH ANIMAL DIAGNOSTIC LABORATORY	5P40 RR00471-12	136,485
WANG, RICHARD J.	MITOSIS AND MITOTIC ARREST IN MAMMALIAN CELLS	2R01 GM21305-06	90,447
WEINSTEIN, IRA	ESTROGEN-GLUCAGON INTERACTIONS IN HEPATIC METABOLISM	5R01 HD12959-02	74,148
WERLEY, HARRIET H.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1S08 RR09187-01	89,380
WIEGMAN, DAVID L.	HYPERTENSION, MICROVASCULAR CONTROL AND EXERCISE	5R23 HL21901-03	41,079
WILCOX, HENRY G.	REGULATION OF HEPATIC PRODUCTION OF HDL	5R01 HL22812-03	58,191
WISE, KIM S.	MOLECULAR BASIS OF MYCOPLASMA IMMUNOPATHOLOGY	7R01 AM28147-01	45,409
WIXOM, ROBERT L.	HISTIDINE BIOSYNTHESIS IN ANIMAL DEVELOPMENT	5R01 AM12708-09	39,868
WOSILAIT, WALTER D.	FACTORS AFFECTING THE ACTION OF ANTICOAGULANTS	5R01 HL15698-14	57,433
ZAHLER, WARREN L.	PROPERTIES AND REGULATION OF SPERM ADENYLATE CYCLASE	5R01 HD12305-02	43,607
ZATZMAN, MARVIN L.	CARDIOVASCULAR AND RENAL FUNCTIONS OF MARMOTS	3R01 HL17847-05S1	7,963
ORGANIZATION TOTAL	76	5,429,712	
KANSAS CITY			
MIDWEST RESEARCH INSTITUTE ZIP CODE 64110			
COHEN, HARVEY D.	TEMPERATURE BIOFEEDBACK: A DOUBLE-BLIND EVALUATION	5R01 NS14650-02	93,980
FOTOPOULOS, SOPHIA S.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05671-04	23,044
GRAHAM, CHARLES	BASIC STUDIES IN BIOFEEDBACK	3R01 GM26504-01S1	5,085
GRAHAM, CHARLES	BASIC STUDIES IN BIOFEEDBACK	5R01 GM26504-02	121,546
GRANDJEAN, CARTER J.	DIALYLNITROSAMINE CARCINOGENESIS: SPECIES DIFFERENCES	5R01 CA27934-02	110,036
ORGANIZATION TOTAL	5	353,691	
ST. LUKE'S HOSPITAL ZIP CODE 64111			
GOETZ, KENNETH L.	ATRIAL RECEPTORS	5R01 HL13623-10	53,848
ORGANIZATION TOTAL	1	53,848	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
UNIVERSITY OF MISSOURI-KANSAS CITY ZIP CODE 64110			
GIER, RONALD E.....	CLINICAL CANCER EDUCATION PROGRAM.....	1R25 CA27688-01	28,479
HUMPHREY, LOREN J.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19343-05	54,071
WINITZ, HARRIS.....	PRODUCTION SOUNDS IN CONVERSATIONAL SPEECH.....	1R01 NS16161-01	48,622
YANG, BOB IN-YU.....	DETERMINATION OF FEMTOMOLES OF PYRIDOXAL PHOSPHATE.....	1R01 GM27280-01	15,818
ORGANIZATION TOTAL	4 146,990		
KIRKSVILLE			
KIRKSVILLE COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 63501			
BOND, GUY H.....	CONTROL OF NA, K-ATPASE BY VANADATE, MG, K, NA, & ATP.....	1R01 GM28164-01	28,836
CENEDELLA, RICHARD J.....	A NEW ANIMAL MODEL FOR CATARACTS: STUDY OF MECHANISM.....	5R01 EY02568-03	26,899
CENEDELLA, RICHARD J.....	MECHANISM OF EPILEPSY INDUCED BY STEROL INHIBITORS.....	2R01 NS14446-02	35,575
DENSLow, JOHN S.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09130-03	100,000
ISAAK, DALE D.....	THYMUS-DETERMINED RECOGNITION OF SELF H-2 BY T CELLS.....	5R01 AI16226-02	28,427
THEOBALD, ROBERT J, JR.....	PURINERGIC AS INHIBITORS OF THE URINARY BLADDER.....	5R01 AM21465-03	9,950
TOWNS, LEX C.....	ANATOMICAL INTERCONNECTIONS OF RABBIT VISUAL SYSTEM.....	5R01 EY02285-03	27,717
WILLINGHAM, ALLAN K.....	THE MECHANISM OF ACTION OF VITAMIN K.....	3R01 HL20577-04S1	6,525
ZEPP, EDWIN A.....	ENDOCRINE FACTORS IN CANCER-INDUCED LIPOLYSIS.....	5R01 CA24228-02	30,827
ORGANIZATION TOTAL	9 294,756		
NORTHEAST MISSOURI STATE UNIVERSITY ZIP CODE 63501			
CORNELL, ROBERT P.....	INSULIN AND HEPATIC MACROPHAGES.....	5R01 AM22102-03	25,564
ORGANIZATION TOTAL	1 25,564		
NORMANDY			
UNIVERSITY OF MISSOURI-ST. LOUIS ZIP CODE 63121			
MURRAY, ROBERT W.....	OZONE CHEMISTRY AND CHEMICAL CARCINOGENESIS.....	5R01 ES01984-02	51,507
STARLING, JANE A.....	TREHALOSE: METABOLISM IN MONILIFORMIS.....	1R01 AI15397-01A1	46,931
ORGANIZATION TOTAL	2 98,438		
ROLLA			
UNIVERSITY OF MISSOURI-ROLLA ZIP CODE 65401			
DAY, DELBERT E.....	DEGRADATION OF ORTHOPEDIC ALUMINA BY CA SEGREGATION.....	5R01 AM21834-02	51,422
ORGANIZATION TOTAL	1 51,422		
SAINT LOUIS			
CENTRAL INSTITUTE FOR THE DEAF ZIP CODE 63110			
HIRSH, IRA J.....	AUDITORY COMMUNICATION AND ITS DISORDERS.....	2P50 NS03856-18	835,073
ORGANIZATION TOTAL	1 835,073		
JEWISH HOSPITAL OF ST. LOUIS ZIP CODE 63110			
AVIOLI, LOUIS V.....	BONE METABOLISM IN CHRONIC DISORDERS.....	3R01 AM11674-13S1	30,310
AVIOLI, LOUIS V.....	BONE METABOLISM IN DIABETES, KIDNEY AND G.I. DISEASES.....	2R01 AM11674-14	317,916
BERGER, NATHAN A.....	POLY (ADPR) POLYMERASE INHIBITORS IN CANCER THERAPY.....	5R01 CA24986-03	58,163
BERGER, NATHAN A.....	POLY (ADPR) IN GENETIC DISORDERS OF DNA REPAIR.....	5R01 GM26463-02	112,213
BIRGE, STANLEY J.....	REGULATION OF CALCIUM AND PHOSPHORUS TRANSPORT.....	5R01 AM14571-09	57,487
CAMPBELL, EDWARD J.....	MACROPHAGES AS MODULATORS OF PULMONARY INFLAMMATION.....	5R23 HL24265-02	44,308
CATALONA, WILLIAM J.....	SUPPRESSOR CELL ACTIVITY IN BLADDER CANCER PATIENTS.....	5R26 CA23855-03	84,569
CATALONA, WILLIAM J.....	IMMUNOLOGIC CHARACTERIZATION/PROSTATIC ADENOCARCINOMA.....	5R26 CA25792-03	61,905
DEUEL, THOMAS F.....	ENZYME REGULATION IN NORMAL AND NEOPLASTIC CELLS.....	2R01 CA22409-03A2	96,216
DEUEL, THOMAS F.....	BIOCHEM OF PLATELET FUNCTION IN THROMBOSIS & CELL GROWTH.....	5R01 HL22119-03	145,557
GRAFF, RALPH J.....	MEMBRANE ANTIGEN LOCI OF CHROMOSOME 7.....	5R01 AI07437-13	66,584
HAHN, THEODORE J.....	ANTICONVULSANT, DRUG-INDUCED MINERAL DISORDERS.....	5R01 NS10262-09	80,053
HICKMAN, SCOT G.....	SURFACE IGM OF MALIGNANT LYMPHOCYTES AND PLASMA CELLS.....	5R01 CA25044-03	68,731
KAPP-PIERCE, JUDITH A.....	MODE OF ACTION OF H-LINKED IMMUNE RESPONSE (IR) GENES.....	2R01 AI13987-04	96,255

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
LITTLE, J. RUSSELL, JR.	NEOPLASTIC AND NORMAL CELL THYMUS-LEUKEMIA ANTIGENS.	2R01 CA20168-04A1	78,552
MC DONALD, JOHN A.	ROLE OF FIBRONECTIN IN INFLAMMATORY LUNG INJURY.	1R01 HL26009-01	57,744
PECK, WILLIAM A.	REGULATION OF BONE CELL PROLIFERATION AND FUNCTION.	5R01 AM19855-05	137,682
PECK, WILLIAM A.	BIOMEDICAL RESEARCH SUPPORT.	2507 RR05491-18	104,084
PIERCE, CARL W.	CELL INTERACTIONS IN IMMUNE RESPONSES IN VITRO.	5R01 AI13915-05	133,871
PIERCE, CARL W.	LYMPHOCYTE BIOLOGY, THE MHC AND IMMUNE REGULATION.	5P01 AI15353-02	529,255
RATLIFF, TIMOTHY L.	INTERFERON: EFFECT ON IMMUNITY TO BLADDER TUMORS.	1R26 CA28860-01	64,214
TEITELBAUM, STEVEN L.	BONE RESORPTION IN PERIODONTAL DISEASE.	1R01 DE05413-01	96,933
THOMAS, DAVID W.	T LYMPHOCYTE AND MACROPHAGE INTERACTIONS.	2R01 AI14226-04	95,387
WILNER, GEORGE D.	FIBRINOGEN PROTEOLYSIS IN HEMOSTASIS AND THROMBOSIS.	5R01 HL22642-02	71,717
ORGANIZATION TOTAL	24	2,689,706	
ST. LOUIS CITY HEALTH AND HOSPITALS DEPARTMENT ZIP CODE 63104			
NICHOLAS, HAROLD J.	ISOPRENOL METABOLISM IN THE CENTRAL NERVOUS SYSTEM.	5R01 NS13413-02	41,095
ORGANIZATION TOTAL	1	41,095	
ST. LOUIS UNIVERSITY ZIP CODE 63103			
ALEVY, YAEI G.	IMMUNE RESPONSE IN UREMIA.	1R01 AM27434-01	86,218
BELLONE, CLIFFORD J.	IDIOTYPES: THEIR ROLE IN RECOGNITION AND REGULATION.	5R01 AI13115-05	68,775
BOSE, SUBIR K.	THE BIOLOGY OF CHLAMYDIA TRACHOMATIS INFECTION.	5R01 AI16577-02	117,972
CHALLONER, DAVID R.	BIOMEDICAL RESEARCH SUPPORT.	2507 RR05388-19	137,786
CHAPNICK, BARRY M.	PROSTAGLANDIN PRECURSORS AND INTESTINAL VASCULATURE.	5R01 HL26253-02	50,986
CHINNADURAI, GOVINDASWAMY.	IN VITRO CONSTRUCTION OF TS MUTANTS OF ADENOVIRUS 2.	5R23 AI15559-02	41,832
CIMADEVILLA, JOSE M.	POST-TRANSCRIPTIONAL CONTROL OF PROINSULIN SYNTHESIS.	1R23 AM27200-01	40,204
COCKRELL, RONALD S.	METABOLIC REGULATION IN NEOPLASMS BY CATION TRANSPORT.	5R01 CA11766-09	73,875
COSCIA, CARMINE J.	L-3,4-DIHYDROXYPHENYLALANINE METABOLISM.	5R01 NS12342-05	58,569
DUNN, ROBERT C, JR.	A STUDY OF THE CORTICOTRIGEMINAL PROJECTION.	5R01 NS15622-02	61,652
DUS, KARL M.	COMPARATIVE STRUCTURAL STUDIES OF P-450 HEMOPROTEINS.	2R01 GM21726-05	89,358
ELICEIRI, GEORGE L.	CONTROL MECHANISMS IN HUMAN TUMOR CELLS—SMALL RNAS.	2R01 CA20683-04	98,257
ELICEIRI, GEORGE L.	REGULATION OF GENE EXPRESSION IN HUMAN TUMOR CELLS.	1R01 CA27288-01	64,369
ELICEIRI, GEORGE L.	RNA METABOLISM IN NORMAL AND MALIGNANT GROWTH.	5R01 GM22463-05	101,034
ELLIOTT, WILLIAM H.	METABOLISM OF NEUTRAL STEROLS.	5R01 HL07878-18	134,890
FISCHER, VERNON W.	MYOCARDIAL MICROVASCULATURE IN DIABETES MELLITUS.	5R01 AM21207-02	39,204
FITCH, COY D.	METABOLIC ADAPTATION OF MUSCLE: THE NEED FOR CREATINE.	5R01 AM16623-07	60,073
GERARD, GARY F.	MAMMALIAN RNA TUMOR VIRUS REVERSE TRANSCRIPTION.	5R01 CA20335-03	78,505
GOLD, ALVIN H.	INSULIN CONTROL OF LIVER GLYCOGEN METABOLISM.	5R01 AM21149-02	42,995
GOLD, ALVIN H.	GLYCOGEN SYNTHETASE IN DEVELOPING LIVER.	5R01 HD07788-06	42,646
GRANDGENETT, DUANE P.	AVIAN RNA TUMOR VIRUS DNA SYNTHESIS AND ITS REGULATION.	5R01 CA16312-07	76,992
GREEN, MAURICE.	REPLICATION OF RNA TUMOR VIRUSES.	5R01 CA19996-05	108,515
GREEN, MAURICE.	TRANSFORMING PROTEINS OF THREE HUMAN ADENOVIRUS GROUPS.	2R01 CA21824-04	94,266
GREEN, MAURICE.	SPECIALIZED CANCER CENTER (CORE) GRANT.	5P30 CA25843-02	211,638
GREEN, MAURICE.	HUMAN PAPILLOMAVIRUSES.	1R01 CA28689-01	81,396
GREEN, MAURICE.	BIOCHEMISTRY OF ANIMAL VIRUS MULTIPLICATION.	9R01 CA29561-23	88,378
GREEN, MICHAEL.	NASCENT PROTEIN PROCESSING BY ENDOPLASMIC RETICULUM.	1R01 GM28194-01	101,781
HERTELENDY, FRANK.	ROLE OF PROSTAGLANDINS IN AVIAN REPRODUCTION.	5R01 HD09763-05	75,374
HIRSCHBERG, CARLOS B.	GLYCOSYLATION MECHANISMS OF CELL LIPIDS AND PROTEINS.	5R01 CA17015-06	65,482
HIRSCHBERG, CARLOS B.	METABOLISM AND FUNCTION OF SPHINGOLIPIDS.	5R01 NS12827-05	42,925
HOWLETT, ALLYN C.	ADENYLATE CYCLASE REGULATION IN NEUROBLASTOMA CELLS.	1R01 NS16513-01	71,435
ILINSKY, IGOR.	A STEREOTAXIC ATLAS BASED ON INTRACEREBRAL LANDMARKS.	1R24 RR01171-01A2	41,138
KAPLAN, ARNOLD.	BIOCHEMISTRY OF ENZYME PINOCYTOSIS.	5R01 AM21424-03	78,295
KIM, YEE S.	PATHOGENESIS OF FETAL MACROSOMIA IN MATERNAL DIABETES.	5R01 HD11614-03	42,283
KLEIN, CLAUDETTE.	BIOGENESIS OF A CHEMOTACTIC SYSTEM IN D. DISCOIDEUM.	5R01 GM25080-03	59,380
KLEIN, CLAUDETTE.	PROCESSING OF THE CHEMOTACTIC SIGNAL IN D. DISCOIDEUM.	5R01 GM26349-02	58,342
LAGUNOFF, DAVID.	MAST CELL GRANULES: STRUCTURE AND SECRETION.	5R01 HL25402-02	62,945
LAMBOWITZ, ALAN M.	BIOGENESIS OF MITOCHONDRIA IN NEUROSPORA.	2R01 GM23961-04	83,055
LAMBOWITZ, ALAN M.	RNA SPLICING IN NEUROSPORA MITOCHONDRIA.	5R01 GM26836-02	70,542
LEE, JAMES C.	PHYSICAL STUDIES OF PROTEIN INTERACTIONS.	5R01 AM21489-02	43,213
LEE, JAMES C.	BIOPHYSICAL STUDIES OF TUBULIN-LIGAND INTERACTIONS.	5R01 NS14269-02	52,969
LONGMORE, WILLIAM J.	REGULATION OF LIPID METABOLISM IN THE LUNG.	5R01 HL13405-11	73,232
LOZERON, HOMER A.	RNA PROCESSING IN THE DEVELOPMENT OF BACTERIOPHAGE.	5R01 GM25579-03	100,576
MARR, J. JOSEPH.	PURINE METABOLISM IN PATHOGENIC HEMOFAGELLATES.	5R01 AI15663-02	85,229

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
MARRS, BARRY L.	THE REGULATION OF BACTERIAL MEMBRANE FORMATION.....	5R01 GM20173-08	84,048
MEDOFF, JUDITH.....	NERVE-PARENCHYMAL CELL INTERACTIONS IN DEVELOPMENT.....	5R01 HD12962-02	26,761
NADEL, ELI M.	CLINICAL CANCER EDUCATION PROGRAM.....	2R25 CA17949-04	100,210
OLSON, ROBERT E.	MODE OF ACTION OF THE FAT-SOLUBLE VITAMINS.....	2R01 AM09992-16	67,808
OLSON, ROBERT E.	BIOSYNTHESIS OF UBIQUINONE (COENZYME Q).....	5R01 AM10004-15	55,016
OLSON, ROBERT E.	REGULATION OF PROTHROMBIN BIOSYNTHESIS.....	1R01 HL25196-01A1	80,294
RUH, THOMAS S.	GLUCOCORTICOIDS AND LYMPHOCYTE FUNCTION.....	5R01 CA24034-03	50,736
RUH, THOMAS S.	ESTROGEN AND ANTIESTROGEN BINDING AND ACTION.....	5R01 HD13425-02	72,183
SCHULZE, IRENE T.	STRUCTURE AND SYNTHESIS OF MYXOVIRUSES.....	5R01 AI10097-09	53,407
SCHULZE, IRENE T.	EFFECT OF INTERFERENCE ON VIRAL GENE EXPRESSION.....	5R01 AI14590-03	65,183
SENAY, LEO C, JR.	SKIN TEMPERATURE AND HUMAN RESPONSES TO HEAT.....	5R01 HL22835-02	63,104
SWIERKOSZ, JAMES E.	EXPRESSION AND FUNCTION OF T CELL I-REGION ANTIGENS.....	1R01 AI17167-01	98,072
WEBER, MORTON M.	MEMBRANE-ASSOCIATED FUNCTIONS IN MICROORGANISMS.....	5R01 HL22981-19	102,483
WESTFALL, THOMAS C.	CATECHOLAMINE TRANSMISSION IN VASCULAR SMOOTH MUSCLE.....	1R01 HL26319-01	87,699
WESTFALL, THOMAS C.	RECEPTOR MEDIATED CONTROL OF MONOAMINE TRANSMISSION.....	5R01 NS16215-02	67,498
WOLD, WILLIAM S.	ADENOVIRUS 2 CODED EARLY GLYCOPROTEIN.....	5R23 CA24710-03	32,316
ZENSER, TERRY V.	BLADDER CANCER: METABOLISM OF CARCINOGENS AND PREVENTION.....	1R26 CA28015-01A1	77,451
ORGANIZATION TOTAL	61 4,542,850		
WASHINGTON UNIVERSITY ZIP CODE 63130			
AGRAWAL, HARISH C.	BIOCHEMICAL AND IMMUNOLOGICAL STUDIES OF MYELIN PLP.....	2R01 NS13464-04	106,121
ALPERS, DAVID H.	INTESTINAL PROTEIN METABOLISM AND FUNCTION.....	5R01 AM14038-11	143,843
ANDERSON, CHARLES B.	THROMBOXANE REGULATION OF RENOVASCULAR RESISTANCE.....	5R01 AM26109-02	135,234
APIRION, DAVID.....	CHANGES IN RNA METABOLISM AND THE INDUCTION OF TUMORS.....	5R01 CA24727-02	126,279
APIRION, DAVID.....	GENETICS OF PROCESSING OF RNA IN ESCHERICHIA COLI.....	5R01 GM19821-05	53,963
APIRION, DAVID.....	THE MOLECULAR BIOLOGY OF RNA TURNOVER IN E. COLI.....	5R01 GM25890-02	47,223
ATKINSON, JOHN P.	EARLY ACTIVATION EVENTS IN IMMUNOLOGIC INFLAMMATION.....	5R01 AI14494-03	70,622
BAENZIGER, JACQUES U.	OLIGOSACCHARIDE STRUCTURE AND FUNCTION IN RECOGNITION.....	2R01 CA21923-04	135,834
BALASUBRAMANIAN, TRICHEY M.	PENTAIPHOL IONOPHORES STUDIES.....	5R01 AI16182-02	47,414
BANASZAK, LEONARD J.	STRUCTURAL STUDIES OF DEHYDROGENASES AND LIPOPROTEINS.....	5R01 GM13925-15	103,352
BARNES, WAYNE M.	HISTIDINE OPERON—GENETIC CONTROL DNA SEQUENCE.....	5R01 GM24956-03	74,870
BAUER, EUGENE A.	CONTROL OF COLLAGENASE IN HUMAN FIBROBLAST CULTURES.....	5R01 AM19537-04	104,198
BECKER, BERNARD.....	TRANSPORT PROCESSES AND THE EYE.....	2R01 EY00004-26	164,370
BECKER, BERNARD.....	GLAUCOMA CLINICAL RESEARCH CENTER.....	3P50 EY00336-12S2	104,372
BELL, C ELLIOTT, JR.	ANTIGENS AND IMMUNITY IN HUMAN LUNG CANCER.....	3R01 CA15556-06S1	19,143
BIER, DENNIS M.	STABLE ISOTOPE STUDIES OF FUEL TRANSPORT IN CHILDREN.....	5R01 HD10667-04	94,949
BOHNE, BARBARA A.	RESPONSE OF INNER EAR TO INJURY.....	5R01 NS01791-22	115,189
BOIME, IRVING.....	BIOSYNTHESIS OF PROTEIN HORMONES IN HUMAN PLACENTA.....	5R01 HD13481-02	124,777
BOTWINICK, JACK.....	AGE DIFFERENCES IN FORWARD STIMULUS MASKING.....	5R01 AG01500-02	45,951
BRACIALE, THOMAS J.	CYTOTOXIC T LYMPHOCYTE RESPONSE TO INFLUENZA VIRUS.....	5R01 AI15608-02	65,582
BRADSHAW, RALPH A.	STRUCTURE AND FUNCTION OF DEHYDROGENASES.....	5R01 AM13362-12	122,291
BRADSHAW, RALPH A.	STRUCTURE AND FUNCTION OF NERVE GROWTH FACTOR.....	2R01 NS10229-09	96,292
BROWN, BARBARA I.	PROGNOSIS IN GLYCOGENOSIS.....	5R01 HD12184-03	56,398
BROWN, DAVID H.	ENZYMATIC STUDY OF GLYCOGEN METABOLISM.....	5R01 GM04761-24	123,222
BROWN, ELMER B.	MAMMALIAN IRON METABOLISM.....	5R01 AM16577-08	105,588
BUNGE, RICHARD P.	CYTOLOGICAL STUDIES OF DEVELOPING AND MATURE NEURONS.....	5R01 NS09923-10	87,292
BURTON, HAROLD.....	FUNCTIONAL STUDIES OF SYNAPSES IN TISSUE CULTURE.....	5R01 NS14416-03	72,100
CHAPLIN, HUGH, JR.	SOMATOSENSORY PROPERTIES OF NEURONS IN CORTEX.....	2R01 NS09809-10	151,102
CHEUNG, LAURENCE Y.	SYMPTOMATIC HEMOLYTIC ANEMIA IN MALIGNANT DISEASES.....	5R01 CA02918-24	89,293
CHILSON, OSCAR P.	GASTRIC BICARBONATE SECRETION AND CYTOPROTECTION.....	5R01 AM25998-02	57,346
CLARK, RICHARD E.	REGULATION OF PURINE TRANSPORT: MATURING RETICULOCYTES.....	5R01 AM21449-03	69,261
COHEN, ADOLPH I.	CLINICAL TRIAL OF NIFEDIPINE DURING CARDIAC SURGERY.....	5R01 HL24394-02	176,344
COVEY, DOUGLAS F.	CYTOLOGY AND PHYSIOLOGY OF THE RETINA.....	5R01 EY00258-18	156,267
COWAN, W MAXWELL.....	SUICIDE SUBSTRATES: CANCER AND ENDOCRINE APPLICATIONS.....	5R01 CA23582-03	81,260
COWAN, W MAXWELL.....	QUANTITATIVE ANATOMICAL STUDIES OF VISUAL DEPRIVATION.....	5R01 EY01255-06	66,161
COX, JEROME R, JR.	STUDIES OF NEURONAL SPECIFICITY IN THE HIPPOCAMPUS.....	5R01 NS10943-08	26,422
CRYER, PHILIP E.	A RESOURCE FOR BIOMEDICAL COMPUTING.....	5P41 RR00396-13	2,343,421
CULLEN, SUSAN E.	ADRENERGIC MECHANISMS IN METABOLIC PATHOPHYSIOLOGY.....	1R01 AM27085-01	135,267
DANFORTH, WILLIAM H.	STRUCTURAL AND SEROLOGICAL STUDIES ON IA ANTIGENS.....	2R01 CA20500-04	67,605
DAUGHADAY, WILLIAM H.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07054-15	123,982
	HORMONAL CONTROL OF CHONDROITIN SULFATE SYNTHESIS.....	5R01 AM01526-24	107,978

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
DAUGHADAY, WILLIAM H.	THE MEASUREMENT OF PROTEIN HORMONES IN PLASMA	5R01 AM05105-19	197,277
DAUGHADAY, WILLIAM H.	DIABETES RESEARCH AND TRAINING CENTER	3P60 AM20579-03S1	162,810
DAUGHADAY, WILLIAM H.	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM20579-04	1,568,115
DAVIE, JOSEPH M.	ROLE OF T CELLS IN B CELL DIFFERENTIATION	5R01 AI11635-07	96,257
DAVIE, JOSEPH M.	PAUCICLONAL IMMUNITY: MODELS FOR DIVERSIFICATION	5R01 AI15926-02	110,368
DAW, NIGEL W.	NEURAL MECHANISMS OF VISION	5R01 EY00053-11	90,024
DE WEER, PAUL J.	MODES OF OPERATION OF THE SODIUM PUMP	2R01 NS1223-08	122,703
DIETZLER, DAVID N.	STUDIES OF COORDINATE ALLOSTERIC REGULATION IN VIVO	5R01 AM18670-05	88,788
EISEN, ARTHUR Z.	ROLE OF COLLAGENASES IN COLLAGEN REMODELING	5R01 AM12129-13	250,146
EL-MOFTY, SAMIR K.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17966-06	20,004
ELSON, ELLIOT L.	BIOPHYSICAL STUDIES OF CELL DEFORMABILITY	1R01 GM27160-01	140,232
ETHEREDGE, EDWARD E.	MULTIPLE ANTIGEN SYSTEMS IN HUMAN ALLOGRAFT REJECTION	5R01 AM19110-05	72,894
FERRENDELLI, JAMES A.	BIOCHEMISTRY AND PHARMACOLOGY OF THE RETINA	5R01 EY02294-03	80,040
FERRENDELLI, JAMES A.	MECHANISMS OF SEIZURES AND ANTICONVULSANT DRUGS	5P01 NS14834-02	459,712
FINGER, STANLEY	SERIAL SURGERY AND FACTORS AFFECTING TACTILE RECOVERY	5R01 NS11002-06	38,498
FISHER, EDWIN B, JR.	SMOKING RISK-FACTOR REDUCTION: MAINTENANCE STRATEGIES	5R01 HL22472-03	56,776
FRAZIER, WILLIAM A, III	BIOCHEMISTRY OF DEVELOPMENT: A MORPHOGENETIC MODEL	2R01 NS13269-04	141,233
FRIEDEN, CARL	METABOLIC REGULATION AND INTERACTING ENZYME SYSTEMS	5R01 AM13332-12	156,867
GELB, LAWRENCE D.	MOLECULAR BIOLOGY OF VARICELLA-ZOSTER VIRUS	2R01 AI13219-04	81,417
GINGERICH, RONALD L.	MECHANISM OF PANCREATIC POLYPEPTIDE SECRETION	5R23 AM25909-02	45,690
GLASER, LUIS	REGULATION AND MECHANISM OF CELL SURFACE SYNTHESIS	5R01 GM18405-09	138,773
GLASER, LUIS	MEMBRANE PROPERTIES, INTERACTIONS DURING DIFFERENTIATION	1P01 GM28002-01	234,801
GOLDRING, DAVID	EFFECT OF EXERCISE UPON THE HYPERTENSIVE ADOLESCENT	5R01 HL21578-03	140,131
GOODENOUGH, URSULA W.	MEMBRANE RECOGNITION AND ADHESION	5R01 GM26117-03	57,466
GOODENOUGH, URSULA W.	FLAGELLAR SENSORY SIGNALLING AND SURFACE MOTILITY	5R01 GM26150-02	69,430
GOODENOUGH, URSULA W.	SCANNING ELECTRON MICROSCOPE FACILITY	5P41 GM27402-02	18,881
GOTTLIEB, CHARLENE C.	STUDIES OF MAMMALIAN GLYCOPROTEIN OLIGOSACCHARIDES	5R01 CA22857-03	61,535
GOTTLIEB, DAVID I.	MOLECULAR BASIS OF CELL RECOGNITION IN DEVELOPMENT	5R01 NS12867-05	48,614
GRANOFF, DAN M.	SURFACE ANTIGENS OF HEMOPHILUS INFLUENZAE TYPE B	7R01 AI17572-01	81,491
GREIDER, MARIE H.	CELLULAR LOCALIZATION OF GASTRIN	5R01 AM13205-13	107,774
GUTSCHE, C DAVID	CALIXARENES AS ENZYME MODELS	2R01 GM23534-04	66,402
HAHN, BEVRA H.	PATHOGENESIS AND THERAPY OF SYSTEMIC LUPUS ERYTHEMATOSUS	5R01 AM17469-06	94,539
HAHN, BEVRA H.	MULTIPURPOSE ARTHRITIS CENTER	2P60 AM20602-04	379,714
HAMBURGER, VIKTOR	PROBLEMS OF NEUROGENESIS AND DEVELOPMENT OF BEHAVIOR	5R01 NS05721-16	54,538
HAMMERMAN, MARC R.	RENAL MEMBRANE PHOSPHORYLATION AND TRANSPORT	1R01 AM27600-01	80,669
HART, WILLIAM M, JR.	AUTOMATED DIGITAL PROCESSING OF THE HUMAN VISUAL FIELD	5R01 EY02044-03	101,222
HARTMAN, BOYD K.	NORADRENERGIC SYSTEM IN BRAIN: ANATOMY AND FUNCTION	5R01 NS12311-06	78,293
HENRY, PHILIP D.	POTASSIUM, NOREPINEPHRINE, AND CORONARY ARTERIAL TONE	5R01 HL21187-03	61,756
HERZIG, GEOFFREY P.	AUTOLOGOUS MARROW TRANSPLANTATION FOR CANCER THERAPY	1R01 CA26817-01	77,591
HESTON, WARREN D.	HORMONE AND RADIATION THERAPY OF PROSTATIC TUMORS	5R26 CA23665-03	126,526
HILLMAN, LAURA S.	CLINICAL CORRELATIONS OF VITAMIN D STATUS IN INFANTS	2R01 HD09998-04A1	95,787
HILLMAN, RICHARD E.	MEMBRANE TRANSPORT OF AMINO ACIDS	5R01 AM15531-10	113,575
HOLLOSZY, JOHN O.	EXERCISE-INDUCED BIOCHEMICAL & ANATOMICAL ADAPTATIONS	5R01 AG00425-16	118,967
HOLLOSZY, JOHN O.	CARBOHYDRATE AND FAT METABOLISM DURING EXERCISE	5R01 AM18986-05	73,019
HOLLOSZY, JOHN O.	EFFECTS OF EXERCISE-TRAINING IN ISCHEMIC HEART DISEASE	5R01 HL22215-03	163,840
HOLMES, WILLIAM F.	A RESOURCE FOR BIOMEDICAL MASS SPECTROMETRY	2P41 R00954-04A1	269,767
HOLTZER, ALFRED M.	PROPERTIES OF ALPHA-HELIX-FORMING SUBSTANCES	5R01 GM20064-06	46,993
HUNT, CARLTON C.	MUSCLE RECEPTORS	5R01 NS07907-13	96,606
HUNTER, F EDMUND, JR.	GSH-SPECIFIC ENZYMES ON ORGANONITRATES, PROSTAGLANDINS	5R01 GM24561-03	58,549
JACKSON, CRAIG M.	IN VITRO REGULATION OF PROTHROMBIN ACTIVATION	5R01 HL12820-11	98,380
JAKSCHIK, SISTER BARBARA A.	SRS-A-ITS BIOSYNTHESIS AND ACTION	5R01 HL21874-03	31,786
JARETT, LEONARD	HORMONAL REGULATION OF FAT CELL METABOLISM	5R01 AM11892-13	1,264
JARETT, LEONARD	MORPHOLOGICAL STUDIES ON MECHANISM OF INSULIN ACTION	3R01 AM20097-03S1	18,975
JEFFREY, JOHN J.	HORMONAL REGULATION OF COLLAGENASE ACTIVITY IN UTERO	5R01 HD05291-08	114,164
JOHNSON, EUGENE M, JR.	SYMPLECTOMY: CARDIOVASCULAR & MOLECULAR PHARMACOLOGY	5R01 HL20604-05	68,199
JOHNSON, EUGENE M, JR.	MECHANISM OF THE CLONIDINE WITHDRAWAL SYNDROME	5R01 HL23293-02	50,872
JOHNSON, GEORGE B.	KINETIC STUDIES OF HIDDEN ELECTROPHORETIC VARIATION	5R01 GM23504-04	65,207
JONES, EDWARD G.	SYNAPTIC RELATIONS IN SENSORY SYSTEMS	5R01 NS10526-09	93,095
JONES, EDWARD G.	REGENERATION & FUNCTIONAL RECOVERY IN CEREBRAL CORTEX	5P01 NS15070-02	182,851
KAHN, ARNOLD J.	DENTAL DISEASE AND OSTEOCLASTIC BONE RESORPTION	2R01 DE04629-04	90,096
KASS, MICHAEL A.	PATHWAYS OF PROSTAGLANDIN SYNTHESIS AND INHIBITION	5R01 EY01333-06	116,573

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
KENNELL, DAVID E.....	METABOLISM OF MESSENGER RNA IN E COLI.....	5R01 AI13492-05	108,945
KING, M KENTON.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05389-19	189,787
KIPNIS, DAVID M.....	GENERAL CLINICAL RESEARCH CENTER.....	2R01 RR00036-20	1,309,617
KIRK, DAVID L.....	GENETIC CONTROL OF MORPHOGENESIS IN VOLVOX.....	3R01 GM24172-03S1	10,000
KIRK, DAVID L.....	GENETIC CONTROL OF MORPHOGENESIS IN VOLVOX.....	2R01 GM24172-04	83,800
KIRK, DAVID L.....	ANALYSIS OF CONTROL GENE ACTION IN VOLVOX DEVELOPMENT.....	1R01 GM27215-01	107,892
KLAHR, SAULO.....	PATHOPHYSIOLOGY OF RENAL DISEASE AND UREMIA.....	5P01 AM09976-16	626,015
KORNFELD, STUART A.....	STRUCTURE, BIOSYNTHESIS AND FUNCTION OF GLYCOPROTEINS.....	5R01 CA08759-15	398,579
KRUPIN, THEODORE.....	CENTRAL NERVOUS EFFECTS ON AQUEOUS HUMOR DYNAMICS.....	3R01 EY01942-03S1	6,904
KRUPIN, THEODORE.....	CENTRAL NERVOUS EFFECTS ON AQUEOUS HUMOR DYNAMICS.....	2R01 EY01942-04	63,068
KULCZYCKI, ANTHONY, JR.....	STUDIES OF IMMUNOGLOBULIN RECEPTOR STRUCTURES AND IGE.....	1R01 AI16946-01	64,817
LACY, PAUL E.....	TISSUE CULTURE OF THE ISLETS OF LANGERHANS.....	2R01 AM01226-24	138,270
LACY, PAUL E.....	MICROENZYMATIC STUDIES OF ISLETS OF LANGERHANS.....	5R01 AM03373-22	56,831
LACY, PAUL E.....	STUDY OF SECRETION AND BIOSYNTHESIS OF INSULIN.....	5R01 AM06181-19	159,953
LANG, STANLEY.....	SODIUM AND THE CONTROL OF VASCULAR RESISTANCE.....	1R01 HL25364-01A1	59,826
LEVINE, ROBERT P.....	COMPLEMENT ACTION ON MEMBRANES USING MYCOPLASMA MUTANTS.....	5R01 AI15640-03	81,273
LEVINE, ROBERT P.....	COMPLEMENT (SERUM) RESISTANCE IN GRAM NEGATIVE BACTERIA.....	1R01 AI16475-01	86,998
LEVINE, ROBERT P.....	MOLECULAR PROPERTIES OF THE THIRD COMPLEMENT PROTEIN.....	1R01 AI16543-01	89,945
LEVINSON, EUGENE M.....	MOVEMENT AND PATTERN ANALYSIS IN HUMAN VISION.....	5R01 EY03077-02	23,668
LIEBERMAN, MICHAEL W.....	CHEMICAL CARCINOGEN-INDUCED DNA REPAIR IN HUMAN CELLS.....	2R01 CA20513-04	67,213
LIN, HSUI-SAN.....	ORIGIN AND DIFFERENTIATION OF MONOCYTES.....	1R01 AI15542-01A2	58,087
LIN, HSUI-SAN.....	PROLIFERATION AND DIFFERENTIATION OF ALVEOLAR MACROPHAGE.....	2R01 HL19746-04A1	123,459
LOEWY, ARTHUR D.....	CENT. NERVOUS SYSTEM: DEGENERATIVE/REGENERATIVE CHANGES.....	3R01 NS12751-05S1	22,991
LOWRY, OLIVER H.....	QUANTITATIVE HISTOCHEMISTRY OF THE KIDNEY.....	5R01 AM22112-12	123,709
LOWRY, OLIVER H.....	METABOLISM OF CELLS IN MUSCLE AND NERVOUS TISSUE.....	2R01 NS08862-11	70,589
LYNCH, RICHARD G.....	IMMUNOLOGICAL REGULATION OF MYELOMA CELL GROWTH.....	5R01 CA23217-03	84,318
MACDERMOTT, RICHARD P, JR.....	CYTOTOXIC LYMPHOCYTE SUBCLASSES IN INTESTINAL DISEASE.....	5R01 AM21474-03	79,147
MAJERUS, PHILIP W.....	SPECIALIZED CENTER OF RESEARCH IN THROMBOSIS.....	5P50 HL14147-10	713,450
MAJERUS, PHILIP W.....	FUNCTION OF PLATELETS AND COAGULATION FACTORS.....	5R01 HL16634-15	164,516
MANKE, PAUL R.....	NUTRITION OF TENDONS & TENDON GRAFTS IN SYNOVIAL SHEATHS.....	5R01 AM21879-03	78,725
MARSHALL, GARLAND R.....	COMPUTER-AIDED DRUG DESIGN.....	5P01 GM24483-02	451,033
MARSHALL, GARLAND R.....	HYPERTENSION—CHEMISTRY AND BIOPHYSICS OF ANGIOTENSIN.....	3R01 HL14509-08S1	6,777
MARTIN, JEANNE E.....	NEUROENDOCRINE CONTROL OF GONADOTROPIN SECRETION.....	5R01 HD11854-02	69,939
MATTHEWS, F SCOTT.....	STRUCTURAL STUDIES OF CYTOCHROMES B562 AND B2.....	5R01 GM20530-08	107,354
MATTHEWS, DWIGHT E.....	DYNAMIC ASPECTS OF HUMAN AMINO ACID METABOLISM.....	5R01 AM25994-02	97,078
MC DONALD, JAY M.....	MECHANISM OF INSULIN ACTION AND THE ROLE OF CALCIUM.....	5R01 AM25897-02	52,539
MC DOUGAL, DAVID B, JR.....	METABOLISM AND FUNCTION IN PERIPHERAL NERVE.....	5R01 NS11941-06	76,935
MEDOFF, GERALD.....	PATHOGENIC FUNGI STUDIES.....	5R01 AI10622-09	10,688
MEDOFF, GERALD.....	MEDICAL MYCOLOGY.....	5P01 AI16228-02	361,510
MEDOFF, GERALD.....	AMPHOTERICIN B: CLINICAL ANTITUMOR USE, MECHANISM.....	5P01 CA15665-06	405,153
MILLER, ROBERT F.....	CELL COMMUNICATION IN THE VERTEBRATE RETINA.....	5R01 EY03014-03	76,533
MOLNAR, CHARLES E.....	PERIPHERAL AUDITORY MECHANISMS.....	5R01 NS07498-13	99,465
MOOG, FLORENCE.....	FUNCTIONAL DIFFERENTIATION OF THE SMALL INTESTINE.....	2R01 HD03490-27	86,533
MOORE, BLAKE W.....	FRACTIONATION OF BRAIN PROTEINS.....	5R01 NS05270-17	112,226
MORRIS, CHARLES F.....	INITIATION OF DNA REPLICATION IN VITRO.....	5R01 GM26333-02	86,114
MOSES, ROBERT A.....	FACTORS AFFECTING INTRAOCULAR PRESSURE.....	2R01 EY00256-17	168,019
MOSES, ROBERT A.....	CENTER FOR VISION RESEARCH.....	5P30 EY02687-02	80,306
MUNNS, THEODORE W.....	CHARACTERIZATION OF RNA/DNA IN ONCOGENIC SYSTEMS.....	5R01 CA27801-02	65,196
NAKEFF, ALEXANDER N.....	MEGAKARYOCYTE PROLIFERATION AND ITS CONTROL.....	3R01 HL20826-03S1	7,368
NEEDLEMAN, PHILIP.....	HYPERTENSION: ANGIOTENSIN & PROSTAGLANDIN PHARMACOLOGY.....	5R01 HL14397-09	64,131
NEEDLEMAN, PHILIP.....	THROMBOXAN & PROSTAGLANDINS: BIOCHEMICAL PHARMACOLOGY.....	2R01 HL20787-04	128,152
OLNEY, JOHN W.....	NEUROTOXICITY OF EXCITATORY AMINO ACIDS.....	5R01 NS09156-11	91,579
OLSON, MAYNARD V.....	YEAST TRNA GENES.....	1R01 GM27889-01	68,653
OLSON, MAYNARD V.....	PHYSICAL MAPPING OF YEAST CHROMOSOMAL DNA.....	1R01 GM28232-01	109,680
PALMBERG, PAUL F.....	GLAUCOMA AND RELATED DISEASES.....	5R01 EY01167-08	40,406
PARKER, CHARLES W.....	INTERDISCIPLINARY RESEARCH CENTER—IMMUNOLOGIC DISEASES.....	5P50 AI15322-03	400,534
PEARLMAN, ALAN L.....	FUNCTIONAL ORGANIZATION OF THE VISUAL SYSTEM.....	5R01 EY00621-08	59,290
PEREZ, CARLOS A.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA12261-09	202,773
PERMUTT, MARSHALL A.....	CONTROL OF INSULIN BIOSYNTHESIS.....	5R01 AM16746-08	89,722
PERMUTT, MARSHALL A.....	ISOLATION AND CHARACTERIZATION OF FISH ISLET HORMONES.....	5R01 AM25940-02	87,473
PERRAULT, JACQUES.....	VSV POLYMERASE REGULATION AND DI REPLICATION.....	2R01 AI14365-04	85,908

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
PERRY, H MITCHELL, JR.....	SYSTOLIC HYPERTENSION IN THE ELDERLY.....	1R01 HL23917-01A1	270,063
PHILPOTT, GORDON W.....	SOUTHEASTERN CANCER STUDY GROUP.....	2R10 CA03376-24	278,537
PHILPOTT, GORDON W.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17955-06	106,038
PIERCE, JOHN A.....	MECHANISMS IN THE REMODELLING OF LUNG STRUCTURE.....	5P01 HL16118-08	556,120
POLAKOSKI, KENNETH L.....	ACTIVE SITE CHARACTERIZATION OF ACROSIN.....	5R01 HD09422-05	44,112
POLAKOSKI, KENNETH L.....	REGULATION OF SPERM PROACROSIN CONVERSION TO ACROSIN.....	5R01 HD12863-02	30,334
PRICE, JOSEPH L.....	THE OLFACTORY CORTEX.....	5R01 NS09518-11	73,726
PURVES, DALE.....	LONG-TERM CHANGES IN NEURONS.....	5R01 NS11699-06	101,808
RAD, DABEERU C.....	PATH ANALYSIS OF FAMILY RESEMBLANCE.....	7R01 GM28719-01	59,531
RAICHEL, MARCUS E.....	AN INTERDISCIPLINARY STROKE PROGRAM.....	2P50 NS06833-14	736,104
RAKOWSKI, ROBERT F.....	INVESTIGATION OF GATING CURRENTS IN SKELETAL MUSCLE.....	5R01 NS14856-02	36,298
RAO, BANTWAL R.....	CARCINOGEN INDUCED CHANGES IN STEROID HORMONE ACTION.....	5R01 CA23579-03	70,083
RASKAS, HESCHEL J.....	CANCER CENTER SUPPORT GRANT.....	3P30 CA16217-04S1	16,998
RASKAS, HESCHEL J.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA16217-05	595,952
REUSS, LUIS.....	ELECTROPHYSIOLOGY OF NECTURUS GALLBLADDER EPITHELIUM.....	2R01 AM19580-04	105,266
RODEY, GLENN E.....	DEFINITION OF H-LINKED IR GENES IN HUMANS.....	1R01 AI16574-01	45,004
RODEY, GLENN E.....	T CELL SUBPOPULATION FUNCTION IN MULTIPLE SCLEROSIS.....	1R01 NS15977-01	42,193
ROEDER, ROBERT G.....	REGULATION OF ADENOVIRUS GENE EXPRESSION.....	5R01 CA16640-06	123,722
ROEDER, ROBERT G.....	MOLECULAR BASIS OF DIFFERENTIATION AND NEOPLASIA.....	5R01 CA23615-03	167,856
ROGERS, JOHN C.....	CHARACTERIZATION OF LYMPHOCYTE EXCRETED DNA.....	5R01 CA17143-06	106,003
ROOS, ALBERT.....	TRANSMEMBRANE MOVEMENTS.....	5R01 HL00082-32	69,347
ROVAINEN, CARL M.....	ORGANIZATION OF SPINAL CORD.....	5R01 NS09367-11	42,587
RUSSELL, JOHN H.....	MECHANISMS OF TUMOR DESTRUCTION BY IMMUNE EFFECTORS.....	1R01 CA28533-01	77,962
SCHARP, DAVID W.....	ISLET TRANSPLANTATION UTILIZING IMMUNOISOLATION.....	5R01 AM17188-07	104,370
SCHARP, DAVID W.....	ISOLATION AND PURIFICATION OF BETA CELLS OF PANCREAS.....	5R01 AM21966-03	60,292
SCHARP, DAVID W.....	MASS ISOLATION OF VIABLE MAMMALIAN ISLETS.....	5R01 AM25585-02	102,537
SCHARP, DAVID W.....	DIABETIC COMPLICATION: EFFECT OF ISLET TRANSPLANTATION.....	5R01 AM26083-02	111,666
SCHLESINGER, MILTON J.....	RNA-ENVELOPE VIRUS FORMATION IN ANIMAL CELLS.....	5R01 CA14311-08	99,237
SCHLESINGER, MILTON J.....	FUNCTION AND REGULATION OF 'HEAT-SHOCK' PROTEINS.....	1R01 GM28303-01	90,150
SCHLESINGER, PAUL H.....	RECEPTOR MEDIATED TRANSPORT OF GLYCOPROTEINS.....	1R01 HL26300-01	103,541
SCHLESINGER, SONDRRA.....	STRUCTURE AND REPLICATION OF ENVELOPED RNA VIRUSES.....	5R22 AI11377-07	80,323
SCHLESINGER, SONDRRA.....	REPLICATION OF ENVELOPED RNA VIRUSES IN MACROPHAGES.....	5R01 AI12242-07	89,343
SCHLESSINGER, DAVID.....	PROCESSING AND TURNOVER OF HUMAN CELL NUCLEAR RNA.....	5R01 GM21357-06	95,278
SCHONFELD, GUSTAV.....	ASSAYS FOR THE PEPTIDES OF LIPOPROTEINS.....	3R01 HL15308-08S1	3,027
SCHONFELD, GUSTAV.....	SYNTHESIS & SECRETION OF PLASMA LIPOPROTEINS.....	5R01 HL15427-08	95,535
SCHONFELD, GUSTAV.....	DIETARY EFFECTS ON HDL LEVELS AND COMPOSITION.....	5R01 HL24743-02	121,447
SEETHARAM, BELLUR.....	INTESTINAL BRUSH BORDER MEMBRANES.....	1R01 AM26638-01	48,892
SHERMAN, WILLIAM R.....	METABOLISM OF INOSITOLS AND INOSITIDES.....	5R01 NS05159-17	133,762
SHREFFLER, DONALD C.....	ORGANIZATION AND FUNCTIONS OF THE H-2 GENE COMPLEX.....	5R01 AI12734-05	214,860
SILBERT, DAVID F.....	BIOCHEMICAL GENETIC STUDY OF MEMBRANE LIPID.....	5R01 GM16292-12	112,724
SILVER, SIMON D.....	PLASMID-DETERMINED RESISTANCE TO HEAVY METALS.....	5R01 AI15672-02	93,547
SIMMONS, DAVID J.....	CIRCADIAN VARIATIONS IN CARTILAGE AND BONE GROWTH.....	5R01 AM16391-07	97,861
SIMMONS, DAVID J.....	COMPOSITE BONE GRAFTS IN DENTISTRY AND MEDICINE.....	1R01 DE05109-01A1	105,720
SLY, WILLIAM S.....	ENZYME THERAPY IN LYSOSOMAL STORAGE DISEASES.....	5P01 GM21096-06	464,842
SMERDON, MICHAEL J.....	CARCINOGEN DAMAGE & REPAIR OF DNA IN HUMAN CHROMATIN.....	5R23 ES01797-03	52,038
SMITH, CARL H.....	PLACENTAL MECHANISMS OF AMINO ACID TRANSFER.....	5R01 HD07562-07	138,578
SOBEL, BURTON E.....	SCOR ON ISCHEMIC HEART DISEASE.....	2P50 HL17646-06	1,701,313
SPARKS, ROBERT E.....	BIOSORBABLE THROMBORESISTANT SURFACES.....	5R01 HL18764-05	146,222
SPARKS, ROBERT E.....	BIOLOGICALLY-ACTIVE, VIRUS FREE BLOOD COMPONENTS.....	5R01 HL24832-02	81,986
SPIELBERG, ISAIAS.....	CRYSTAL INDUCED CHEMOTACTIC FACTOR.....	2R01 AM19349-05	81,588
STAHL, PHILIP D.....	LYSOSOME BIOGENESIS: NORMAL AND TUMOR CELLS.....	5R01 CA12858-09	90,876
STEWART, CARLETON C.....	LYMPHOCYTE RESPONSES TO MITOGENS AND SPECIFIC ANTIGENS.....	5R01 AI14046-03	48,893
STEWART, CARLETON C.....	PROLIFERATION AND FUNCTION OF MONONUCLEAR PHAGOCYTES.....	5R01 AI15563-02	64,593
STEWART, CARLETON C.....	RADIATION & THE MONONUCLEAR PHAGOCYTE RESPONSE TO CANCER.....	1R01 CA27908-01	74,494
STORANDT, MARTHA A.....	A MULTI-FACETED INVESTIGATION OF AGING AND BEHAVIOR.....	5P01 AG00535-04	412,432
STRAUSS, ARNOLD W.....	PROTEIN TRANSLOCATION ACROSS ORGANELLE MEMBRANES.....	2R01 AM20407-04	118,457
SUAREZ, BRIAN K.....	GENETIC TRANSMISSION OF VARIANT ANTITRYPSIN ALLELES.....	1R01 GM28067-01	78,056
SUTERA, SALVATORE P.....	BLOOD CELLS: PHYSICAL PROPERTIES, STRUCTURE AND FUNCTION.....	5R01 HL12839-11	225,293
SWEET, FREDERICK.....	STEROID BIOSYNTHESIS, TRANSPORT & MECHANISM OF ACTION.....	5R01 AM16854-06	89,192
SWEET, FREDERICK.....	MECHANISM OF SEX STEROID BINDING TO MACROMOLECULES.....	5R01 HD12533-02	98,012
TEMPLETON, ALAN R.....	THE AGING EFFECTS ASSOCIATED WITH A POLYGENIC COMPLEX.....	1R01 AG02246-01	72,568

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MISSOURI—Continued			
TEMPLETON, ALAN R.....	SELECTION, COADAPTATION AND SPECIATION IN DROSOPHILA.....	1R01 GM27021-01	78,213
TER-POGOSSIAN, MICHEL M.....	CYCLOTRON PRODUCED ISOTOPES IN BIOLOGY AND MEDICINE.....	5P01 HL13851-18	739,114
TER-POGOSSIAN, MICHEL M.....	TIME-OF-FLIGHT POSITRON TOMOGRAPH FOR CARDIAC IMAGING.....	1R01 HL25944-01	878,280
THACH, BRADLEY T.....	CONTROL OF BREATHING IN RECOVERY FROM APNEA.....	2R01 HD10993-04	118,979
THACH, ROBERT E.....	REPLICATION OF VIRULENT AND ONCOGENIC VIRUSES.....	5R01 CA13008-09	129,526
THACH, WILLIAM T, JR.....	TIMING AND CODING OF CEREBELLAR OUTPUT.....	2R01 NS12777-06	85,351
THALMANN, RUEDIGER R.....	METABOLIC PROCESSES OF THE INNER EAR.....	5R01 NS06575-13	146,032
THALMANN, RUEDIGER R.....	BIOCHEMICAL CORRELATE OF VESTIBULAR FUNCTION.....	5R01 NS14334-03	54,457
THURSTON, JEAN H.....	CEREBRAL METABOLISM IN THE NEWBORN AND THE YOUNG.....	5R01 NS06163-15	111,599
THURSTON, JEAN H.....	GLUCOCORTICIDS IN EPILEPSY AND NEUROLOGIC DISORDERS.....	5R01 NS15660-02	48,937
TILTON, RONALD G.....	PERICYTE STRUCTURE AND FUNCTION IN DIABETES.....	1R23 EY03631-01	52,733
TOLMACH, L J.....	EFFECTS OF X-RAYS ON NORMAL AND MALIGNANT CELLS.....	5R01 CA04483-21	186,141
VALERIOTE, FREDERICK A.....	RESPONSE OF MURINE MYELOMA TO CHEMOTHERAPEUTIC AGENTS.....	5R01 CA23388-02	129,411
VALERIOTE, FREDERICK A.....	QUANTITATION OF EFFECT OF COMBINED CHEMOTHERAPY.....	5R01 CA24960-02	157,816
VIETTI, TERESA J.....	SOUTHWEST ONCOLOGY GROUP.....	2R10 CA05587-20	357,949
VOLPE, JOSEPH J.....	REGULATION OF FATTY ACID SYNTHESIS DURING DEVELOPMENT.....	5R01 HD07464-07	115,645
WALBOT, VIRGINIA E.....	VARIATION IN MITOCHONDRIAL GENOTYPE AND PHENOTYPE.....	2R01 GM23479-04	81,521
WALLACK, MARC K.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA12030-09	33,090
WALTMAN, STEPHEN R.....	RETINAL VASCULAR CHANGES IN DIABETES MELLITUS.....	5R01 EY02198-03	126,032
WARREN, JAMES C.....	BINDING, BIOSYNTHESIS, AND ACTION OF STEROIDS.....	5R01 AM15708-09	153,611
WATERSTON, ROBERT H.....	MOLECULAR GENETICS OF MUSCLE ASSEMBLY IN C. ELEGANS.....	2R01 GM23883-04	101,501
WEDNER, H JAMES.....	CYCLIC NUCLEOTIDES AND LYMPHOCYTE PROLIFERATION.....	5R01 CA24430-03	86,218
WHITESIDE, LEO A.....	STUDIES OF REGIONAL BONE BLOOD FLOW AND METABOLISM.....	5R01 AM20934-03	136,309
WIEST, WALTER G.....	STEROIDOGENESIS IN DISPERSED, PERFUSED LUTEAL CELLS.....	5R01 HD13259-02	129,134
WILLARD, MARK B.....	AXONALLY TRANSPORTED PROTEINS IN THE VISUAL SYSTEM.....	5R01 EY02682-06	59,993
WILLIAMS, LUTHER S.....	REGULATION OF AMINOACYL-TRNA SYNTHETASE FORMATION.....	7R01 GM29200-01	75,992
WILLIAMSON, JOSEPH R.....	RISK FACTORS AND MICROVASCULAR DISEASE IN DIABETES.....	5R01 HL13694-10	121,962
WOOLSEY, THOMAS A.....	THE STRUCTURE OF THE SOMATOSENSORY SI NEOCORTX.....	5R01 NS10244-08	56,503
YAO, MENG-CHAO.....	GENE AMPLIFICATION AND ELIMINATION IN TETRAHYMENA.....	5R01 GM26210-02	63,286
ORGANIZATION TOTAL	253 37,702,723		

SPRINGFIELD

DRURY COLLEGE ZIP CODE 65802

ROY, RABINDRA N.....	PH MEASUREMENT STANDARDS OF BLOOD IN ISOTONIC SALINE.....	5R01 GM26809-02	7,503
ORGANIZATION TOTAL	1 7,503		
STATE TOTAL	449 53,137,219		

MONTANA

BOZEMAN

MONTANA UNIVERSITY SYSTEM—MONTANA STATE UNIVERSITY ZIP CODE 59715

CUTLER, JIMMY E.....	INNATE DEFENSE MECHANISMS AGAINST CANDIDA ALBICANS.....	5R01 AI13512-03	29,494
CUTLER, JIMMY E.....	AUTO-REGULATION OF DIMORPHISM BY CANDIDA ALBICANS.....	5R01 AI15996-02	31,800
JUTILA, JOHN W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07100-02	18,472
REED, NORMAN D.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09135-02	82,665
WARREN, GUYLYN R.....	MUTAGENIC/CARCINOGENIC AGENTS IN BODY FLUIDS OF CHILDREN.....	1R01 CA26647-01	84,814
YOUNGDAY, DOUGLAS J.....	LABOR FORCE COMPOSITION AND RELATIVE WAGES.....	1R01 HD13880-01	28,453
ORGANIZATION TOTAL	6 275,698		

GREAT FALLS

COLUMBUS HOSPITAL ZIP CODE 59405

STIMPFING, JACK H.....	HISTOCOMPATIBILITY ANTIGENS OF THE MOUSE.....	2R01 AI06525-16	115,151
ORGANIZATION TOTAL	1 115,151		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MONTANA—Continued			
MISSOULA			
MONTANA UNIVERSITY SYSTEM—UNIVERSITY OF MONTANA ZIP CODE 59801			
GUSTAFSON, GARY L.....	CONTROL OF ENZYME ACCUMULATION DURING DIFFERENTIATION.....	5R01 GM22188-06	72,780
HILL, WALTER E.....	PHYSICAL STUDIES OF RIBOSOMAL PROTEINS.....	1R01 GM27201-01	157,852
JEFFREY, D BALFOUR.....	TV FOOD COMMERCIALS AND CHILDREN'S EATING HABITS.....	1R01 HD12073-01A2	52,021
WATSON, KENNETH F.....	MECHANISM OF VIRAL RNA-DIRECTED DNA POLYMERIZATION.....	5R01 CA19729-05	51,450
ORGANIZATION TOTAL	4 334,103		
STATE TOTAL	11 724,952		
NEBRASKA			
BOYS TOWN			
FATHER FLANAGAN'S BOYS' HOME ZIP CODE 68010			
JAVEL, ERIC.....	STUDIES OF TONAL INTERACTIONS IN THE AUDITORY NERVE.....	5R01 NS14880-02	49,051
JESTEADT, WALT.....	FREQUENCY ANALYSIS IN NORMAL AND IMPAIRED LISTENERS.....	5R01 NS14709-03	45,176
KIMBERLING, WILLIAM J.....	LINKAGE STUDY OF DOMINANTLY INHERITED HEMOLYTIC ANEMIA.....	1R01 AM26967-01	64,709
WARR, WILLIAM B.....	THE STRUCTURE AND PROJECTIONS OF THE COCHLEAR NUCLEI.....	5R01 NS14832-03	65,686
WATSON, CHARLES S.....	FACTORS IN THE DISCRIMINATION OF AUDITORY PATTERNS.....	5R01 NS14637-03	61,821
WATSON, CHARLES S.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05834-01	13,876
ORGANIZATION TOTAL	6 300,319		
LINCOLN			
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN ZIP CODE 68588			
BANERJEE, MIHIR R.....	HORMONES, CELLULAR BIOSYNTHESIS & MAMMARY CARCINOGENESIS.....	5R01 CA11058-11	108,351
BANERJEE, MIHIR R.....	CHEMICAL CARCINOGENESIS MAMMARY GLAND ORGAN CULTURE.....	1R01 CA25304-01A1	71,183
BAUMGARTEN, HENRY E.....	CHEMICAL AND ELECTROCHEMICAL OXIDATION STUDIES.....	1R01 GM27694-01	84,198
BRUMBAUGH, JOHN A.....	MECHANISMS MEDIATING MELANOGENIC CONTROL GENE EFFECTS.....	5R01 GM18969-09	89,947
CROMWELL, NORMAN H.....	HETEROCYCLIC SYNTHESIS.....	3R01 CA02931-22S1	8,998
GUPTA, NABA K.....	GENETIC CODE AND PROTEIN SYNTHESIS IN MAMMALIAN SYSTEMS.....	2R01 GM18796-09	64,629
GUPTA, NABA K.....	PROTEIN SYNTHESIS INITIATION IN RED BLOOD CELLS.....	5R01 GM22079-06	69,626
PARKHURST, LAWRENCE J.....	HEMOGLOBIN AND MYOGLOBIN KINETIC STUDIES.....	5R01 HL15284-08	67,585
PHARES, C K.....	EFFECTS OF GROWTH FACTORS IN DIABETICS.....	2R01 AM21186-04	79,865
SCHMEHL, FRANCIS I.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07055-15	51,852
SCHUSTER, SHELDON M.....	ASPARAGINE BIOSYNTHESIS IN NORMAL AND TUMOR CELLS.....	1R01 CA28725-01	66,744
SCHWARTZBACH, STEVEN D.....	REGULATION OF ORGANELLE BIOGENESIS.....	5R01 GM26994-02	45,623
SHAHANI, KHEM M.....	PROCESSING OF NUTRITIONAL ASPECTS OF BREAST MILK.....	5R01 HD12457-02	33,813
SMITH, GARY L.....	GROWTH CONTROL IN NORMAL AND NEOPLASTIC CELLS.....	5R01 CA17620-06	55,046
VAN ETEN, JAMES L.....	MACROMOLECULAR ASPECTS OF FUNGAL SPORE GERMINATION.....	2R01 AI08057-10A1	44,311
VIDAVER, GEORGE A.....	MEMBRANE STRUCTURE AND TRANSPORT.....	5R01 HL13256-11	92,784
ORGANIZATION TOTAL	16 1,034,555		
OMAHA			
CREIGHTON UNIVERSITY ZIP CODE 68178			
ANDREWS, RICHARD V.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05390-19	49,032
BAUMSTARK, JOHN S.....	ELASTASE, SERUM INHIBITORS AND THE VASCULATURE.....	5R01 HL15979-07	94,359
BEWTRA, AGAINDRA K.....	BRONCHIAL SENSITIVITY TO MEDIATORS.....	5R23 AI14233-03	35,618
BRODY, ALFRED W.....	REGIONAL PERIBRONCHIAL CHEMOIMMUNOTHERAPY—BRONCHOCANCER.....	5R01 CA24738-02	48,690
HEANEY, ROBERT P.....	LONGITUDINAL STUDY OF A PRE-OSTEOPOROSIS POPULATION.....	5R01 AM07912-16	157,623
LYNCH, HENRY T.....	EPIDEMIOLOGIC-BIOLOGIC STUDY OF COLON CANCER FAMILIES.....	1R01 CA27831-01	308,726
SANDERS, W EUGENE, JR.....	PREVENTION OF PYOGENIC INFECTIONS.....	5R01 AI11584-08	40,770
TOWNLEY, ROBERT G.....	ALLERGIC DISEASES CENTER GRANT—MECHANISMS IN ASTHMA.....	5P50 AI12029-07	156,758
TOWNLEY, ROBERT G.....	NATURAL HISTORY OF ASTHMA—METHACHOLINE TOLERANCE TEST.....	5R01 HL21494-02	65,869
TOWNLEY, ROBERT G.....	ADRENERGIC RECEPTORS IN CHRONIC BRONCHITIS AND ASTHMA.....	5R01 HL24396-02	60,772

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEBRASKA—Continued			
WATT, DEAN D.....	BIOLOGICAL-IMMUNOLOGICAL ACTIONS OF TOXINS.....	5R01 NS12365-05	47,985
ORGANIZATION TOTAL	11 1,066,202		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105			
ANGLE, CAROL R.....	CHILDHOOD LEAD, PYRIMIDINES AND METABOLIC DEBRIS.....	2R01 ES01857-03	47,463
BARKER, KENNETH L.....	SPECIFICITY OF UTERINE RESPONSE TO OVARIAN HORMONES.....	5R01 HD02851-13	95,865
BARKER, KENNETH L.....	REGULATION OF UTERINE RIBOSOME ACTIVITY BY ESTROGENS.....	5R01 HD10528-04	84,340
BIRT, DIANE F.....	INFLUENCE OF DIETARY SELENIUM ON PANCREATIC CANCER.....	5R01 CA24549-02	183,945
BLAKE, CHARLES A.....	MECHANISMS OF CYCLIC LH AND FSH RELEASE.....	2R01 HD11011-04	80,906
CAMPBELL, GARY T.....	CYTOARCHITECTURE IN BRAIN-PITUITARY CONTROL SYSTEMS.....	5R01 AM19170-05	59,684
CAVALIERI, ERCOLE L.....	CYCLOPENTENO(CD)PYRENE—SUSPECT ENVIRONMENTAL CARCINOGEN.....	5R01 ES02145-02	94,435
CONNELL, ALASTAIR M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05391-19	129,019
CROUSE, DAVID A.....	THE THYMIC MICROENVIRONMENT AND T-CELL DIFFERENTIATION.....	5R01 AI15819-02	60,885
CURTIS, GARY L.....	PREVENTION OF SPERM ANTIBODY FOLLOWING VASECTOMY.....	5R01 HD12756-02	31,065
DEUPREE, JEAN D.....	ADRENERGIC STORAGE GRANULES STUDIES.....	5R01 NS15187-02	50,056
DONNELLY, THOMAS E, JR.....	PROPERTIES OF NUCLEAR CGMP-DEPENDENT PROTEIN KINASES.....	5R01 GM24287-03	54,490
GILMORE, JOSEPH P.....	NEURAL CONTROL OF BLOOD VOLUME.....	2R01 HL13427-11	145,319
GILMORE, JOSEPH P.....	STUDY OF THE MAMMALIAN MICROCULATION.....	2R01 HL17902-06	63,472
GILMORE, JOSEPH P.....	MICROANGIOPATHY IN RENAL VASCULAR HYPERTENSION.....	5R01 HL25327-02	80,656
GOLD, BARRY.....	EPOXIDATION IN CHLORO-OLEFIN CARCINOGENESIS.....	5R01 CA24554-02	113,473
HEIDRICK, MARGARET L.....	AGING OF IMMUNOCOMPETENT CELLS.....	5R01 AG00904-06	58,425
HEIDRICK, MARGARET L.....	BIOLOGY OF AGING STUDIES.....	5R21 AG01455-02	76,408
HOFERT, JOHN F.....	BINDING AND ACTION OF INSULIN IN THE THYMUS.....	5R01 AM23015-02	31,564
JACOBS, MARYCE M.....	EFFECT OF SELENIUM ON COLON CARCINOGENESIS.....	5R26 CA25699-02	83,880
LEMON, HENRY M.....	CLINICAL CANCER EDUCATION.....	5R25 CA19623-05	118,969
LIPPIELLO, LOUIS.....	EFFECTS OF PROSTAGLANDINS ON ARTICULAR CARTILAGE.....	7R01 AM28427-01	68,560
MC DONALD, THOMAS L.....	VIRUS INDUCED BLOCKING FACTORS AND TUMOR ENHANCEMENT.....	5R01 CA28205-02	63,625
MIRVISH, SIDNEY S.....	MECHANISM OF LIVER CARCINOGENESIS BY TWO NITROSOUREAS.....	5R01 CA24776-02	83,832
MIRVISH, SIDNEY S.....	STUDIES ON N-NITROSO COMPOUNDS.....	5P01 CA25100-02	568,363
MORIARTY, C MICHAEL.....	CELLULAR MECHANISMS OF PITUITARY HORMONE SECRETION.....	5R01 AM18328-06	26,335
PHARES, C K.....	GROWTH FACTOR FROM PLEROCEROIDS OF S. MANSONIODES.....	2R01 AM17226-06	50,566
PIPER, WALTER N.....	TOXICANT DEREGLATION OF ENDOCRINE HEME BIOSYNTHESIS.....	5R01 ES02423-02	57,568
PIPER, WALTER N.....	LEAD AND DRUG TOXICITY RELATED TO HEME BIOSYNTHESIS.....	5R01 ES02424-02	82,162
POUR, PARVIZ M.....	MULTIDISCIPLINARY APPROACH IN PANCREATIC CARCINOGENESIS.....	2R26 CA20198-04	96,423
RAMALEY, JUDITH A.....	NEURAL CONTROL OF ADRENAL DEVELOPMENT.....	5R01 HD08703-05	48,065
SCHNELL, R CRAIG.....	SELENIUM TOXICITY: EFFECT ON HEPATIC DRUG METABOLISM.....	5R01 ES02425-02	50,052
SHARP, JOHN G.....	CHARACTERIZING HEMATOPOIETIC MICROENVIRONMENT.....	1R01 AM26636-01	81,115
SIEGFRIED, CHARLES M.....	VITAMIN K EPOXIDE REDUCTASE & THE ACTION OF VITAMIN K.....	5R01 HL24470-02	49,404
STOHS, SIDNEY J.....	GLUTATHIONE LEVELS AND DRUG METABOLISM RELATIVE TO AGE.....	5R01 AG01513-02	50,246
ZUCKER, IRVING H.....	REFLEX CONTROL OF THE CIRCULATION IN HEART FAILURE.....	5R01 HL22594-03	65,610
ORGANIZATION TOTAL	36 3,186,245		
STATE TOTAL	69 5,587,321		

NEVADA

LAS VEGAS

UNIVERSITY OF NEVADA SYSTEM—UNIVERSITY OF NEVADA LAS VEGAS ZIP CODE 89154

DILL, DAVID B.....	EXERCISE TOLERANCE TO DESERT HEAT: AGE, SEX AND RACE.....	5R01 AG00437-08	52,201
ORGANIZATION TOTAL	1 52,201		

RENO

UNIVERSITY OF NEVADA SYSTEM—UNIVERSITY OF NEVADA RENO ZIP CODE 89557

APICELLA, MICHAEL A.....	SUBGROUPS OF NEISSERIA GONORRHOEA.....	5R01 AI16266-02	51,781
APICELLA, MICHAEL A.....	TAXONOMIC STUDIES OF PATHOGENIC MENINGOCOCCI.....	2R01 AI16267-02	39,034
COLTON, JOEL S.....	A STUDY ON THE MECHANISM OF OXYGEN INDUCED SEIZURES.....	1R01 NS16526-01	41,897
DE PALMA, RALPH G.....	ATHEROSCLEROTIC PLAQUE DYNAMICS IN NONHUMAN PRIMATES.....	7R01 HL26338-01	115,943

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEVADA—Continued			
KOZEL, THOMAS R.....	CRYPTOCOCCAL POLYSACCHARIDE: INHIBITION OF PHAGOCYTOSIS.....	2R01 AI14209-04	30,496
LIGHTNER, DAVID A.....	BILIRUBIN PHOTOCHEMISTRY AND JAUNDICE PHOTOTHERAPY.....	2R01 HD09026-05	99,076
MAZZAFERRI, ERNEST L.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05813-01	16,811
ORT, CAROL A.....	DEVELOPMENT OF FIBER TYPES IN AMPHIBIAN LIMB MUSCLES.....	5R01 AM25626-02	39,256
SCOTT, LAWRENCE T.....	AZULOQUINONES: POTENTIAL NEW ANTITUMOR AGENTS.....	5R01 CA23488-02	27,910
ST JEOR, STEPHEN C.....	HERPESVIRUS-INDUCED MALIGNANCY.....	2R01 CA28089-02	104,544
VIG, BALDEV K.....	CENTROMERE SEPARATION, C-CHROMATIN AND NON-DISJUNCTION.....	5R01 GM24591-02	29,502
WINICOV, ILGA B.....	RNA PHOSPHORYLATION IN EUKARYOTIC RNA PROCESSING.....	1R01 GM27230-01A1	56,147
WOOD, JACKIE D.....	FUNCTION OF THE ENTERIC NERVOUS SYSTEM.....	5R01 AM26742-02	31,594
ORGANIZATION TOTAL	13 683,991		
STATE TOTAL	14 736,192		
NEW HAMPSHIRE			
DURHAM			
UNIVERSITY SYSTEM OF NEW HAMPSHIRE—UNIVERSITY OF NEW HAMPSHIRE ZIP CODE 03824			
CHASTEEN, N DENNIS.....	PHYSICO-CHEMICAL CHARACTERIZATION OF THE TRANSFERRINS.....	5R01 GM20194-08	54,303
CHESBRO, WILLIAM.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07108-08	26,572
COLLINS, WALTER M.....	GENETICS, THE LYMPHOCYTE AND TUMOR REGRESSION.....	5R01 CA17680-06	56,861
GAUDARD, MARIE A.....	ESTIMATE DISTRIBUTION FROM INCOMPLETE DATA.....	1R01 GM28153-01	9,742
GREEN, DONALD M.....	MECHANISM OF TRANSFECTION ENHANCEMENT IN B. SUBTILIS.....	5R01 GM25491-02	47,136
KLIPPENSTEIN, GERALD L.....	STRUCTURE AND MECHANISM OF RIBONUCLEOTIDE REDUCTASE.....	5R01 GM26314-02	55,798
THOMPSON, HENRY J.....	NUTRITION AND MAMMARY CARCINOGENESIS.....	1R01 CA28109-01	69,975
WOODWARD, WILLIAM R.....	HERMANN LOTZE: MEDICAL THEORY TO NEW PSYCHOLOGY.....	1R01 LM03492-01	15,766
ORGANIZATION TOTAL	8 336,153		
HANOVER			
DARTMOUTH COLLEGE ZIP CODE 03755			
ADLER, ROBERT A.....	PROLACTIN—AS A POSSIBLE DIABETOGENIC.....	5R01 AM22032-02	86,261
ALLEN, ROBERT D.....	BIOLOGICAL MOVEMENT PROCESSES.....	5R01 GM22356-06	112,798
ALLEN, ROBERT D.....	CYTOPLASMIC RHEOLOGY OF MOTILE CELLS.....	1R01 GM27284-01A1	84,389
ALLEN, ROBERT D.....	LASER SCANNING PHASE MODULATION RESEARCH MICROSCOPE.....	1R01 GM28313-01	162,036
ALLEN, ROBERT D.....	MOTILITY OF LIVING HUMAN PLATELETS.....	1R01 HL25049-01	95,510
ALLEN, ROBERT D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07056-07	54,569
BARTLETT, DONALD, JR.....	ROLE OF THE UPPER AIRWAYS IN THE CONTROL OF BREATHING.....	2R01 HL19827-04	113,057
BERGER, EDWARD M.....	GENETIC CONTROL OF PROTEIN SYNTHESIS IN EUKARYOTES.....	5R01 GM22866-05	59,261
BORISON, HERBERT L.....	CHEMOSENSORS OF THE NERVOUS SYSTEM.....	3R01 NS04456-17S2	76,214
BRINCKERHOFF, CONSTANCE E.....	ISOLATION OF A COLLAGENASE GENE FROM SYNOVIAL CELLS.....	1R01 AM26599-01	56,712
BURGESS, DAVID R.....	ULTRASTRUCTURE AND BIOCHEMISTRY OF MICROVILLUS GROWTH.....	2R01 AM20021-04	77,297
CHANG, TA-YUAN.....	ROLES OF CHOLESTEROL AND ITS METABOLIC REGULATION.....	2R01 HL21246-04	124,668
CORNWELL, GIBBONS G, III.....	CANCER AND LEUKEMIA GROUP B.....	5R10 CA04326-22	139,505
CULP, WILLIAM J.....	SODIUM CHANNEL COMPONENTS OF EXCITABLE MEMBRANES.....	5R01 NS12067-05	49,856
DAUBENSPECK, JOHN A.....	BREATHING PATTERN VARIATION AND MECHANICAL INFLUENCES.....	5R01 HL19248-05	24,785
DOUPLE, EVAN B.....	RADIOSENSITIZATION BY PLATINUM ANTICANCER COMPOUNDS.....	5R01 CA23368-03	61,316
DOUPLE, EVAN B.....	MICROWAVE-INDUCED HYPERTHERMIA FOR DEEP-SEATED TUMORS.....	1R01 CA23594-01A2	90,816
EDWARDS, BRIAN R.....	NON-ADH-DEPENDENT MECHANISMS OF URINE CONCENTRATION.....	1R01 AM26553-01A1	81,655
FERM, VERGIL H.....	TERATOGENIC EFFECTS OF HEAVY METALS.....	5R01 ES00697-09	125,400
FORSTER, ROY P.....	CELLULAR ASPECTS OF ACTIVE TRANSPORT.....	5R01 HL04457-22	70,287
FROEHNER, STANLEY C.....	MOLECULAR ASPECTS OF ACETYLCHOLINE RECEPTOR FUNCTION.....	5R01 NS14871-02	85,224
GALTON, VALERIE A.....	MECHANISMS OF THYROID HORMONE ACTION IN DEVELOPMENT.....	5R01 HD09020-06	62,459
GILBERT, JOHN J.....	VITAMIN E: ASSAYS, DEFICIENCY, EFFECTS, NEW COMPOUND.....	5R01 HD08210-06	35,582
GOSSELIN, ROBERT E.....	DRUG EFFECTS ON SOLUTE TRANSPORT ACROSS EPITHELIA.....	5R01 GM11598-16	43,504
GRIEBBLE, GORDON W.....	FLUORINATED BENZANTHRACENE SYNTHESIS AND SCREENING.....	5R01 CA24422-02	52,201
HARRIS, EDWARD D, JR.....	CONTROL OF COLLAGEN DESTRUCTION IN ARTHRITIS.....	2R01 AM14780-10	171,564
HARRIS, EDWARD D, JR.....	MULTIPURPOSE ARTHRITIS CENTER.....	2P60 AM20641-04	301,917
INSELBURG, JOSEPH W.....	STABLE PLASMID-CELL ASSOCIATIONS.....	2R01 AI08937-12	106,064

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW HAMPSHIRE—Continued			
JACKSON, ROBERT C.	BIOSYNTHESIS AND SEGREGATION OF SECRETORY PROTEINS	5R01 GM26763-02	63,708
LAYTON, WILLIAM M, JR.	CONGENITAL HEART MALFORMATIONS AND SITUS INVERSUS	5R01 HL19430-05	77,864
LIENHARD, GUSTAV E.	THE MONOSACCHARIDE TRANSPORT SYSTEM OF THE ADIPOCYTE	5R01 AM25336-02	67,929
LIENHARD, GUSTAV E.	THE GLUCOSE TRANSPORT SYSTEM OF THE HUMAN ERYTHROCYTE	5R01 GM22996-05	81,296
LONGNECKER, DANIEL S.	STUDIES OF DNA CHANGE INDUCED BY PANCREATIC CARCINOGENS	5R01 CA17843-06	67,968
LONGNECKER, DANIEL S.	STUDIES OF THE HISTOGENESIS OF PANCREATIC CARCINOMA	2R26 CA19410-05	83,778
LUBIN, MARTIN	MODIFICATION OF TUMOR CELLS AND TUMOR SYSTEMS	3R01 CA17293-05S1	50,653
MARIN-PADILLA, MIGUEL	NORMAL, ABNORMAL STRUCTURE OF THE HUMAN CEREBRAL CORTEX	2R01 HD09274-06	72,732
MARX, KENNETH A.	PROPERTIES OF NUCLEASE-RESISTING MOUSE CHROMATIN	5R01 GM25886-02	58,438
MC CARTHY, LAWRENCE E.	ANTICANCER VOMITING: DELINEATION AND CONTROL	5R01 CA25190-02	31,862
MC INTYRE, O ROSS.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA19379-05	107,524
MC INTYRE, O ROSS.	CANCER CENTER SUPPORT (CORE) GRANT	5P30 CA23108-03	369,837
MC KOON, GAIL A.	READING AND THE ACQUISITION OF KNOWLEDGE	5R01 HD13318-02	82,087
MERRITT, KATHARINE	SIGNIFICANCE OF ALLERGY TO ORTHOPEDIC IMPLANTS	5R01 AM20271-02	52,571
MORIN, LAWRENCE P.	BEHAVIOR, BIOLOGICAL CLOCKS AND HORMONES	2R01 HD10740-04	62,352
MUDGE, GILBERT H.	ANALGESIC NEPHROPATHY: MECHANISMS OF PATHOGENESIS	5R01 AM16960-06	77,185
MUNCK, ALLAN U.	MODE OF ACTION OF STEROID HORMONES	2R01 AM03535-22	190,564
MUNCK, ALLAN U.	GLUCOCORTICOID-RESISTANT LEUKEMIC LYMPHOCYTES	5R01 CA17323-06	79,031
NODA, LAFAYETTE H.	HIGH ENERGY PHOSPHATE TRANSFERRING ENZYMES	5R01 GM23123-23	109,464
NORTH, WILLIAM G.	ECTOPIC HORMONES IN SMALL CELL CARCINOMA OF THE LUNG	5R01 CA19613-05	55,650
PFEFFERKORN, ELMER R.	TOXOPLASMA GONDII: CELL BIOLOGY AND GENETICS	5R01 AI14151-03	66,804
RICHMOND, ROBERT C.	RADIATION-CHEMICAL INDUCTION OF MUTAGENESIS	5R01 CA26045-02	59,125
ROEBUCK, BILL D.	MODULATION OF PANCREATIC CARCINOGENESIS BY DIET	1R01 CA26594-01A1	56,607
SCHNEIDER, DONALD L.	ENZYMES LINKING BIOENERGY TO CATABOLISM IN LYOSOMES	2R01 GM24459-03A2	38,450
SCORNIK, OSCAR A.	MAMMALIAN CELL MUTANTS AFFECTING PROTEIN DEGRADATION	5R01 AG01420-02	66,124
SLOBODA, ROGER D.	STUDIES OF MICROTUBULE-ASSOCIATED PROTEINS	5R01 GM25061-02	45,055
SMITH, KENDALL A.	REGULATION OF T-CELL PROLIFERATION AND DIFFERENTIATION	5R01 CA17643-05	86,766
SMITH, ROGER P.	METHEMOGLOBINEMIA AND ANTIHYPERTENSIVE DRUGS	5R01 HL14127-18	82,548
SORENSEN, GEORGE D.	PATHOBIOLOGY OF SMALL CELL CARCINOMA OF THE LUNG	5P01 CA25845-02	348,032
SPENCER, THOMAS A.	NOVEL INHIBITORS OF CHOLESTEROL BIOSYNTHESIS	5R01 HL23083-02	81,926
ST JOHN, WALTER M.	BRAIN STEM INTEGRATION OF CHEMORECEPTOR ACTIVITY	5R01 HL20574-05	34,217
STERN, PAUL	HUMAN DEVELOPMENTAL AND PATHOLOGICAL ASPECTS OF ADH	5R01 HD12123-03	58,854
STRICKLER, JAMES C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05392-19	143,821
TENNEY, STEPHEN M.	INTERRELATIONS OF CIRCULATION AND RESPIRATION	2R01 HL02888-24A1	54,136
TRUMPOWER, BERNARD L.	STRUCTURE AND FUNCTION OF HEART MEMBRANE PROTEINS	2R01 GM20379-07	71,758
TRUMPOWER, BERNARD L.	FUNCTION OF QUINONES IN ENERGY CONSERVING SYSTEMS	1R13 GM28148-01	10,462
VALTIN, HEINZ	HEREDITARY DIABETES INSIPIDUS	5R01 AM08469-16	215,303
VELEZ, SAMUEL J.	REGENERATION OF NEURONAL CONNECTIONS	2R01 NS13800-04	47,709
WIRA, CHARLES R.	SEX HORMONE REGULATION OF IMMUNOGLOBULINS	2R01 AI13541-04	121,352
YAGER, JAMES D, JR.	ROLE OF GONADAL STEROIDS IN LIVER CARCINOGENESIS	5R01 CA23916-03	53,495
YAGER, JAMES D, JR.	ERROR-PRONE DNA REPAIR IN HEPATOCARCINOGENESIS	5R01 CA26274-02	75,230
ORGANIZATION TOTAL	69	6,265,174	
STATE TOTAL	77	6,601,327	

NEW JERSEY

CAMDEN

INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 08103

CORIELL, LEWIS L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05582-12	32,374
GIRARDI, ANTHONY J.	IMMUNOLOGIC STUDIES IN MOUSE AND HUMAN BREAST CANCER	5R01 CA24940-02	264,969
JACOBS, LOIS J.	QUANTITATIVE MUTAGENESIS STUDIES IN HUMAN FIBROBLASTS	3R01 CA26212-01S1	17,000
LASFARGUES, ETIENNE Y.	TISSUE CULTURE STUDIES OF THE MAMMARY TUMOR VIRUS	5R01 CA08515-15	131,990
MC GARRITY, GERARD J.	DIFFERENTIATED CELL CULTURES: INFECTION BY MYCOPLASMAS	5R01 AI15748-02	54,041
ORGANIZATION TOTAL	5	500,374	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
HOBOKEN			
STEVENS INSTITUTE OF TECHNOLOGY ZIP CODE 07030			
MANHAS, MAGHAR S.....	BETA-LACTAMASE INHIBITORS.....	1R01 AI16745-01	82,636
RYAN, VIVIAN W.....	SALIVARY PROTEINS IN BACTERIAL AGGREGATION/ADHERENCE.....	5R23 DE05436-02	25,215
ORGANIZATION TOTAL	2 107,851		
NEWARK			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103			
BARTELL, PASQUALE F.....	EFFECTS OF P. AERUGINOSA SLIME ON HOST DEFENSES.....	5R01 AI08504-12	73,701
BEYER-MEARS, ANNETTE.....	ALDOSE REDUCTASE INHIBITORS ADMINISTERED TOPICALLY.....	1R01 EY03226-01A1	85,314
CHINARD, FRANCIS P.....	PULMONARY TRANSPORT AND METABOLISM IN VIVO.....	3R01 HL12879-10S1	51,488
COOPER, STEPHEN A.....	COMPARING THE EFFICACIES OF CONSCIOUS SEDATION DRUGS.....	5R23 DE05420-02	39,875
DI MAYORCA, GIAMPIERO.....	MOLECULAR MECHANISM OF CHEMICAL CARCINOGENESIS.....	2R01 CA25013-03	123,390
DI MAYORCA, GIAMPIERO.....	TRANSFORMATION GENES OF SIMIAN VIRUS 40.....	1R01 CA25168-01A1	81,975
DI MAYORCA, GIAMPIERO.....	BK VIRUS, A HUMAN PAPOVAVIRUS.....	1R01 CA25169-01A1	127,161
FARNSWORTH, PATRICIA N.....	COMPARATIVE STUDY OF AGING OF THE CRYSTALLINE LENS.....	5R01 EY01533-06	104,157
FU, S JOSEPH.....	PROGRESSION OF CATARACTOGENESIS AND POSSIBLE REVERSAL.....	5R01 EY01156-06	98,154
GOLDMAN, EMANUEL.....	ANALYSIS OF tRNA CODING BY PROTEIN SYNTHESIS IN VITRO.....	1R01 GM27711-01	69,731
HARTER, MARIAN L.....	FUNCTIONS OF EARLY PROTEINS ENCODED BY ADENOVIRUS.....	1R01 CA28414-01	80,525
HIRSCHBERG, ERICH.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05393-19	126,469
HOWLAND, RICHARD D.....	BIOCHEMICAL MECHANISMS OF ACRYLAMIDE NEUROTOXICITY.....	1R01 ES02405-01	63,861
HUMAYUN, M ZAFRI.....	MUTAGENESIS BY CARCINOGENS: A MOLECULAR APPROACH.....	1R01 CA27735-01	62,090
INGOGLIA, NICHOLAS A.....	AXONAL RNA IN REGENERATING OPTIC NERVES OF GOLDFISH.....	5R01 EY02887-02	45,445
JANSONS, VILMA K.....	LIPOSOMES AS CARRIERS FOR ANTITUMOR AGENTS.....	5R01 CA19127-05	47,762
KABACK, DAVID B.....	TRANSCRIPTION DURING MEIOSIS AND SPORULATION IN YEAST.....	1R01 GM27712-01	80,786
KROPP, DONNA L.....	STRUCTURE-FUNCTION RELATIONSHIPS IN RED CELL NA-K PUMPS.....	5R01 HL20711-03	51,841
LAEMLE, LOIS K.....	AN EXPERIMENTAL STUDY OF THE DEVELOPING VISUAL SYSTEM.....	5R01 EY01174-06	32,956
LASSER, NORMAN L.....	SERIAL EXERCISE TESTING IN HIGH RISK MEN.....	5R01 HL22848-02	53,275
LEA, MICHAEL A.....	NONHISTONE CHROMOSOMAL PROTEINS AND HEPATOMA GROWTH.....	3R01 CA16274-06S1	5,140
LOWNDES, HERBERT E.....	SPINAL CORD CORRELATES OF PERIPHERAL NEUROPATHIES.....	5R01 NS11948-06	63,440
MACEDO-SOBRINHO, BRAZ.....	CELL MEDIATED IMMUNITY IN GINGIVAL INFLAMMATION.....	5R01 DE04501-05	24,277
MACHIEDO, GEORGE W.....	PROSTAGLANDIN IN SHOCK AND POST-SHOCK ORGAN FAILURE.....	5R01 GM25831-02	57,926
MASSOVER, WILLIAM H.....	FORM AND FUNCTION OF NORMAL AND NEOPLASTIC FERRITINS.....	5R01 CA27491-02	50,386
MC ARDLE, JOSEPH J.....	CONTROL OF MUSCLE DURING REINNERVATION.....	5R01 NS11055-08	29,896
NATELSON, BENJAMIN H.....	BEHAVIORAL MEDICINE AND DIGITALIS TOXICITY.....	1R01 HL24498-01	96,039
OPDERBECK, WILLIAM R.....	COMPARISON OF TREATMENT PROCEDURES USED IN ENDODONTICS.....	2R01 DE04335-04A1	49,772
REGAN, TIMOTHY J.....	THE MYOCARDIUM IN DIABETES MELLITUS.....	5R01 HL09914-15	221,254
RUSH, BENJAMIN F, JR.....	PROGRAM FOR CANCER EDUCATION.....	2R25 CA19536-04	39,350
RUSH, BENJAMIN F, JR.....	LARYNGEAL AND TRACHEAL CONSTRUCTION POST-RESECTION.....	1R01 CA27222-01	76,110
SALEN, GERALD.....	THE METABOLISM OF URSODEOXYCHOLIC ACID IN MAN.....	5R01 AM18707-06	87,690
SALEN, GERALD.....	METABOLISM OF CHOLESTANOL AND CHOLESTEROL IN MAN.....	5R01 HL17818-07	111,718
SAPRU, HREDAY N.....	CARDIOVASCULAR AND RESPIRATORY ACTIONS OF ENKEPHALINS.....	5R01 HL24347-02	36,010
SHERR, STANLEY I.....	DRUG AND METABOLIC STUDIES OF PULMONARY FAT EMBOLISM.....	5R01 HL24624-02	64,804
SIEGEL, ALLAN.....	ROLE OF THE LIMBIC SYSTEM IN HYPOTHALAMIC AGGRESSION.....	2R01 NS07941-11	62,736
STOUT, MARGUERITE A.....	A MODEL FOR CALCIUM HOMEOSTASIS IN EXCITABLE TISSUE.....	5R23 HL21213-03	47,551
STUDZINSKI, GEORGE P.....	ACTION OF AMINONUCLEOSIDE ON NORMAL AND CANCER CELLS.....	5R01 CA19750-05	57,310
SWAN, KENNETH G.....	VASOACTIVE AGENTS IN SPLANCHNIC VISCERA OF PRIMATES.....	3R01 HL18096-05S1	8,444
SWISLOCKI, NORBERT I.....	CROSS-LINKED GLUCAGON ACTIVATED ADENYLATE CYCLASE.....	1R01 AM26759-01	47,518
WAGNER, BETTY J.....	PROTEOLYTIC ENZYMES AND CATARACTOGENESIS.....	2R01 EY02299-03	92,381
WILSON, ROBERT G.....	MECHANISM OF ADRIAMYCIN ON L-1210 TRANSCRIPTION.....	5R01 CA24905-02	49,283
YANG, CHUNG S.....	MONOOXYGENASE: PROPERTIES AND CARCINOGEN ACTIVATION.....	2R01 CA16788-07	85,343
ORGANIZATION TOTAL	43 2,964,334		
NEW JERSEY INSTITUTE OF TECHNOLOGY ZIP CODE 07102			
SNYDER, WILLIAM H.....	BLOCKED ISOCYANATES FOR CHEMICAL BONDING TO DENTIN.....	5R01 DE05053-02	77,620
ORGANIZATION TOTAL	1 77,620		
NEWARK BETH ISRAEL MEDICAL CENTER ZIP CODE 07112			
PARSONNET, VICTOR.....	EXTENDING THE LIFE OF IMPLANTED PACEMAKERS.....	5R01 HL15247-07	60,675

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
PARSONNET, VICTOR	THERMAL CONTROL OF HEART RATE	5R01 HL23527-02	52,841
PARSONNET, VICTOR	SIMULATION OF PACEMAKER AND ECG INTERACTIONS	5R01 HL24567-02	29,155
ORGANIZATION TOTAL	3 142,671		
RUTGERS THE STATE UNIVERSITY NEWARK ZIP CODE 07102			
FEDER, HARVEY H.	HORMONAL REGULATION OF BEHAVIOR	2R01 HD04467-09	86,199
HALL, JAMES C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07059-15	48,893
HALL, STAN S.	GLYOXALASE I INHIBITOR STUDIES AND ANTITUMOR AGENTS	5R01 GM25727-02	52,060
JORDAN, FRANK.	MECHANISM OF THIAMINE PYROPHOSPHATE REQUIRING ENZYMES	5R01 AM17495-07	67,588
JORDAN, FRANK.	PURINE NUCLEOSIDE PHOSPHORYLASE STUDIES	5R01 GM26682-02	59,932
STRAUSSER, HELEN R.	THE INFLUENCE OF SEX AND AGE ON IMMUNE FUNCTION	5R01 AG01225-02	50,420
ORGANIZATION TOTAL	6 365,092		
NEW BRUNSWICK			
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903			
AMAREL, SAUL	SPECIAL RESEARCH RESOURCE: COMPUTERS IN BIOMEDICINE	5P41 RR00643-09	569,658
BARFIELD, RONALD J.	ENDOCRINE AND NEURAL BASES OF BEHAVIOR	5R01 HD04484-09	45,624
BRESLAUER, KENNETH J.	RNA STABILITY AND CONFORMATIONAL FLEXIBILITY	5R01 GM23509-02	57,591
BROWN, HARRY D.	MICROCALORIMETRIC DEFINITION OF CLINICAL REACTIONS	5R01 GM22679-06	59,339
CARMAN, GEORGE M.	PHOSPHATIDYLINOSITOL METABOLISM AND MEMBRANE FUNCTION	1R01 GM28140-01	48,189
CHAMPE, SEWELL P.	GENETIC CONTROL OF DEVELOPMENT IN MODEL SYSTEMS	5R01 GM17020-12	105,998
CHEN, KUANG YU.	MEMBRANE STRUCTURE & ENZYME INDUCTION	5R01 CA24479-02	38,624
COLLIER, GEORGE H.	DETERMINANTS OF REINFORCEMENT	2R01 HD10588-04	75,308
COUSINS, ROBERT J.	ZINC AND THE SYNTHESIS OF ZINC BINDING PROTEIN	5R01 AM18555-06	49,364
COUSINS, ROBERT J.	ZINC METABOLISM IN ISOLATED LIVER CELLS	5R01 AM20485-04	49,517
COUSINS, ROBERT J.	PERIODONTAL DISEASE AND COPPER AND ZINC METABOLISM	5R01 DE04606-03	45,646
COUSINS, ROBERT J.	METABOLISM AND BIOCHEMICAL ACTIONS OF CADMIUM	2R01 ES00777-09	57,846
DAVIS, FRANK F.	NONIMMUNOGENIC ENZYMES FOR THERAPEUTIC USE	5R01 GM20946-06	79,431
DENNEY, DONALD B.	PREPARATION AND CHEMISTRY OF ORGANOPHOSPHORUS COMPOUNDS	5R01 GM26428-16	71,109
FALK, JOHN L.	BEHAVIORAL SHARE IN HYPERTENSION	5R01 HL19612-09	54,198
FISHER, HANS	HISTIDINE DERIVATIVES: ROLE IN OLFACTION AND TRAUMA	5R01 AM18932-04	51,117
GRIMINGER, PAUL	MELIORATION OF POST-TRAUMA NITROGEN LOSS IN OLD RATS	5R01 AG00160-05	27,412
GROB, GERALD N.	HISTORY OF MENTAL HOSPITALS IN THE U.S. SINCE 1875	5R01 LM02306-11	19,870
ISIED, STEPHAN S.	INERT METAL ION PROTECTING GROUPS IN PEPTIDE SYNTHESIS	5R01 GM26324-02	52,247
KAPLAN, MURRAY L.	EARLY NUTRITION AND DEVELOPMENT OF OBESITY	5R01 AM18557-06	60,343
KNAPP, SPENCER A.	SYNTHESIS OF ANTITUMOR AGENTS RELATED TO CORIOLIN	5R23 CA24747-03	32,374
LAMPEN, J. OLIVER	CELL PERMEABILITY AND INVERTASE BIOSYNTHESIS	5R01 AI04572-19	124,335
LEUNG, KIU	PRODUCTION OF ANTIBODIES TO TUMOR ASSOCIATED ANTIGENS	5R01 CA25910-02	89,018
MACKAY, VIVIAN L.	RECOMBINATION REPAIR AND CONJUGATION IN YEAST	5R01 GM22149-06	51,239
MARTIN, CHARLES E.	THE ROLE OF STEROLS IN MEMBRANE FUNCTION	1R01 GM28040-01	61,689
NICOLICH, LORRAINE M.	MENTAL REPRESENTATION AND INITIAL LANGUAGE LEARNING	5R01 HD11731-02	68,457
NIEDERMAN, ROBERT A.	ASSEMBLY OF AN ENERGY TRANSDUCING MEMBRANE SYSTEM	5R01 GM26248-02	80,940
OLSON, WILMA K.	CARCINOGENESIS BY HYDROCARBONS: A MOLECULAR APPROACH	5R01 CA25981-02	11,213
OLSON, WILMA K.	NUCLEIC ACID CONFORMATION, PROPERTIES, AND INTERACTIONS	2R01 GM20861-07	65,519
PASSMORE, HOWARD C.	RECOMBINATION ANALYSIS OF THE MOUSE H-2 COMPLEX	5R01 AI14424-03	38,391
PIECZENIK, GEORGE	GENOTYPIC SELECTION: MAPPING SYNTAX-STRUCTURE-FUNCTION	2R01 GM23550-04	47,495
PORETZ, RONALD D.	LYMPHOCYTE SURFACE GLYCOCONJUGATES	5R01 CA25134-03	41,651
PRAMER, DAVID	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07058-15	165,960
RUEDEL, THOMAS K.	HOUSING AND DECLINING HOUSEHOLD SIZE IN THE U S	1R01 HD14518-01	47,666
SAN FILIPPO, JOSEPH, JR.	SUPEROXIDE REACTIVITY	5R01 AM18713-05	97,070
SCHUGAR, HARVEY J.	CU CHELATION THERAPY AND CU PROTEIN MODELS	2R01 AM16412-07	62,336
SHAW, MARILYN L.	OVERLAPPING PROCESSING OF MULTILETTER DISPLAYS	1R01 HD13878-01	28,273
SIMON, LEE D.	GENETIC CONTROL OF PROTEIN DEGRADATION	1R01 GM27314-01	103,896
SIMPSON, ROBERT W.	CHARACTERIZATION OF AVIAN CORONAVIRUSES	5R01 AI14359-03	89,276
SIMPSON, ROBERT W.	HOST CELL REGULATION OF ANIMAL RNA VIRUSES	1R01 AI17262-01	60,600
SINHA, NAVIN K.	IN VITRO ANALYSIS OF A DNA REPLICATION APPARATUS	2R01 GM24391-04	62,960
SOFER, WILLIAM H.	A SYSTEM FOR ANALYSIS OF GENE CONTROL IN DROSOPHILA	7R01 GM28791-01	91,808
WITKIN, EVELYN M.	REGULATION OF SOS FUNCTIONS IN ESCHERICHIA COLI	2R01 AI10778-09	114,664
YACYNYNCH, ALEXANDER M.	CHROMATOGRAPHY EMPLOYING A CONTROLLED-POTENTIAL COLUMN	1R01 GM28125-01	44,939

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
ZAMBRASKI, EDWARD J.....	NEURAL CONTROL OF RENAL TUBULAR SODIUM REABSORPTION.....	1R01 HL25255-01	53,344
ORGANIZATION TOTAL	45 3,353,544		
PISCATAWAY			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—NEW JERSEY SCHOOL OF OSTEOPATHIC MEDICINE		ZIP CODE 08854	
MIDDLETON, RICHARD B.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09085-03	102,493
RHOADES, ROBERT W.....	SPINOTECTAL DEVELOPMENT.....	1R01 NS16001-01	10,656
SCHIMMEL, RICHARD J.....	THE ACTION OF CALCIUM ON ADIPOSE TISSUE.....	5R01 AM21431-04	45,400
ORGANIZATION TOTAL	3 158,549		
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL		ZIP CODE 08854	
BLANK, MARION S.....	CENTER FOR THE NEUROCOGNITIVE STUDY OF DYSLEXIA.....	5P01 HD12278-02	635,277
BRECKENRIDGE, BRUCE M.....	CYCLIC AMP & METABOLIC CONTROL IN THE NERVOUS SYSTEM.....	2R01 NS10975-14	96,081
BRODSKY, BARBARA M.....	X-RAY DIFFRACTION OF CONNECTIVE TISSUE.....	5R01 AM19626-04	46,582
BROSTROM, CHARLES O.....	CONTROL OF CYCLIC NUCLEOTIDE PHOSPHODIESTERASE.....	2R01 NS11340-07	84,383
CRANE, ROBERT K.....	BRUSH BORDER MEMBRANE FUNCTIONS.....	2R01 AM10696-15	169,832
DUBIN, DONALD T.....	R-RNA & RIBOSOME SYNTHESIS IN BACTERIA & ANIMAL CELLS.....	5R01 GM14957-13	95,259
DUBIN, DONALD T.....	TRANSFER RNA SEQUENCES FROM ANIMAL MITOCHONDRIA.....	1R01 GM28100-01	57,397
EDELMAN, NORMAN H.....	DETERMINANTS OF THE VENTILATORY RESPONSE TO HYPOXIA.....	2R01 HL16022-07	93,619
EDELMAN, NORMAN H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05576-16	139,771
EGGER, M DAVID.....	PLASTICITY IN A CUTANEOUS SPINAL REFLEX.....	2R01 NS13456-04	60,525
EICHHOLZ, ALEXANDER.....	AMINOGLYCITOL ANTIBIOTIC PERMEABILITY AND TOXICITY.....	1R01 AI16511-01	83,746
EICHHOLZ, ALEXANDER.....	STUDY OF THE TRANSPORT OF CARBOHYDRATES.....	5R01 AM17874-06	75,263
GELLER, HERBERT M.....	ENDOCRINE HYPOTHALAMIC NEURONAL CIRCUITS IN VITRO.....	5R01 NS15468-02	61,741
GOLDSTEIN, BERNARD D.....	BIOCHEMICAL EFFECTS OF OZONE AND NO ₂ IN THE LUNG.....	7R01 ES02510-01	64,554
GOLDSTEIN, BERNARD D.....	MUCONALDEHYDE IN RELATION TO BENZENE HEMATOTOXICITY.....	1R01 ES02558-01	53,981
GOLDSTEIN, BERNARD D.....	RED CELL MEMBRANE EFFECTS DUE TO OXIDIZING AGENTS.....	7R01 HL26821-01	69,827
GRANDISON, LINDSEY J.....	GABA AND BENZODIAZEPINES IN PITUITARY FUNCTION.....	1R01 AM26661-01	37,741
HEIKKILA, RICHARD E.....	MODE OF ACTION OF DIABETOGENIC AGENTS.....	3R01 AM27328-01S1	13,898
HOLOWCZAK, JOHN A.....	TRANSCRIPTION & TRANSLATION IN POX VIRUS INFECTED CELLS.....	5R01 CA11027-13	90,831
KHACHADURIAN, AVIDIS K.....	FAMILIAL HYPERCHOLESTEROLEMIA: STUDIES OF FIBROBLASTS.....	5R01 HL18878-05	90,511
KRAUTHAMER, GEORGE M.....	CENTRAL NERVOUS MECHANISMS OF VISCERAL AND SOMATIC PAIN.....	5R01 NS10922-04	37,758
LEIBOWITZ, MICHAEL J.....	VIRUS REPLICATION IN EUKARYOTIC CELLS.....	5R01 AI14843-02	6,036
LENARD, JOHN.....	VSV STRUCTURE, BUDDING, ENTRY USING MEMBRANE MUTANTS.....	5R01 AI13002-05	64,654
MACDONALD, GORDON J.....	STUDY OF HORMONE LEVELS DURING PREGNANCY.....	5R01 HD10824-03	47,220
MC ALLISTER, WILLIAM T.....	REGULATION OF VIRAL GENE EXPRESSION.....	5R01 GM21783-06	42,070
MORRIS, N RONALD.....	GENETICS AND BIOCHEMISTRY OF MITOSIS IN ASPERGILLUS.....	5R01 GM23060-05	84,547
MOYLE, WILLIAM R.....	CYCLIC AMP: ROLE IN ADRENAL TUMOR STEROIDOGENESIS.....	3R01 CA26638-01S1	16,432
OLSEN, BJORN R.....	STRUCTURE OF TYPE I AND TYPE II PROCOLLAGENS.....	5R01 AM21471-02	77,768
PROCKOP, DARWIN J.....	BIOCHEMISTRY OF NORMAL AND DISEASED CONNECTIVE TISSUE.....	5P01 AM16516-10	417,750
PROCKOP, DARWIN J.....	BIOCHEMISTRY AND MOLECULAR GENETICS OF COLLAGEN.....	3R13 AM26525-01S1	4,188
RASKA, KAREL, JR.....	PATHOLOGY OF THE IMMUNE RESPONSE IN UREMIA.....	5R01 AM23007-02	66,414
RASKA, KAREL, JR.....	ADENOVIRUS T, SURFACE ANTIGENS AND TUMORIGENICITY.....	2R01 CA21196-04	126,407
ROLEY, DAVID J.....	PREVENTION OF LUNG INJURY BY A PROLINE ANALOGUE.....	5R01 HL24264-02	43,112
ROISEN, FRED J.....	STUDIES OF NERVE DEVELOPMENT.....	5R01 NS11299-06	58,183
SANDERS, MARILYN M.....	GENE CONTROL & CGMP IN DROSOPHILA & SENILE DEMENTIA.....	5R01 AG02066-02	72,796
SANTIAGO, TEODORO V.....	RESPIRATORY CONSEQUENCES OF METHADONE MAINTENANCE.....	5R23 HL23315-02	36,850
SCHLESINGER, R WALTER.....	TOGAVIRUS REPLICATION IN INSECT AND VERTEBRATE CELLS.....	5R22 AI05920-18	130,096
SCHNEIDER, STEPHEN H.....	PHYSICAL TRAINING AND VASCULAR RISK FACTORS IN DIABETICS.....	5R01 AM26894-02	105,679
SHIMAMURA, TETSUO.....	PATHOLOGY OF EXPERIMENTAL ACUTE PYELONEPHRITIS.....	5R01 AM21339-03	30,360
SINHA, ARABINDA K.....	CEREBRAL REGIONAL OXYGEN CONSUMPTION DURING SLEEP.....	5R01 NS13118-02	55,181
STEVENSON, NANCY R.....	FEEDING-INDUCED RHYTHMICITY IN INTESTINAL FUNCTION.....	5R01 AM18953-05	72,364
STOLLAR, VICTOR.....	GENETICS OF CULTURED MOSQUITO CELLS.....	5R01 AI11290-06	78,668
STROHL, WILLIAM A.....	VIRAL CARCINOGENESIS AND LATENCY.....	5R01 CA08851-16	122,268
TAKAHASHI, MARK T.....	REGULATION OF THREONINE-SENSITIVE ASPARTOKINASE ACTIVITY.....	5R01 GM18628-10	83,932
WEISS, HARVEY R.....	REGIONAL OXYGEN CONSUMPTION OF HEART AND OTHER ORGANS.....	3R01 HL21172-03S1	5,317
WOLFF, DONALD J.....	FUNCTION OF A BRAIN CALCIUM-BINDING PROTEIN.....	2R01 NS11252-07	88,170
ORGANIZATION TOTAL	46 4,095,039		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
PRINCETON			
EDUCATIONAL TESTING SERVICE	ZIP CODE 08540		
MESSICK, SAMUEL	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05729-04	15,350
ORGANIZATION TOTAL	1 15,350		
PRINCETON UNIVERSITY	ZIP CODE 08540		
ALLEN, LELAND C.	ELECTRONIC STRUCTURE OF ENZYMES AND REDOX PROTEINS	5R01 GM26462-02	72,985
APPLEBURY, MEREDITH L.	PHOTORECEPTION AND TRANSDUCTION IN VISION	5R01 EY01542-06	69,215
APPLEBURY, MEREDITH L.	BIOCHEMISTRY OF PHOTORECEPTOR CELLS	5R01 EY02659-03	57,441
BONNER, JOHN T.	CHEMOTAXIS AND DIFFERENTIATION IN SLIME MOLDS	5R01 GM17856-08	79,858
BOTHWELL, MARK A.	METAPHASE CHROMOSOME STRUCTURE: NONHISTONE PROTEINS	5R01 GM25111-03	117,063
BOTHWELL, MARK A.	GLANDULAR AND EXTRA-GLANDULAR NERVE GROWTH FACTOR	5R01 NS14632-03	46,502
CAMPBELL, BYRON A.	UNDERNUTRITION AND AGING: BIOBEHAVIORAL EFFECTS	1R01 AG02447-01	95,885
CLINE, THOMAS W.	REGULATION OF SEX-SPECIFIC GENES IN DROSOPHILA	2R01 GM23468-04	103,944
COALE, ANSLEY J.	ESTIMATION OF DEMOGRAPHIC INDICES FROM IMPERFECT DATA	5R01 HD11720-03	164,211
COHEN, EDWARD H.	ORGANIZATION AND EVOLUTION OF DROSOPHILA DNA	5R01 GM21786-06	72,109
COWAN, NICHOLAS J.	STRUCTURE OF TUBULIN AND RHODOPSIN MRNA	5R01 GM26456-02	78,687
COX, EDWARD C.	E COLI MUTATOR GENES	9R01 GM28923-10	108,893
FLINT, SARAH J.	REGULATION OF GENE EXPRESSION IN AD2 INFECTED CELLS	1R01 AI17265-01	78,353
FRESCO, JACQUES R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07057-15	133,491
GELPERIN, ALAN	BEHAVIORAL AND SYNAPTIC FUNCTIONS OF SEROTONIN	5R01 NS15698-02	45,451
GILVARG, CHARLES	STRUCTURE AND SYNTHESIS OF THE BACTERIAL CELL WALL	1R01 GM29244-01	59,155
KELLEY, DARCY B.	NEURAL SUBSTRATES FOR REPRODUCTIVE BEHAVIOR	5R01 HD12126-03	44,182
NEWTON, AUSTIN	REGULATION OF DEVELOPMENT IN CAULOBACTER CRESCENTUS	5R01 GM22299-06	83,793
NEWTON, AUSTIN	GENETICS OF CELL CYCLE AND DEVELOPMENT IN CAULOBACTER	5R01 GM25644-03	65,354
PATON, MARTHA C.	EXPERIMENTS ON THE DEVELOPMENT OF NEURAL PATHWAYS	3R01 EY01872-03S1	5,855
PATON, MARTHA C.	EXPERIMENTS ON THE DEVELOPMENT OF NEURAL PATHWAYS	2R01 EY01872-04	103,407
QUINN, WILLIAM G, JR.	GENETIC ANALYSIS OF LEARNING AND MEMORY IN DROSOPHILA	5R01 GM25578-03	90,187
READY, DONALD F.	SELECTIVITY OF SYNAPSE FORMATION IN VITRO	1R01 NS16515-01	103,265
REYNOLDS, GEORGE T.	X-RAY DIFFRACTION STUDIES OF VERTEBRATE EYE MEMBRANE	5R01 EY02679-02	68,330
SCHEDL, PAUL	GENE EXPRESSION DURING D MELANOGASTER EMBRYOGENESIS	5R01 GM25976-02	49,236
SCHWARTZ, JEFFREY	STABILIZED PROSTACYCLINS TO TREAT VASCULAR DISEASE	5R01 HL22612-03	58,850
SEMMEHLACK, MARTIN F.	NATURAL PRODUCT SYNTHESIS	5R01 AI15916-03	88,783
SEMMEHLACK, MARTIN F.	SYNTHESIS OF NATURAL ANTI-CANCER AGENTS AND ANALOGS	5R01 CA26727-02	124,748
SHERICK, CARL E.	THE ROLE OF THE HAPTIC SYSTEM IN COMMUNICATION	5R01 NS04755-18	165,603
SHIMOMURA, OSAMU	BIPHYSICS AND CHEMISTRY OF BIOLUMINESCENCE	5R01 GM25093-02	34,440
SNIDER, BARRY B.	NEW CARBON-CARBON BOND FORMING REACTIONS OF ALKENES	2R01 GM23159-04A1	65,779
SPIRO, THOMAS G.	METAL CENTERS IN BIOLOGICAL SYSTEMS	2R01 GM13498-15	123,104
SPIRO, THOMAS G.	RAMAN STUDIES OF FLAVINS AND FLAVOPROTEINS	5R01 GM25158-03	82,039
SPIRO, THOMAS G.	RAMAN SPECTRA OF HEME PROTEINS AND RELATED MOLECULES	5R01 HL12526-11	78,513
STEINBERG, MALCOLM S.	CHEMISTRY AND MEASUREMENT OF INTERCELLULAR ADHESION	5R01 CA13605-09	159,942
STEINBERG, MALCOLM S.	DESMOSOMAL CONSTITUENTS IN CELL ASSEMBLY AND DISEASE	5R01 GM26047-02	206,873
TAYLOR, EDWARD C.	NOVEL DEAZA ANALOGS OF MTX AND 5,10-CH2-H4 FOLATE	1R01 CA28351-01	120,453
TAYLOR, EDWARD C.	NOVEL AMINO GROUP TRANSFORMATIONS IN HETEROCYCLES	1R01 GM27983-01	65,304
WESTOFF, CHARLES F.	POPULATION RESEARCH CENTER	3P30 HD08008-06S1	75,458
WESTOFF, CHARLES F.	POPULATION RESEARCH CENTER	5P30 HD08008-07	159,462
WEVER, ERNEST G.	THE NATURE OF HEARING	5R01 NS03798-18	70,550
WITMAN, GEORGE B, III.	MOLECULAR MECHANISM OF FLAGELLA MOTILITY AND ASSEMBLY	5R01 GM21586-06	85,736
WOOLEY, JOHN C.	CHROMATIN STRUCTURE AND GENE REGULATION FOR DROSOPHILA	5R01 GM26332-02	69,637
WORCEL, ABRAHAM	STRUCTURE OF INTERPHASE AND METAPHASE CHROMOSOMES	5R01 GM21574-05	96,626
WORCEL, ABRAHAM	PROPERTIES OF DNA-PROTEIN COMPLEXES OF D MELANOGASTER	1R01 GM27019-01	84,132
ORGANIZATION TOTAL	45 4,012,884		
SOUTH ORANGE			
SETON HALL UNIVERSITY	ZIP CODE 07079		
SONNESSA, ANTHONY J.	CHARGE TRANSFER COMPLEXES IN INVERTED MICELLES	1R01 GM27350-01	12,261
ORGANIZATION TOTAL	1 12,261		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW JERSEY—Continued			
TEANECK			
FAIRLEIGH DICKINSON UNIVERSITY TEANECK ZIP CODE 07666			
ALFANO, MICHAEL C	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09117-03	95,540
DE PAOLA, DOMINICK P	FOLATE DEFICIENCY AND IN VITRO PALATOGENESIS	5R01 DE05301-03	59,530
FREUND, THOMAS S	SALIVARY CALCIUM BINDING PROTEINS AND ORAL DISEASE	5R23 DE05316-02	35,051
SINGER, ROBERT M	FETAL ISOENZYME EXPRESSION IN HUMAN TUMOR XENOGRAFTS	3R01 CA22360-03S1	13,585
ORGANIZATION TOTAL	4 203,706		
THOROFARE			
AMERICAN GASTROENTEROLOGICAL ASSOCIATION ZIP CODE 08086			
SILEN, WILLIAM	RESEARCH WORKSHOPS IN GASTROENTEROLOGY	2R13 AM19726-04	25,022
ORGANIZATION TOTAL	1 25,022		
STATE TOTAL	206 16,034,297		
NEW MEXICO			
ALBUQUERQUE			
AMERICAN TELEPHONE AND TELEGRAPH COMPANY—SANDIA LABORATORIES ZIP CODE 87115			
BACON, FRANK M	D-T NEUTRON GENERATOR DEVELOPMENT FOR CANCER THERAPY	5R01 CA25156-02	396,333
ORGANIZATION TOTAL	1 396,333		
LOVELACE MEDICAL CENTER ZIP CODE 87108			
GREENE, ERNEST R	NONINVASIVE CHARACTERIZATION OF TRANSPULMONIC FLOW	1R01 HL26025-01	54,176
ORGANIZATION TOTAL	1 54,176		
UNIVERSITY OF ALBUQUERQUE ZIP CODE 87140			
PANTLE, CURTIS R	MINORITY BIOMEDICAL SUPPORT	5S06 RR08108-09	144,474
ORGANIZATION TOTAL	1 144,474		
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131			
ALLEN, FRITZ S	AN ELECTRIC DICHROISM STUDY OF DNA & DNA-DRUG ADDUCTS	1R01 GM27046-01	40,220
ANDERSON, ROBERT E	RADIATION INJURY IN SUBPOPULATIONS OF LYMPHOCYTES	5R01 CA13805-08	51,034
ANDERSON, ROBERT E	IMMUNE SURVEILLANCE IN RADIATION CARCINOGENESIS	5R01 CA14270-08	50,929
ATENCIO, ALONZO C	MINORITY BIOMEDICAL SUPPORT SYMPOSIUM	1R13 RR01275-01	56,034
ATENCIO, ALONZO C	MINORITY BIOMEDICAL SUPPORT	2S06 RR08139-07	914,058
BANKHURST, ARTHUR D	IMMUNOSUPPRESSION IN CANCER PATIENTS	5R01 CA24873-02	49,252
BERMAN, WILLIAM, JR	AGE-RELATED CHANGES IN DIGOXIN EFFECT AND TOXICITY	5R01 HL23980-03	94,635
CAMPBELL, GARY H	ANTIGENIC VARIATION AND IMMUNITY IN TRYPAOSOMIASIS	5R01 AI15131-03	85,916
CUSHING, ALICE H	TOXIGENIC FECAL BACTERIA IN SPORADIC INFANTILE DIARRHEA	5R22 AI13785-02	125,701
EATON, R PHILIP	DEVELOPMENT OF AN ARTIFICIAL BETA CELL	1R01 AM25132-01A1	167,661
EATON, R PHILIP	LIPOPROTEIN-CARBOHYDRATE METABOLISM	5R01 HL12085-12	99,385
ELIAS, LAURENCE	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA25554-02	79,592
FEENEY, DENNIS M	INTERDISCIPLINARY STUDY OF BRAIN INJURY	5R01 NS13684-03	61,491
GALEY, WILLIAM R, JR	MECHANISMS OF PANCREATIC ELECTROLYTE & WATER SECRETION	5R01 AM17843-06	62,557
GOLDBERG, ELLEN H	IMMUNOBIOLOGY OF THE H-Y (MALE) ANTIGENIC SYSTEM	2R01 AI11560-07	52,822
GOLDBERG, ELLEN H	IMMUNOGENETICS OF PREIMPLANTATION EMBRYOS	5R01 HD13082-02	49,344
GOLDBLUM, SIMEON E	PNEUMOCOCCAL-INDUCED PULMONARY LEUKOSTASIS	1R01 AI16803-01	41,584
GOODWIN, JAMES S	ROLE OF PROSTAGLANDIN IN THE IMMUNOBIOLOGY OF AGING	5R01 AG01245-02	89,069
GOODWIN, JAMES S	PROSPECTIVE STUDY OF NUTRITION IN THE ELDERLY	1R01 AG02049-01	130,435
GOODWIN, JAMES S	SUPPRESSOR CELL ACTIVITY IN HUMAN PERIPHERAL BLOOD	5R23 AI14838-03	41,847
GREENBERG, ROBERT E	PHYSIOLOGIC AND DEVELOPMENTAL MECHANISMS IN DIABETES	5P50 HD11327-03	483,142
KELLEY, ROBERT O	BIOLOGY OF THE AGING CELL SURFACE	5R01 AG00191-06	76,270
KLIGERMAN, MORTON M	CLINICAL STUDIES OF PION RADIOTHERAPY	5P01 CA16127-07	2,395,349
KLIGERMAN, MORTON M	CANCER CENTER SUPPORT (CORE) GRANT	3P30 CA21074-03S1	337,924

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW MEXICO—Continued			
KOGOMA, TOKIO	DNA REPLICATION E. COLI: REGULATORY MUTANTS	5R01 GM22092-05	49,093
LOFTFIELD, ROBERT B.	PROTEIN BIOSYNTHESIS AS A FUNCTION OF AGE OR CANCER	5R01 AG00832-03	63,636
MORROW, CARY J.	SYNTHESIS OF CHOLESTEROL BIOSYNTHESIS INHIBITORS	5R01 HL24457-02	32,938
MOSELEY, ROBERT D, JR.	OPTICAL QUALITY EFFECTS ON LUNG TUMOR DETECTION	5R01 CA23816-02	106,131
NAPOLITANO, LEONARD M.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00997-05	483,439
NAPOLITANO, LEONARD M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05583-16	156,111
OMDAHL, JOHN L.	MODULATION OF 25 HYDROXYVITAMIN D3 METABOLISM	5R01 AM25476-02	43,128
PRIOLA, DONALD V.	INTRINSIC INNERVATION OF THE HEART	5R01 HL18517-05	65,486
PRIOLA, DONALD V.	FUNCTION AND NEURAL CONTROL OF MITRAL VALVE MUSCLE	5R01 HL23178-02	40,179
RADLOFF, ROGER J.	CLEAVAGE-DEFECTIVE MUTANTS OF EMC VIRUS	5R01 AI11658-06	7,293
RADLOFF, ROGER J.	DEFECTIVE INTERFERING PARTICLES OF EMC VIRUS	5R01 AI15821-02	48,937
REED, WILLIAM P.	STREPTOCOCCAL ADHERENCE: RELATION TO RHEUMATIC FEVER	1R01 AI16563-01	49,114
SAIKI, JOHN H.	COOPERATIVE STUDY OF CANCER CHEMOTHERAPY	5R10 CA12213-09	165,011
SAMET, JONATHAN M.	LUNG CANCER ETIOLOGY IN NM'S HISPANICS AND ANGLOS	1R01 CA27187-01	115,078
SCALETTI, JOSEPH V.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07185-02	24,301
SCALLEN, TERENCE J.	LIPID METABOLISM IN BIOLOGICAL SYSTEMS	5R01 AM10628-15	167,689
SCALLEN, TERENCE J.	CHOLESTEROL REGULATION BY HMG-COA REDUCTASE	5R01 HL16796-07	125,986
SCHADE, DAVID S.	CATECHOLAMINE REGULATION OF KETOGENESIS IN DIABETES	1R01 AM26129-01A1	59,586
STRICKLAND, ROBERT G.	INFLAMMATORY BOWEL DISEASE: IMMUNOPATHOLOGIC STUDIES	1R01 AM27354-01	57,476
TAI, ANNA	CHARACTERIZATION OF NATURAL KILLER CELLS	5R23 CA27115-02	33,718
TOKUDA, SEI	CROSS-REACTIONS BETWEEN FETAL, SPERM AND TUMOR CELLS	5R01 CA22964-03	34,666
TOKUDA, SEI	CELLULAR IMMUNE RESPONSES TO SYNGENEIC TUMORS	5R01 CA24377-03	76,912
TRUJILLO, JOHN L.	CONTROL OF GLYCOLYSIS & GLUCONEOGENESIS: PFK-FDPASE	5R01 AM19496-03	61,833
TRUJILLO, JOHN L.	STRUCTURE AND FUNCTION OF HEMOPROTEIN H-450	5R01 GM24639-02	53,400
TUNG, KENNETH S.	SPERM-SPECIFIC ANTIBODIES ON FERTILIZATION IN VITRO	5R01 HD12247-03	64,766
TUNG, KENNETH S.	IMMUNOLOGIC TOLERANCE TO SEQUESTERED AUTOANTIGENS	1R01 HD14142-01	66,661
TUNG, KENNETH S.	PURIFIED TESTIS ANTIGENS AND TESTICULAR AUTOIMMUNITY	1R01 HD14504-01	80,238
VAN EPPS, DENNIS E.	PHAGOCYTIC CELLS: REGULATION, DYSFUNCTION AND DISEASE	5R01 CA20819-05	73,940
VAN EPPS, DENNIS E.	FUCOSE BINDING LECTIN: A PMN MARKER AND CHEMOTAXIN	5R01 HL22653-02	27,767
VANDER JAGT, DAVID L.	CELLULAR FUNCTIONS OF GLUTATHIONE	5R01 GM25295-06	57,517
VOGEL, KATHRYN G.	GLYCOSAMINOGLYCANS OF THE AGING CELL	5R01 AG01214-02	51,783
WARNER, NOEL L.	GENETICS OF MURINE PLASMACYTOMAS AND AUTOIMMUNITY	3R01 AM19841-03S1	8,000
WARNER, NOEL L.	MURINE IMMUNOGLOBULINS AND B CELL DIFFERENTIATION	2R01 CA22105-04	123,799
WARNER, NOEL L.	GENETIC ASPECTS OF TUMOR HOST IMMUNE RELATIONSHIP	3R01 CA22268-03S1	103,139
WATERMAN, ROBERT E.	CRANIO-FACIAL ANOMALIES IN THE OEL MOUSE	1R01 DE05367-01	44,988
WILLIAMS, RALPH C, JR.	STUDIES OF AUTOANTIBODIES AND IMMUNOGLOBULINS	2R01 AM13690-12	119,031
WILLIAMS, RALPH C, JR.	INTERACTIONS OF CELLULAR AND HUMORAL IMMUNITY	5R01 AM13824-11	132,387
WILLIAMS, RALPH C, JR.	STUDIES OF IMMUNE COMPLEXES IN PATIENTS WITH LEUKEMIA	1R01 CA28732-01	51,865
ORGANIZATION TOTAL	62 8,763,273		

KIRTLAND AFB

U.S. DEPARTMENT OF ENERGY—ALBUQUERQUE OPERATIONS OFFICE ZIP CODE 87115

KNAPP, EDWARD A.	PION GENERATOR FOR MEDICAL APPLICATIONS	5P01 CA26420-02	1,231,571
ORGANIZATION TOTAL	1 1,231,571		

LAS CRUCES

NEW MEXICO STATE UNIVERSITY AT LAS CRUCES ZIP CODE 88003

BIRNBAUM, EDWARD R.	LANTHANIDE IONS AS PROBES OF PROTEIN STRUCTURE	5R01 AM16582-08	64,570
BIRNBAUM, EDWARD R.	TROPONIN-C AS A PROBE OF MUSCLE CONTRACTION	5R01 AM21930-02	27,164
CASILLAS, EDMUND R.	CARNITINE AND CAMP IN MATURING MAMMALIAN SPERM	5R01 HD10664-05	43,371
DARNALL, DENNIS W.	SPECTROSCOPIC RULERS AS PROBES OF HUMAN SERUM ALBUMIN	1R01 GM28166-01	49,496
DARNALL, DENNIS W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07154-05	45,042
HAGEMAN, JAMES H.	SERINE PROTEASES AND PROTEIN TURNOVER IN BACILLI	5R01 GM19643-08	50,548
HAGEMAN, JAMES H.	BORONIC ACID PROBES FOR STUDY OF GLYCOPROTEINS	5R01 GM26244-02	39,083
KUEHN, GLENN D.	POLYAMINES AND GENE CONTROL IN PHYSARUM POLYCEPHALUM	2R01 GM18538-10	73,969
KUEHN, GLENN D.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08136-07	294,362
MC CARTHY, CHARLOTTE M.	PHYSIOLOGY OF MULTIPLE DRUG RESISTANT MYCOBACTERIA	5R22 AM15293-03	35,821
WILKINS, RALPH G.	KINETIC STUDIES OF HEMERYTHRIN REACTIONS	5R01 HL17828-06	45,099
ORGANIZATION TOTAL	11 768,525		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW MEXICO—Continued			
LAS VEGAS			
NEW MEXICO HIGHLANDS UNIVERSITY ZIP CODE 87701			
FLIPPO, JOSEPH R.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08066-10	178,549
ORGANIZATION TOTAL	1 178,549		
RAMAH			
RAMAH NAVAJO SCHOOL BOARD, INC. ZIP CODE 87321			
WERNER, OSWALD.....	NAVAJO ANATOMICAL ATLAS PUBLICATION PROJECT.....	1R01 LM03465-01	18,950
ORGANIZATION TOTAL	1 18,950		
SANTA FE			
COLLEGE OF SANTA FE ZIP CODE 87501			
JONES, BYRON C.....	MULTIDISCIPLINARY BIOMEDICAL RESEARCH TRAINING.....	1S06 RR08189-01	183,035
ORGANIZATION TOTAL	1 183,035		
STATE TOTAL	80 11,738,886		
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH ZIP CODE 12237			
Axelrod, David.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05649-14	110,462
Berns, Donald S.....	PHOTOSENSITIVE MODEL MEMBRANE STUDIES.....	5R01 GM22247-06	57,255
Brady, George W.....	X-RAY DIFFRACTION OF NORMAL AND PATHOLOGICAL MEMBRANES.....	5R01 GM23084-03	40,431
Burkholder, Peter M.....	SPECIFICITY OF HUMAN NEPHROTOXIC ANTIGENS.....	5R01 AM18158-09	93,298
Dickerman, Herbert W.....	ESTROGEN RECEPTOR PROTEIN: DNA INTERACTION.....	5R01 AM23075-02	54,303
Dodds, W Jean.....	COMPARATIVE STUDY OF COAGULATION AND VASCULAR DISEASE.....	5R01 HL09902-15	194,248
Dodds, W Jean.....	BLOOD-MATERIALS INTERACTIONS: THE BRIDGE PROBLEMS.....	5R01 HL24017-02	40,747
Fenton, John W, II.....	HUMAN THROMBINS.....	5R01 HL13160-10	106,912
Flaherty, Lorraine.....	IMMUNOGENETICS AND DIFFERENTIATION.....	5R01 AI12603-06	55,857
Flaherty, Lorraine.....	IMMUNOGENETIC MAPPING OF THE CELL SURFACE.....	2R01 CA23027-04	80,144
Frank, Joachim.....	LOW DOSE ELECTRON MICROSCOPY OF CYTOCHROME OXIDASE.....	5R01 GM24412-03	50,807
Frenkel, Gerald D.....	INHIBITION OF CELLULAR DNASES BY DNA TUMOR VIRUSES.....	5R01 CA28084-02	57,351
Greenwald, Peter.....	EPIDEMIOLOGIC STUDY OF OVARIAN CANCER.....	5R01 CA20502-04	152,642
Greenwald, Peter.....	ENDOMETRIAL CANCER EPIDEMIOLOGY AND CONTROL.....	5R01 CA24367-02	165,977
Gruft, Howard.....	EPIDEMIOLOGY OF INFECTION WITH ATYPICAL MYCOBACTERIA.....	5R22 AI13813-04	141,267
Hechemy, Karim E.....	EVALUATION OF LATEX TEST IN ROCKY MOUNTAIN SPOTTED FEVER.....	1R01 AI16582-01A1	34,954
Hotchin, John E.....	LATENCY OF SCRAPIE VIRUS: DELAYED DISEASE AND AGING.....	5R01 NS13550-03	54,957
Kaminsky, Laurence S.....	HEPATIC MICROSOMAL ENZYME METABOLISM OF ANESTHETICS.....	5R01 GM23029-05	50,886
Lawson, William B.....	ENZYMES OF BLOOD COAGULATION AND FIBRINOLYSIS.....	3R01 HL15887-06S1	4,344
MacColl, Robert J.....	STRUCTURE AND FUNCTION OF PHOTOSYNTHETIC PIGMENTS.....	5R01 GM26050-02	36,899
Maley, Frank.....	MODEL SYSTEM TO STUDY CELL DIFFERENTIATION AND AGING.....	2P01 AG00207-04	159,179
Maley, Frank.....	FOLATE BINDING SITES IN THYMIDYLATE SYNTHETASE.....	5R01 GM26387-02	16,500
Maley, Gladys F.....	DCMP DEAMINASE, A POTENTIAL DIAGNOSTIC ENZYME.....	5R01 GM26645-02	14,000
Martin, David L.....	SODIUM-DEPENDENT HIGH AFFINITY TRANSPORT IN GLIA.....	1R01 NS16735-01	66,843
Nuss, Donald L.....	REGULATORY MECHANISMS IN IMMUNOGLOBULIN SYNTHESIS.....	5R01 AI16075-02	47,771
Paolletti, Enzo.....	VACCINIA RNA SYNTHESIS: A MODEL FOR MRNA BIOGENESIS.....	2R01 GM23853-04	86,096
Schrader, William P.....	ADENOSINE DEAMINASE BINDING PROTEINS OF HUMAN TISSUE.....	5R01 AM25578-02	35,734
Trimble, Robert B.....	GLYCOPROTEIN BIOSYNTHESIS IN YEAST.....	2R01 GM23900-04	41,812
Yoshinari, Tadashi.....	NITRITE AND NITROUS OXIDE PRODUCTION BY BACTERIA.....	5R23 ES02060-02	33,742
ORGANIZATION TOTAL	29 2,085,418		
STATE UNIVERSITY OF NEW YORK AT ALBANY ZIP CODE 12222			
Baglioni, Corrado.....	MECHANISMS OF INTERFERON ACTION.....	5R01 AI16076-02	133,597

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BAGLIONI, CORRADO	SELECTIVE REPLICATION OF HEMOGLOBIN GENES	5R01 HL17710-06	97,252
BLANCHARD, EDWARD B	PSYCHOLOGICAL TREATMENT OF HEADACHE	5R01 NS15235-02	103,027
DAS, TARA P	ELECTRONIC PROPERTIES OF PHOTOSYNTHETIC SYSTEMS	5R01 GM25230-03	72,353
EDWARDS, CHARLES	MOLECULAR PHARMACOLOGY OF ACETYLCHOLINE RECEPTORS	5R01 NS07681-12	35,055
HIRSCH, HELMUT V	DEVELOPMENT AND FUNCTIONS OF THE VISUAL CORTEX	5R01 EY01268-08	97,351
KING, TSOU E	RECONSTITUTION OF MITOCHONDRIAL RESPIRATORY CHAIN	2R01 GM16767-12	102,817
KING, TSOU E	BIOENERGETIC APPARATUS IN HEART MITOCHONDRIA	3R01 HL12576-11S1	8,067
KING, TSOU E	BIOENERGETIC APPARATUS IN HEART MITOCHONDRIA	2R01 HL12576-12A1	104,207
LERMAN, LEONARD S	STRATEGY FOR THE CHARACTERIZATION OF THE HUMAN GENOME	3R01 GM24030-04S1	18,290
LERMAN, LEONARD S	STRATEGY FOR THE CHARACTERIZATION OF THE HUMAN GENOME	5R01 GM24030-05	116,847
MILLIS, ALBERT J	SURFACE PROTEINS AND CELLULAR SENEESCENCE	2R01 AG00697-04	79,159
MURPHEY, RODNEY K	POSITIONAL INFORMATION AND IDENTIFIED SYNAPSES	5R01 NS15571-02	53,618
MYER, YASH P	CYTOCROME C: ELECTRON-TRANSPORT MECHANISM	5R01 GM24854-02	43,271
SARMA, RAMASWAMY H	MAGNETIC RESONANCE STUDIES OF BIOLOGICAL INTERACTIONS	5R01 CA12462-10	57,613
SAUNDERS, JOHN W, JR	EMBRYONIC CONTROLS OF LIMB DEVELOPMENT	5R01 HD07390-07	111,232
SCHOLES, CHARLES P	ENDOR AND PULSED EPR OF PARAMAGNETIC PROTEINS	2R01 AM17884-06	124,152
SEEMAN, MADRIAN C	STRUCTURE AND RECOGNITION OF NUCLEIC ACIDS IN 3-D	5R01 GM25467-02	28,279
SVARE, BRUCE B	AGING AND TESTOSTERONE-DEPENDENT BEHAVIOR	1R23 AG01319-01A1	41,954
TEDESCHI, HENRY	THE ELECTRICAL PROPERTIES OF TRANSDUCING MEMBRANES	1R01 GM27043-01	73,157
TIEMAN, SUZANNAH	ANATOMICAL EFFECTS OF RESTRICTED EARLY VISION	5R01 EY02609-02	53,416
VELLUTINO, FRANK R	VERBAL PROCESSING IN POOR AND NORMAL READERS	5R01 HD09658-03	128,142
WULFF, DANIEL L	CONTROL OF TRANSCRIPTION IN THE LAMBDA Y REGION	7R01 GM28370-01	80,912
WULFF, DANIEL L	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07122-12	102,253
YU, CHANG-AN	REACTION MECHANISMS OF MYOCARDIAL UBIQUINONE-PROTEINS	1R01 GM26292-01	91,541
ZITOMER, RICHARD S	REGULATION OF CYTOCHROME C AND MITOCHONDRIAL GENES	5R01 GM26061-02	81,497
ZUBIETA, JON A	MOLYBDENUM & SULFUR COMPLEXES—MODELS FOR METALLOENZYMES	5R01 GM22566-05	43,694
ZUBIETA, JON A	AUTOMATED X-RAY DIFFRACTION SYSTEM	5P41 GM27459-02	7,000
ORGANIZATION TOTAL	28	2,089,753	
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208			
APPLEBY, DAVID W	DNA SIZE AND GENOME ORGANIZATION IN LENS CELLS	5R01 EY03019-03	69,978
BALINT, JOHN A	METABOLISM OF PULMONARY SURFACTANT	5R01 HL15273-08	47,667
BATZOLD, FREDERICK H	PROSTATIC 5-ALPHA-OXIDOREDUCTASE	5R26 CA23019-03	33,125
BOURKE, ROBERT S	ON-LINE COMPUTER STUDY OF THERAPY FOR HUMAN SHOCK	2P50 GM15426-13	453,053
BOURKE, ROBERT S	BRAIN AND SPINAL CORD TRAUMA	5P50 NS13042-05	400,743
COWGER, MARILYN L	MECHANISM OF BILIRUBIN TOXICITY	5R01 HD05333-10	48,789
DUTTON, ROBERT E, JR	CONTROL OF RESPIRATION AND BLOOD GASES	2R01 HL12564-11	96,107
FRIEDLANDER, ROBERT L	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00749-08	286,269
FRIEDLANDER, ROBERT L	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05394-19	132,714
GOODMAN, A DAVID	ROLE OF THYROID HORMONES AND IODINE IN BREAST CANCER	5R01 CA22879-03	64,245
HALL, CHARLES A	VITAMIN B12 AND TC 11 IN RESPONSE TO INFECTION	5R01 AM17767-07	17,128
HAN, JAO K	EXPERIMENTAL CARDIAC ARRHYTHMIAS	5R01 HL18796-06	71,478
HOF, LISELOTTE B	GLUCOCEREBROSIDE METABOLISM IN BRAIN DEVELOPMENT	1R01 NS15775-01	53,012
HORTON, JOHN	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA06594-18	235,835
HORTON, JOHN	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17971-05	77,691
KAPLAN, JOHN E	PHAGOCYTIC CONTROL OF THROMBOSIS DURING SEPSIS	5R01 GM25946-02	43,566
KAPLAN, JOHN E	SCINTIGRAPHIC EVALUATION OF PHYSIOLOGICAL EVENTS	5P41 GM27405-02	17,413
LAWRENCE, DAVID A	ACTIVITIES AND CHARACTERISTICS OF ACTIVATED T-CELLS	5R01 AI12527-05	91,483
LEE, CHING Y	REGULATION OF GONADOTROPIN RECEPTOR & ADENYLATE CYCLASE	7R01 HD15438-01	38,660
LEE, PEI-FEI	LASER-BASED SURGICAL PROCEDURE FOR TREATMENT OF GLAUCOMA	5R01 EY01047-05	58,917
LEE, PEI-FEI	AQUEOUS HUMOR OF GLAUCOMATOUS EYES	5R01 EY02341-02	78,299
LOEGERING, DANIEL J	HEMOLYSIS AND PHAGOCYTIC DYSFUNCTION DURING SHOCK	5R01 GM26102-02	50,556
LOEGERING, DANIEL J	MECHANISM OF RETICULOENDOTHELIAL FAILURE IN SHOCK	5R01 GM26297-05	40,274
MALIK, ASRAR B	PULMONARY VASCULAR ADJUSTMENTS IN CIRCULATORY COLLAPSE	5R01 HL17355-06	51,519
MC KNEALLY, MARTIN F	SURGERY, REGIONAL BCG, AND SYSTEMIC VACCINE THERAPY	1R01 CA27039-01	96,520
REICHERT, LEO E, JR	TESTICULAR RECEPTORS OF FOLLICLE STIMULATING HORMONE	5R01 HD13938-02	124,184
REINER, JOHN M	MOLECULAR THRESHOLD MODELS IN DEVELOPMENT AND AGING	5R01 HD11187-02	42,063
RODGERS, JOHN B, JR	USE OF THE GUT FOR THERAPY OF CORONARY ARTERY DISEASE	5R01 HL17332-06	54,741
ROSENBERG, EDWARD M	CYCLOC NUCLEOTIDES IN CANCER AND REGENERATING TISSUE	5R01 CA22690-03	70,423
SABA, THOMAS M	SYSTEMIC HOST DEFENSE FOLLOWING TRAUMA	5R01 GM21447-06	64,216
SMITH, RICHARD S	ULTRASTRUCTURAL STUDY OF OCULAR VASCULAR PERMEABILITY	3R01 EY00538-09S2	15,439

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
THOMAS, WILBUR A.....	POPULATION DYNAMICS OF ARTERIAL CELLS IN ATHEROGENESIS.....	5P01 HL20993-04	803,903
TURINSKY, JIRI.....	MECHANISM OF INSULIN RESISTANCE AFTER BURNS.....	5R01 GM22825-05	61,078
VAN DER HOEVEN, THEODORE A.....	ENDOCRINE CONTROL OF LIVER MICROSOMAL CYTOCHROME P-450.....	1R01 GM27811-01	60,588
ORGANIZATION TOTAL	34 3,951,676		
UNIVERSITY OF THE STATE OF NEW YORK ZIP CODE 12234			
MOLLOY, DANIEL P.....	EVALUATION OF SIMULIID & CULICID BIOCONTROL AGENTS.....	5R01 AI15605-02	64,222
ORGANIZATION TOTAL	1 64,222		
AURORA			
WELLS COLLEGE ZIP CODE 13026			
BYRNE, BRUCE C.....	THE EXCITABLE MEMBRANE AND BEHAVIOR IN PARAMECIUM.....	5R01 GM25298-02	44,519
ORGANIZATION TOTAL	1 44,519		
BINGHAMTON			
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON ZIP CODE 13901			
BACH, ROBERT L.....	MEXICAN, CUBAN, INDOCHINESE IMMIGRANT LABOR EXPERIENCE.....	1R01 HD14281-01	50,294
CHRISTIAN, JOHN J.....	ANALYSIS AND TEST OF A FORMULA FOR POPULATION GROWTH.....	5R01 HD10515-03	50,353
FRANKEL, ARTHUR I.....	REPRODUCTIVE AGING IN THE MALE LABORATORY RAT.....	5R01 AG01155-02	103,845
HASSNER, ALFRED.....	SYNTHESIS AND REACTIONS OF NOVEL HETEROCYCLES.....	5R01 CA19203-06	66,655
JENSEN, ROY A.....	GENE-ENZYME RELATIONSHIPS IN PSEUDOMONAS AERUGINOSA.....	5R01 AM19447-04	69,338
JENSEN, ROY A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07149-07	53,499
KULL, FREDRICK J.....	THYROID ALKALINE RNA/ASE I AND RNA/ASE INHIBITOR.....	5R01 AM23046-02	47,749
LOEW, LESLIE M.....	CHEMISTRY OF DRUG DELIVERY BY LIPID VESICLES.....	5R23 CA23838-03	30,962
LOEW, LESLIE M.....	A CONCERTED SEARCH FOR ELECTROCHROMIC MEMBRANE PROBES.....	5R01 GM25190-03	65,267
PASTORE, RICHARD E.....	AUDITORY ATTENTION II: TEMPORAL & FREQUENCY EFFECTS.....	5R01 NS10995-06	27,832
SCHRIER, EUGENE E.....	THE EFFECTS OF SALTS ON INTERACTIONS IN AQUEOUS MEDIA.....	5R01 GM11762-16	49,354
SHRIFT, ALEX.....	SELENIUM TOXICITY: SELENOCYSTEINE IN PROTEINS.....	2R01 ES00807-07	93,343
STEVENS, EUGENE S.....	CHARACTERIZATION OF BIOPOLYMERS BY VACUUM C DICHROISM.....	5R01 GM24862-03	42,980
SULZMAN, FRANK M.....	LIGHT-DARK ENTRAINMENT OF CIRCADIAN RHYTHMS.....	1R01 GM28265-01	60,233
WU, TSU-MING.....	BOSE-EINSTEIN CONDENSATION IN BIOLOGICAL SYSTEMS.....	5R01 GM24502-03	19,433
ZAMIR, LOLITA O.....	STRUCTURE AND STEREOCHEMISTRY OF PRETYROSINE.....	5R01 GM26880-02	40,090
ORGANIZATION TOTAL	16 871,227		
BROCKPORT			
STATE UNIVERSITY OF NEW YORK--COLLEGE AT BROCKPORT ZIP CODE 14420			
CHAN, STEPHEN W.....	MECHANISMS OF TESTICULAR AGING.....	5R23 AG01037-02	22,297
ORGANIZATION TOTAL	1 22,297		
BUFFALO			
CHILDREN'S HOSPITAL ZIP CODE 14222			
CERNY, FRANK J.....	EXERCISE AND CYSTIC FIBROSIS.....	5R01 AM24066-02	42,117
EGAN, EDMUND A.....	ABNORMAL ALVEOLAR PERMEABILITY AND LUNG DISEASE.....	2R01 HL22552-04	79,348
ELLIS, ELLIOT F.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05493-18	39,969
LACEY, DANIEL J.....	DENDRITIC ALTERATIONS IN EXPERIMENTAL PKU.....	1R01 HD14444-01	21,123
MACGILLIVRAY, MARGARET H.....	HORMONES AND GLUCOSE CONTROL IN JUVENILE DIABETICS.....	5R01 AM17879-05	130,703
MIDDLETON, ELLIOTT, JR.....	MULTIDISCIPLINARY STUDY OF ASTHMA.....	5P50 AI14198-02	88,737
OGRA, PEARAY L.....	ETIOLOGIC ASPECTS OF SUDDEN INFANT DEATH SYNDROME.....	5R01 HD10088-05	96,194
OGRA, PEARAY L.....	ETIOLOGY OF OBSTRUCTIVE AIRWAY DISEASE IN CHILDREN.....	5R01 HL21829-02	162,447
PARK, BYUNG H.....	IMMUNOLOGIC AGING IN DOWN'S SYNDROME.....	1R01 AG02417-01	61,937
PARK, BYUNG H.....	PERIODONTITIS AND HOST DEFENSE IN JUVENILE DIABETES.....	1R01 DE05505-01	49,458
RATTAZZI, MARIO C.....	ENZYME THERAPY IN GM2 GANGLIOSIDOSIS: AN ANIMAL MODEL.....	5R01 NS13677-03	65,379
VLADUTIU, GEORGIRENE D.....	ENDO- AND EXOCYTOSIS OF LYSOSOMAL ENZYMES IN VITRO.....	5R01 HD11453-02	57,125
ORGANIZATION TOTAL	12 894,537		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
MEDICAL FOUNDATION OF BUFFALO ZIP CODE 14203			
BELLINO, FRANCIS L	REGULATION OF ESTROGEN SYNTHETASE	2R01 HD10921-04	115,367
CODY, VIVIAN	MOLECULAR STRUCTURES OF THYROACTIVE COMPOUNDS	5R01 AM15051-09	66,381
DETITTA, GEORGE T	DIFRACTION STUDIES OF THE BIOTIN VITAMERS	5R01 AM19856-04	81,848
DETITTA, GEORGE T	ULTRASTRUCTURE OF THE ANTIHYPERTENSIVE PROSTAGLANDINS	5R01 HL15378-08	66,179
DORSET, DOUGLAS L	ELECTRON DIFRACTION OF MEMBRANE PHOSPHOLIPIDS	5R01 GM21047-07	120,712
DUAX, WILLIAM L	MOLECULAR STRUCTURE OF STEROIDS	9R01 AM26546-13	112,140
DUAX, WILLIAM L	IONOPHORES, TRANSPORT AND MEMBRANE STRUCTURE	5R01 GM19684-08	116,664
DUAX, WILLIAM L	DISSEMINATION OF MOLECULAR DATA FOR BIOMEDICAL USE	5R01 LM02353-05	90,053
HAUPTMAN, HERBERT A	ADVANCES IN DIFRACTION ANALYSIS OF MACROMOLECULES	5R01 GM26195-02	57,842
HAUPTMAN, HERBERT A	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05716-09	59,218
OSAWA, YOSHIO	MOLECULAR MECHANISM OF IODOTHYRONINE BIOSYNTHESIS	5R01 AM21874-02	67,611
OSAWA, YOSHIO	HUMAN DEVELOPMENT AND ESTROGEN BIOSYNTHESIS	5R01 HD04945-10	186,487
WEEKS, CHARLES M	DIFRACTION ANALYSIS OF FRUCTOSE-1,6-DIPHOSPHATASE	5R01 AM25192-03	72,758
ORGANIZATION TOTAL	13	1,213,260	
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
ALDERFER, JAMES L	STRUCTURE AND FUNCTION OF FLUORINATED NUCLEIC ACIDS	5R01 CA25438-02	20,260
AMBRUS, CLARA M	IMMOBILIZED ENZYMES FOR MANAGEMENT OF PHENYLKETONURIA	5R01 GM22735-05	83,200
BANKERT, RICHARD B	RECEPTOR DYNAMICS AND NORMAL OR TUMOR CELL FUNCTION	5R01 CA22786-03	66,152
BANKERT, RICHARD B	IMMUNOREGULATORY NETWORK PROBED BY CELL HYBRIDIZATION	5R01 CA25253-02	52,918
BAUMANN, HEINZ	EFFECT OF HORMONES ON CELL SURFACE ARCHITECTURE	5R01 CA26122-02	56,745
BECKLEY, SUNMOLU A	CHEMOTHERAPY OF CARCINOMA OF PROSTATE	1R26 CA28794-01	55,551
BEERMAN, TERRY A	MECHANISM OF ACTION OF ANTITUMOR PROTEIN MACROMOMYCIN	5R01 CA24906-02	44,400
BEERMAN, TERRY A	MECHANISM OF ACTION OF DNA-REACTIVE ANTITUMOR DRUGS	1R01 CA28495-01	53,695
BELLO, JAKE	THERMAL PERTURBATION SPECTROSCOPY OF PEPTIDES	5R01 GM24525-02	31,721
BERNACKI, RALPH J	METABOLIC FATE OF MAMMARY CELL SURFACE GLYCOCONJUGATES	5R01 CA19814-05	40,591
BERTRAM, JOHN S	MECHANISMS OF CARCINOGENESIS IN CELL CULTURE	2R01 CA18197-04	53,757
BERTRAM, JOHN S	CELL INTERACTIONS DURING MALIGNANT TRANSFORMATION	2R01 CA21359-04	65,770
BERTRAM, JOHN S	INHIBITION OF IN VITRO TRANSFORMATION BY RETINOIDS	5R01 CA25484-02	68,239
BLOCH, ALEXANDER	DEVELOPMENT OF ANTITUMOR NUCLEOSIDES AND NUCLEOTIDES	5R01 CA12585-10	181,465
BOX, HAROLD C	TRANSFER MECHANISMS IN IRRADIATED BIOLOGICAL SYSTEMS	3R01 CA25027-14S1	33,856
BROSS, IRWIN D	PROGRAM IN BIOMETRICS OF CANCER EPIDEMIOLOGY	5R01 CA27514-02	39,341
CHAPMAN, VERNE M	REGULATION OF X-CHROMOSOME DIFFERENTIATION IN MAMMALS	5R01 GM24125-04	97,758
CHAPMAN, VERNE M	NEW GLUCURONIDASE REGULATORY VARIANTS IN MICE	5R01 GM26770-02	136,470
CHHEDA, GIRISH B	MODIFIED NUCLEOSIDES IN CANCER AND NORMAL URINES	2R01 CA14185-07	64,372
CHU, TSANN M	BIOLOGICAL MARKERS IN TREATMENT OF PROSTATE CANCER	5R26 CA15126-07	58,760
CHU, TSANN M	ANTIGEN MARKERS IN DIAGNOSIS OF PROSTATE CANCER	2R26 CA15437-07	109,473
CHU, TSANN M	TUMOR ANTIGENS IN PANCREATIC CANCER	5R26 CA18410-05	103,763
CHU, TSANN M	ANTIGEN-ANTIBODY COMPLEXES IN BREAST CANCER	5R01 CA25653-02	90,168
CREAVEN, PATRICK J	CLINICAL BIOCHEMICAL PHARMACOLOGY IN CANCER THERAPEUTICS	2P01 CA21071-04	517,275
DAO, THOMAS L	CLINICAL AND EXPERIMENTAL BREAST CANCER RESEARCH	3P01 CA14812-06S1	47,669
DAO, THOMAS L	DIETARY FAT AND MAMMARY CARCINOGENESIS	1R01 CA26597-01A1	118,333
DOUGHERTY, THOMAS J	ACTIVATED DYES AS SPECIFIC CANCER DRUGS	3R01 CA16717-06S1	13,670
DOUGHERTY, THOMAS J	PORPHYRIN SPECIFICITY IN MALIGNANCY	5R01 CA20600-03	43,360
DOUGLASS, HAROLD O, JR	IMMUNODIAGNOSIS OF PANCREATIC CANCER	5R26 CA23646-03	35,341
DOYLE, DARRELL J	PROTEINS OF THE HEPATOMA CELL PLASMA MEMBRANE	5R01 CA17149-06	91,130
DOYLE, DARRELL J	MEMBRANE BIOGENESIS IN NORMAL AND MALIGNANT CELLS	5R01 GM24147-03	87,181
ELLIOTT, ROSEMARY W	MAPPING MOUSE GENES USING 2-D ELECTROPHORESIS	5R01 GM24265-03	53,633
EVANS, MARY J	DNA POLYMERASE(S) OF THE REPLICATION SV40 CHROMOSOMES	5R01 CA22655-03	49,347
FJELDE, AUDREY L	DETECTING PAUL-BUNNELL ANTIGEN IN LYMPHOMA AND LEUKEMIA	1R01 CA26945-01	35,555
FREEMAN, ARNOLD I	PHARMACOKINETIC & ANTIVIRAL EFFECT OF DS-POLYNUCLEOTIDES	5R01 CA18533-05	78,052
FREEMAN, ARNOLD I	TREATMENT OF CHILDHOOD CANCER	1R10 CA28383-01	42,472
FUJI, HIROSHI	H-2 LINKED RESISTANCE TO TUMOR: EFFECTORS AND TARGETS	1R01 CA26942-01	56,240
GESSNER, TERESA	CONJUGATIONS AND CARCINOGEN METABOLISM	5R01 CA24127-03	75,662
GOLDROSEN, MARTIN H	MURINE COLON ADENOCARCINOMA: IMMUNOBIOLOGY	3R26 CA22931-03S1	7,226
GRINDEY, GERALD B	RATIONAL APPROACHES TO COMBINATION CHEMOTHERAPY	5R01 CA17156-06	90,506
GRINDEY, GERALD B	THYMUS DNA POLYMERASE-ASSOCIATED REGULATORY PROTEIN	1R01 GM28283-01	69,910
GROSS, KENNETH W	GENES ENCODING DEVELOPMENTAL HISTONE VARIANTS	5R01 GM25647-03	60,364
GURTDO, HIRA L	CYCLOPHOSPHAMIDE METABOLISM: ROLE IN CHEMOTHERAPY	5R01 CA23634-02	91,752

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GURTOO, HIRA L.	GENETICS OF AFLATOXIN METABOLISM—ROLE IN CARCINOGENESIS.	5R01 CA25362-02	37,167
GUTAI, MARY W.	SV40 DNA REPLICATION AND RECOMBINATION IN ANIMAL CELLS.	1R01 CA28250-01	94,430
HARIHARAN, PALGHAT V.	AGE-RELATED STUDIES OF DNA REPAIR CAPACITY IN NEMATODES.	1R01 AG01993-01A1	80,046
HASTIE, NICHOLAS D.	ANDROGEN REGULATED MOUSE GENES.	1R01 AM26841-01	77,833
HASTIE, NICHOLAS D.	EXPRESSION OF ABUNDANT MESSENGER RNAS IN MOUSE LIVER.	5R01 GM24771-03	60,652
HELD, WILLIAM A.	TK-MUTANTS OF HERPES VIRUS AND THEIR SUPPRESSION.	1R01 CA27647-01	58,123
HELD, WILLIAM A.	TRANSLATIONAL REGULATION OF PROTEIN SYNTHESIS.	5R01 GM25023-03	81,365
HELMSTETTER, CHARLES E.	BIOCHEMISTRY AND RADIATION EFFECT DURING THE CELL CYCLE.	5R01 GM26429-15	70,163
HENDERSON, EDWARD S.	CANCER AND LEUKEMIA GROUP B—RPMI/SUNYAB.	5R10 CA02599-26	263,604
HENDERSON, EDWARD S.	CANCER CLINICAL RESEARCH CENTER.	5P01 CA05834-19	527,929
HONG, CHUNG I.	CORTICOSTEROID CONJUGATES OF NUCLEOSIDE ANTITUMOR AGENTS.	1R01 CA26168-01A1	20,165
HOROSZEWICZ, JULIUS S.	A NEW MODEL FOR STUDIES ON HUMAN PROSTATIC CARCINOMA.	1R26 CA27472-01A1	114,197
HOWELL, JOHN H.	CHARACTERIZATION OF LAI-DEFINED PANCREAS TUMOR ANTIGENS.	5R26 CA26540-02	55,242
HUANG, CHESTER C.	DIFFUSION CHAMBER CULTURES FOR CARCINOGENIC ASSAYS.	5R01 ES01290-04	47,087
HUBERMAN, JOEL A.	SOLUBLE PROTEINS OF MAMMALIAN DNA REPLICATION.	1R01 GM28098-01	124,257
HUI, SEK-WEN.	EFFECTS OF BILAYER DEFECTS ON MEMBRANE ACTIVITY.	1R01 GM28120-01	74,607
IP, CLEMENT C.	SELENIUM SUPPLEMENT AND DIETARY FAT IN BREAST CANCER.	1R01 GM27706-01	92,165
JOHNSON, RICHARD J.	RADIATION THERAPY ONCOLOGY GROUP.	5R10 CA14058-07	114,605
KARAKOUSIS, CONSTANTINE P.	NEW TECHNIQUES IN REGIONAL CHEMOTHERAPY.	1R01 CA27212-01	62,982
KARTHA, GOPINATH.	CYCIC PEPTIDES, STRUCTURE AND FUNCTION.	5R01 GM22490-05	43,724
KIM, UNTAE.	MECHANISMS OF METASTASIS.	5R01 CA24215-02	55,670
KIRDANI, RASHAD Y.	PROSTATIC ESTROGEN RECEPTORS.	5R26 CA20459-05	51,273
KLEIN, EDMUND.	RELATION OF IMMUNE REACTIONS TO CUTANEOUS NEOPLASIA.	5R01 CA13599-10	128,149
KORYTNYK, WALTER.	CELL SURFACE SUGAR ANALOGS FOR CANCER CHEMOTHERAPY.	5R01 CA08793-14	113,538
KOWALSKI, DAVID.	ROLE OF DNA RELAXING ENZYME IN SV40 DNA REPLICATION.	5R01 CA23996-02	42,777
KRESS, LAWRENCE F.	VENOM PROTEASES: ACTION ON PLASMA PROTEASE INHIBITORS.	5R01 HL22996-02S1	6,188
KRESS, LAWRENCE F.	VENOM PROTEASES: ACTION ON PLASMA PROTEASE INHIBITORS.	5R01 HL22996-03	54,805
LASKOWSKI, MICHAEL, SR.	STUDY OF LIMITED ENZYMIC CLEAVAGES OF NATIVE DNA.	5R01 GM24950-06	48,098
LASKOWSKI, MICHAEL, SR.	INHIBITORS OF PROTEINASES.	5R01 HL15892-07	100,188
LEE, CHING-LI.	IMMUNODIAGNOSIS OF PROSTATIC CANCER.	5R23 CA23990-03	32,481
MANLY, KENNETH F.	MOLECULAR PATHOGENESIS OF VIRUS-INDUCED LEUKEMIA.	5R01 CA21217-03	51,842
MASLOW, DAVID E.	SPECIFICITY OF NORMAL AND CANCER CELL INTERACTIONS.	5R01 CA14370-08	30,543
MATTA, KHUSHI L.	SYNTHETIC GLYCOSIDES FOR CANCER RESEARCH.	5R01 CA24051-03	41,804
MATTA, KHUSHI L.	STUDIES RELATED TO ENDOGLYCOSIDASES.	5R01 GM24392-02	59,939
MAYERS, GEORGE L.	AUTO-REGULATION OF IMMUNE RESPONSE BY ANTI-IDIOTYPE.	5R01 CA24511-03	48,756
MAYHEW, ERIC G.	EFFECTS OF LIPOSOME-ENTRAPPED DRUGS ON SOLID TUMORS.	1R01 CA28494-01	66,993
MIHICH, ENRICO.	EXPERIMENTAL THERAPEUTICS AND CANCER DRUG PROGRAM.	5P01 CA13038-09	1,068,873
MIHICH, ENRICO.	CANCER CHEMOTHERAPY AND IMMUNOLOGIC EFFECTS.	5R01 CA15142-07	134,659
MIHICH, ENRICO.	GRACE CANCER DRUG CENTER CORE SUPPORT GRANT.	5P30 CA24538-02	572,591
MINOWADA, JUN.	STUDY OF HUMAN LYMPHATIC NEOPLASIA.	5R01 CA14413-08	183,820
MIRAND, EDWIN A.	CLINICAL CANCER EDUCATION PROGRAM.	5R25 CA18201-06	272,232
MITTELMAN, ARNOLD.	EASTERN COOPERATIVE ONCOLOGY GROUP.	5R10 CA12296-10	199,310
MURPHY, GERALD P.	NATIONAL PROSTATIC CANCER PROJECT.	5R26 CA14716-08	596,169
MURPHY, GERALD P.	CANCER CENTER CORE SUPPORT.	5P30 CA16056-06	353,170
MURPHY, GERALD P.	BIOMEDICAL RESEARCH SUPPORT.	2S07 RR05648-14	197,787
NIR, SHLOMO S.	MEMBRANE FUSION.	5R01 GM23850-03	26,440
O'MALLEY, JUDITH A.	IMMUNE INTERFERON IN CELLULAR, VIRAL & IMMUNE SYSTEMS.	1R01 CA29990-01	55,636
PAIGEN, BEVERLY J.	GENETICS OF AHH IN RELATION TO CANCER ETIOLOGY.	5R01 CA18542-05	86,090
PAIGEN, BEVERLY J.	GENETIC SUSCEPTIBILITY TO LUNG CANCER.	5R01 CA24270-03	85,299
PAIGEN, KENNETH.	GENETIC STUDY OF MAMMALIAN CONTROL SYSTEMS.	5P01 GM19521-09	732,762
PAIGEN, KENNETH.	MOLECULAR STUDY OF GLUCURONIDASE REGULATORY VARIANTS.	5R01 GM26848-02	125,913
PARTHASARATHY, RENGACHARY.	STRUCTURE AND FUNCTION OF MODIFIED NUCLEOSIDES OF RNA.	2R01 GM24864-06	48,693
PEARSON, ROBERT H.	SINGLE CRYSTAL MOLECULAR STRUCTURES OF LECITHIN.	1R01 GM27274-01	50,529
PIERUCCI, OLGA.	ROLE OF THE BACTERIAL ENVELOPE IN CELL DUPLICATION.	5R01 GM21006-05	36,301
PORTER, CARL W.	ANTICANCER DRUG ACTION ON POLYAMINES AND MITOCHONDRIA.	5R01 CA22153-04	58,111
POSTE, GEORGE H.	MODIFICATION OF TUMOR CELL BEHAVIOR BY LIPOSOMES.	5R01 CA18260-05	93,112
PREISLER, HARVEY D.	DRUG SENSITIVITY OF CYCLING & NONCYCLING LEUKEMIC CELLS.	5R01 CA24162-02	51,040
PREISLER, HARVEY D.	DETERMINANTS OF RESPONSE IN ACUTE MYELOCYTIC LEUKEMIA.	1R10 CA28734-01	511,043
PRESSMAN, DAVID.	IMMUNOLOGICAL STUDIES WITH CULTURED HUMAN LYMPHOCYTES.	5R01 AI08899-12	245,388
PRESSMAN, DAVID.	MEMBRANE ANTIGENS FROM NORMAL AND LEUKEMIC LYMPHOCYTES.	5R01 CA17276-05	75,857
PRIORE, ROGER L.	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.	2R10 CA21190-04A1	128,322

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
RAPP, DOROTHY G.....	LEVELS OF METASTASIS INHIBITION IN PRIMARY CANCERS.....	1R01 CA28362-01	71,009
ROHOLT, OLIVER A, JR.....	IMMUNE MECHANISMS INVOLVED IN TUMOR METASTASIS.....	5R01 CA24726-02	63,781
ROSEN, FRED.....	ENDOCRINE TUMORS: STEROID RECEPTORS AND THERAPY.....	5R01 CA22761-03	66,171
RUSTUM, YOUSSEF M.....	CELLULAR SELECTIVITY OF ANTIMETABOLITES.....	5R01 CA18420-05	88,406
SANDBERG, AVERY A.....	CHROMOSOMES OF HUMAN BLADDER TUMORS.....	5R26 CA14555-08	83,126
SANDBERG, AVERY A.....	TEST SYSTEMS FOR DRUGS AGAINST PROSTATIC CANCER.....	2R26 CA15436-07	103,361
SARCIONE, EDWARD J.....	PREGNANCY-ASSOCIATED PROTEIN ANIMAL MODEL SYSTEM.....	5R01 HD13291-02	52,198
SCHWARTZ, HERBERT S.....	MODEL PARAMETERS FOR ANTHRACYCLINE DRUGS.....	5R01 CA24778-02	60,107
SEON, BEN K.....	HUMAN LEUKEMIA AND LYMPHOMA ASSOCIATED ANTIGENS.....	5R01 CA19304-05	45,979
SHOWS, THOMAS B.....	HUMAN GENE LINKAGE RELATIONSHIPS IN CELL HYBRIDS.....	5R01 GM20454-08	155,266
SHOWS, THOMAS B.....	AN APPROACH TO HUMAN DEVELOPMENT WITH CELL HYBRIDS.....	5R01 HD05196-10	104,686
VAAGE, JAN.....	IMMUNOTHERAPY OF MAMMARY TUMORS.....	7R01 CA29660-01	64,802
WAJSMAN, ZEW.....	EVALUATION AND TREATMENT OF PATIENTS WITH BLADDER CANCER.....	2R26 CA15937-07	53,363
WENNER, CHARLES E.....	THE EFFECT OF COCARCINOGENS ON CELLULAR MEMBRANES.....	5R01 CA13784-08	69,590
ZUCALI, JAMES R.....	REGULATION OF ERYTHROPOIETIN BIOGENESIS.....	5R01 AM18650-05	54,061
ORGANIZATION TOTAL	119 13,431,543		
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
ALMON, RICHARD R.....	CELLULAR INTEGRATION OF MULTIPLE RECEPTOR INFLUENCES.....	5R01 NS12865-03	54,303
ANBAR, MICHAEL.....	POLYMERIC POLYPHOSPHONATES ON DENTAL CARIES AND PLAQUE.....	5R01 DE05327-02	136,742
ANDERSON, WAYNE K.....	VINYLOGOUS CARBINOLAMINE TUMOR INHIBITORS.....	2R01 CA22935-04	57,315
ANDRES, GIUSEPPE A.....	IMMUNOPATHOLOGY OF NEPHRITIS.....	2R01 AI10334-10	185,320
ARBESMAN, CARL E.....	CLINICAL AND IMMUNOLOGIC EFFECTS OF LOCAL IMMUNOTHERAPY.....	5R01 AI01303-23	53,804
BACK, NATHAN.....	VASOACTIVE MEDIATORS IN TUMOR TISSUE.....	5R01 HL11492-11	47,485
BAHL, OM P.....	HUMAN CHORIONIC AND OTHER GONADOTROPINS.....	5R01 HD08766-14	133,327
BAHL, OM P.....	BIOSYNTHESIS OF OVINE LUTEINIZING HORMONE.....	5R01 HD12581-02	46,844
BAIZER, JOAN S.....	ORGANIZATION OF VISUAL FUNCTION IN PRESTRIATE CORTEX.....	5R01 EY02230-03	62,347
BARDOS, THOMAS J.....	CHEMICAL AND BIOLOGICAL STUDIES IN CANCER CHEMOTHERAPY.....	5R01 CA06695-18	90,300
BENDER, DAVID B.....	VISUAL FUNCTIONS OF THE MONKEY PULVINAR.....	5R01 EY02254-02	55,548
BORDER, JOHN R.....	SEQUENCE OF ORGAN FAILURES FOLLOWING TRAUMA.....	5P01 GM15768-12	331,917
BROWN, MURRAY.....	BARGAINING ANALYSIS OF AGGREGATE HOUSEHOLD BEHAVIOR.....	2R01 HD13312-02	84,352
BROWNIE, ALEXANDER C.....	CONTROL OF STEROIDOGENESIS IN ADRENAL CORTICAL TISSUE.....	5R01 AM18141-06	115,978
BROWNIE, ALEXANDER C.....	PATHOGENESIS AND PREVENTION OF HYPERTENSION.....	5R01 HL06975-20	176,887
BRUCKENSTEIN, STANLEY.....	SEPARATION OF AMINO ACIDS USING LIQUID CHROMATOGRAPHY.....	5R01 GM20846-06	26,446
BRUENN, JEREMY A.....	SEQUENCING OF YEAST KILLER-FACTOR RNAS.....	2R01 GM22200-06	81,179
CADENHEAD, DAVID A.....	MOLECULAR PACKING IN STEROID/LECITHIN MONOLAYERS.....	5R01 HL24535-02	56,088
CHEN, PRISCILLA B.....	CELLULAR IMMUNE RESPONSES TO ORAL BACTERIAL ANTIGENS.....	5R23 DE04953-03	33,816
COHEN, STEFAN.....	CANCER CHEMOTHERAPY AND MURINE NATURAL KILLER CELLS.....	1R01 CA28835-01	53,443
CORAH, NORMAN L.....	CONTROL OF STRESS DURING DENTAL PROCEDURES.....	5R01 DE04494-04	40,455
COTTER, JOHN R.....	EFFERENT PROJECTIONS FROM ACCESSORY OPTIC NUCLEI.....	5R23 EY02368-03	7,486
CUDKOWICZ, GUSTAVO.....	FACTORS CONTROLLING GRAFT-HOST INTERACTIONS.....	5R01 AM13969-12	151,143
CUDKOWICZ, GUSTAVO.....	CONTROLS OF PROLIFERATION SPECIFIC FOR LEUKEMIAS.....	5R01 CA12844-08	94,858
DAVIS, PAUL J.....	IN VITRO ACTION OF THYROID HORMONE ON SODIUM PUMP.....	5R01 AM26113-02	37,751
DOW, BRUCE M.....	FOVEAL VISION IN THE ALERT RHESUS MONKEY.....	5R01 EY02349-03	75,966
DZIAK, ROSE M.....	BONE CELL CALCIUM REGULATION.....	2R01 AM25271-04A1	32,415
EDWARDS, JOHN A.....	INHERITED ABNORMALITIES OF FE, CU AND GLOBIN METABOLISM.....	5R01 AM19424-05	59,030
ELLIOTT, WILLARD B.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07066-15	87,531
ETTINGER, MURRAY J.....	THE MOLECULAR BASIS OF ANTIURETIC HORMONE ACTION.....	5R01 AM17911-06	58,578
ETTINGER, MURRAY J.....	CELLULAR DYNAMICS OF COPPER METABOLISM.....	2R01 AM19708-04	84,977
EVANS, RICHARD T.....	SALIVARY ANTIBODIES TO S. MUTANS: INDUCTION AND EFFECTS.....	5R01 DE04061-06	166,707
FABER, DONALD S.....	VERTEBRATE NEURONAL INTERACTIONS AND ELECTROGENESIS.....	5R01 NS15335-02	82,177
FARHI, LEON E.....	CONVECTIVE GAS TRANSPORT AND O2 AND CO2 EXCHANGE.....	5P01 HL23190-02	369,757
FERGUSON, KAREN A.....	EFFECT OF STEROL ON MEMBRANE-BOUND ENZYMES.....	5R01 GM26600-02	68,721
FORTNER, CHARLES R.....	MOTOR PATTERNS IN CROSS REGENERATED NERVES.....	5R01 NS14204-03	29,148
FUNG, HO-LEUNG.....	LEAD PHARMACOKINETICS AND TOXICITY.....	5R01 ES01317-03	64,211
FUNG, HO-LEUNG.....	ORAL AND LUNG ABSORPTION OF NITROGLYCERIN.....	5R01 HL22273-03	50,734
GALE, ELLIOT N.....	TREATMENT OF TEMPOROMANDIBULAR JOINT PAIN.....	5R01 DE04358-05	44,769
GALLANT, SAMUEL.....	VASCULAR RECEPTORS FOR MINERALOCORTICOIDS.....	1R01 HL25256-01	62,353
GARRICK, MICHAEL D.....	HEMOGLOBIN: BIOSYNTHESIS AND GENETICS.....	5R01 AM14923-09	70,481
GARRICK, MICHAEL D.....	HEMOGLOBIN SYNTHESIS IN VIVO.....	1R01 HL24908-01A1	59,596
GENCO, ROBERT J.....	PERIODONTAL DISEASE RESEARCH CENTER.....	5P50 DE04898-04	552,245

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GESSNER, PIOTR K.....	DISPOSITION AND METABOLISM OF PARALDEHYDE IN INFANTS.....	5R01 HD12323-03	20,916
GRAHAM, SAXON.....	SOCIAL EPIDEMIOLOGY AND CONTROL OF CANCER.....	2P01 CA11535-11	985,419
GREEN, FLOYD A.....	ERYTHROCYTE MEMBRANE SULFHYDRYLS AND RH ACTIVITY.....	5R01 HL24009-14	90,401
GREENE, GEORGE W. JR.....	CLINICAL CANCER EDUCATION PROGRAM-DENTAL.....	5R25 CA19504-03	27,359
HARFORD, A GAYLER.....	NATURAL CORRECTION OF GENE DEFICIENCIES.....	5R01 GM21487-06	78,487
HERMAN, GABOR T.....	COMPUTER TECHNOLOGY FOR TRANSAXIAL TOMOGRAPHY.....	5R01 HL18968-05	191,731
HO, JOHN T.....	PHOSPHOLIPID PHASE TRANSITIONS AND MEMBRANE FUSION.....	2R01 GM24590-03	58,705
HONG, SUK K.....	MECHANISM OF TUBULAR SECRETION OF ORGANIC ANIONS.....	5R01 AM18918-05	53,507
HUDECKI, MICHAEL S.....	DRUG THERAPY IN THE GENETICALLY DYSTROPHIC.....	1R01 NS16219-01	73,360
ISSEROFF, HADAR.....	PROLINE IN FASCIOLIASIS.....	2R01 AI09911-07	65,078
JACOBS, DIANE M.....	LYMPHOCYTE RECEPTORS FOR BACTERIAL LIPOPOLYSACCHARIDE.....	1R01 AI16915-01	88,543
JAIN, PIYARE L.....	FRAGMENTATION OF HEAVY IONS FOR BIOMEDICAL RESEARCH.....	1R01 CA24878-01A1	112,777
JUNG, CHAN Y.....	IDENTIFICATION AND ISOLATION OF SUGAR TRANSPORT CARRIER.....	5R01 AM13376-12	45,311
JUSKO, WILLIAM J.....	AGE AND DISEASE IN DRUG DISPOSITION.....	2R01 GM24211-04	92,352
KATZ, LEONARD A.....	CANCER CLINICAL EDUCATION PROGRAM.....	5R25 CA17978-04	151,353
KITE, JOSEPH H. JR.....	ENDOCRINE AND AUTOIMMUNE DISORDERS IN THYROIDITIS.....	5R01 AM19042-02	80,424
KLOCKE, FRANCIS J.....	PATHOPHYSIOLOGY OF CARDIOPULMONARY DYSFUNCTION.....	5P01 HL15194-09	507,388
KOENIG, EDWARD.....	PROTEIN SYNTHESIZING MACHINERY IN THE AXON.....	5R01 NS04656-16	41,077
KOSTYNIAK, PAUL J.....	ENZYMATIC DEFLUORINATION—TOXICOLOGICAL IMPLICATIONS.....	5R23 ES02001-02	40,747
LA FOUNTAIN, JAMES R. JR.....	THE KINETOCHORE: A MOLECULAR CYTOCHEMICAL APPROACH.....	1R01 GM27288-01	59,638
LANSBURY, PETER T.....	TOTAL SYNTHESIS OF ANTINEOPLASTIC PSEUDOGUAIANOLIDES.....	1R01 CA26711-01	67,996
LEE, GEORGE C.....	SOLID AND STRUCTURAL MECHANICS OF LUNGS.....	2R01 HL14495-06	59,887
LEVINE, MICHAEL J.....	STREPTOCOCCUS SANGUIS RECEPTORS—SALIVARY GLYCOPROTEINS.....	5R01 DE04518-05	104,170
LEVINE, MICHAEL J.....	HUMAN SALIVARY ANTIGENS: CHARACTERIZATION.....	5R01 DE04971-02	98,978
LEVY, GERHARD.....	PHARMACOKINETICS OF SALICYLATES IN CHILDREN & RATS.....	5R01 GM19568-13	80,164
LEVY, GERHARD.....	CLINICAL PHARMACOKINETICS AND BIOPHARMACEUTICS.....	5P50 GM20852-07	424,746
LEWITT, ROBERT M.....	IMAGE RECONSTRUCTION FROM INCOMPLETE PROJECTIONS.....	5R23 CA23818-03	34,754
LINZER, ROSEMARY.....	CHARACTERIZATION OF SURFACE ANTIGENS OF S MUTANS.....	5R01 DE05017-02	42,834
MC CALL, WILLARD D. JR.....	DENTAL SIGNIFICANCE OF JAW MUSCLE SILENT PERIODS.....	5R01 DE04889-03	35,807
MERRICK, JOSEPH M.....	ISOLATION AND CHARACTERIZATION OF HETEROPHILE ANTIGENS.....	5R01 CA25852-02	54,899
MILGROM, FELIX.....	HUMORAL ANTIBODIES ACCOMPANYING HOMOGRAFTS.....	5R01 AM17317-16	165,454
MILGROM, FELIX.....	TUMOR-SPECIFIC AND TUMOR-ASSOCIATED ANTIGENS.....	1R01 CA27628-01	95,421
MILLER, WILLIAM A.....	DIFFERENTIATION OF ODONTOBLASTS IN PULPAL HEALING.....	5R01 DE04048-05	73,301
MOHN, JAMES F.....	BLOOD GROUP ANTIGENS AND ANTIBODIES.....	5R01 HL05351-20	59,854
MORGAN, EDWARD A.....	NEW APPROACHES TO ASPECTS OF TRNA AND RRNA IN E COLI.....	1R01 GM27664-01	76,129
MURRAY, DANIEL H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05454-18	55,808
NANCOLLAS, GEORGE H.....	THE KINETICS OF FORMATION OF RENAL STONES.....	5R01 AM19048-05	66,582
NANCOLLAS, GEORGE H.....	THE KINETICS OF MINERALIZATION OF TEETH.....	5R01 DE03223-10	71,153
NATIELLA, JOSEPH R.....	A STUDY OF SUBPERIOSTEAL ORAL IMPLANTS.....	5R01 DE04226-05	130,349
NAUGHTON, JOHN P.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05400-19	188,676
NILES, EDWARD G.....	SPECIFIC SYNTHESIS AND PROCESSING OF RRNA IN VITRO.....	5R01 GM23259-05	56,218
NISENGARD, RUSSELL J.....	IMMUNOPATHOLOGY OF GINGIVITIS AND PERIODONTITIS.....	5R01 DE03408-08	51,341
NOBLE, BERNICE K.....	IMMUNOLOGICAL INJURY TO TUBULES IN HEYMANN NEPHRITIS.....	1R01 AM26394-01	74,027
NOBLE, ROBERT W.....	REACTION OF HEMOGLOBIN WITH LIGANDS AND ANTIBODIES.....	5R01 HL12524-12	52,245
NOBLE, ROBERT W.....	CHARACTERIZATION OF PHOSPHOLIPASES FROM VENOM.....	5R01 NS14788-03	46,429
NOELL, WERNER K.....	RETINAL FUNCTION IN ADVANCED HEREDITARY DEGENERATION.....	5R01 EY02670-02	81,401
NOLAN, JAMES P.....	GUT-DERIVED ENDOTOXIN IN HEPATIC AND RENAL INJURY.....	5R01 AM25130-02	74,875
OHKI, SHINPEI.....	CELL FUSION IN MODEL AND BIOLOGICAL MEMBRANE SYSTEMS.....	5R01 GM24840-03	41,356
PHIPPS, GRANT T.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05330-19	77,194
PRASAD, PARAS N.....	REACTION DYNAMICS OF SOLIDS OF BIOLOGICAL INTEREST.....	1R01 GM27357-01	38,157
REEVES, ROBERT B.....	OXYGEN & CARBON MONOXIDE EQUILIBRIA WITH FETAL BLOOD.....	1R01 HD13999-01	69,656
REICHLIN, MORRIS.....	IMMUNE RESPONSE TO THYMIC ANTIGENS IN POLYMYOSITIS.....	5R01 AM21747-03	53,443
REICHLIN, MORRIS.....	IMMUNE RESPONSES TO NONDNA CONTAINING ANTIGENS IN SLE.....	1R01 AM21750-01A1	46,781
REISMAN, ROBERT E.....	CLINICAL AND IMMUNOLOGICAL STUDIES OF INSECT ALLERGY.....	5R01 AI14501-03	53,847
REKOSH, DAVID M.....	ADENOVIRUS EARLY GENE FUNCTION AND DNA REPLICATION.....	5R01 CA25674-02	66,284
RENNICK, BARBARA R.....	HOMEOSTATIC REGULATION OF PLASMA CHOLINE.....	3R01 HL14092-08S1	15,660
RENNICK, BARBARA R.....	HOMEOSTATIC REGULATION OF PLASMA CHOLINE.....	5R01 HL14092-09	92,063
RENNIE, DONALD W.....	ENVIRONMENT EFFECT—CARDIOPULMONARY & CELLULAR FUNCTION.....	5P01 HL14414-09	474,230
RITCHIE, CALVIN D.....	NUCLEOPHILIC REACTIVITY.....	5R01 GM12832-13	35,342
ROTH, JEROME A.....	BIOGENIC AMINE DISPOSITION IN IRON-DEFICIENT CHILDREN.....	5R01 HD12044-03	54,287
ROTH, JEROME A.....	VASOACTIVE AMINE DISPOSITION IN CULTURED ENDOTHELIUM.....	5R01 HL22077-03	49,355

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ROTHSTEIN, MORTON.....	AGE-RELATED ALTERATION OF ENZYMES.....	5R01 AG00618-04	108,901
ROTHSTEIN, MORTON.....	PROTEOLYTIC ENZYMES IN TUBATRIAC ACETI.....	5R01 AG01489-02	43,036
SACHS, FREDERICK.....	VOLTAGE CLAMP OF ISOLATED CARDIAC PURKINJE CELLS.....	3R01 HL21294-03S1	9,159
SACHS, FREDERICK.....	IONIC CHANNELS IN TISSUE CULTURED CELLS.....	2R01 NS13194-04	89,395
SCHENK, WORTHINGTON G, JR.....	HEMODYNAMICS AS APPLIED TO SURGICAL PROBLEMS.....	5R01 AM26186-23	71,094
SEGAL, HAROLD L.....	MECHANISMS OF PROTEIN UPTAKE AND DEGRADATION.....	1R01 AM25817-01A1	88,373
SHEN, DANNY D.....	METABOLISM OF PROPRANOLOL IN UREMIC RAT LIVER.....	1R01 HL25797-01	43,431
SIEGEL, JOHN H.....	THE ROLE OF OCCULT MYOCARDIAL FAILURE IN HUMAN SHOCK.....	5R01 HL15676-08	124,434
SIEGEL, JOHN H.....	EVALUATE NONINVASIVE ACUTE RESPIRATORY THERAPY—SEPSIS.....	1R01 HL25659-01	339,349
SLAUNWHITE, W ROY, JR.....	THE STRUCTURE OF HUMAN TRANSCORTIN.....	5R01 GM21045-07	66,653
SNYDER, GRAYSON H.....	STRATEGIES FOR DIRECTING DISULFIDE PAIRING IN PROTEINS.....	5R01 GM26715-02	32,384
SPAULDING, STEPHEN W.....	TSH-DEPENDENT PHOSPHORYLATION OF NUCLEOSOMAL PROTEINS.....	1R01 AM26613-01	64,356
STEVENS, EDWIN D.....	ELECTRON DENSITY MAPPING OF IRON PORPHYRINS.....	5R01 HL23884-02	48,852
STEVENS, VICTOR J.....	PROTEIN GLYCOSYLATION IN DIABETIC LENS AND NERVE.....	7R01 EY03777-01	37,281
TAUB, MARY L.....	HORMONAL REGULATION OF KIDNEY EPITHELIAL CELL GROWTH.....	1R01 CA28111-01	79,241
TEMME, LEONARD A.....	RESIDUAL VISUAL FUNCTION IN RETINITIS PIGMENTOSA.....	1R01 EY03214-01	52,867
TUFARIELLO, JOSEPH J.....	ALKALOID SYNTHESIS.....	5R01 GM25303-03	65,787
UDIN, SUSAN B.....	EFFECT OF VISUAL EXPERIENCE ON CNS CONNECTIVITY.....	1R01 EY03470-01	59,218
VENTER, J CRAIG.....	BETA-RECEPTOR REGULATION & CARDIAC SITES OF DRUG ACTION.....	3R01 HL21329-03S1	4,533
VENUTO, ROCCO C.....	PROSTAGLANDIN E ₂ , RENIN AND UTEROPLACENTAL BLOOD FLOW.....	5R01 HD09875-03	56,562
WANG, JUI H.....	RESPIRATORY CONTROL AND COUPLED PHOSPHORYLATION.....	5R01 GM19990-08	122,038
WANG, TUNG Y.....	MECHANISM OF ANDROGEN ACTION.....	5R01 HD09443-05	97,816
WEISER, MILTON M.....	INTESTINAL CELL MEMBRANES: STRUCTURE AND FUNCTION.....	5R01 AM25754-02	98,760
WEISER, MILTON M.....	CELL SURFACE ALTERATIONS IN MALIGNANCY.....	5R01 CA25074-03	89,423
WEISSTEIN, NAOMI.....	THE ORGANIZATION OF COMPLEX VISUAL PERCEPTION.....	1R01 EY03432-01	55,001
WILLSKY, GAIL R.....	PLASMA MEMBRANE PROTON PUMPS.....	1R23 HL26616-01	41,265
YEAGLE, PHILIP L.....	CHOLESTEROL INTERACTIONS: SERUM AND MEMBRANE PROTEINS.....	5R01 HL23853-02	47,750
YU, C P.....	RESPIRATORY TRACT DEPOSITION OF INHALED AEROSOLS.....	1R01 ES02565-01	48,899
ZALESKI, MAREK B.....	IMMUNE RESPONSE OF MICE TO THE THY-1 ANTIGENS.....	5R01 AI13628-05	43,644
ORGANIZATION TOTAL	133	12,819,758	
COLD SPRING HARBOR			
COLD SPRING HARBOR LABORATORY ZIP CODE 11724			
BLOSE, STEPHEN H.....	BIOLOGY OF CYTOPLASMIC FILAMENTS IN ENDOTHELIAL CELLS.....	5R01 HL23848-02	54,279
BUKHARI, AHMAD I.....	MOVABLE GENETIC ELEMENTS.....	1P01 GM27643-01	469,397
BURRIDGE, KEITH W.....	NONMUSCLE ALPHA-ACTININ & ACTIN-MEMBRANE INTERACTION.....	1R01 GM27781-01	131,039
FERAMISCO, JAMES R.....	INJECTION OF FLUORESCENTLY LABELLED PROTEINS INTO CELLS.....	1R01 GM28277-01	67,400
GARRELS, JAMES I.....	COMPUTERIZED GEL ANALYSIS OF PROTEINS IN DEVELOPMENT.....	5R01 GM26298-02	100,591
GINGERAS, THOMAS R.....	DNA SEQUENCE AND COMPUTER ANALYSIS OF A TUMOR VIRUS.....	1R01 CA27275-01	160,934
HICKS, JAMES B.....	REGULATION AND INTERCONVERSION OF MATING TYPES IN YEAST.....	5R01 GM25624-03	154,025
KLAR, AMAR J.....	MOLECULAR MECHANISMS OF DIFFERENTIATION.....	5R01 GM25678-03	86,566
KURTZ, DAVID T.....	ISOLATION OF DNA SEQUENCES INVOLVED IN HORMONAL CONTROL.....	1R01 AM26968-01	56,606
MATHEWS, MICHAEL B.....	INDUCTION AND REPRESSION BY AMINO ACID ANALOGUES.....	1R01 GM27790-01	85,042
SO, MAGDALENE H.....	BIOCHEMISTRY OF GENES ENCODING E. COLI (ST) TOXINS.....	7R01 AI18007-01	60,674
TOPP, WILLIAM C.....	SV40 EARLY GENE PRODUCTS AND VIRAL ONCOGENESIS.....	5R01 CA24830-02	91,660
TOPP, WILLIAM C.....	ALTERED NUTRITIONAL REQUIREMENTS FOR GROWTH.....	1R01 CA28638-01	75,526
WATSON, JAMES D.....	THE FIFTH HERPES VIRUS WORKSHOP.....	2R13 AI16201-02	21,030
WATSON, JAMES D.....	SUPPORT FOR SYMPOSIA ON QUANTITATIVE BIOLOGY.....	5R13 CA02809-25	35,245
WATSON, JAMES D.....	CANCER RESEARCH CENTER—TUMOR VIRUS SECTION.....	5P01 CA13106-09	3,230,397
WATSON, JAMES D.....	SUPPORT FOR CANCER RESEARCH CENTER COURSES.....	5R13 CA16224-07	113,720
WATSON, JAMES D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05717-10	64,418
ORGANIZATION TOTAL	18	5,058,549	
COOPERSTOWN			
MARY IMOGENE BASSETT HOSPITAL AND CLINICS ZIP CODE 13326			
ASHLEY, CHARLES A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05498-12	16,503
BLUMENSTOCK, DAVID A.....	TRANSPLANTATION OF THE LUNG.....	5R01 HL13987-06	47,480
PETERS, THEODORE, JR.....	FUNCTION AND METABOLISM OF SERUM ALBUMIN.....	5R01 HL02751-23	103,662

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
REED, ROBERTA G.....	FATTY ACID BINDING SITES OF SERUM ALBUMIN.....	5R01 HL22994-02	43,060
SAUER, LEONARD A.....	CONTROL MECHANISMS IN ADRENAL STEROIDOGENESIS.....	5R01 AM18600-03	45,167
SAUER, LEONARD A.....	PATHWAYS OF ENERGY METABOLISM IN MALIGNANCY IN VIVO.....	1R01 CA27809-01	55,654
ORGANIZATION TOTAL	6 311,526		
EAST MEADOW			
NASSAU COUNTY MEDICAL CENTER ZIP CODE 11554			
PINKUS, LAWRENCE M.....	GLUTAMINE AND INTESTINAL EPITHELIUM.....	5R01 AM22021-03	53,928
PRAISSMAN, MELVIN.....	125IIE-OP-CKK AND SECRETIN BINDING TO ACINAR CELLS.....	5R01 AM26135-02	57,507
ORGANIZATION TOTAL	2 111,435		
GARDEN CITY			
ADELPHI UNIVERSITY ZIP CODE 11530			
BETTELHEIM, FREDERICK A.....	LIGHT SCATTERING PARAMETERS OF CATARACTOUS LENSES.....	5R01 EY02571-03	52,431
BETTELHEIM, FREDERICK A.....	THE INTERACTION OF PHOSPHOPEPTIDES WITH LENS PROTEINS.....	1R01 EY03407-01	46,377
DAVIS, DONALD G.....	THE CONFORMATION AND FUNCTION OF CYCLIC PEPTIDES.....	2R01 GM24267-04	41,658
GORFEIN, DAVID S.....	AGING AND THE ENCODING AND RETRIEVAL OF MEMORIES.....	5R01 AG01645-02	57,664
ORGANIZATION TOTAL	4 198,130		
GREENVALE			
LONG ISLAND UNIVERSITY C. W. POST CENTER ZIP CODE 11548			
CARITO, SEBASTIAN.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08161-03	129,453
MATIN, ETHEL.....	PSYCHOPHYSICAL STUDIES OF SENSITIVITY TO ORIENTATION.....	5R01 EY02951-02	17,393
REISSIG, JOSE L.....	CALCIUM FLUXES AND FUNGAL MORPHOGENESIS.....	5R01 AI15405-02	77,425
ORGANIZATION TOTAL	3 224,271		
HASTINGS-ON-HUDSON			
INSTITUTE OF SOCIETY, ETHICS AND THE LIFE SCIENCES ZIP CODE 10706			
CALLAHAN, DANIEL.....	HUMAN EXPERIMENTATION COMMITTEE NEWSLETTER.....	5R01 LM03130-03	11,927
ORGANIZATION TOTAL	1 11,927		
ITHACA			
CORNELL UNIVERSITY ITHACA ZIP CODE 14853			
ALBRECHT, ANDREAS C.....	NEAR ULTRAVIOLET RAMAN STUDIES OF CYTOCHROME P450.....	5R01 AM20379-04	63,373
ALBRECHT, ANDREAS C.....	BASIC PHOTOELECTRIC STUDIES IN ORGANIC SOLID STATE.....	5R01 GM10865-21	111,700
APPEL, MAX J.....	FACTORS INFLUENCING VIRAL PERSISTENCE.....	5R01 NS14342-02	70,239
ARION, WILLIAM J.....	GLUCOSE 6-PHOSPHATASE AND HEPATIC GLUCOSE PRODUCTION.....	5R01 AM19625-04	75,037
AVERY, ROGER C.....	DIFFERENTIAL FERTILITY & MORTALITY.....	5R01 HD11348-03	61,619
BARKER, ROBERT.....	MEMBRANE OLIGOSACCHARIDES AND MONOSACCHARIDE METABOLISM.....	1R01 GM27632-01	69,396
BENSADOUN, ANDRE.....	LIPID TRANSPORT IN AVIAN SPECIES.....	2R01 HL14990-09	132,780
BENSADOUN, ANDRE.....	RADIOIMMUNOASSAY FOR HUMAN LIPOPROTEIN LIPASE.....	1R01 HL24873-01	82,035
BERGMAN, EMMETT N.....	CARBOHYDRATE AND KETONE BODY METABOLISM.....	5R01 AM05976-20	173,366
BEYENBACH, KLAUS W.....	SODIUM TRANSPORT IN ISOLATED PERFUSED DISTAL TUBULES.....	1R01 AM26633-01A1	69,310
BRONFENBRENNER, URIE.....	COMPARATIVE ECOLOGY OF HUMAN DEVELOPMENT.....	1R01 HD13493-01	213,513
BRUNS, PETER J.....	THE GENETIC ORGANIZATION OF TETRAHYMENA.....	1R01 GM27871-01	123,660
CALNEK, BRUCE W.....	AVIAN LEUKOSIS COMPLEX.....	2R01 CA06709-19	343,640
CALVO, JOSEPH M.....	REGULATION OF LEUCINE BIOSYNTHESIS IN BACTERIA.....	5R01 AI14340-03	45,596
CAMHI, JEFFREY M.....	BEHAVIORAL NEUROPHYSIOLOGY.....	2R01 NS09083-10	79,731
CAMPBELL, T. COLIN.....	EFFECT OF NUTRITION ON CARCINOGEN AND TOXIN METABOLISM.....	3R01 CA20079-03S2	5,353
CAMPBELL, T. COLIN.....	EFFECT OF PERINATAL IMPRINTING ON ADULT CARCINOGENESIS.....	5R01 CA23913-03	25,143
CAMPBELL, T. COLIN.....	NUTRITION AND CANCER.....	1P01 CA26755-01	528,245
CAMPENOT, ROBERT B.....	CONTROL OF AXON DEVELOPMENT BY NERVE GROWTH FACTOR.....	5R01 NS15559-02	44,216
CAPRANICA, ROBERT R.....	ENCODING OF VOCAL SIGNALS IN THE AUDITORY SYSTEM.....	5R01 NS09244-10	103,916
CARMICHAEL, LELAND E.....	ANIMAL BRUCELLOSIS: DIAGNOSTIC CONTROL METHODS.....	5R24 RR01140-03	66,597

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
CARPENTER, BARRY K.	TEST OF A NEW THEORY ON STRUCTURE AND REACTIVITY	1R01 GM27022-01	82,395
CLARDY, JON C.	STRUCTURAL STUDIES OF BIOACTIVE NATURAL PRODUCTS	5R01 CA24487-02	80,625
CLARDY, JON C.	SYNTHESIS OF SESBANINE, A CYTOTOXIC ALKALOID	5R01 CA25559-02	48,672
COMBS, GERALD F, JR	ROLE OF SELENIUM IN PANCREATIC FUNCTION	5R01 AM21653-02	77,999
COMBS, GERALD F, JR	RELATIONSHIP OF XENOBIOTICS, SELENIUM AND VITAMIN E	5R01 ES01354-03	54,250
COOKE, W DONALD	BIOMEDICAL RESEARCH SUPPORT	2507 RR07061-15	189,787
COOPER, BARRY J.	PATHOGENESIS OF PARVOVIRUS INFECTION	1R24 RR01236-01	53,223
CORRADINO, ROBERT A.	SYNTHESIS AND FUNCTION OF CALCIUM-BINDING PROTEIN	2R01 AM15355-10	101,082
CURRIE, W BRUCE	RECEPTORS AND CALCIUM BINDING IN MYOMETRIAL MEMBRANES	5R01 HD13458-02	43,620
DILLS, WILLIAM L, JR	FRUCTOKINASE INHIBITORS ON FRUCTOSE UTILIZATION	5R01 AM20882-03	41,230
DROST, CORNELIS J	ACCURATE TRANSCUTANEOUS DOPPLER BLOODFLOW MONITORING	5R01 HL19019-05	108,706
EDELSTEIN, STUART J.	STRUCTURE AND ASSEMBLY OF TUBULIN	5R01 GM24800-03	62,390
EDELSTEIN, STUART J.	STRUCTURE OF FIBERS OF SICKLE CELL HEMOGLOBIN	5R01 HL13591-08	52,228
EISNER, THOMAS	SECRETIONS OF ARTHROPODS	5R01 AI02908-22	101,273
FABRICANT, CATHERINE G.	PATHOGENESIS OF VIRAL INDUCED ATHEROSCLEROSIS	5R01 HL19381-05	100,043
FEIGENSON, GERALD W.	STRUCTURE AND DYNAMICS OF THE GRAMICIDIN CHANNEL	5R01 GM25675-02	25,961
FEIGENSON, GERALD W.	LIPID-PROTEIN INTERACTIONS AND CALCIUM TRANSPORT	5R01 HL18255-06	58,306
FIELDS, GARY S.	DISCRETE DATA ANALYSIS OF THE RETIREMENT DECISION	1R01 AG02213-01	63,777
FINK, GERALD R	CHEMICAL CARCINOGENS AND FRAMESHIFT MUTATION IN YEAST	5R01 CA23441-03	89,775
FINK, GERALD R	REGULATION OF HISTIDINE BIOSYNTHESIS IN YEAST	5R01 GM15408-13	68,259
FOOTE, ROBERT H.	MATURATION, METABOLISM AND AGING OF GAMETES	5R01 HD03471-15	82,724
FORTUNE, JOANNE E.	REGULATION OF OVARIAN FOLLICULAR ESTRADIOL PRODUCTION	1R01 HD14584-01	96,178
FREED, JACK H.	ELECTRON-SPIN RELAXATION IN MODEL MEMBRANES	5R01 GM25862-02	68,145
GANEM, BRUCE	POLYAMINE SYNTHESIS AND ANALYSIS FOR DISEASE STUDIES	1R01 AM26754-01	71,215
GANEM, BRUCE	SYNTHESIS OF TUMOR INHIBITORY DIEPOXIDES	5R01 CA17670-04	56,127
GANEM, BRUCE	SYNTHESIS OF MACROCYCLIC ANTITUMOR AGENTS	5R01 CA19686-05	61,750
GANEM, BRUCE	SYNTHESIS AND BIOSYNTHESIS IN THE SHIKIMATE PATHWAY	5R01 GM24054-03	77,891
GIBSON, QUENTIN H.	KINETICS OF ENZYMES AND HEMOGLOBIN-LIGAND REACTIONS	5R01 GM14276-16	135,544
GRIEVE, ROBERT B.	SERODIAGNOSIS OF FILARIAL NEMATODE INFECTIONS	1R22 AI16194-01	84,007
HABICHT, JEAN-PIERRE	COMPARISON OF OVERWEIGHT AND OBESITY AS RISK FACTORS	1R01 AM26236-01	15,127
HAGEDORN, HENRY H	MOSQUITO BRAIN HORMONE	2R01 AI14771-03	71,557
HAGEDORN, HENRY H	CLONING AND ANALYSIS OF THE MOSQUITO VITELLOGENIN GENE	1R01 HD14399-01	88,916
HAMMES, GORDON G	KINETICS OF PHYSIOLOGICALLY IMPORTANT REACTIONS	5R01 GM13292-16	173,860
HANSEL, WILLIAM	CORPUS LUTEUM FUNCTION IN THE NONPREGNANT COW	5R01 HD06718-09	123,075
HEETDERKS, WILLIAM J.	MULTIUNIT STUDY OF JOINT RECEPTORS	5R01 NS14462-03	49,883
HEPPEL, LEON A	MECHANISMS OF ACTIVE TRANSPORT AND MEMBRANE ENZYMES	5R01 AM11789-13	79,435
HESS, GEORGE P	RELATIONSHIPS BETWEEN PROTEIN STRUCTURE AND FUNCTION	5R01 GM04842-25	72,553
HESS, GEORGE P	CHEMICAL REACTIONS IN TRANSMISSION OF NERVE IMPULSES	2R01 NS08527-12	107,830
HINKLE, PETER C.	ENERGY CONSERVATION IN HEART MITOCHONDRIA	5R01 HL14483-10	84,579
HOWLAND, HOWARD C	REFRACTIVE STUDIES OF EYES	5R01 EY02994-02	21,517
HOY, RONALD R	NEUROLOGICAL & GENETIC ANALYSIS OF ACOUSTIC BEHAVIOR	2R01 NS11630-08	90,490
JACOBSON, RICHARD H.	IMMUNOLOGY OF INTESTINAL NEMATODE INFECTIONS	5R01 AI15075-03	66,122
JAGENDORF, ANDRE T	MEMBRANE-ASSOCIATED PHOSPHORYLATION	5R01 GM14479-15	92,683
KELLER, ELIZABETH B	THE BIOSYNTHESIS OF RNAS: MECHANISMS AND CONTROLS	5R01 GM10791-18	91,738
LINDMARK, DONALD G.	BIOCHEMICAL CYTOLOGY OF GIARDIA AND ENTAMOEBAS	5R01 AI16644-02	74,925
LIS, JOHN T.	COORDINATE GENE REGULATION IN ANIMAL CELLS	5R01 GM25232-03	54,034
LUST, GEORGE	COLLAGEN METABOLISM IN OSTEOARTHRITIS	5R01 AM20665-02	84,986
MACDONALD, RUSSELL E	COUPLING OF ENERGY TO THE TRANSPORT OF IONS & MOLECULES	1R01 GM27656-01	106,303
MACINTYRE, ROSS J.	NONSENSE MUTANTS AT ALPHA-GLYCEROPHOSPHATE DEHYDROGENASE	5R01 AG01811-02	72,309
MARMOR, MICHAEL	SEQUELAE TO CHILDHOOD LEAD EXPOSURE: A TWIN STUDY	5R01 ES02267-02	62,655
MC GREGOR, DOUGLAS D.	MEDIATOR OF CELLULAR IMMUNITY	2R01 AI14482-04	94,628
MC GREGOR, DOUGLAS D.	IMMUNITY TO PARASITIC INFECTION	5R01 AI14490-03	112,410
MC LAFFERTY, FRED W.	MASS SPECTROMETRY IN BIOMEDICAL RESEARCH	5R01 GM16609-12	119,168
MC MURRY, JOHN E.	SYNTHESIS OF APHIDIOLIN ANALOGUES	1R01 AI17314-01	91,228
MC MURRY, JOHN E.	TOTAL SYNTHESIS OF CARDIAC AGLYCONES	7R01 HL27335-01	67,551
MEINWALD, JERROLD	CHEMISTRY OF ARTHROPOD SECRETIONS	2R01 AI12020-08	142,364
MELBY, EDWARD C, JR	BIOMEDICAL RESEARCH SUPPORT	2507 RR05462-18	93,349
MINOR, RONALD R	HERITABLE DISEASES OF CONNECTIVE TISSUE	5R01 AM20793-02	109,909
MOFFAT, JOHN K.	CALCIUM BINDING PROTEINS: STRUCTURE AND FUNCTION	5R01 AM21453-03	69,649
MOFFAT, JOHN K.	OXYGEN TRANSPORT: HEMOGLOBINS WITH MODIFIED HEMES	5R01 HL18309-06	52,653
MORRISON, GEORGE H.	ION MICROSCOPY IN BIOLOGY AND MEDICINE	2R01 GM24314-04	75,583

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
MORRISON, MARY A.	ROLE OF NUTRITION IN UTILIZATION OF CAPROLACTAM	1R01 ES02469-01	37,979
MORSE, ROGER A.	VESPID VENOM COLLECTION	5R01 AI16011-02	39,682
MORTLOCK, ROBERT P.	THE EVOLUTION OF ENZYMATIC ACTIVITIES	5R01 AI15328-02	47,011
NELSON, MARGARET C.	MECHANISMS OF SOUND COMMUNICATION IN A SIMPLE SYSTEM	5R01 NS16323-02	58,855
NEMETHY, GEORGE	AGING: CONFORMATIONAL CHANGES OF COLLAGEN	5R01 AG00322-05	56,824
NESHEIM, MALDEN C.	COLLEGE OF HUMAN ECOLOGY, DNS ANIMAL FACILITY	1P40 RR01266-01	106,270
NODEN, DREW M.	MECHANISMS OF EAR AND SENSORY GANGLION DEVELOPMENT	1R01 NS16408-01	69,749
PODLESKI, THOMAS R.	SOLUBLE NERVE FACTORS REGULATING MUSCLE MATURATION	5R01 NS14679-03	71,270
QUE, LAWRENCE, JR.	NON-HEME IRON DIOXYGENASES: STRUCTURE AND MECHANISM	5R01 GM25422-03	54,502
RACKER, EFRAIM	ENERGY METABOLISM IN NORMAL AND TUMOR CELLS	5R01 CA08964-14	364,337
RACKER, EFRAIM	MEMBRANES IN NORMAL AND CANCER CELLS	3P01 CA14454-06S2	46,718
RACKER, EFRAIM	THE PLASMA MEMBRANE IN NORMAL AND CANCER CELLS	2P01 CA14454-07A1	425,911
RIVERS, JERRY M.	ASCORBIC ACID: DEVELOPMENT OF AN ANIMAL MODEL	5R01 AM25996-02	50,183
ROBERTS, JEFFREY W.	GENE CONTROL IN INFECTION & LYSOGENY BY PHAGE LAMBDA	5R01 GM21941-06	72,682
SALPETER, MIRIAM M.	HIGH RESOLUTION AUTORADIOGRAPHY	5R01 GM10422-18	126,315
SALPETER, MIRIAM M.	FUNCTIONAL ULTRASTRUCTURE OF THE NERVOUS SYSTEM	2R01 NS09315-11	128,251
SCHERAGA, HAROLD A.	INTERACTIONS IN SYNTHETIC POLYAMINO ACIDS	5R01 AM08465-15	77,862
SCHERAGA, HAROLD A.	INTERNAL BONDING IN PROTEINS	5R01 GM14312-26	99,578
SCHERAGA, HAROLD A.	MOTION AND PROXIMITY RELATIONS IN POLYPEPTIDES	5R01 GM24893-11	67,234
SCHERAGA, HAROLD A.	EQUILIBRIA IN THE FIBRINOGEN-FIBRIN CONVERSION	2R01 HL01662-27	103,819
SCHWARTZ, RUTH	STABLE 26 MG AND 28 MG IN MEASUREMENT OF MG UTILIZATION	5R01 AMJ8569-06	138,674
SCOTT, NORMAN R.	THERMOREGULATION—THE ROLE OF VASOMOTION	5R01 GM19716-06	72,423
SODERLUND, DAVID M.	PHARMACOKINETICS AND MODE OF ACTION OF PYRETHROIDS	5R01 ES02160-02	23,483
SRB, ADRIAN M.	DEVELOPMENTAL GENETIC STUDIES OF NEUROSPORA	2R01 GM19535-31	57,453
STIPANUK, MARTHA H.	CYSTEINE METABOLISM NUTRITION & DEVELOPMENT ASPECTS	1R01 AM26959-01	48,495
TAPPER, DANIEL N.	NEURAL CORRELATES OF CUTANEOUS SENSIBILITY	2R01 NS07505-11A1	89,732
TURNBULL, BRUCE W.	STATISTICAL METHODS FOR ENVIRONMENTAL HEALTH STUDIES	5R23 ES01714-03	52,956
TYE, BIK-KWOON	DNA REPLICATION AND REPAIR IN E. COLI	5R01 AI14980-03	46,387
TYE, BIK-KWOON	THE STRUCTURAL GENE FOR A YEAST PHEROMONE	1R01 GM26941-01A1	82,001
USHER, DAVID A.	TEMPLATE REACTIONS AND CHEMICAL EVOLUTION	5R01 GM26249-02	45,483
VAN TIENHOVEN, ARI	ROLE OF PROGESTERONE IN OVULATION IN THE FOWL	5R01 HD12101-03	67,059
VOGT, VOLKER M.	AVIAN RETROVIRUS STRUCTURE AND ASSEMBLY	2R01 CA20081-04	73,344
WALLACE, BRUCE	DEVELOPMENTAL AND EVOLUTIONARY GENETICS OF DROSOPHILA	5R01 GM24850-03	47,569
WASSERMAN, ROBERT H.	INTESTINAL ABSORPTION OF MINERAL IONS	5R01 AM04652-20	206,232
WASSOM, DONALD L.	IMMUNOGENETICS OF TRICHINELLA SPIRALIS IN THE MOUSE	1R01 AI17079-01	90,040
WEBB, WATT W.	DYNAMICS OF BIOPHYSICAL MEMBRANE PROCESSES	5R01 GM21661-06	116,401
WEBB, WATT W.	DYNAMICAL MICROSCOPY-FLUORIMETRY SYSTEM	5P41 GM27533-02	7,000
WILKINSON, CHRISTOPHER F.	MICROSOMAL ENZYMES IN INSECTS	5R01 ES00400-12	102,386
WILKINSON, CHRISTOPHER F.	MODE OF ACTION OF INSECTICIDE SYNERGISTS	5R01 ES01902-03	42,853
WILSON, DAVID B.	ISOLATION AND CHARACTERIZATION OF THE S GENE PRODUCT	5R01 GM25030-03	40,365
WU, RAY	SYNTHESIS AND CLONING OF HUMAN INSULIN GENE	5R01 AM21801-03	86,016
WU, RAY	SYNTHETIC CONNECTORS AND ADAPTORS FOR CLONING DNA	5R01 GM24904-03	87,169
WU, RAY	FUNCTION OF INTERVENING SEQUENCE IN YEAST TRNA GENE	1R01 GM27365-01	72,269
ZAHLER, STANLEY A.	THE DNA OF SPECIALIZED TRANSDUCING PHASE SPBETA	1R01 GM28038-01	58,191
ZILVERSMIT, DONALD B.	FAT METABOLISM AND EXPERIMENTAL ATHEROSCLEROSIS	5R01 HL10933-15	139,868
ZILVERSMIT, DONALD B.	LIPID TRANSPORT	5R01 HL10940-15	127,487
ORGANIZATION TOTAL	128	11,565,174	
ITHACA COLLEGE ZIP CODE 14850			
PASTERNAK, ROBERT F.	FAST REACTIONS IN SOLUTION	5R01 GM17574-08	36,895
ORGANIZATION TOTAL	1	36,895	
LAKE PLACID			
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER ZIP CODE 12946			
CHAPPLE, PAUL J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05800-03	25,612
CHURCH, ROBERT L.	GENETIC DISSECTION OF OCULAR CONNECTIVE TISSUES	1R01 EY03649-01	168,507
CHURCH, ROBERT L.	GENETICS AND BIOCHEMISTRY OF THE LENS IN CELL CULTURE	7R01 EY03652-01	42,538
CHURCH, ROBERT L.	SOMATIC CELL GENETICS OF CONNECTIVE TISSUE PROTEINS	7R01 HD15039-01	126,497
DOUGALL, DONALD K.	TAXOL (NCS 125,973) PRODUCTION BY CELL CULTURE	1R01 CA27139-01	105,873

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GABRIDGE, MICHAEL G.....	MECHANISM OF PATHOGENESIS IN MYCOPLASMA PNEUMONIA	7R01 AI17795-01	62,885
GABRIDGE, MICHAEL G.....	PATHOBIOLOGY OF CILIATED RESPIRATORY EPITHELIAL CELLS	7R01 HL26880-01	39,962
KINNERSLEY, ALAN M.....	PLANT CELL CULTURES AS SOURCES OF CHEMICALS	3R01 GM25994-01S1	2,534
KINNERSLEY, ALAN M.....	PLANT CELL CULTURES AS SOURCES OF CHEMICALS	5R01 GM25994-02	64,987
MC KEEHAN, WALLACE L.....	ANDROGEN-RESPONSIVE PROSTATE EPITHELIAL CELLS	5R01 CA26110-02	189,415
MC KEEHAN, WALLACE L.....	OXOCARBOXYLIC ACIDS AND NAD PLUS/NADH IN CELL GROWTH	1R01 GM27194-01	91,166
SMITH, JAMES R.....	FUSION OF ANIMAL CELL CLONES—LIFE SPAN OF HYBRID CELLS	5R01 AG01984-02	85,524
ORGANIZATION TOTAL	12	1,005,500	
MANHASSET			
NORTH SHORE UNIVERSITY HOSPITAL ZIP CODE 11030			
WAPNIR, RAUL A.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09128-02	81,750
ORGANIZATION TOTAL	1	81,750	
NEW ROCHELLE			
ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY ZIP CODE 10804			
HENKIND, PAUL.....	YOUNG SCIENTIST SUPPORT FOR VISION STUDIES	2R13 EY02143-04	10,272
ORGANIZATION TOTAL	1	10,272	
NEW YORK			
AMERICAN ASSOCIATION FOR CANCER RESEARCH ZIP CODE 10021			
PHILIPS, FREDERICK S.....	PARTIAL SUBSIDY FOR THE JOURNAL OF CANCER RESEARCH	5R01 CA09247-28	284,454
ORGANIZATION TOTAL	1	284,454	
AMERICAN HEALTH FOUNDATION ZIP CODE 10017			
ARNOLD, CHARLES B.....	CORONARY RISK FACTOR INTERVENTION IN CHILDHOOD	5R01 HL21891-02	322,290
EL-BAYOUMY, KARAM E.....	ENVIRONMENTAL NITROAROMATICS: ACTIVATION AND METABOLISM	1R23 ES02477-01	40,864
HECHT, STEPHEN S.....	METABOLISM OF THE CARCINOGEN NITROSONORNICOTINE	2R01 CA21393-04	89,060
LA VOIE, EDMOND J.....	ENVIRONMENTAL POLYCYCLICS: METABOLISM AND ACTIVATION	5R01 ES02030-02	89,910
TONG, CHARLES C.....	MUTAGENICITY OF ENVIRONMENTAL CHEMICALS TO HUMAN CELLS	5R23 ES01724-03	47,939
WYNDER, ERNST L.....	ENVIRONMENTAL CARCINOGENESIS	5P01 CA12376-09	571,442
WYNDER, ERNST L.....	CANCER CENTER SUPPORT (CORE) GRANT	5P30 CA17613-06	1,650,693
WYNDER, ERNST L.....	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05775-05	88,978
ORGANIZATION TOTAL	8	2,901,176	
BANK STREET COLLEGE OF EDUCATION ZIP CODE 10025			
ROSEN, JACQUELINE L.....	RETIREMENT AND SELF CONCEPT IN WOMEN	5R01 AG01483-02	30,761
ORGANIZATION TOTAL	1	30,761	
BARNARD COLLEGE ZIP CODE 10027			
DE FREITAS, GREGORY E.....	THE EARNINGS AND LABOR FORCE BEHAVIOR OF IMMIGRANTS	1R01 HD15435-01	32,487
GOLLUB, EDITH G.....	HEME REGULATION OF MACROMOLECULAR CELL COMPONENTS	1R01 GM26998-01	72,906
ORGANIZATION TOTAL	2	105,393	
BETH ISRAEL MEDICAL CENTER ZIP CODE 10003			
MOSBACH, ERWIN H.....	ROLE OF INTESTINAL BACTERIA IN STEROID METABOLISM	5R01 HL24061-02	170,645
SWINGER, CASIMIR A.....	REFRACTIVE KERATOPLASTY—AN ANIMAL MODEL	1R01 EY03346-01	90,403
ORGANIZATION TOTAL	2	261,048	
BROOKDALE HOSPITAL MEDICAL CENTER ZIP CODE 11212			
AVRUSKIN, THEODORE W.....	MOTHER-DAUGHTER INTERACTION AND DIABETIC MANAGEMENT	1R01 HD14189-01	43,230
CHOU, SHYAN-YIH.....	MEDULLARY HEMODYNAMICS AND RENAL SODIUM EXCRETION	1R01 HL26281-01	65,096
ORGANIZATION TOTAL	2	108,326	
CAMBRIDGE UNIVERSITY PRESS ZIP CODE 10022			
HARNAD, STEVAN R.....	OPEN PEER COMMENTARY IN THE BIOBEHAVIORAL SCIENCES	1R01 LM03539-01	30,953
ORGANIZATION TOTAL	1	30,953	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
CATHOLIC MEDICAL CENTER OF BROOKLYN AND QUEENS—SCHOOL OF NURSING ZIP CODE 11432			
MARTIN, DANIEL S.....	COMBINATION CHEMOTHERAPY WITH METABOLIC MODULATION.....	1P01 CA25842-01A1	702,078
STOLFI, ROBERT L.....	TUMOR IMMUNOTHERAPY WITH PHARMACOLOGICAL AGENTS.....	1R01 CA28498-01	75,790
ORGANIZATION TOTAL	2 777,868		
CENTER FOR POLICY RESEARCH ZIP CODE 10027			
ETZIONI, AMITAI.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05739-08	37,774
ORGANIZATION TOTAL	1 37,774		
CITY UNIVERSITY OF NEW YORK—BRONX COMMUNITY COLLEGE ZIP CODE 10453			
POLOWCZYK, CARL J.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08174-02	227,109
ORGANIZATION TOTAL	1 227,109		
CITY UNIVERSITY OF NEW YORK—BROOKLYN COLLEGE ZIP CODE 11210			
ABRAMOV, ISRAEL.....	SPECTRAL PROPERTIES OF CELLS IN THE GOLDFISH RETINA.....	5R01 EY01697-05	55,731
COTTRELL, STEPHEN F.....	MOLECULAR AND CELLULAR AGING IN VOLVOX.....	5R21 AG01173-03	92,526
COTTRELL, STEPHEN F.....	MITOCHONDRIAL ASSEMBLY DURING THE YEAST CELL CYCLE.....	5R01 GM25901-02	47,039
FOREST, CHARLENE L.....	FLAGELLAR SEXUAL SIGNALING IN CONDITIONAL MUTANTS.....	1R01 GM27969-01	66,016
HAINLINE, LOUISE D.....	PATTERN PERCEPTION IN EARLY INFANCY.....	5R01 HD08706-06	47,320
HURST, DONALD.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07119-09	37,531
LUKTON, AARON.....	MEASUREMENT OF AMINO ACID MISINCORPORATION DURING AGING.....	5R01 AG00578-02	26,590
MADERSON, PAUL F.....	TISSUE INTERACTIONS IN EAR DEVELOPMENT AND HOMEOSTASIS.....	5R01 NS13924-03	69,352
OSMAN, ELI.....	DETECTION AND RECOGNITION IN AUDITION AND VISION.....	5R01 NS18043-06	57,575
SCHREIBMAN, MARTIN P.....	GENETIC CONTROL OF AGING IN THE BRAIN-ENDOCRINE AXIS.....	1R01 AG01938-01A1	51,250
SCI AFANI, ANTHONY.....	INTESTINAL AND GASTRIC BYPASS IN OBESITY.....	5R01 AM23064-02	76,119
ORGANIZATION TOTAL	11 627,049		
CITY UNIVERSITY OF NEW YORK—CITY COLLEGE OF NEW YORK ZIP CODE 10031			
ALFANO, ROBERT R.....	THE FAST KINETICS OF THE PRIMARY VISUAL PROCESSES.....	5R01 EY02515-03	77,588
BIRKE, RONALD L.....	REDOX CHEMISTRY OF VITAMIN B12 DERIVATIVES.....	5R01 AM18440-05	53,840
CALLENDER, ROBERT H.....	RESONANCE RAMAN STUDY OF RHODOPSIN & RELATED PIGMENTS.....	5R01 EY03142-02	131,224
COSLOY, SHARON D.....	MOLECULAR MECHANISM OF RECOMBINATION OF E COLI K12.....	2R01 GM22562-04	57,847
FISHMAN, MYER M.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08168-02	191,640
GORDON, MILDRED.....	INVERTEBRATE LECTINS ON MAMMALIAN SPERMATOGENESIS.....	1R01 HD13769-01	108,487
HAINES, THOMAS H.....	STRUCTURAL STUDIES ON FLAGELLAR MEMBRANES.....	5R01 GM25882-02	64,894
LEVINE, LOUIS.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07132-09	40,074
SCHULZ, HORST H.....	FATTY ACID METABOLISM IN HEART AND ITS REGULATION.....	5R01 HL18089-06	68,817
SLOAN, DONALD L.....	ENZYMIC PHOSPHORIBOSYL TRANSFER REACTION IN YEAST.....	5R01 AM20183-03	52,537
WALLMAN, JOSHUA.....	ROLE OF VISION IN ETIOLOGY OF AXIAL MYOPIA.....	5R01 EY02727-02	69,221
WALLMAN, JOSHUA.....	ROLE OF ACCESSORY OPTIC SYSTEM IN OCULOMOTOR CONTROL.....	5R01 EY02937-02	67,931
ORGANIZATION TOTAL	12 984,100		
CITY UNIVERSITY OF NEW YORK—COLLEGE OF STATEN ISLAND ST. GEORGE CAMPUS ZIP CODE 10301			
NAIDER, FRED R.....	PEPTIDE TRANSPORT IN MICROORGANISMS.....	5R01 GM22086-06	59,696
ORGANIZATION TOTAL	1 59,696		
CITY UNIVERSITY OF NEW YORK—GRADUATE SCHOOL AND UNIVERSITY CENTER ZIP CODE 10036			
GLASS, DAVID C.....	BEHAVIOR PATTERNS, STRESS, AND CATECHOLAMINES.....	5R01 HL22514-03	205,562
LEVITT, HARRY.....	ANALYSIS OF ACOUSTIC CHARACTERISTICS OF DEAF SPEECH.....	5R01 NS09252-09	84,042
LEVITT, HARRY.....	PRACTICAL METHODS OF ESTIMATING OPTIMUM AMPLIFICATION.....	5R01 NS15143-02	84,993
PARLEE, MARY B.....	SIGNIFICANCE OF MENSTRUATION FOR ADOLESCENT FEMALES.....	5R01 HD13270-03	31,698
PROSHANSKY, HAROLD M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07126-09	44,430
ORGANIZATION TOTAL	5 450,725		
CITY UNIVERSITY OF NEW YORK—HERBERT H. LEHMAN COLLEGE ZIP CODE 10468			
JAKINOVICH, WILLIAM.....	SPECIFICITY OF SWEET TASTE RESPONSE.....	1R01 NS16022-01	98,275
ORGANIZATION TOTAL	1 98,275		
CITY UNIVERSITY OF NEW YORK—HUNTER COLLEGE ZIP CODE 10021			
BEVERIDGE, DAVID L.....	SOLVENT EFFECTS ON BIOMOLECULAR STRUCTURE AND PROCESS.....	5R01 GM24914-06	110,113

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
CECCARINI, COSTANTE	SURFACE GLYCOPETIDES, GROWTH REGULATION IN ANIMAL CELLS	5R01 GM24071-03	85,649
CHAPPELL, RICHARD L	NEURAL INTERACTIONS OF THE RETINA	2R01 EY00777-08A1	76,814
COHEN, WILLIAM D	MARGINAL BAND SYSTEM OF ERYTHROCYTES	3R01 HL20902-03S1	2,343
HERSKOWITZ, IRWIN H	BIBLIOGRAPHY ON DROSOPHILA	1R01 LM03623-01	13,698
KRAKOW, JOSEPH S	RNA SYNTHESIS BY BACTERIAL RNA POLYMERASE	5R01 GM18673-09	107,090
KRAKOW, JOSEPH S	STUDIES ON THE CYCLIC AMP RECEPTOR PROTEIN OF E. COLI	2R01 GM22619-05	73,457
LICHTER, ROBERT L	NATURAL-ABUNDANCE 15N NMR OF BIOORGANIC COMPOUNDS	5R01 GM21148-05	85,731
MAWE, RICHARD C	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07109-12	61,417
MAWE, RICHARD C	MINORITY BIOMEDICAL SUPPORT	1S06 RR08176-01	433,675
OZER, HARVEY L	HOST FUNCTIONS RELATED TO TUMOR VIRUS INFECTION	5R01 CA23002-04	156,827
OZER, HARVEY L	REGULATION OF EXPRESSION OF VIRAL TRANSFORMATION	5R01 CA23003-04	89,426
PASTERNAK, BURTON	SOCIAL DEMOGRAPHY OF A CHINESE DISTRICT, 1906-46	1R01 HD14301-01	64,662
RUDNER, RIVKA	MACROMOLECULAR ASPECTS OF SYNCHRONOUS CELL DIVISION	5R01 GM16059-11	69,640
SWEENEY, WILLIAM V	IRON-SULFUR PROTEINS	1R01 GM27382-01	57,872
TOMASZ, MARIA	ADDUCTS OF MITOMYCIN C WITH NUCLEOTIDES	1R01 CA28681-01	43,055
ORGANIZATION TOTAL	16	1,531,289	
CITY UNIVERSITY OF NEW YORK—MEDGAR EVERS COLLEGE ZIP CODE 11225			
CATAPANE, EDWARD J	MINORITY BIOMEDICAL SUPPORT	5S06 RR08171-02	277,988
ORGANIZATION TOTAL	1	277,988	
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029			
ABRAMSON, RUTH G	MICROPUNCTURE STUDY OF URATE TRANSPORT IN RAT KIDNEY	5R01 AM12872-12	132,783
ABRAMSON, RUTH G	ORGANIC ANION TRANSPORT BY ISOLATED RENAL MEMBRANES	7R01 AM28148-01	42,850
ACS, GEORGE	CHEMOTHERAPEUTIC DEOXYRIBONUCLEOSIDES	3R01 CA15890-06S1	16,627
ALTER, BLANCHE P	REGULATION OF HEMOGLOBIN SYNTHESIS	5R01 AM26956-02	75,747
ALTER, BLANCHE P	ERYTHROPOIESIS AND HEMOGLOBIN REGULATION IN MAN	1R01 HL26132-01	71,849
ANDERSON, HENRY A	CANCER AMONG HOUSEHOLD CONTACTS OF ASBESTOS WORKERS	5R01 CA22792-03	75,412
BARKA, TIBOR D	LOCALIZATION OF POLYPEPTIDES IN SALIVARY GLAND	5R01 AM19753-03	97,872
BARKA, TIBOR D	TUMOR PROMOTERS, GROWTH AND DIFFERENTIATION	5R01 CA24023-02	50,360
BEATTIE, DIANA S	HEPATIC ALA SYNTHETASE AND AGING	2R01 AG00099-04	101,140
BEATTIE, DIANA S	CONTROL OF PROTEIN SYNTHESIS IN THE DIABETIC RAT	5R01 AM20953-03	42,360
BEATTIE, DIANA S	SYNTHESIS OF MITOCHONDRIAL PROTEIN	5R01 HD04007-11	55,990
BENTLEY, PETER J	PHARMACOLOGY OF LENTICULAR ION TRANSPORT	3R01 EY01278-06S1	26,168
BENTLEY, PETER J	PHARMACOLOGY OF LENTICULAR ION TRANSPORT	2R01 EY01278-07A1	85,642
BERK, PAUL D	MECHANISMS OF HEPATIC BILIRUBIN TRANSPORT	1R01 AM26438-01	131,386
BERL, SOLL	AMINO ACIDS & PROTEINS IN BRAIN STRUCTURE & FUNCTION	2R01 NS1824-06A1	104,042
BHUYAN, KAILASH C	MECHANISM OF CATARACTOGENESIS CAUSED BY AMINOTRIAZOLE	5R01 EY03012-03	136,796
BODIS-WOLLNER, IVAN G	PARALLEL PATHWAYS IN VISION	2R01 EY01708-04	181,904
BRODSKY, WILLIAM A	RENAL ION TRANSPORT MECHANISMS	5R01 AM16928-06	122,490
BROWN, W VIRGIL	STRUCTURE AND FUNCTION OF HEPARIN RELEASABLE LIPASES	5R01 HL22967-03	128,932
BROWN, W VIRGIL	RADIOIMMUNOASSAY OF HUMAN POSTHEPARIN PLASMA LIPASES	1R01 HL25752-01	87,127
BUCHER, DORIS J	PRIMARY STRUCTURE OF INFLUENZA VIRUS HEMAGGLUTININ	5R01 AM16073-02	75,810
CALHOUN, DAVID H	CONTROL OF GENE EXPRESSION BY AN ALLOSTERIC ENZYME	5R01 GM23182-05	64,120
CANDIA, OSCAR A	ELECTROLYTE AND FLUID TRANSPORT IN OCULAR MEMBRANES	5R01 EY00160-10	126,971
CANDIA, OSCAR A	INTERDISCIPLINARY RESEARCH CENTER FOR VISUAL SCIENCES	3P30 EY01867-03S1	53,110
CANDIA, OSCAR A	INTERDISCIPLINARY VISION RESEARCH CENTER (CORE)	2P30 EY01867-04A1	130,885
CHALMERS, THOMAS C	TECHNICAL EVALUATION OF THE THERAPEUTIC LITERATURE	5R01 LM03116-03	110,445
CHURG, JACOB	RENAL, VASCULAR AND PULMONARY STRUCTURE IN DISEASE	5R01 AM00918-26	126,697
COHEN, BERNARD	VISUAL CONTROL OF THE OCULOMOTOR SYSTEM	5R01 EY02296-03	77,980
COHEN, BERNARD	THE OCULOMOTOR SYSTEM AND BODY POSTURAL MECHANISMS	3R01 NS00294-25S1	12,292
COHEN, BERNARD	THE OCULOMOTOR SYSTEM AND BODY POSTURAL MECHANISMS	5R01 NS00294-26	95,907
DAVIS, KENNETH L	CHOLINERGIC TREATMENT OF MEMORY DEFICITS IN THE AGED	1P01 AG02219-01	214,501
DESNICK, ROBERT J	STUDIES OF PORPHYRIA AND HUMAN HEME BIOSYNTHESIS	1R01 AM26824 01	151,843
DESNICK, ROBERT J	THERAPY OF GENETIC DISEASES	5R01 GM25279-03	119,974
FASY, THOMAS M	SPECIFICITY DETERMINANTS OF DNA-BINDING DRUGS	1R23 CA28804-01	37,225
FLEISCHMAJER, RAUL	PSORALEN-UV A LONG-TERM EFFECT ON PSORIASIS DERMIS	5R01 AM27120-02	72,361
FLEISCHMAJER, RAUL	CHEMICAL ANALYSIS OF COLLAGEN TYPES IN SCLERODERMA	5R01 AM27608-02	104,715
FRANK, ARTHUR L	MINERAL FIBER SIZE AND CARCINOGENICITY IN VITRO	5R23 CA24271-03	33,688
FRIEND, CHARLOTTE	FILTERABLE AGENTS AND TUMOR INDUCTION IN MICE	5R01 CA10000-15	142,502
FRIEND, CHARLOTTE	CONTROL MECHANISMS OF DIFFERENTIATION AND MALIGNANCY	2R01 CA13047-09	209,350

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GARRO, ANTHONY J	DETECTING ALKYL HALIDE MUTAGENICITY WITH ISOLATED DNA	3R01 CA22354-03S1	4,265
GARRO, ANTHONY J	REGULATION OF LYSOGENY IN BACTERIOPHAGE PH1-105	5R01 GM21541-04	58,876
GAULL, GERALD E	GENETIC VARIATION IN DEFECTS OF AMINO ACID METABOLISM	5R01 AM20236-02	78,033
GAULL, GERALD E	GENETIC VARIATION IN DEFECTS OF AMINO ACID METABOLISM	5R01 AM20236-03	77,850
GINSBERG-FELLNER, FREDDA V	GENETIC & GESTATIONAL INFLUENCES ON CHILDHOOD OBESITY	5R01 HD11583-02	118,319
GINSBERG, HENRY N	REGULATION OF APOPROTEIN-B METABOLISM IN HUMANS	5R01 HL23077-02	72,978
GLASS, JOHN D	SOLID-PHASE PEPTIDE SYNTHESIS	5R01 GM18752-08	108,932
GLICK, STANLEY D	BRAIN DAMAGE AND CEREBRAL ASYMMETRY	1R01 NS14812-01A1	67,673
GOLDFARB, JOSEPH	NIGRAL AND STRIATAL EFFERENTS: PHYSIOLOGICAL STUDIES	1R01 NS15194-01A1	94,511
GORDON, RONALD E	INJURY AND REPAIR OF SMALL AIRWAYS	1R01 HL25768-01	47,682
GORDON, RONALD E	RESPIRATORY BASAL APPARATUS—STRUCTURE AND FUNCTION	1R01 HL26293-01	90,114
GREENGARD, OLGA	THE REGULATION OF MAMMALIAN ENZYME SYNTHESIS	5R01 CA25005-03	130,273
GREENGARD, OLGA	HUMAN LUNG NEOPLASMS: APPLICATIONS OF ENZYME-PATHOLOGY	5R01 CA25016-03	95,423
GREENGARD, OLGA	DEVELOPMENTAL BRAIN DEFECTS IN HYPERAMINOACIDEMIAS	5R01 HD2636-03	108,467
GURPIDE, ERLIO	STERIOD DYNAMICS IN HUMAN ENDOMETRIAL CANCER	2R01 CA15648-07	144,949
GURPIDE, ERLIO	STERIOD DYNAMICS IN ENDOCRINOLOGY	5R01 HD07197-09	180,059
HIRSCHHORN, KURT	STUDIES OF INHERITED STORAGE DISEASES IN CELL CULTURE	1R01 GM28762-01A1	197,296
HOLLAND, JAMES F	CANCER AND LEUKEMIA GROUP B	5R10 CA04457-21	253,057
HOLLAND, JAMES F	CHEMOTHERAPY AND CHEMOIMMUNOTHERAPY OF CANCER	5P01 CA15936-06	1,044,808
HOLLAND, JAMES F	CANCER AND LEUKEMIA GROUP B—CENTRAL OFFICE	3R10 CA16118-06S2	49,509
HOLLAND, JAMES F	CANCER AND LEUKEMIA GROUP B—CENTRAL OFFICE	5R10 CA16118-07	1,165,702
HOLLAND, JAMES F	CANCER CENTER SUPPORT (CORE) GRANT	5P30 CA23102-02	563,235
HOLLAND, JAMES F	DEVELOPMENTAL THERAPEUTICS OF CANCER	5P01 CA25865-02	671,924
KATSOYANNIS, PANAYOTIS G	SYNTHETIC INSULINS AND ANALOGS	5R01 AM12925-11	141,467
KILBOURNE, EDWIN D	BIOLOGY AND BIOCHEMISTRY OF INFLUENZA VIRUSES	3R01 AI09304-11S1	54,901
KILBOURNE, EDWIN D	BIOLOGY AND BIOCHEMISTRY OF INFLUENZA VIRUSES	2R01 AI09304-12	253,648
KIRCHBERGER, MADELEINE A	C-AMP-DEPENDENT PROTEIN KINASE IN CARDIAC CONTRACTION	2R01 HL15764-07	43,131
KLEINERMAN, JEROME I	NITRITE, COLLAGEN & ELASTIN—EXPERIMENTAL EMPHYSEMA	5R01 ES02110-03	101,219
KLEINERMAN, JEROME I	EXPERIMENTAL EMPHYSEMA—DEPRESSION OF PROTEASE INHIBITOR	5R01 HL23595-03	73,345
KLEINERMAN, JEROME I	AMINE PRECURSOR UPTAKE/DECARBOXYLATION—MAMMALIAN LUNGS	5R01 HL24745-02	56,907
KLINE, RICHARD P	ION SELECTIVE AND VOLTAGE RECORDINGS IN BEATING HEART	1R23 HL25798-01	41,723
KRAKOFF, LAWRENCE R	RENIN AND VASCULAR HYPER-REACTIVITY IN HYPERTENSION	5R01 HL13595-10	127,418
KRIEGER, DOROTHY T	CENTRAL NERVOUS SYSTEM-PITUITARY-ADRENAL INTERRELATIONS	5R01 NS02893-18	133,779
KUPERSMITH, JOEL	ELECTROPHYSIOLOGY OF NA-K ATPASE USING K ELECTRODE	1R01 HL25135-01	87,310
KUPFER, SHERMAN	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00071-17	1,198,172
LEHRER, GERARD M	BIOCHEMICAL MECHANISMS IN TOXIC AXONAL NEUROPATHY	1R01 NS15771-01	106,024
LI, HENG-CHUN	CARDIAC PHOSPHOPROTEIN PHOSPHATASES STUDIES	5R01 HL22962-02	50,558
MASUR, SANDRA K	EXOCYTOSIS AND ENDOCYTOSIS IN RESPONSE TO VASOPRESSIN	5R01 AM25110-02	55,538
MENDELSON, NAOMI	MATURATION-DEPENDENT RESPONSES OF MYELOID CELLS	1R23 CA27154-01	53,254
MINDLE, JOEL S	DEPOLARIZING NICOTINIC ANTAGONISTS AND EYE POSITION	1R01 EY03203-01	96,207
MITTAG, THOMAS W	DRUG EFFECTS ON IRIS AND CILIARY BODY ADENYLATE CYCLASE	5R01 EY02619-03	81,523
MITTAG, THOMAS W	MEMBRANE-BOUND ENZYMES AND DRUG RECEPTORS IN MUSCLE	5R01 NS10124-09	79,411
NEMERSON, YALE R	KINETIC AND MECHANISTIC STUDIES OF BLOOD COAGULATION	5R01 HL22980-03	245,490
NIEMETZ, JULIAN	ROLE OF LEUKOCYTES IN THROMBOSIS AND DEFIBRINATION	5R01 HL13155-10	56,914
ORLOWSKI, MARIAN	PITUITARY HORMONES: ENZYMIC FORMATION AND DEGRADATION	5R01 AM25377-02	93,110
ORLOWSKI, MARIAN	ORGAN SPECIFIC DRUGS: CARDIOVASCULAR AND RENAL EFFECTS	3R01 HL21105-03S1	11,288
PACKER, MILTON	DETERMINANTS OF VASODILATOR RESPONSE IN HEART FAILURE	1R23 HL25055-01	49,950
PALESE, PETER M	STUDIES WITH SYNTHETIC NEURAMINIDASE SUBSTRATES	5R01 AI11823-07	130,234
PASIK, TAUBA	MATURATION OF MONKEY VISUAL AND BASAL GANGLIA SYSTEMS	5R01 EY01926-03	70,322
PODOS, STEVEN M	IN VIVO INHIBITORS OF OCULAR PROSTAGLANDIN SYNTHESIS	3R01 EY01661-05S1	55,361
POGO, BEATRIZ G	DNASES DURING INFECTION BY VACCINIA AND SHOPE FIBROMA	5R01 AI15953-03	117,032
PUSZKIN, SAUL	NEUROTRANSMITTERS, SYNAPTOSOMES AND CONTRACTILE PROTEINS	5R01 NS12467-06	125,405
RABIN, SHELDON	DEVELOPMENT OF OPTIMAL GLAUCOMA VISUAL FIELD PROTOCOLS	5R01 EY02836-02	32,974
RAYFIELD, ELLIOT J	CARBOHYDRATE METABOLISM—INFECTION INTERRELATIONSHIPS	5R01 AI11852-05	119,706
REINACH, PETER S	COUPLING BETWEEN METABOLISM/IONIC TRANSPORT IN CORNEAS	2R01 EY01976-04	106,110
SCHER, WILLIAM	MOLECULAR CONTROL OF FRIEND LEUKEMIA CELL MATURATION	5R01 CA24402-03	122,095
SCHOOK, WILLIAM J	MEMBRANE, VESICLE AND CLATHRIN CYTOSKELETAL ACTIVITY	5R01 GM26829-02	48,978
SCHULMAN, JEROME L	BIOLOGICAL ASSAY OF DEFINED INFLUENZA A RECOMBINANTS	2R01 AI14053-04	71,860
SCHWARTZ, IRVING L	MECHANISM OF ACTION OF PEPTIDE HORMONES	5R01 AM10080-16	171,282
SCOTT, WALTER N	MECHANISM OF INSULIN'S ACTION UPON TRANSPORT	5R01 AM22038-03	66,102
SCOTT, WALTER N	ALDOSTERONE AND SODIUM TRANSPORT	1R01 AM27024-01	87,752

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SCOTT, WALTER N	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05653-13	195,787
SELKOFF, IRVING J	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT	5P30 ES00928-08	1,364,527
SIEGAL, FREDERICK P	B CELL ACTIVATION IN HYPOGAMMAGLOBULINEMIAS	5R01 AI16186-02	61,200
SMITH-WRIGHT, MOYRA	STUDIES OF IG SYNTHESIS IN SOMATIC CELL HYBRIDS	5R01 AI14287-03	30,619
STEINMAN, CHARLES R	ETIOLOGY OF RHEUMATOID ARTHRITIS & LUPUS ERYTHEMATOSUS	2R01 AM15544-09	140,438
SUZUKI, YASUNOSUKE	PATHOGENESIS OF EXPERIMENTAL MALIGNANT MESOTHELIOMA	5R01 CA24311-02	95,860
TEICHOLZ, LOUIS E	PULSE-DOPPLER ANALYSIS OF LEFT VENTRICULAR FUNCTION	1R01 HL25277-01	126,653
TIMMERS, KIM I	SERUM FACTORS AND INSULIN-SENSITIVITY IN OBESITY	5R01 AM22183-03	104,798
ULICK, STANLEY	DISORDERS OF STEROID HORMONE BIOSYNTHESIS	5R01 AM14040-12	87,050
VAN WOERT, MELVIN H	SEROTONIN METABOLISM IN MYOCLONUS AND EPILEPSY	5R01 NS12341-05	86,527
WANG-IVERSON, PATSY	ROLE OF MONONUCLEAR PHAGOCYTES IN LIPOPROTEIN METABOLISM	1R01 HL27316-01	88,436
WASSERMAN, LOUIS R	COOPERATIVE STUDY OF POLYCYTHEMIA VERA	3R10 CA10728-12S1	388,203
WAXMAN, SAMUEL	FOLIC ACID BINDING PROTEIN IN FOLATE METABOLISM	5R01 AM16690-06	71,467
WETMUR, JAMES G	RENATURATION AND HYBRIDIZATION OF NUCLEIC ACIDS	5R01 GM22029-07	54,311
WOLFF, MARY S	ANALYSIS OF FAT-SOLUBLE HYDROCARBONS IN SEBUM	1R01 ES02305-01	57,507
YAHN, MELVIN D	CLINICAL RESEARCH CENTER—PARKINSON'S & ALLIED DISEASES	5P50 NS11631-07	513,175
ORGANIZATION TOTAL	116 17,235,846		
CITY UNIVERSITY OF NEW YORK—QUEENS COLLEGE ZIP CODE 11367			
BITTMAN, ROBERT	ORGANIZATION OF CHOLESTEROL IN SERUM LIPOPROTEINS	3R01 HL22052-02S1	4,340
BOYLAN, ELIZABETH S	FETAL EXPOSURE TO HORMONES AND MAMMARY CARCINOGENESIS	5R01 CA18458-05	63,337
ENGEL, ROBERT R	A CHEMICAL APPROACH TO GENETIC REGULATION	1R01 GM26988-01	86,440
FRUMKES, THOMAS E	ROD-CONE INTERACTION IN VERTEBRATE VISION	2R01 EY01802-04	98,804
MICHEL, CORINNE A	YEAST—A MODEL FOR STUDYING REGULATION IN CANCER CELLS	9R01 GM28216-06	117,154
STREKAS, THOMAS C	REDOX EFFECTS OF AXIAL LIGAND BONDING IN CYTOCHROMES	1R01 GM27065-01	76,119
TROPP, BURTON E	CHEMICAL REGULATORS OF PHOSPHOLIPID METABOLISM	5R01 GM21400-06	83,011
WASSERMAN, MARVIN	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07064-13	34,706
ORGANIZATION TOTAL	8 563,911		
CITY UNIVERSITY OF NEW YORK—YORK COLLEGE ZIP CODE 11451			
COHN, DEIRDRE A	MINORITY BIOMEDICAL SUPPORT	3S06 RR08153-04S2	10,183
COHN, DEIRDRE A	MINORITY BIOMEDICAL SUPPORT	5S06 RR08153-05	286,423
ORGANIZATION TOTAL	2 296,606		
COLUMBIA UNIVERSITY ZIP CODE 10027			
AL-AWQATI, QAIS	ACTIVE H+ TRANSPORT IN URINARY ACIDIFICATION	5R01 AM20999-03	81,042
AL-AWQATI, QAIS	CONTROL OF SODIUM TRANSPORT AND CELLULAR RESPIRATION	5R01 HL21849-04	60,190
AMBRON, RICHARD T	PROCESSING OF MEMBRANE GLYCOPROTEIN IN SINGLE NEURONS	5R01 NS14555-03	13,942
ANDERSON, ETHEL I	THE ANTERIOR EYE: STATE AND FUNCTION OF THIOL GROUPS	5R01 EY00699-10	108,572
ANDREWS, ALAN D	MOLECULAR AND CELLULAR EFFECTS OF HUMAN DNA REPAIR	1R01 AM26392-01	106,769
ANDREWS, ALAN D	DNA REPAIR PROCESSES IN XERODERMA PIGMENTOSUM	5R23 CA26894-02	38,500
APRIL, ERNEST W	THE MYOFILAMENT LATTICE: MORPHOLOGY AND FUNCTION	5R01 AM15876-08	78,067
ARMAND, GERARD	STRUCTURE OF VITREOUS GLYCOSAMINOGLYCANS	1R01 EY03405-01	99,879
AUGUSTIN, ANDREI A	T HELPER CELLS: FUNCTION AND ANTIGEN RECOGNITION	1R01 AI17263-01	108,494
AXEL, RICHARD	MOLECULAR CONTROL OF CHROMATIN TRANSCRIPTION	5R01 CA16346-06	128,240
BALAZS, ENDRE A	KERATIN SULFATES AND AGING OF CARTILAGE AND CORNEA	5R01 AG01181-02	88,260
BALAZS, ENDRE A	HYALURONIC ACID AND ARTHRITIS	5R01 AM21826-03	123,887
BALAZS, ENDRE A	BASIC OPHTHALMIC RESEARCH PROGRAM	3P30 EY00396-10S4	103,176
BALAZS, ENDRE A	PHYSIOLOGY AND PATHOLOGY OF THE VITREOUS	3R01 EY01747-04S2	35,666
BALAZS, ENDRE A	VITREOUS AND HYALURONATE: STRUCTURE AND FUNCTION	2R01 EY01747-05A1	193,404
BANK, ARTHUR	NORMAL/ABNORMAL CELL GROWTH MULTIDISCIPLINARY STUDY	5R01 AM25274-15	210,977
BARRON, BRUCE A	OPTIMIZATION OF SCREENING FOR CERVIX CANCER	2R01 CA19145-05	55,288
BASSETT, C ANDREW	BIOELECTRIC PHENOMENA CONTROLLING BONE GROWTH	5R01 AM07822-17	147,652
BENESCH, RUTH E	STRUCTURE AND FUNCTION IN HEMOGLOBINS	5R01 HL05791-20	97,352
BENESCH, RUTH E	SICKLING INHIBITION BY MODIFICATION OF HEMOGLOBIN	5R01 HL17552-05	59,869
BERNE, BRUCE J	MOLECULAR DYNAMICS OF AQUEOUS SOLUTIONS	5R01 GM26588-05	71,942
BERSOHN, RICHARD	BIFUNCTIONAL STUDIES OF PROTEINS	5R01 GM19019-17	67,760
BEYCHOK, SHERMAN	PROTEINS OF PLASMA CELL CANCERS	5R01 CA13014-09	82,547
BEYCHOK, SHERMAN	SYNTHESIS OF HUMAN MYELOMA VARIABLE DOMAINS IN E. COLI	5P01 CA25319-02	302,881
BEYCHOK, SHERMAN	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07060-15	189,787
BILEZIKIAN, JOHN P	THE BETA ADRENERGIC CATECHOLAMINE RECEPTOR	3R01 HL20859-03S1	2,761

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BITO, LASZLO Z.	OCULAR FLUID COMPOSITION AND OCULAR TISSUE PHYSIOLOGY	5R01 EY00333-14	223,117
BITO, LASZLO Z.	THE CONTROL OF TISSUE-SENSITIVITY TO AUTONOMIC AGENTS	5R01 EY00402-13	111,625
BRANDT, PHILIP W.	CELL PHYSIOLOGY CORRELATED WITH ULTRASTRUCTURE	5R01 NS05910-14	73,096
BRASITUS, THOMAS A.	COLONIC EPITHELIAL CELL PLASMA MEMBRANES	1R01 CA28040-01	118,092
BRESLOW, RONALD C.	BIOCHEMICAL MODEL REACTIONS	5R01 GM18754-19	118,368
BRESLOW, RONALD C.	MODEL AND MECHANISM STUDIES ON ZINC ENZYMES	5R01 GM25981-02	102,765
BRESLOW, RONALD C.	GC-LC-MASS SPECTROMETER SYSTEM	5P41 GM27417-02	23,100
BURNETT, ROGER M.	MOLECULAR STRUCTURE OF THE ADENOVIRUS CAPSID	1R01 AI17270-01	192,564
BUTLER, VINCENT P, JR	DIGOXIN-SPECIFIC ANTIBODIES	5R01 HL10608-14	129,204
CALDWELL, PETER R	MYOGLOBIN FUNCTION IN HYPOXIC MUSCLE	1R01 HL24994-01	87,685
CALVIN, HAROLD I.	TRACE ELEMENTS AND SPERMIOGENESIS	2R01 HD05316-09	115,715
CANFIELD, ROBERT E.	CHEMICAL STUDIES OF HORMONES AND METABOLIC DISORDERS	5R01 AM09579-16	218,780
CANFIELD, ROBERT E.	CHORIONIC GONADOTROPIN CHEMISTRY/REPRODUCTIVE BIOLOGY	5R01 HD13496-02	143,834
CANNON, PAUL J.	CIRCULATORY FUNCTION AND ELECTROLYTE METABOLISM	5R01 HL10182-15	105,553
CANNON, PAUL J.	THE REGIONAL CIRCULATIONS	5R01 HL14148-09	285,773
CANTOR, CHARLES R.	NEW TECHNIQUES FOR COMPLEX MACROMOLECULAR ASSEMBLIES	2R01 GM14825-14	122,829
CANTOR, CHARLES R.	FLUORESCENCE AND CHEMICAL STUDIES ON RIBOSOMES	5R01 GM19843-08	124,327
CANTOR, CHARLES R.	NIHMS SHARED INSTRUMENTATION PROGRAM: FACS FACILITY	5P41 GM27576-02	3,080
CHALLENGER, BERNARD D.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05449-19	116,132
CHANG, CHU H.	RADIATION THERAPY ONCOLOGY GROUP	5R10 CA14060-08	89,110
CHANG, HAI WON.	FUNCTIONAL PROPERTIES OF ACETYLCHOLINE RECEPTOR	5R01 NS13744-03	38,255
CHASIN, LAWRENCE A.	MITOTIC RECOMBINATION IN CULTURED MAMMALIAN CELLS	5R01 GM26259-06	84,893
CHESS, LEONARD	DIFFERENTIATION ANTIGENS ON HUMAN T CELL SUBCLASSES	5R01 AI14969-03	110,210
CHESS, LEONARD	IN VITRO SENSITIZATION OF HUMAN LYMPHOCYTES	5R01 AI15524-02	100,438
CHIEN, SHU	HUMAN BLOOD CELL MEMBRANES IN HEALTH AND DISEASE	5P01 HL16851-07	1,045,921
CHIEN, SHU	ENDOTHELIUM IN RELATION TO ATHEROGENESIS	2R01 HL19454-04	183,216
CRAWSHAW, LARRY I.	TEMPERATURE REGULATION IN VERTEBRATES	5R01 NS15318-03	40,416
CURNEN, MARY G.	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES	1R10 CA26921-01A1	160,956
D'ALESSANDRO, PHILIP A.	TRYPANOSOMAL EXOANTIGENS	2R01 AI13387-05	112,783
DAILEY, BENJAMIN P.	DEUTERIUM NMR AS A PROBE OF MOLECULAR STRUCTURE	5R01 GM22310-06	74,366
DANGMAN, KENNETH H.	DRUG EFFECTS ON ABNORMAL AUTOMATICITY IN THE HEART	5R01 HL24354-02	43,936
DANIEL, SALHA S.	HOMEOSTASIS DURING THE INTRAUTERINE AND PERINATAL PERIOD	5R01 HD12737-02	140,971
DE VIVO, DARRYL C.	SEIZURES, KETOSIS, AND CEREBRAL METABOLISM	5R01 NS15708-03	86,055
DEN, HALINA.	COMPOSITION OF GLYCONJUGATES IN MUSCLE MEMBRANE	5R01 GM25218-02	46,123
DESPOMMIER, DICKSON D.	FUNCTIONAL ANTIGENS OF TRICHINELLA SPIRALIS	5R01 AI10627-10	106,600
DI MAURO, SALVATORE	STUDIES OF HUMAN METABOLIC MYOPATHIES	5R01 AM25599-02	29,574
DILLON, JAMES P.	INVESTIGATION OF THE EFFECT OF LIGHT ON THE HUMAN LENS	5R01 EY02283-03	66,938
DOBELLE, WILLIAM H.	HIGH YIELD ISOLATION ANIMAL-HUMAN PANCREATIC ISLETS	5R01 AM21861-03	148,527
DOBELLE, WILLIAM H.	SIMPLE CARDIAC ASSIST (TALVB) DEVICES IN MAN	5R01 HL23941-02	128,307
EDELMAN, ISIDORE S.	CELL MEMBRANE DETERMINANTS OF NaCl TRANSPORT	5R01 AM21698-03	56,538
EDELMAN, ISIDORE S.	PURIFICATION AND PROPERTIES OF CORTICOSTEROID RECEPTORS	5R01 AM25536-02	137,027
EDELSON, RICHARD L.	IMMUNOBIOLOGY OF CUTANEOUS T CELL LYMPHOMAS	3R01 CA20499-03S1	22,139
EDELSON, RICHARD L.	IMMUNOBIOLOGY OF CUTANEOUS T CELL LYMPHOMAS	2R01 CA20499-04	127,064
EGGERS, HOWARD M.	ANIMAL MODEL OF HUMAN AMBLYOPIA	5R23 EY02634-03	13,399
EISENBERG, MAX A.	BIOTIN; BIOGENESIS, TRANSPORT, AND THEIR REGULATION	5R01 AM14450-11	108,487
EISENTHAL, KENNETH B.	PICOSECOND LASER STUDIES OF HEME-PROTEINS	5R01 HL19488-05	73,218
ELLISON, ROSE R.	CANCER AND LEUKEMIA GROUP B	5R10 CA12011-08	155,234
ELLISON, SOLON A.	SALIVARY IMMUNE FACTORS	5R01 DE05531-02	127,684
ELLISON, SOLON A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05331-17	32,934
ELWYN, DAVID H.	COMPOSITION OF WEIGHT GAIN IN SURGICAL PATIENTS	5R01 GM26396-02	88,447
ENGELHARDT, DEAN L.	GENE ACTIVITY AND CELLULAR AGING OF HUMAN FIBROBLASTS	1R01 AG01560-01	71,373
ENSINGER, MARCIA J.	TEMPERATURE-SENSITIVE MUTANTS OF VACCINIA VIRUS	2R01 AI13790-04	100,492
ERLANGER, BERNARD F.	IMMUNOCHEMICAL STUDIES OF NUCLEIC ACIDS	5R01 AI06860-15	110,637
ERLANGER, BERNARD F.	IMMUNOCHEMISTRY OF LIGANDS OF ACETYLCHOLINE RECEPTORS	3R01 NS15581-01S1	5,000
ERLANGER, BERNARD F.	IMMUNOCHEMISTRY OF LIGANDS OF ACETYLCHOLINE RECEPTORS	5R01 NS15581-02	45,202
FAHN, STANLEY	CATECHOL-O-METHYL TRANSFERASE AND PARKINSONISM	1R01 NS15959-01	77,558
FARRIS, ROBERT L.	MICROVOLUME TEAR ANALYSIS	3R01 EY02841-01S1	8,268
FEIGELSON, PHILIP	CONTROL OF GENE EXPRESSION: NORMAL AND NEOPLASTIC	5P01 CA22376-04	599,516
FERIN, MICHEL J.	THE HYPOPHYSIS & REPRODUCTION IN RHESUS MONKEYS	2R01 HD10873-04	138,787
FIGURSKI, DAVID H.	REPRODUCTION OF EXTRACHROMOSOMAL ELEMENTS IN BACTERIA	5R01 GM26863-02	71,703
FINCK, A DONALD	ROLE OF ENDORPHINS IN ANESTHETIC-INDUCED ANALGESIA	1R01 GM26407-01A1	73,638

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
FISCHBARG, JORGE	BIOELECTRICAL PROPERTIES OF CORNEAL ENDOTHELIUM	5R01 EY01080-08	174,191
FLEISS, JOSEPH L.	STATISTICAL METHODS IN DENTAL RESEARCH	2R01 DE04068-06	66,632
FRANTZ, ANDREW G.	PROLACTIN STUDIES	5R01 CA11704-10	144,050
FRIEDMAN, NATHALIE S.	ORIENTATION AND ADJUSTMENT OF WOMEN TO RETIREMENT	5R01 AG01627-02	20,176
GERSHON, MICHAEL D.	NEURAL CONTROL OF GASTROINTESTINAL ACTIVITY	5R01 NS12969-05	90,624
GERSHON, MICHAEL D.	MICROENVIRONMENT IN ENTERIC NEURON DEVELOPMENT	1R01 NS15547-01	96,472
GHEZ, CLAUDE P.	INPUT-OUTPUT RELATIONS IN VOLUNTARY MOVEMENT	2R01 NS15750-03	130,597
GINSBERG, HAROLD S.	BIOCHEMICAL CHANGES—ADENO-INFECTED & TRANSFORMED CELLS	5R01 AI12052-08	167,696
GLICKMAN, ROBERT M.	CHYLOMICRONS—FORMATION, STRUCTURE, AND FUNCTION	5R01 AM21367-04	180,312
GODMAN, GABRIEL C.	CYTOCHALASINS AND CELL MEMBRANE CONTRACTILE APPARATUS	5R01 CA20836-04	107,834
GOLDBERG, DANIEL J.	STUDIES OF AXONAL TRANSPORT USING SINGLE NEURONS	5R01 NS14711-03	66,692
GOODMAN, DE WITT S.	METABOLISM AND NUTRITION	5R01 AM05968-20	311,613
GOODMAN, DE WITT S.	SPECIALIZED CENTER OF RESEARCH IN ARTERIOSCLEROSIS	5P50 HL21006-04	1,067,654
GOURAS, PETER	NEUROPHYSIOLOGY OF PRIMATE VISION	5R01 EY02591-02	168,195
GREER, JONATHAN	STRUCTURE AND FUNCTION OF BLOOD PROTEINS	3R01 HL16601-06S1	3,107
GREER, JONATHAN	STRUCTURE AND FUNCTION OF BLOOD PROTEINS	2R01 HL16601-07	75,733
GUMP, FRANK E.	REGIONAL METABOLISM IN INJURY SEPSIS AND DEPLETION	5R01 GM26433-02	87,488
HADDAD, GABRIEL G.	MATURATION OF RESPONSE TO HYPOXIA—RELEVANCE TO SIDS	1R01 HD14565-01	137,352
HALDAR, JAYA	MORPHINE, B-ENDORPHIN, NEUROHYPOPHYSIAL HORMONE RELEASE	5R01 AM25772-02	67,877
HALL, ERIC J.	RADIOLOGICAL STUDIES RELATED TO HIGH LET RADIOTHERAPY	2R01 CA18506-05	162,868
HALL, ERIC J.	RADIOBIOLOGICAL STUDIES AT LOW DOSE-RATE	5R01 CA24232-02	128,037
HARBER, LEONARD C.	PHOTOSENSITIVITY: ENVIRONMENTAL AND OTHER FACTORS	5R01 ES01041-07	198,427
HARDING, JOHN D.	STRUCTURE AND REGULATION OF MOUSE TRNA GENES	5R01 GM26884-02	48,182
HEIRD, WILLIAM C.	NUTRITIONAL GOALS VS TOLERANCE—LOW-BIRTH-WEIGHT INFANTS	1P01 HD13020-01A1	416,063
HEIRD, WILLIAM C.	ROLE OF COLOSTRUM IN INTESTINAL DEVELOPMENT	5R01 HD13284-02	116,612
HEMBREE, WYLIE C. III	TRITATED PEPTIDES/PROTEINS IN ENDOCRINE BIOCHEMISTRY	5R01 AM16735-05	157,446
HILAL, SADEK K.	GUIDED VASCULAR OBLITERATION OF CNS VASCULAR LESIONS	5R01 HL15781-08	47,426
HILDEBRAND, JOHN G.	CENTRAL MECHANISMS OF ANTENNAL SENSES IN INSECTS	7R01 AI17711-01	61,024
HODES, DAVID S.	PERSISTENT INFECTION BY PARAINFLUENZA VIRUS TYPE 3	5R01 AI15784-02	73,609
HOFFMAN, BRIAN F.	CARDIAC CONDUCTIVITY AND AUTOMATICITY	5R01 HL08508-17	111,181
HOFFMAN, BRIAN F.	PHYSIOLOGICAL PHARMACOLOGY AND ITS CLINICAL APPLICATIONS	5P01 HL12738-12	2,005,767
HOLTZMAN, ERIC	FORMATION, CIRCULATION AND FATE OF NEURONAL MEMBRANES	5R01 EY03168-11	107,922
HOOD, DONALD C.	PSYCHOPHYSICAL MEASURES OF SUPRATHRESHOLD RESPONSES	2R01 EY02115-04	69,600
HUANG, CHENQ-CHUN	COLLAGENASE AND INVASION OF HEAD AND NECK TUMORS	5R01 CA22907-03	107,924
ISHII, DOUGLAS N.	NEURONAL TUMORS NERVE GROWTH FACTOR & DIFFERENTIATION	5R01 NS14218-03	18,840
JAGIELLO, GEORGIANA M.	ENDOCRINE CONTROL OF MAMMALIAN FEMALE MEIOSIS	5R01 HD05862-10	104,237
JAGIELLO, GEORGIANA M.	CYTOGENETICS OF FEMALE MAMMALIAN MEIOSIS	5R01 HD10037-05	120,241
JAMES, L. STANLEY	SUPPORT FOR LUNG CENTER FOR NEWBORNS	5P50 HL14218-09	1,005,624
JOHNSON, WILLIAM G.	BIOCHEMICAL GENETICS OF HEXOSAMINIDASE DEFICIENCIES	5R01 NS15281-02	55,017
KANDEL, ERIC R.	CELLULAR ANALYSES OF BEHAVIOR	5P01 GM23540-05	434,902
KANDEL, ERIC R.	PLASTICITY OF THE SIMPLEST NEURONAL PATHWAYS	2R01 NS12744-07	146,586
KANDEL, ERIC R.	MARICULTURE OF APLYSIA	5R24 RR01215-02	89,146
KARLIN, ARTHUR	STRUCTURES OF ACETYLCHOLINE RECEPTORS	5R01 NS07065-14	153,680
KAWAI, MASATAKA	CHEMOMECHANICAL PROCESSES IN CROSS-BRIDGE KINETICS	5R01 AM21530-02	51,671
KELLY, JAMES P.	ANATOMICAL STUDIES OF THE AUDITORY CORTEX	5R01 NS13403-03	65,753
KHANNA, SHYAM M.	MECHANICAL PROPERTIES OF THE EAR	5R01 NS03654-19	156,579
KING, DONALD W.	THE USE OF HUMAN TISSUE IN THE STUDY OF AGING	1P01 AG02307-01	579,659
KINNEY, JOHN M.	INFLUENCE OF ACUTE ILLNESS AND INJURY ON ENERGY EXCHANGE	5P50 GM14546-14	633,536
KINNEY, JOHN M.	NONINVASIVE SPIROMETRY AND GAS EXCHANGE	5R01 HL23975-02	100,524
KNOWLES, DANIEL M. II	EXTRA-NODAL LYMPHOMAS: IMMUNOLOGY AND ULTRASTRUCTURE	5R01 CA24679-02	52,890
KOCHERVAR, IRENE E.	ULTRAVIOLET LIGHT INDUCED PHENOMENA IN BIOMEMBRANES	1R01 GM28843-01	102,810
KOESTER, JOHN	CELLULAR NEURONAL CONTROL OF BEHAVIOR	5R01 NS14385-03	41,963
KOOPMANS, HENRY S.	THE SATIATION OF HUNGER	5R01 AM17926-06	45,903
KORNFELD, DONALD S.	PSYCHOLOGICAL INTERVENTION AFTER MYOCARDIAL INFARCTION	1R01 HL22138-01A2	171,766
KRASNA, ALVIN I.	STRUCTURE AND MECHANISM OF ACTION OF HYDROGENASE	5R01 GM22283-05	76,728
KROOTH, ROBERT S.	GENE ACTION IN CULTURED HUMAN AND OTHER MAMMALIAN CELLS	3R01 GM221C3-04S1	45,601
KULKARNI, PRASAD S.	PROSTACYCLIN AND THROMBOXANE-A2 IN OCULAR TISSUES	5R01 EY02861-02	80,921
LEE, KWANG S.	ACTIVE TRANSPORT AND EFFECT OF CA++ IN SICKLE CELL	7R01 HL26866-01	63,236
LEE, KWANG S.	MECHANISM OF THE INOTROPIC ACTION OF CARDIAC GLYCOSIDES	7R01 HL27318-01	68,856
LEVINTHAL, CYRUS	COMPUTER RESOURCE FOR IMAGE PROCESSING AND DISPLAY	3P41 RR00442-11S1	241,844
LEVINTHAL, CYRUS	COMPUTER RESOURCE FOR IMAGE PROCESSING AND DISPLAY	5P41 RR00442-12	425,092

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LI, LU-KU.....	SUBUNIT INTERACTIONS OF LENS PROTEIN.....	5R01 EY00032-09	91,900
LIEBERMAN, SEYMOUR.....	APPLICATION OF CHEMICAL METHODS TO STEROID METABOLISM.....	5R01 AM00110-29	108,810
LIEBERMAN, SEYMOUR.....	ENDOGENOUS LIPOIDAL DERIVATIVES OF ADRENAL STEROIDS.....	3R01 AM20846-02S1	5,433
LIEBERMAN, SEYMOUR.....	ENDOGENOUS LIPOIDAL DERIVATIVES OF ADRENAL STEROIDS.....	5R01 AM20846-03	110,276
LIM, JONG J.....	ENDOTHELIAL CELL ADHESION AND TRANSPORT MECHANISMS.....	1R01 EY02104-01A1	52,653
LIPOWSKY, HERBERT H.....	MICROVASCULAR FUNCTION IN SICKLE CELL DISEASE.....	5R01 HL25305-02	18,731
LIPPARD, STEPHEN J.....	METAL BINDING TO BIOPOLYMERS: PROBES AND DRUGS.....	2R01 CA15826-07	156,931
LIPPARD, STEPHEN J.....	LIGAND-BRIDGED BINUCLEAR METAL COMPLEXES AND PROTEINS.....	5R01 GM16449-13	99,607
LOEB, JOHN N.....	HORMONAL REGULATION OF GROWTH AND DIFFERENTIATION.....	2R01 HD05506-09	121,609
LOW, BARBARA W.....	STRUCTURE/FUNCTION OF VENOM POSTSYNAPTIC NEUROTOXINS.....	2R01 NS07747-11	73,572
MACAGNO, EDUARDO R.....	CELLULAR INTERACTIONS IN SYNAPTOGENESIS.....	5R01 NS14946-02	42,237
MAKOWSKI, LEE.....	DIFFRACTION ANALYSIS OF MACROMOLECULAR ASSEMBLIES.....	7R23 CA29522-01	31,867
MANDEL, IRWIN D.....	HOST FACTORS IN CARIES RESISTANCE.....	5R01 DE01554-19	158,541
MANSKI, WLADYSLAW J.....	EFFECTS OF ANTI-OCULAR ANTIBODIES ON OCULAR TISSUES.....	5R01 EY00198-22	91,882
MARKE, PAUL A.....	LEUKEMIA CELL SYSTEMS: INDUCTION OF DIFFERENTIATION.....	5P01 CA18314-05	258,760
MATTEO, RICHARD S.....	PHARMACOKINETICS, ACTION OF D-TUBOCURARINE, METOCURINE.....	5R01 GM26745-02	67,357
MAYLIE-PFENNINGER, MARIE F.....	SURFACE CHEMISTRY OF TERATOCARCINOMA AND EMBRYOS.....	3R01 CA26836-01S1	11,097
MILLER, ORLANDO J.....	GENE AMPLIFICATION IN CARCINOGENESIS.....	1R01 CA27655-01	126,971
MILLER, ORLANDO J.....	ANTIBODY PROBES OF CHROMOSOME STRUCTURE.....	5R01 GM25193-03	67,619
MILLER, RICHARD C.....	TRANSFORMATION IN VITRO WITH SPLIT DOSES OF RADIATION.....	5R23 CA23952-03	38,500
MORRISON, SHERIE L.....	GENETICS AND BIOCHEMISTRY OF MYELOMA IG PRODUCTION.....	5R01 CA16858-06	92,929
MORSE, JANE H.....	LIPOPROTEINS IN BIOREGULATION OF THE IMMUNE RESPONSE.....	5R01 HL22456-03	95,628
MOSS, MELVIN L.....	ADJUSTIVE CRANIAL SKELETAL GROWTH.....	5R01 DE05145-02	57,936
MOWSHOWITZ, DEBORAH B.....	CONTROL OF PERIODIC ENZYME SYNTHESIS IN EUKARYOTES.....	5R01 GM25137-02	48,494
MURPHY, ROBERT F.....	SOCIAL RELATIONS AND MICROECOLOGY OF PARAPLEGICS.....	1R01 NS16586-01	119,957
NAKANISHI, KOJI.....	INSECT AND PLANT GROWTH REGULATORS.....	2R01 AI10187-10	148,614
NAKANISHI, KOJI.....	STRUCTURAL AND BIOORGANIC STUDIES OF BIOACTIVE COMPOUNDS.....	2R01 CA11572-11	126,078
NAKANISHI, KOJI.....	CHEMICAL AND BIOORGANIC STUDIES OF VISUAL PIGMENTS.....	5R01 EY01253-07	70,608
NASH, MARTIN A.....	NET ACID BALANCE IN RENAL ACIDOSIS.....	5R01 AM22127-02	46,526
NASTUK, WILLIAM L.....	FOUR SELECTED PROBLEMS IN NEUROMUSCULAR TRANSMISSION.....	5R01 NS14300-03	80,153
NELLANS, HUGH N.....	MECHANISM AND CONTROL OF INTESTINAL CALCIUM TRANSPORT.....	2R01 AM19945-04	120,469
NOSSEL, HYMIE L.....	STUDY OF THROMBOSIS.....	5P01 HL15486-08	917,725
NOVYGRAD, ROMAN.....	MODULATION OF HEART GRAFT ANTIGENICITY BY PERFUSION.....	5R23 HL22448-03	47,702
NUNEZ, ELADIO A.....	STUDIES OF THE PARAFOLLICULAR CELL OF THE THYROID GLAND.....	5R01 AM19743-05	97,120
OSSEMAN, ELLIOTT F.....	CLINICAL AND BASIC STUDIES OF PLASMA CELL DYSCRASIAS.....	5P01 CA21112-04	418,784
PANETH, NIGEL S.....	NEONATAL INTENSIVE CARE AND NEONATAL MORTALITY IN NYC.....	5R01 HD12626-02	144,868
PERNIS, BENVENUTO G.....	THE PHYSIOLOGY OF LYMPHOCYTE IMMUNOGLOBULIN RECEPTORS.....	5R01 AI14398-04	211,152
PFENNINGER, KARL H.....	SURFACE EVENTS DURING PLASMALEMMAL GROWTH IN NEURONS.....	2R01 NS13466-04	110,294
PHILLIPS, STEPHANIE G.....	PROLIFERATIVE POTENTIAL OF CULTURED EPITHELIAL CELLS.....	5R01 AG01986-02	103,240
PIOMELLI, SERGIO.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA03526-23	92,451
PIOMELLI, SERGIO.....	METABOLIC EFFECTS OF LEAD.....	5R01 ES02343-02	114,126
PIOMELLI, SERGIO.....	REDUCTION OF IRON OVERLOAD IN THALASSEMIA.....	5R01 HL24195-02	74,967
PIRANI, CONRAD L.....	STUDIES OF HUMAN AND EXPERIMENTAL RENAL DISEASES.....	5R01 AM25624-07	123,502
PITT, JANE.....	HUMAN MILK MACROPHAGE FUNCTION.....	5R01 HD12611-02	79,178
POH, MAUREEN B.....	ERYTHROPOIETIC PROTOPORPHYRIA: MECHANISM OF DISEASE.....	5R01 AM18549-05	100,959
POLLACK, ROBERT E.....	ONCOGENIC VIRUS GENE CONTROL OF CELL GROWTH AND SHAPE.....	5R01 CA25066-03	202,078
PRICE, JOHN B, JR.....	CONTROL FACTORS IN HEPATIC REGENERATION.....	5R01 AM07646-17	137,927
PRIVES, CAROL L.....	FUNCTION AND EXPRESSION OF SV40 VIRAL TUMOR ANTIGENS.....	5R01 CA26905-01	133,834
REEMTSMA, KEITH.....	PANCREATIC ISLET TRANSPLANTATION—CORE FACILITIES.....	5P01 AM19652-04	326,934
RIFKIND, RICHARD A.....	CANCER CENTER CORE SUPPORT GRANT.....	5P30 CA13696-09	1,567,411
ROBBINS, HERBERT E.....	DESIGN OF CLINICAL TRIALS IN BIOSTATISTICS.....	1R01 GM27976-01	77,000
ROBERTS, JAMES L.....	EXPRESSION OF ACTH/ENDORPHIN GENE IN VARIOUS TISSUES.....	1R01 AM27484-01	136,684
ROGERS, THERESA F.....	THE COPING STRATEGIES OF 600 WOMEN AFTER A MASTECTOMY.....	1R01 CA28505-01	103,226
ROSEN, MICHAEL R.....	AGE-RELATED CHANGES IN CARDIAC-AUTONOMIC INTERACTIONS.....	5R01 HL23358-02	138,153
ROSSI, HARALD H.....	EFFECTS OF SMALL DOSES OF IONIZING RADIATION.....	5P01 CA12536-10	603,207
ROSSI, HARALD H.....	CELL IRRADIATIONS WITH MOLECULAR IONS.....	2R01 CA15307-07	132,489
ROWLAND, LEWIS P.....	CLINICAL RESEARCH CENTER FOR NEUROMUSCULAR DISEASE.....	5P01 NS11766-07	764,041
ROY, DEBDUTTA.....	LENS PLASMA MEMBRANE.....	5R01 EY03121-02	72,353
RUSH, DAVID.....	SMOKING IN PREGNANCY AND SUBSEQUENT CHILD DEVELOPMENT.....	5R01 HD13347-02	204,411
RUSH, DAVID.....	SMOKING, NUTRITION, SOCIAL CLASS, AND PERINATAL LOSS.....	5R01 HD13370-02	136,586
SAWYER, WILBUR H.....	NEUROHYPOPHYSIAL REGULATION OF WATER EXCRETION.....	2R01 AM01940-23	174,025

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SCHACHTER, DAVID	THE TRANSPORT OF CALCIUM	5R01 AM01483-24	157,110
SCHACHTER, DAVID	INTESTINAL MICROVILLUS MEMBRANES: MOLECULAR FUNCTION	5R01 AM21238-03	63,448
SCHACHTER, STANLEY	SELF-CURE OF CIGARETTE SMOKING AND OBESITY	5R01 HD12910-02	12,020
SCHWARTZ, JAMES H.	BIOCHEMICAL STUDIES IN IDENTIFIED NEURONS	2R01 NS12066-07	127,253
SCHWARTZ, JAMES H.	BIOCHEMICAL MECHANISMS OF PRESYNAPTIC FACILITATION	1R01 NS15834-01	45,115
SILVERMAN, ANN-JUDITH	DEVELOPMENT OF THE ENDOCRINE HYPOTHALAMUS	5R01 HD10665-05	58,582
SILVERSTEIN, SAUL J.	MOLECULAR BIOLOGY OF HERPES VIRUS	5R01 CA17477-06	68,060
SIMPSON, LANCE L.	PHARMACOLOGICAL STUDIES ON BOTULINUM TOXIN	5R01 NS15409-02	130,018
SKALAK, RICHARD	ANALYSIS OF GROWTH SYSTEMS	1R01 HD14371-01	97,580
SMITH, CASSANDRA L.	REGULATION OF DNA REPAIR AND RECOMBINATION	5R01 GM26103-02	46,523
SORENSEN, MARTHA M.	ROLES OF CA BINDING AND CA GRADIENT IN PUMP REVERSAL	5R01 AM25184-02	36,399
SPECTOR, ABRAHAM	OCULAR LENS STUDIES	5R01 EY00423-12	282,377
SPECTOR, ABRAHAM	EFFECTS OF AGING ON THE OCULAR LENS	5R01 EY00759-09	163,408
SPIEGELMAN, SOL	MOLECULAR VIROLOGY	5P01 CA23767-02	345,606
SPOTNITZ, HENRY M.	TWO DIMENSIONAL ULTRASOUND AND CARDIAC SURGERY	5R01 HL22894-03	229,789
SQUIRES, CATHERINE L.	FUSION OF THE RIBOSOMAL RNA PROMOTOR TO OTHER OPERONS	5R01 GM24751-04	79,999
SQUIRES, CATHERINE L.	TOTAL DNA SEQUENCES OF RIBOSOMAL RNA CISTRONS	5R01 GM25178-03	70,705
SRINIVASAN, B DOBLI	OCULAR EFFECTS OF PROSTAGLANDINS	5R01 EY00457-12	179,571
STALCUP, S ALEX.	ALTERED OXYGEN TENSION AND LUNG ENDOTHELIAL FUNCTION	5R01 HL24997-02	77,782
STEIN, ZENA A.	EPIDEMIOLOGY OF EARLY REPRODUCTIVE LOSS	5R01 HD12207-02	343,737
STERLING, KENNETH	THYROXINE BINDING PROTEIN AND HORMONE UTILIZATION	5R01 AM10739-15	55,491
STILL, WILLIAM C, JR.	SYNTHESIS OF ANTITUMOR AGENTS	2R01 CA23094-04	107,610
STILL, WILLIAM C, JR.	SYNTHESIS OF CARDIOVASCULAR POLYETHER ANTIBIOTICS	1R01 HL25634-01	113,410
STORK, GILBERT	SYNTHESIS OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS	2R01 GM05147-24	181,479
STORK, GILBERT	CARDIOACTIVE ALLOXYHIMBINES AND RELATED INDOLE ALKALOIDS	5R01 HL16471-07	64,037
STORK, GILBERT	SYNTHESES OF THE HYPOTENSIVE GERMIINE ALKALOIDS	1R01 HL25635-01	85,868
TALL, ALAN R.	STRUCTURE AND FUNCTION OF HIGH DENSITY LIPOPROTEIN	5R01 HL22682-03	69,848
TAPLEY, DONALD F.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00645-09	1,071,562
TAPLEY, DONALD F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05395-19	189,787
TORAN-ALLERAND, C D.	SEX HORMONES AND DEVELOPMENT OF THE REPRODUCTIVE AXIS	5R01 HD08364-07	79,434
TURINO, GERARD M.	CHEMICAL-STRUCTURAL PREDISPOSITIONS TO LUNG INJURY	5P01 HL15832-08	844,750
TURRO, NICHOLAS J.	LUMINESCENT PROBES OF MICELLES AND BIOMOLECULES	5R01 GM25523-03	41,803
TZAGOLOFF, ALEXANDER A	BIOSYNTHESIS OF CYTOCHROME OXIDASE	5R01 GM25250-04	51,923
TZAGOLOFF, ALEXANDER A	ASSEMBLY OF MEMBRANES IN HEART AND YEAST MITOCHONDRIA	5R01 HL22174-03	120,977
UGURBIL, KAMIL	PLATELET NUCLEOTIDE METAL COMPLEXES	1R01 HL26089-01	56,812
VAN RYZIN, JOHN R.	TOXIC SUBSTANCES RESPONSE DATA STATISTICAL PROCEDURES	7R01 ES02557-01	57,949
VAN RYZIN, JOHN R.	ESTIMATORS AND TESTS FOR CENSORED SURVIVAL DATA	7R01 GM28405-01	29,945
VANDE WIELE, RAYMOND L.	REPRODUCTIVE BIOCHEMISTRY AND MEDICINE	5P50 HD05077-10	943,399
VOGEL, HENRY J.	ENZYME REPRESSION IN BACTERIA	5R01 A09297-12	81,024
VORA, SHOBHANA.	RED CELL PHOSPHOFRUCTOKINASE: MECHANISM OF HEMOLYSIS	5R01 AM26437-02	53,430
WALLACE, BONNIE A.	STRUCTURAL BASIS OF MEMBRANE PROTEIN FUNCTIONS	1R01 GM27292-01	69,979
WEINSTEIN, I BERNARD	CLINICAL CANCER EDUCATION	5R25 CA18180-06	106,107
WEINSTEIN, I BERNARD	MOLECULAR EVENTS IN CHEMICAL CARCINOGENESIS	5P01 CA21111-04	654,794
WEINSTEIN, I BERNARD	CELLULAR AND BIOCHEMICAL EFFECTS OF TUMOR PROMOTERS	1R01 CA26056-01	197,727
WELD, FRANCIS M.	CARDIAC TRANSMEMBRANE CURRENTS IN SIMULATED ISCHEMIA	1R01 HL25996-01	51,290
WINICK, MYRON	NUTRITION AND CELL GROWTH DURING BRAIN DEVELOPMENT	5R22 HD06682-08	113,149
WINTERS, ROBERT W.	CLINICAL NUTRITION RESEARCH	1P30 AM27358-01	442,673
WINTERS, ROBERT W.	METABOLIC STUDIES OF PARENTERAL NUTRITION IN INFANTS	5R01 HD08434-07	341,479
WORGUL, BASIL V.	RADIATION CATARACTOGENESIS	5R01 EY02648-03	101,990
YANG, JOSEPH C.	ANALGESICS IN EXPERIMENTAL AND CLINICAL PAIN	5R01 GM26461-02	50,909
YOUNG, CHARLES S.	ADENOVIRUS RECOMBINATION: GENETIC CHARACTERISTICS	5R01 A115451-02	76,120
ZAUDERER, MAURICE	SUBSETS OF HELPER T CELLS IN IMMUNE REGULATION	1R01 A115760-01A1	75,814
ZIMMERMAN, EARL A.	VASOPRESSIN PATHWAYS AND THE PITUITARY-ADRENAL SYSTEM	2R01 AM20337-04	122,357
ZIMMERMAN, EARL A.	OXYTOCIN PATHWAYS AND REPRODUCTIVE MECHANISMS	5R01 HD13147-02	102,653
ZIMMERMAN, EARL A.	ANGIOTENSIN II & VASOPRESSIN INTERACTION IN HYPERTENSION	5R01 HL24105-02	66,545
ZUBAY, GEOFFREY L.	CELL-FREE SYSTEMS FOR THE STUDY OF GENE REGULATION	5R01 GM16648-12	74,007
ZUBAY, GEOFFREY L.	TRANSCRIPTIONAL CONTROL IN INFECTIOUS PLASMIDS	9R01 GM29217-04	103,320
ORGANIZATION TOTAL	266	42,179,376	

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ANDERSEN, OLAF S.	CHANNEL-MEDIATED ION TRANSPORT ACROSS LIPID BILAYERS	5R01 GM21342-07	103,054
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BACHVAROVA, ROSEMARY F.....	ANALYSIS OF MOUSE EGG RNA AND ITS ROLE IN THE EMBRYO.....	5R01 HD06910-08	125,645
BARUCH, SULAMITA B.....	ORGANIC ANION TRANSPORT BY ISOLATED RENAL MEMBRANES.....	5R01 AM19328-02	29,215
BECKER, CARL G.....	ARTERIOSCLEROSIS, GLOMERULONEPHRITIS, RHEUMATIC FEVER.....	5R01 HL01803-25	149,264
BLACK, IRA B.....	MATERNAL REGULATION OF INFANT DEVELOPMENT.....	5R01 HD12108-03	80,219
BLACK, IRA B.....	REGULATION OF NEURONAL GROWTH AND DEVELOPMENT.....	5R01 NS10259-09	75,142
BLASS, JOHN P.....	NEUROTRANSMITTER METABOLISM IN VITAMIN DEFICIENCY.....	5R01 NS15125-03	75,094
BOTVIN, GILBERT J.....	LITE SKILLS TRAINING AND SMOKING PREVENTION.....	5R01 HD14678-02	47,654
BRESLOW, ESTHER M.....	INTERACTIONS OF PROTEINS.....	5R01 GM17528-24	121,232
BRESLOW, ESTHER M.....	CIRCULAR DICHROISM SPECTROMETER.....	5P41 GM27471-02	4,050
BROWN, WILLIAM T.....	AGING EFFECTS OF ANEUPLOIDY.....	1R01 AG02404-01	92,915
BYRNE, GERALD I.....	IMMUNITY AND LATENCY IN CHLAMYDIAL INFECTIONS.....	1R01 AI16459-01A1	85,096
CHAN, WALTER Y.....	OXYTOCIN AND PROSTAGLANDIN ACTION IN PARTURIENT UTERUS.....	5R01 HD13064-02	103,360
COLATSKY, THOMAS J.....	IONIC BASIS OF ANTIARRHYTHMIC DRUG ACTION IN HEART.....	5R01 HL24279-02	39,382
COLEMAN, D JACKSON.....	THERAPEUTIC ULTRASOUND IN OPHTHALMOLOGY.....	5R01 EY03174-02	83,530
COLEMAN, D JACKSON.....	ULTRASONIC EVALUATION OF OCULAR TISSUES.....	2R01 EY03183-02	178,470
COOPER, THEODORE.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00047-20	1,166,728
CURRERI, P WILLIAM.....	METABOLISM AND NUTRITION IN BURNS AND TRAUMA.....	2R01 GM24752-04	118,397
CURRERI, P WILLIAM.....	BURN AND TRAUMA RESEARCH CENTER.....	5P50 GM26145-02	448,728
DANES, BETTY S.....	GENETIC STUDIES OF HERITABLE COLORECTAL CANCER.....	3R26 CA15973-06S1	23,124
DANES, BETTY S.....	IN VITRO ASSAY FOR INCREASED RISK FOR PANCREATIC CANCER.....	5R26 CA25662-02	35,888
DARLINGTON, GRETCHEN J.....	ACTIVATION OF HEPATIC GENES IN CELL HYBRIDS.....	5R01 GM22372-05	127,249
DEVEREUX, RICHARD B.....	ETIOLOGIC HETEROGENEITY IN MITRAL VALVE PROLAPSE.....	5R01 HL22006-02	105,257
DUFFY, THOMAS E.....	PATHOGENESIS OF HEPATIC COMA.....	5R01 AM16739-08	115,604
FRANCUS, TOVA.....	AGE-RELATED CHANGES IN B-CELL FUNCTION.....	1R01 AG01855-01	92,188
GARDNER, DANIEL.....	SYNAPTIC ORGANIZATION OF AN IDENTIFIED NEURAL NETWORK.....	5R01 NS11555-06	40,801
GAZZANIGA, MICHAEL S.....	COGNITION AND PERCEPTION: SPLIT-BRAIN APPROACH.....	5R01 NS15053-03	94,485
GIBBS, JAMES G, JR.....	PHYSIOLOGICAL MECHANISMS OF SATIETY.....	2R01 AM17240-07	122,975
GIBSON, GARY E.....	NEUROTRANSMITTER METABOLISM.....	3R01 NS15649-01S1	5,369
GOIDL, EDMOND A.....	AGING AND AUTOIMMUNITY.....	1R01 AG01885-01	89,016
GOIDL, EDMOND A.....	CHANGES WITH AGE IN AUTO-ANTI-IDIOTYPIC ANTIBODY.....	1R01 AG02347-01	78,085
GOMEZ, DANIEL G.....	RADIOLOGIC ASPECTS OF CEREBROSPINAL FLUID ABSORPTION.....	5R01 NS13844-03	122,332
GRADY, ROBERT W.....	A THREE-PRONGED APPROACH TO IRON-CHELATION THERAPY.....	1R01 AM27580-01	56,946
GRAFSTEIN, BERNICE.....	EFFECTS OF DARKNESS ON DEVELOPING VISUAL SYSTEM.....	5R01 EY02696-02	44,132
GRAFSTEIN, BERNICE.....	GROWTH OF AXONS IN DEVELOPMENT AND REGENERATION.....	2R01 NS09015-12	210,718
GRAFSTEIN, BERNICE.....	RECOVERY FROM AXONAL INJURY.....	5R01 NS14967-02	70,657
GRIFFITH, OWEN W.....	MAMMALIAN CYSTEINE METABOLISM.....	1R01 AM26912-01	56,770
HASCHEMEYER, RUDY H.....	2-GLUTAMYL TRANSEPTIDASE: MEMBRANE BOUND ENZYME SYSTEM.....	5R01 GM25152-02	73,509
HASCHEMEYER, RUDY H.....	BIOPHYSICAL STUDIES OF MACROMOLECULAR INTERACTIONS.....	5R01 HL11822-12	44,887
HEINZ, ERICH.....	ASCITES TUMOR CELLS PROTON PUMPS—MECHANISM/SIGNIFICANCE.....	3R01 GM26554-02S1	6,766
HEINZ, ERICH.....	ASCITES TUMOR CELLS PROTON PUMPS—MECHANISM/SIGNIFICANCE.....	5R01 GM26554-03	74,567
HILGARTNER, MARGARET W.....	IMPROVED CLINICAL CARE OF THALASSEMIA.....	5R01 HL19898-05	142,447
HINKLE, LAWRENCE E, JR.....	THE DETERMINANTS OF RISK OF SUDDEN DEATH.....	5R01 HL18776-06	186,270
HUBER, SALLY A.....	IMMUNOLOGIC MECHANISMS IN HEART DISEASE.....	5R01 HL17404-07	89,164
JAKOBIEC, FREDERICK A.....	OCULAR LYMPHOM TUMORS: IMMUNOLOGY AND ULTRASTRUCTURE.....	5R01 EY03357-02	160,122
JAVITT, NORMAN B.....	CHOLESTATIC LIVER DISEASE.....	5R01 AM16201-09	192,187
JOHNSON, WARREN D.....	DIFFERENTIATION OF HUMAN MONONUCLEAR PHAGOCYTES.....	5R01 CA25040-03	96,738
JONES, THOMAS C.....	BASIC AND APPLIED RESEARCH IN PROTOZOAN DISEASES.....	5P01 AI16282-02	793,235
KAPLAN, BARRY B.....	GENE ACTIVITY IN BRAIN DURING POSTNATAL DEVELOPMENT.....	5R01 HD11392-02	71,350
KARLIN, DAVID B.....	OCULAR TISSUE EFFECTS OF CO2 LASER ENERGY.....	5R01 EY02410-02	100,106
KIM, YOUNG T.....	EFFECT OF AGING ON B-LYMPHOCYTE FUNCTION IN MAN.....	5R01 AG00842-02	60,272
LARAGH, JOHN H.....	SCOR HYPERTENSION CENTER.....	5P50 HL18323-06	1,309,137
LE DOUX, JOSEPH E.....	LANGUAGE COMPREHENSION AND ITS DISORDERS.....	5R01 NS15572-02	110,780
LEE, CHIN O.....	IONIC MECHANISMS OF HEART BEATS.....	2R01 HL21136-04	77,082
LEVI, ROBERTO.....	CARDIAC DYSFUNCTIONS CAUSED BY HISTAMINE RELEASE.....	2R01 GM20091-06	139,618
LIEBOW, CHARLES.....	PANCREATIC CONTROL BY HISTAMINE.....	5R01 AM21894-03	11,664
LITWIN, STEPHEN D.....	GENETIC CONTROL OF ALLOTYPE EXPRESSION OF HUMAN IG.....	5R01 CA24438-11	135,876
MAACK, THOMAS M.....	RENAL TRANSPORT AND METABOLISM OF PROTEINS.....	5R01 AM14241-10	98,223
MEISTER, ALTON.....	AMINO ACID AND PROTEIN METABOLISM.....	5R01 AM12034-14	251,647
MESHNICK, STEVEN R.....	AN APPROACH TO DEVELOPMENT OF NEW LEISHMANICIDAL AGENTS.....	1R23 AI16975-01	45,148
MURRAY, HENRY W.....	MONONUCLEAR PHAGOCYTE KILLINGS OF LEISHMANIA PARASITES.....	1R01 AI16963-01A1	95,608
NACHMAN, RALPH L.....	SPECIALIZED CENTER OF RESEARCH IN THROMBOSIS.....	5P50 HL18828-05	1,441,208

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NEW, MARIA I.....	ANDROGEN METABOLISM IN CHILDHOOD.....	5R01 HD00072-17	143,720
NEW, MARIA I.....	HLA AND CONGENITAL ADRENAL HYPERPLASIA.....	1R01 HD15084-01	152,585
NEW, MARIA I.....	ADRENOCORTICAL FACTORS IN HUMAN HYPERTENSION.....	5R01 HL17749-05	131,111
PERRY, MALCOLM O.....	MUSCLE ENERGY METABOLISM WITH GRADED ISCHEMIA.....	5R01 HL23623-02	61,242
PETERSON, RALPH E.....	MALE PSEUDOHERMAPHRODITISM.....	5R01 HD09421-06	116,523
PLUM, FRED.....	RESEARCH CENTER IN CEREBROVASCULAR DISEASE.....	3P50 NS03346-19S1	12,160
PLUM, FRED.....	RESEARCH CENTER IN CEREBROVASCULAR DISEASE.....	5P50 NS03346-20	1,254,998
QUIMBY, FRED W.....	LABORATORY ANIMAL DIAGNOSTIC FACILITY.....	5P40 RR01181-03	56,766
REIDENBERG, MARCUS M.....	SPECIAL INITIATIVE FOR RESEARCH ON DRUGS AND AGING.....	5R21 AG01441-02	97,200
REIDENBERG, MARCUS M.....	AROMATIC AMINES AND LUPUS ERYTHEMATOSUS.....	5R01 AM25963-02	91,063
REIS, DONALD J.....	EXPERIMENTAL NEUROGENIC HYPERTENSION PROGRAM.....	5P01 HL18974-05	892,589
RIFKIND, ARLEEN B.....	MECHANISMS OF PCB TOXICITY IN DEVELOPING FETAL TISSUES.....	5R01 ES02165-02	48,600
RIKER, WALTER F, JR.....	GLUCOCORTICIDS ON SYNAPTIC FUNCTION.....	5R01 NS01447-24	99,628
RODMAN, TOBY C.....	CHROMOSOMAL PROTEINS OF MAMMALIAN GAMETES.....	1R01 HD13664-01	96,870
RUBINOW, SOL I.....	KINETICS OF NORMAL AND NEOPLASTIC HEMATOPOIETIC CELLS.....	5R01 CA20610-03	43,382
SAXENA, BRIJ B.....	GONADOTROPIN RECEPTORS.....	5R01 CA13908-06	101,263
SAXENA, BRIJ B.....	PITUITARY GONADOTROPIC AND GROWTH HORMONES.....	5R01 HD06543-09	141,740
SAXENA, BRIJ B.....	MEASUREMENT AND ROLE OF HCG IN EARLY PREGNANCY.....	1R01 HD14126-01	70,370
SCHNECKLOTH, ROLAND E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05396-19	189,787
SEALEY, JEAN E.....	PRORENIN: PHYSIOLOGICAL AND BIOCHEMICAL ANALYSIS.....	5R01 HL21274-03	58,494
SHIRES, GEORGE T.....	EVALUATION OF SALINE SOLUTIONS IN THERAPY OF SHOCK.....	5R01 GM23000-05	141,889
SILAGI, SELMA.....	GENE ACTION AND CELLULAR DIFFERENTIATION IN CULTURE.....	2R01 CA10095-13	215,970
SILVER, RICHARD T.....	CANCER AND LEUKEMIA GROUP B.....	5R10 CA07968-16	409,540
SISKIND, GREGORY W.....	ANTIBODY AFFINITY AT THE CELLULAR LEVEL.....	5R01 AI11694-06	182,413
SOFFER, RICHARD L.....	PULMONARY ANGIOTENSIN-CONVERTING ENZYME.....	2R01 HL21394-04	176,806
TATE, SURESH S.....	BIOSYNTHESIS OF HYPOTHALAMIC HORMONES: TERMINAL GROUPS.....	5R01 AM19074-05	55,142
TAYLOR, ANN G.....	MICROTUBULES AND MICROFILAMENTS IN VASOPRESSIN ACTION.....	5R01 AM19022-05	70,091
WEKSLEER, MARC E.....	AGING AND IMMUNE REACTIVITY.....	2R01 AG00239-06	86,041
WEKSLEER, MARC E.....	AGING IMMUNOLOGICAL STUDIES.....	5P01 AG00541-04	622,410
WEKSLEER, MARC E.....	HOST DEFENSE AGAINST LYMPHOBLASTIC LEUKEMIA.....	5R01 CA13339-08	67,065
WEKSLEER, MARC E.....	AUTOLOGOUS LYMPHOCYTE REACTIONS AND IMMUNE SURVEILLANCE.....	5R01 CA26344-02	56,648
WINDHAGER, ERICH E.....	ION AND WATER TRANSPORT ACROSS RENAL TUBULES.....	5R01 AM11489-14	158,115
WINTERKORN, JACQUELINE M.....	VISUAL BEHAVIOR FOLLOWING PARALYTIC STRABISMUS.....	5R01 EY02240-03	84,760
YOUNG, NANCY L.....	THE REGULATION OF CHOLESTEROL SYNTHESIS IN DIABETES.....	5R01 HL20488-05	120,659
ORGANIZATION TOTAL	96	16,734,022	
FORDHAM UNIVERSITY ZIP CODE 10458			
FRANCK, RICHARD W.....	SYNTHESIS OF THE AUREOLIC ACID ANTIBIOTICS FAMILY.....	1R01 CA27116-01	69,962
FRANCK, RICHARD W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07150-06	28,871
HERSKOVITS, THEODORE T.....	SUBUNIT STRUCTURE AND INTERACTIONS OF PROTEINS.....	5R01 AM20156-02	42,901
HERSKOVITS, THEODORE T.....	DESIGN OF NEW INHIBITORS FOR HEMOGLOBIN S GELATION.....	5R01 AM21888-02	65,116
ORGANIZATION TOTAL	4	206,850	
HEALTH INSURANCE PLAN OF NEW YORK CITY ZIP CODE 10022			
RUBERMAN, WILLIAM.....	PSYCHOSOCIAL STRESS AND SUDDEN CORONARY DEATH.....	5R01 HL23078-03	21,935
RUBERMAN, WILLIAM.....	PSYCHOSOCIAL STRESS IN CORONARY MORTALITY.....	1R01 HL24786-01	43,226
ORGANIZATION TOTAL	2	65,161	
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021			
BOSKEY, ADELE L.....	MECHANISM OF HARD TISSUE MINERALIZATION.....	5R01 DE04141-06	68,285
BURSTEIN, ALBERT H.....	MECHANICAL PROPERTIES OF NORMAL AND PATHOLOGIC BONE.....	5R01 AM20048-04	123,297
CHRISTIAN, CHARLES L.....	MULTIPURPOSE ARTHRITIS CENTER.....	5P60 AM22066-03	306,030
KAGEN, LAWRENCE J.....	IMMUNOLOGICAL STUDIES OF MUSCLE AND MYOGLOBIN.....	5R01 AM14650-10	100,927
KAGEN, LAWRENCE J.....	CELL GROWTH INHIBITOR PRODUCED BY SPINAL CORE CELLS.....	5R01 NS14859-02	52,503
LANE, JOSEPH M.....	MOLECULAR BIOLOGY OF FRACTURE, INJURY AND REPAIR.....	2R01 AM19776-04	52,952
MELLORS, ROBERT C.....	TYPE C RNA VIRUS AND IMMUNOPATHOLOGY.....	5R01 CA14928-16	144,939
MELLORS, ROBERT C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05495-18	69,104
POSNER, AARON S.....	ULTRASTRUCTURE OF BONE MINERAL.....	5R01 AM18412-05	147,902
WRIGHT, TIMOTHY M.....	DIAGNOSIS OF LOOSE OR DAMAGED TOTAL JOINT REPLACEMENT.....	1R01 AM26211-01	87,489
ORGANIZATION TOTAL	10	1,153,428	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
INTERNATIONAL ASSOCIATION FOR THE STUDY OF LUNG CANCER ZIP CODE 10021			
HIGGINS, GEORGE A. JR.	THE SECOND WORLD CONFERENCE ON LUNG CANCER	1R13 CA28063-01	34,000
ORGANIZATION TOTAL	1 34,000		
JOINT DISEASES NORTH GENERAL HOSPITAL ZIP CODE 10035			
HOLLANDER, VINCENT P.	HORMONALLY SENSITIVE TUMORS	5R01 CA10064-18	97,960
HOLLANDER, VINCENT P.	CANCER CENTER SUPPORT GRANT	5P30 CA14194-07	421,162
HOLLANDER, VINCENT P.	ENDOCRINE FACTORS IN THE DEVELOPMENT OF PLASMACYTOMA	5R01 CA26041-02	81,148
HOLLANDER, VINCENT P.	RECEPTOR STUDIES IN HUMAN BREAST CANCER	1R01 CA27470-01	37,188
HOLLANDER, VINCENT P.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05589-16	25,832
MONDER, CARL	NEW PATHWAYS OF CORTICOSTEROID METABOLISM	5R01 AM09006-15	126,355
MONDER, CARL	FETAL LIVER AND HEPATOMA IN ORGAN CULTURE	5R01 CA22472-03	35,428
STEVENS, JOHN J.	MECHANISM OF CORTISOL-INDUCED LYMPHOMA REGRESSION	2R01 CA14987-07	99,220
ORGANIZATION TOTAL	8 924,293		
LENOX HILL HOSPITAL ZIP CODE 10021			
IOACHIM, HARRY L.	TUMOR CELL ANTIGEN CHANGES	3R01 CA16997-06S1	10,442
ORGANIZATION TOTAL	1 10,442		
LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER ZIP CODE 11042			
BANK, SIMMY	ISO-ENZYMES OF AMYLASE IN HEALTH AND PANCREATIC DISEASE	5R01 AM21823-02	29,042
HSU, TONY C.	ANTIGLOBULIN TESTS USING 125I-IGG ANTI-C3D	5R01 AM25508-02	28,168
MULVILL, JAMES E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05496-18	44,266
SAWITSKY, ARTHUR	MULTIDISCIPLINARY THERAPY FOR MALIGNANT DISEASES	5R10 CA11028-13	141,928
STEINBERG, BETTIE M.	REGULATION OF REVERSION IN SV40 TRANSFORMED RAT CELLS	7R23 CA29530-01	30,470
ORGANIZATION TOTAL	5 273,874		
LONG ISLAND UNIVERSITY BROOKLYN CENTER ZIP CODE 11201			
ROGERS, DONALD W.	HEATS OF HYDROGENATION OF LARGE MOLECULES	5R01 GM18035-08	19,793
ORGANIZATION TOTAL	1 19,793		
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021			
BEATTIE, EDWARD J. JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05753-08	91,728
BURCHENAL, JOSEPH H.	CLINICAL CANCER RESEARCH CENTER	5P01 CA05826-19	1,405,748
LEPLEY, JAMES B.	CLINICAL CANCER EDUCATION (DENTAL)	2R25 CA20681-04	68,374
MELAMED, MYRON R.	AUTOMATED URINARY CYTOLOGY FOR CANCER DETECTION	5R25 CA14134-08	149,122
MILLER, DENIS R.	CHILDREN'S CANCER STUDY GROUP	5R10 CA23742-03	144,735
MYERS, WARREN P.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA20449-04	221,296
OETTGEN, HERBERT F.	CLINICAL IMMUNOBIOLOGY PROGRAM PROJECT	5P01 CA19267-05	975,452
RIVLIN, RICHARD S.	COOPERATIVE CORE LAB AND CLINICAL NUTRITION RESEARCH	1P01 CA29502-01	180,105
SCHOTTENFELD, DAVID	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	2R10 CA21169-04	110,036
WHITMORE, WILLET F. JR.	RETROPERITONEAL LYMPH NODE DISSECTION IN TESTIS CANCER	1R01 CA28639-01	46,411
WINAWER, SIDNEY J.	DETECTION OF EARLY COLON CANCER	2R26 CA15429-07	147,763
ORGANIZATION TOTAL	11 3,540,770		
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467			
ACKERMAN, SIGURD H.	PSYCHOBIOLOGIC MECHANISMS OF STRESS ULCER IN THE RAT	5R01 AM18804-05	70,488
BANK, NORMAN	RENAL STARLING FORCES IN EXPERIMENTAL CONDITIONS	5R01 HL19366-05	84,335
BELLHORN, ROY W.	BLOOD-OCULAR PERMEABILITY BARRIERS OF DEVELOPING EYE	3R01 EY02038-03S1	10,131
BELLHORN, ROY W.	BLOOD-RETINAL BARRIERS IN EXPERIMENTAL RETINOPATHIES	2R01 EY02038-04	127,176
BURNS, MARGARET S.	ION LOCALIZATION IN EYE PHYSIOLOGY: NEW TECHNIQUES	5R01 EY02093-03	87,178
CHEKASKY, MARTIN	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00053-19	836,809
CHEKASKY, MARTIN	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05499-18	147,071
COHEN, MICHAEL V.	EFFECTS OF EXERCISE ON THE CORONARY VASCULATURE	5R01 HL17809-06	95,903
EMESON, EUGENE E.	ADOPTIVE IMMUNOTHERAPY OF CANCER BY ALLOGENEIC MARROW	5R01 CA17467-05	91,319
ESCHER, DORIS J.	TECHNOLOGY AND PHYSIOLOGY OF ARTIFICIALLY PACED HEARTS	3R01 HL04666-19S2	12,107
HATCHER, VICTOR B.	CELLULAR AGING AND HUMAN SKIN FIBROBLAST FIBRONECTIN	5R01 AG01732-02	59,937
HIRANO, ASAO	PATHOLOGY OF NEUROPATHY IN MUTANTS	5R01 NS14586-03	58,504
KOSS, LEOPOLD G.	AUTOMATION OF BLADDER CANCER CYTOLOGY BY TICAS	5R26 CA15803-08	125,654
LALEZARI, PARVIZ	NEUTROPHIL ANTIGENS; PATHOPHYSIOLOGY & CHEMISTRY	5R01 CA15318-06	97,504

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NORIN, ALLEN J	CONTROL OF GROWTH IN QUIESCENT HUMAN CELLS	5R01 CA22088-02	47,003
PUSZKIN, ELENA G	THE ROLE OF CONTRACTILE PROTEINS IN PLATELETS	5R01 HL18030-06	98,734
ROSEN, JOHN F	THE METABOLISM OF LEAD IN BONE	2R01 ES01060-06	107,479
ROSENBERG, LAWRENCE C	STRUCTURE OF EPIPHYSEAL GROWTH PLATE CARTILAGE	5R01 AM21498-03	70,089
ROSENBERG, LAWRENCE C	ASSESSMENT OF MALIGNANCY IN HUMAN CHONDROSARCOMAS	5R01 CA23945-02	139,285
SAENGER, PAUL H	NON-INVASIVE METHODS FOR STUDY OF DRUG METABOLISM	5R01 GM27259-02	81,375
SCHAIBLE, THOMAS F	COMPARISON OF HEART FUNCTION IN MALE AND FEMALE RATS	1R23 HL25372-01	34,242
SCHEUER, JAMES	EFFECTS OF PHYSICAL TRAINING ON THE HEART	5R01 HL15498-08	139,714
SCHEUER, JAMES	CARDIAC FUNCTION AND METABOLISM IN DIABETES	5R01 HL21482-03	70,442
SHAPIRO, LAWRENCE E	INSULIN AND GROWTH HORMONE CONTROL OF SOMATOMEDIN	5R01 AM26101-02	73,665
SMITH, CAROL A	VIRAL ETIOLOGY OF RHEUMATOID ARTHRITIS	5R01 AM15796-07	104,709
SPAET, THEODORE H	THE BLOOD VESSEL AND THROMBOGENESIS	5P01 HL16387-07	620,121
STEIGBIGEL, NEAL H	ASSOCIATION OF STREPTOCOCCUS BOVIS WITH COLON CANCER	1R26 CA26673-01A1	33,127
SURKS, MARTIN I	TRIIODOTHYRONINE RECEPTORS AND THYROTROPH NEOPLASIA	5R01 CA16463-06	97,325
SURKS, MARTIN I	TRIIODOTHYRONINE RECEPTORS AND NONTHYROIDAL DISEASES	5R01 CA24604-02	72,836
VEITH, FRANK J	EXPERIMENTAL LUNG TRANSPLANTATION	3P01 HL17417-06S1	8,876
VEITH, FRANK J	EXPERIMENTAL LUNG TRANSPLANTATION	5P01 HL17417-07	421,775
WEINBERG, UZI	MELATONIN-A GONADOTROPIN SECRETE MODULATOR—WOMEN/MEN	1R01 HD13607-01	79,366
WEITZMAN, ELLIOT D	PSYCHONEUROENDOCRINE RHYTHMS, AGING, & SLEEP DISORDERS	5P01 AG00792-04	273,700
YIPINTSOI, TADA	REGIONAL MYOCARDIAL BLOOD FLOW AND METABOLISM	5R01 HL15983-06	14,360
ZUMOFF, BARNETT	ESTROGEN, CORTICOID, AND GONADOTROPIN IN OBESITY	1R01 AM27292-01	96,095
ORGANIZATION TOTAL	35 4,588,434		
NATIONAL FOUNDATION FOR ILEITIS AND COLITIS ZIP CODE 10017			
BROD, IRWIN	GROWTH RETARDATION AMONG LIMITED BRAIN DAMAGED CHILDREN	1R13 AM27979-01	20,000
ORGANIZATION TOTAL	1 20,000		
NEW SCHOOL FOR SOCIAL RESEARCH ZIP CODE 10011			
MACK, ARIEN	EYE MOVEMENTS AND THE PERCEPTION OF MOTION AND STABILITY	2R01 EY01135-06	51,691
ORGANIZATION TOTAL	1 51,691		
NEW YORK ACADEMY OF MEDICINE ZIP CODE 10029			
JARCHO, SAUL	TRANSLATION OF MORGAGNI'S CONSULTI, WITH COMMENTARY	5R01 LM03307-02	22,300
ORGANIZATION TOTAL	1 22,300		
NEW YORK ACADEMY OF SCIENCES ZIP CODE 10021			
COHEN, BERNARD	CONFERENCE ON OCULOMOTOR AND VESTIBULAR PHYSIOLOGY	1R13 NS16366-01	30,189
SELIKOFF, IRVING J	WORKSHOP ON BRAIN TUMORS IN THE CHEMICAL INDUSTRY	1R13 ES02621-01	13,218
SHAMOO, ADIL E	CARRIERS AND CHANNELS IN BIOLOGICAL SYSTEMS	1R13 GM26612-01	8,000
ORGANIZATION TOTAL	3 51,407		
NEW YORK ASSOCIATION FOR THE BLIND ZIP CODE 10022			
GILLMAN, ARTHUR E	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	1S08 RR09150-01A1	113,022
ORGANIZATION TOTAL	1 113,022		
NEW YORK BLOOD CENTER ZIP CODE 10021			
GERMAN, JAMES L, III	CYTOLOGICAL STUDIES IN HUMAN GENETICS	5R01 HD04134-13	125,793
HOROWITZ, BERNARD	ISOLATION OF HUMAN PLASMA FIBRONECTIN	5R01 HL24894-02	98,280
KELLNER, AARON	RESEARCH AND RESOURCE BLOOD PROGRAM	5P01 HL09011-17	2,328,221
KELLNER, AARON	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05688-12	64,071
KUDRYK, BOHDAN J	IMMUNOCHEMISTRY OF FIBRINOGEN	1R01 HL21465-01A1	68,341
REDMAN, COLVIN M	POLYSOME-MEMBRANE INTERACTIONS IN HEPATOMAS	5R01 AM20888-03	77,967
RUBINSTEIN, PABLO	MAJOR HISTOCOMPATIBILITY SYSTEMS OF MICE AND HUMANS	5R01 AI15413-02	86,316
RUBINSTEIN, PABLO	HL-A SYSTEM AND THE GENETICS OF JUVENILE DIABETES	2R01 AM19631-04	157,351
STEVENS, CLADD E	POST-TRANSFUSION HEPATITIS IN NEWBORN CHILDREN	5R01 HL22838-03	69,782
WOLF, CARL F	BIOENGINEERING STUDIES OF A LIVER ASSIST DEVICE	1R01 AM26726-01	84,216
ORGANIZATION TOTAL	10 3,160,338		
NEW YORK BOTANICAL GARDEN ZIP CODE 10458			
CAREY, SUSAN T	BIOLOGICALLY ACTIVE METABOLITES FROM PYRENOMYCETES	5R01 AI13247-04	90,775

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NAIR, RAMACHANDRAN M.....	NEW MOLD PRODUCTS: CHEMISTRY AND BIOLOGICAL ACTIVITY.....	5R01 AI13074-04	97,976
ORGANIZATION TOTAL	2 188,751		
NEW YORK CITY HEALTH SERVICES ADMINISTRATION ZIP CODE 10013			
FRIEDMAN, STEPHEN M.....	PATHOGENICITY OF VISCERAL LARVA MIGRANS IN CHILDREN.....	1R01 AI16419-01	179,648
ORGANIZATION TOTAL	1 179,648		
NEW YORK CITY HEALTH SERVICES ADMINISTRATION—PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N Y ZIP CODE 10016			
DAY, LOREN A.....	PHYSICAL CHEMISTRY OF VIRUSES AND THEIR COMPONENTS.....	5R01 AI09049-12	147,215
DUBNAU, DAVID A.....	GENETIC RECOMBINATION IN BACILLUS SUBTILIS.....	5R01 AI10311-10	112,560
GREGORIADES, ANASTASIA.....	REPLICATION AND ASSEMBLY OF INFLUENZA VIRUS.....	5R01 AI12567-05	79,822
HIRST, GEORGE K.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05533-18	75,869
KHAN, SALEEM A.....	ENTEROTOXIN B PRODUCTION IN STAPHYLOCOCCUS AUREUS.....	1R01 AI17216-01	79,021
LUSTY, CAROL J.....	STRUCTURE-FUNCTION RELATIONS OF UREA CYCLE ENZYMES.....	5R01 AM18044-06	89,612
LUSTY, CAROL J.....	SYNTHESIS AND TRANSPORT OF MITOCHONDRIAL MATRIX PROTEINS.....	1R01 GM25846-01A1	45,951
MARGOLIN, PAUL.....	MUTATION AND SUPPRESSOR STUDIES OF A BACTERIAL GENE.....	5R01 GM15255-15	129,810
MINDICH, LEONARD E.....	CELL MEMBRANE SYNTHESIS IN THE CONTROL OF GROWTH.....	5R01 AI09861-14	137,465
MURPHY, ELLEN.....	SITE SPECIFIC RECOMBINATION IN STAPHYLOCOCCUS AUREUS.....	1R01 GM27253-01	73,571
NOVICK, RICHARD P.....	MOLECULAR BIOLOGY OF BACTERIAL PLASMIDS.....	5R01 GM14372-14	131,176
OISHI, MICHIO.....	THE MOLECULAR MECHANISM OF GENETIC RECOMBINATION.....	5R01 GM21073-07	137,649
PENEFESKY, HARVEY S.....	MITOCHONDRIAL MEMBRANE AND OXIDATIVE PHOSPHORYLATION.....	2R01 GM21737-14	102,874
POINDEXTER, JEANNE S.....	CELL ENVELOPE STRUCTURE AND ASSEMBLY IN CAULOBACTER.....	5R01 AI15467-02	34,139
PULLMAN, MAYNARD E.....	BIOSYNTHETIC PROCESSES IN MITOCHONDRIA.....	2R01 AM08823-14A2	106,106
PULLMAN, MAYNARD E.....	ROLE OF ATPASE INHIBITOR IN OXIDATIVE PHOSPHORYLATION.....	1R01 GM26924-01	81,034
RATNER, SARAH.....	MECHANISMS OF NITROGEN TRANSFER AND UREA FORMATION.....	5R01 AM03428-21	79,717
SMITH, ISSAR.....	GENETICS OF RIBOSOMES AND ANTIBIOTIC RESISTANCE.....	3R01 AI14118-08S1	12,664
SMITH, ISSAR.....	REGULATORY MECHANISMS IN RIBOSOME BIOSYNTHESIS.....	5R01 GM19693-07	83,935
SMITH, ISSAR.....	GENETICS OF THE B SUBTILIS TRANSLATIONAL APPARATUS.....	9R01 GM28407-09	80,595
STERN, WILLIAM.....	LECITHIN SYNTHESIS IN A549 AND TYPE II LUNG CELLS.....	5R01 HL24630-02	75,298
ORGANIZATION TOTAL	21 1,896,183		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—INSTITUTE FOR BASIC RESEARCH IN MENTAL RETARDATION ZIP CODE 10314			
BERATIS, NICHOLAS G.....	THE GENETIC DEFECTS IN GLYCOGENOSIS TYPE II.....	5R01 AM22198-02	59,446
BROCKERHOFF, HANS.....	ROLE OF CHOLESTEROL IN BIOLOGICAL MEMBRANES.....	5R01 GM21875-05	96,397
BROCKERHOFF, HANS.....	SYNTHESES OF MEMBRANE-ANCHORED DRUGS.....	5R01 NS15379-02	31,165
DESHMUKH, DIWAKAR S.....	MYELINATION OF GOLGI AND OTHER SUBMICROSOMAL MEMBRANES.....	1R01 NS14073-01A1	51,472
DESHMUKH, DIWAKAR S.....	POLYPHOSPHOINOSITIDE METABOLISM IN MYELIN.....	5R01 NS14480-03	58,820
GOULD, ROBERT M.....	COMPLEX LIPID METABOLISM IN THE AXON.....	2R01 NS13980-04	94,009
GOULD, ROBERT M.....	PERIPHERAL NERVE METABOLISM IN DIABETIC NEUROPATHY.....	1R01 NS16305-01	82,679
KAPLAN, HARRIETT.....	A MODEL OF SEIZURE DISORDERS.....	1R01 NS15724-01	36,103
LOO, YEN H.....	BIOCHEMICAL AND BEHAVIORAL CHANGES IN PKU.....	5R01 HD06843-04	58,327
MADRID, RICARDO E.....	RELAPSING EAE: SEARCH FOR SECONDARY ANTIGEN(S).....	1R01 NS15866-01	48,246
STURMAN, JOHN A.....	ROLE OF TAURINE IN DEVELOPING NEURAL TISSUE.....	5R01 HD11129-02	74,420
WISNIEWSKI, HENRYK M.....	IMMUNOGLOBULIN—CHRONIC RELAPSING EA ENCEPHALOMYELITIS.....	5R01 NS14406-03	62,386
WISNIEWSKI, HENRYK M.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05838-01	29,504
ORGANIZATION TOTAL	13 782,974		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—NEW YORK STATE PSYCHIATRIC INSTITUTE ZIP CODE 10032			
BODNAR, RICHARD J.....	STRESS-PRODUCED ANALGESIA: A NEUROBEHAVIORAL ANALYSIS.....	5R01 NS14449-03	30,552
JAFFE, JOSEPH.....	AUTOMATION OF A TEST FOR DYSLEXIA.....	2R01 NS14130-02	36,699
KUPFERMANN, IRVING.....	BEHAVIORAL AND NEURAL ANALYSIS OF LEARNING.....	5R01 NS12492-07	71,843
SACHAR, EDWARD J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05650-14	102,533
WALSH, B TIMOTHY.....	ANOREXIA NERVOSA: CLINICAL FEATURES AND ENDOCRINOLOGY.....	1R01 AM28150-01	82,187
ORGANIZATION TOTAL	5 323,814		
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—RESEARCH INSTITUTE FOR NEUROCHEMISTRY & DRUG ADD ZIP CODE 10035			
LAJTHA, ABEL.....	PROTEIN AND PEPTIDE BREAKDOWN IN THE BRAIN.....	5R01 NS03226-20	70,474
NEIDLE, AMOS.....	MECHANISMS OF ACTH DEGRADATION IN BRAIN.....	1R01 NS15817-01A1	48,844
VADASZ, CSABA.....	GENETIC ANALYSIS OF ACTH AND BETA-ENDORPHIN METABOLISM.....	1R01 NS15915-01	40,443
ORGANIZATION TOTAL	3 159,761		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NEW YORK UNIVERSITY ZIP CODE 10003			
ALBERT, ROY E	INHALATION CARCINOGENESIS OF ENVIRONMENTAL AGENTS	1P01 CA26724-01	675,070
AULL, FELICE B	MEMBRANE PERMEABILITY OF THE ASCITES TUMOR CELLS	5R01 CA10625-11	69,338
BAKER, ROBERT G	EYE MOVEMENT: PHYSIOLOGICAL ORGANIZATION	5R01 EY02007-05	55,155
BALDWIN, DAVID S	CHRONICITY IN POSTSTREPTOCOCCAL GLOMERULONEPHRITIS	5R01 AM21817-02	50,109
BASCH, ROSS S	DEVELOPMENT OF THYMIC LYMPHOCYTES	5R01 CA24472-06	87,193
BASILICO, CLAUDIO	CELLULAR AND VIRAL CONTROL OF ONCOGENIC TRANSFORMATION	5R01 CA11893-11	128,680
BASILICO, CLAUDIO	BIOSYNTHESIS IN NORMAL AND VIRUS-TRANSFORMED CELLS	5P01 CA16239-06	209,455
BASILICO, CLAUDIO	CONTROL OF CYCLE PROGRESSION IN ANIMAL CELLS	5R01 CA26070-02	128,984
BATTISTA, ARTHUR F	NERVE FASCICLE LIGATION AND NEUROMA FORMATION	5R01 NS14362-03	60,156
BELMAN, SIDNEY	ROLE OF CYCLIC NUCLEOTIDES IN TUMOR PROMOTION	2R01 CA18536-04	124,094
BERLOWITZ, LAURENCE	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07062-15	80,521
BERNHIMER, ALAN W	STAPHYLOCOCCAL AND STREPTOCOCCAL PROTEINS	5R01 AI02874-22	110,695
BLACK, VIRGINIA H	AGING OF ADRENOCORTICAL CELLS	5R01 AG01468-02	38,534
BLACK, VIRGINIA H	DIFFERENTIATION OF STEROID-SECRETING CELLS	5R01 HD04005-11	60,214
BOGART, BRUCE I	ACTIVITIES AND BIOASSAY OF CYSTIC FIBROSIS FACTOR(S)	1R01 AM27082-01	54,034
BRALKE, CHRISTINE L	DNA POLYMERASE OF DROSOPHILA EMBRYOS	5R01 HD13366-02	70,835
BREININ, GOODWIN M	FINE STRUCTURE OF NORMAL AND PATHOLOGIC OCULAR MUSCLE	3R01 EY00309-14S1	36,972
BREININ, GOODWIN M	FINE STRUCTURE OF NORMAL AND PATHOLOGIC OCULAR MUSCLE	2R01 EY00309-15	75,878
BRENNAN, MICHAEL J	AGE & GENOTYPIC VARIATIONS—NEUROCHEMISTRY & BEHAVIOR	1R23 AG02159-01	41,663
BROHN, FREDRICK H	SUGAR PRECURSORS OF SURFACE COAT GLYCOPROTEINS	1R01 AI17186-01	43,957
BYSTRYN, JEAN-CLAUDE	ISOLATION OF TUMOR ANTIGENS OF HUMAN MELANOMA	5R01 CA13844-08	123,158
CAPERELLI, CAROL A	ACTIVE-SITE-DIRECTED INHIBITORS OF GAR TRANSFORMYLASE	1R01 CA28312-01	46,608
CARR, RONALD E	CLINICAL CENTER FOR HEREDITARY RETINAL DEGENERATIONS	5P50 EY02179-03	134,955
CARROLL, ROBERT B	BIOCHEMICAL PROPERTIES OF THE SV40 T ANTIGENS	2R01 CA20802-04	78,986
CHAMBERS, ROBERT W	MUTAGENESIS AND CARCINOGENESIS	2R01 CA16319-06	242,750
CHEN, JOHN H	GENETICALLY LINKED CATARACT AND OTHER LENS DISORDERS	5R01 EY03173-02	95,815
CHIARANDINI, DANTE J	PHYSIOLOGY AND PHARMACOLOGY OF EXTRAOCULAR MUSCLES	5R01 EY01297-07	108,528
COHEN, BERTRAM I	EFFECTS OF STEROLS AND BILE ACIDS ON COLON CANCER	5R26 CA27438-02	102,083
COLEMAN, PETER S	TRANSPORT IN CHOLESTEROL-RICH TUMOR MITOCHONDRIA	1R01 CA28677-01	79,640
CONVERSE, JOHN M	CRANIOFACIAL ANOMALIES—ETIOLOGY AND TREATMENT	2P01 DE03568-06A1	141,125
DAISEY, JOAN M	PHOTODEGRADATION OF ADSORBED POLYCYCLIC ARENES	5R23 ES01691-02	27,825
DANCIS, JOSEPH	PHYSIOLOGY OF THE PLACENTA	5R01 HD00462-24	58,597
DANCIS, JOSEPH	INBORN ERRORS OF METABOLISM	5R01 HD04526-11	48,653
DEFENDI, VITTORIO	CANCER CENTER SUPPORT GRANT	3P30 CA16087-03S3	12,124
DILLER, LEONARD	FUNCTIONAL SKILL REMEDIATION IN BRAIN DAMAGE	5R01 NS10236-08	155,285
ELSBACK, PETER	MICROBICIDAL ACTIVITY OF LEUKOCYTES: MEMBRANE FACTORS	5R01 AM05472-19	134,580
FARBER, SAUL J	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05399-19	213,787
FOX, ARTHUR C	RELEASE OF NUCLEOSIDES FROM THE ISCHEMIC HEART	3R01 HL16412-05S1	2,331
FRANKLIN, EDWARD C	RHEUMATIC DISEASES—CHEMICAL IMMUNOLOGY	5P01 AM01431-24	201,236
FRANKLIN, EDWARD C	STRUCTURE OF IMMUNOGLOBULINS AND RELATED PROTEINS	5R01 AM02594-23	149,801
FREDERICKSEN, TOMMY L	T CELL SUBSETS AND MAREK'S DISEASE VIRAL ONCOGENESIS	1R23 CA27542-01	55,332
FREEDMAN, MICHAEL L	ROLE OF MITOCHONDRIAL PROTEIN SYNTHESIS IN AGING	5R21 AG01399-02	54,438
FREEDMAN, MICHAEL L	CONTROL OF POLYRIBOSOMES IN HUMAN RETICULOCYTES	2R01 AM13532-11	102,128
FRENKEL, KRYSZYNA	EXCISION-REPAIR OF BENZO(A) PYRENE-MODIFIED DNA	5R23 ES02234-02	39,473
GARDNER, ESTHER P	NEURAL MECHANISMS OF CUTANEOUS SPATIAL INTEGRATION	5R01 NS11862-06	38,865
GARTE, SEYMOUR J	BIOCHEMICAL MECHANISMS OF TUMOR PROMOTERS	5R23 CA23806-02	38,483
GERSHENGORN, MARVIN C	MOLECULAR MECHANISMS OF REGULATION OF TSH SECRETION	2R01 AM20249-04	73,811
GERSHON, ANNE A	V-Z VIRUS: CLINICAL IMPLICATIONS OF IMMUNITY	5R01 AI12814-05	61,076
GIGLI, IRMA	ACTIVATION OF THE COMPLEMENT SYSTEM	5R01 AI13809-04	110,871
GIGLI, IRMA	ASTHMA AND ALLERGIC DISEASE CENTER FOR IMMUNODERMATOLOGY	1P50 AI17365-01	272,151
GIGLI, IRMA	EPIDERMAL LANGERHANS CELLS: IN VITRO AND IN VIVO STUDY	5R01 AM26091-02	88,159
GILMOUR, DOUGLAS G	CHICKEN LYMPHOCYTE ALLOANTIGENS AND VIRAL ONCOGENESIS	5R01 CA14061-08	201,165
GODSON, GODFREY N	DNA REPLICATION IN SMALL VIRUSES	7R01 AI17667-01	57,142
GOLDBERG, BURTON D	THE BIOSYNTHESIS AND METABOLISM OF PROCOLLAGEN	2R01 HL17551-06	95,581
GOLDFEDER, ANNA	CELL KINETICS OF IRRADIATED TUMORS	5R01 CA12076-08	103,250
GOLDSTEIN, IRA M	PANCREATITIS, COMPLEMENT AND LUNG INJURY	5R01 AM25374-02	16,525
GOLDSTEIN, IRA M	INFLAMMATION DUE TO PROSTHETIC INTRACULAR LENSES	1R01 EY03179-01	19,984
GOLDSTEIN, MENEK	BIOGENIC AMINES AND EXTRAPYRAMIDAL DISORDERS	2R01 NS06801-14	120,915
GORDON, ALBERT S	EXTRARENAL ERYTHROPOIETIN AND ITS PRODUCTION	5R01 HL03357-23	108,495

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
GREENE, LLOYD A.	NEUROCHEMICAL STUDIES ON CULTURED SYMPATHETIC NEURONS.	2R01 NS16036-02	151,506
GROBER, ELLEN H.	THE BREAKDOWN OF WORD MEANINGS IN APHASIA	1R01 NS16536-01	49,649
GROSSMAN, ALBERT	ROLE OF STEROIDS IN PANCREATIC FUNCTION.	5R01 AM20084-02	97,213
GROVER-JOHNSON, NICOLA M.	DIABETIC NEUROPATHY AND PERIPHERAL VASCULAR DISEASE	5R01 HL20400-05	52,349
GUNNISON, ALBERT F.	DISTRIBUTION AND FATE OF INHALED SULFUR DIOXIDE	5R01 ES00613-09	105,846
GUTTENPLAN, JOSEPH B.	MECHANISM OF MUTAGENESIS AND CARCINOGENESIS	5R01 CA19023-05	58,795
HATTEN, MARY E.	SURFACE BIOCHEMISTRY OF EMBRYONIC CEREBELLAR CELLS.	5R01 NS15429-02	58,982
HILLMAN, DEAN E.	CIRCUITRY MODIFICATIONS AND MATERNAL PROTEIN RESTRICTION	5R01 HD10934-04	80,604
HIRSCHHORN, ROCHELLE	ACTIVATION OF IMMUNOCOMPETENT LYMPHOCYTES	3R01 AI10343-08S1	11,314
HIRSCHHORN, ROCHELLE	ACTIVATION OF IMMUNOCOMPETENT LYMPHOCYTES	2R01 AI10343-09	133,957
HOCHWALD, GERALD M.	SPINAL FLUID PROTEINS AND BLOOD-SPINAL FLUID BARRIER	5R01 NS05024-14	108,125
HOCHWALD, GERALD M.	CEREBROSPINAL FLUID FORMATION/ABSORPTION—HYDROCEPHALUS	5R01 NS15542-02	54,480
HOFFSTEIN, SYLVIA T.	NEUTROPHIL DYSFUNCTION IN DIABETES	5R01 AM25776-02	39,431
HOLLANDER, CHARLES S.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00096-20	1,431,810
IMPARATO, ANTHONY M.	INTIMAL HYPERPLASIA IN ARTERIAL RECONSTRUCTIONS	5R01 HL16290-05	149,990
IMPARATO, ANTHONY M.	HEMODYNAMIC INDUCTION OF INTIMAL FIBROMUSCULAR LESION	5R01 HL22783-03	139,469
IMPARATO, ANTHONY M.	DUCTUS ARTERIOSUS CLOSURE: AN ARTERIAL LESION MODEL	3R01 HL22784-02S1	4,657
JAVID, JAMSHID	AN IMMUNOLOGIC STUDY OF HEMOGLOBIN VARIATION IN MAN	3R01 HL19646-04S1	3,980
JAVID, JAMSHID	AN IMMUNOLOGIC STUDY OF HEMOGLOBIN VARIATION IN MAN	5R01 HL19646-05	73,635
JOHNSON, ALAN J.	COAGULATION, FIBRINOLYSIS, PLATELETS AND HEMOSTASIS	5P01 HL15596-07	624,597
KAMBYSELLIS, MICHAEL P.	VITELLOGENIN GENES: ISOLATION AND EXPRESSION	5R01 AG01870-02	86,451
KARPATKIN, SIMON	BIOCHEMISTRY, PHYSIOLOGY, IMMUNOLOGY OF HUMAN PLATELETS	3R01 HL13336-10S1	19,460
KAUFMAN, LLOYD	NEUROMAGNETIC ANALYSIS OF THE VISUAL SYSTEM	5R01 EY02059-02	128,441
KAYDEN, HERBERT J.	LIPID METABOLISM	5R01 HL06481-17	91,458
KELKER, NORMAN E.	REGULATION OF ENZYME BIOSYNTHESIS IN BACTERIA	5R01 GM25319-02	47,094
KELLAR, LUCIA A.	PROSODY AND SYNTAX IN APHASIA	5R01 NS15257-02	61,189
KENNEDY, MICHAEL C.	NEURAL BASES OF AUDITORY COMMUNICATION	5R01 NS14156-03	37,018
KLEIN, RICHARD J.	EXPERIMENTAL RECURRENT OROFACIAL HERPES IN ANIMALS	5R01 DE04958-03	83,086
KLEINBERG, DAVID L.	THE ROLE OF PROLACTIN IN HUMAN BREAST CANCER	5R01 CA16149-06	59,669
KREIBICH, GERT	ORGANIZATION AND BIOSYNTHESIS OF ER MEMBRANE PROTEINS	5R01 GM21971-06	74,947
KROHN, DAVID L.	TRANSCORNEAL FLUX ENHANCEMENT OF PILOCARPINE	5R01 EY02428-03	101,038
LAMM, MICHAEL E.	INDUCTION OF SECRETORY IMMUNITY	5R01 AI15071-03	106,664
LAMM, MICHAEL E.	SECRETORY IMMUNOGLOBULIN	5R01 CA23885-09	119,285
LAVERS, GENE C.	LENS CATARACTS AND RNA MODIFICATION	3R01 EY02352-02S1	267
LAVERS, GENE C.	LENS CATARACTS AND RNA MODIFICATION	5R01 EY02352-03	39,859
LAWRENCE, H. SHERWOOD	IMMUNOLOGIC RESISTANCE TO CANCER	5P01 CA16247-07	883,609
LE GEROS, RACQUEL Z.	ENAMEL APATITES RELATING TO CARIES SUSCEPTIBILITY	5R01 DE04123-06	107,918
LEE-HUANG, SYLVIA	PURIFICATION OF ERYTHROPOIETIN	3R01 HL21683-03S1	4,406
LEVITZ, MORTIMER	ESTROGEN METABOLISM AND ACTION IN PREGNANCY AND CANCER	5R01 CA02071-27	147,205
LIEM, RONALD K.	BIOCHEMISTRY OF THE NEUROFILAMENT TRIPLET	5R01 NS15182-02	37,507
LIPPMANN, MORTON	REGIONAL DEPOSITION OF INHALED PARTICLES IN MAN	5R01 ES00881-08	78,953
LLINAS, RODOLFO R.	NEUROBIOLOGY OF THE CEREBELLAR—BRAIN STEM SYSTEM	2P01 NS13742-04A1	641,129
LO BUE, JOSEPH	PATHOPHYSIOLOGY OF A VIRALLY-INDUCED MURINE LEUKEMIA	5R01 CA12815-08	67,131
MAAS, WERNER K.	REGULATION OF ENZYME SYNTHESIS IN BACTERIA	5R01 GM06048-22	90,294
MARGOLIS, RICHARD U.	COMPLEX CARBOHYDRATES OF NERVOUS TISSUE	5R01 NS13876-03	84,116
MARMOR, MICHAEL	SEQUELAE TO CHILDHOOD LEAD EXPOSURE: A TWIN STUDY	7R01 ES02620-01	12,075
MAXFIELD, FREDERICK R.	MECHANISM AND FUNCTION OF RECEPTOR CLUSTERING	1R01 AM27083-01	121,760
MAYER, ALLEN J.	ENDOGENOUS VIRUS EXPRESSION AND LEUKEMOGENESIS	5R01 CA23834-02	87,007
MC FALL, ELIZABETH	CONTROL MECHANISMS IN ENZYME BIOSYNTHESIS	2R01 GM11899-17	95,201
MEISS, HARRIET K.	ISOLATION AND ANALYSIS OF DNA MUTANTS OF BHK CELLS	5R01 CA16631-06	110,879
MERUELO, DANIEL	GENETICS OF RESISTANCE TO LEUKEMIA	2R01 CA22247-04	117,464
MOVSHON, J. ANTHONY	QUANTITATIVE STUDIES OF THE CENTRAL VISUAL SYSTEM	2R01 EY02017-04	63,292
MUMMA, RICHARD D., JR.	BIOMEDICAL RESEARCH SUPPORT	2507 RR05332-19	31,601
NELSON, NORTON	RESEARCH IN ENVIRONMENTAL CANCER	5P30 CA13343-08	478,976
NEWALL, JOSEPHINE E.	RADIATION THERAPY ONCOLOGY GROUP	2R10 CA15938-06A1	65,742
NUSSENZWEIG, RUTH S.	SURFACE PROPERTIES OF SPOOROZOITES OF PLASMODIA	5R01 AI13366-05	90,814
NUSSENZWEIG, VICTOR	CELL COOPERATION IN THE IMMUNE RESPONSE	5R01 AI08499-13	86,883
NUSSENZWEIG, VICTOR	C3, C3 RECEPTORS AND THE H-2 REGION	2R01 AI13224-05	132,530
ONG, ENG-BEE	FIBRINOLYSIS: STRUCTURE AND FUNCTION OF UROKINASE	5R01 HL23530-02	86,895
OPPENHEIM, JOEL D.	THE I/I BLOOD GROUP SYSTEM OF HUMAN ERYTHROCYTE MEMBRANE	2R01 HL21328-04	71,041
OVARY, ZOLTAN	IMMUNOLOGICAL MECHANISM OF ANAPHYLAXIS	3R01 AI03075-20S1	37,738

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
OVARY, ZOLTAN	IMMUNOLOGICAL MECHANISM OF ANAPHYLAXIS	2R01 AI03075-21	128,860
PASTERNAK, BERNARD S.	CASE-CONTROL STUDY OF HAIR DYE USE AND BREAST CANCER	1R01 ES02436-01	141,028
PEARLSTEIN, EDWARD	CELL ADHESION FACTOR: BIOLOGY AND CHEMISTRY	3R01 CA22085-03S1	1,329
PEARSON, JOHN	AUTONOMIC DEVELOPMENT IN SIDS AND DYSAUTONOMIA	3R01 HD12260-02S1	8,137
PENN, ARTHUR L.	ENVIRONMENTAL AGENTS IN ATHEROGENESIS	5R01 ES02143-02	67,881
PEREZ, H DANIEL	HOST DEFENSES IN SYSTEMIC LUPUS ERYTHEMATOSUS	1R01 AM26752-01	62,008
PESKIN, CHARLES S.	COMPUTATIONAL METHODS IN CARDIAC FLUID DYNAMICS	5R01 HL17859-06	80,850
PHILLIPS-QUAGLIATA, JULIA M.	ANTIBODY MEDIATED CELL-CELL INTERACTIONS	5R01 CA20045-11	104,059
PULLMAN, IRA	MINERAL-ORGANIC INTERACTIONS IN THE ORAL MILIEU	5R01 DE05518-02	130,178
RABINOVITCH, MICHEL P.	MACROPHAGE SPREADING AND PARTICLE RECOGNITION	2R01 AI10969-10	111,602
RANSOHOFF, JOSEPH	HEAD INJURY CLINICAL CENTER RESEARCH PROGRAM	5P01 NS07366-12	260,447
RANSOHOFF, JOSEPH	CLINICAL RESEARCH CENTER FOR ACUTE SPINAL CORD INJURIES	5P50 EY00284-08	556,061
REISBERG, BARRY	EFFECTS OF PIRACETAM IN THE COGNITIVELY IMPAIRED AGED	5R01 AG01344-02	80,714
RIFKIN, DANIEL B.	PROTEASES AND THE MALIGNANT PHENOTYPE	2R01 CA23753-03	163,298
RIPPS, HARRIS	VISUAL ADAPTATION IN THE VERTEBRATE RETINA	5R01 EY00285-16	163,472
RIPPS, HARRIS	VISUAL SCIENCES RESEARCH CENTER (CORE FACILITY)	5P30 EY01842-04	128,079
ROSENBLUTH, JACK	COMPARATIVE CYTOLOGY OF NERVE AND MUSCLE TISSUES	5R01 NS07495-12	62,815
RUBINSON, KALMAN	RETINAL DEVELOPMENT AND TRANSFORMATION OF THE LAMPREY	5R01 EY02288-03	45,536
RUBINSON, KALMAN	DEVELOPMENT AND PLASTICITY IN THE AUDITORY SYSTEM	1R01 NS15252-01A1	51,800
RUDY, BERNARDO	ANALYSIS OF VOLTAGE-DEPENDENT CHANNELS IN VITRO	5R01 GM26976-02	62,110
SABATINI, DAVID D.	SYNTHESIS AND DISTRIBUTION OF PROTEINS IN MEMBRANES	1R01 AG01461-01	235,135
SABATINI, DAVID D.	ATTACHMENT OF RIBOSOMES TO MICROSOMAL MEMBRANES	5R01 GM20277-08	158,298
SAGER, NAOMI	FACT PROCESSING IN MEDICAL RECORDS AND LITERATURE	5R01 LM02616-06	102,719
SALTON, MILTON R.	IMMUNOCHEMISTRY OF TRYPAOSOMA CRUZI SURFACE ANTIGENS	5R01 AI16161-02	59,256
SAMUELS, HERBERT H.	METABOLIC EFFECTS OF THYROID HORMONES IN CELL CULTURE	5R01 AM16636-08	92,482
SAMUELS, HERBERT H.	REGULATION OF GROWTH HORMONE SYNTHESIS	5R01 AM21566-03	53,259
SCHAEFFER, BARRY E.	TRANS-CORNEAL CHLORIDE TRANSPORT AND MEMBRANE FLUIDITY	5R01 EY03151-02	73,619
SCHREIBER, SIDNEY S.	CARDIAC PROTEIN SYNTHESIS: OVERLOAD, ALCOHOL & ANOXIA	5R01 HL09562-16	97,719
SELLAKUMAR, ARTHUR R.	INHALATION CARCINOGENESIS BY FORMALDEHYDE AND HCL	5R01 ES02270-02	160,260
SHAPIRO, ROBERT	DAMAGE TO NUCLEIC ACIDS BY BISULFITE (SULFUR DIOXIDE)	5R01 ES01033-09	97,412
SHAPIRO, ROBERT	DAMAGED DNA: THE STRUCTURE OF DNA CROSS-LINKS	5R01 GM20176-08	73,338
SHEAR, HANNAH L.	MACROPHAGE ACTIVATION IN EXPERIMENTAL MALARIA	2R01 AI15235-03	56,857
SHENKMAN, MICHAEL L.	PATHOLOGY AND BIOLOGY OF THE NEURONAL FIBROUS PROTEINS	2R01 NS15076-03	112,540
SHENKMAN, LOUIS	IMMUNE RESPONSES TO YERSINIA IN THYROID DISEASE	5R01 AM19668-04	55,479
SIEGEL, IRWIN M.	OBJECTIVE STUDIES OF THE RETINA IN MACULAR DISEASE	1R01 EY03317-02	46,954
SILBER, ROBERT	STUDIES OF LEUKOCYTE METABOLISM	2R01 CA11655-13	119,719
SILBER, ROBERT	EASTERN COOPERATIVE ONCOLOGY GROUP STUDIES	5R01 CA16395-06	138,617
SILBER, ROBERT	NUCLEOTIDE BIOSYNTHESIS AND DEGRADATION	1R01 CA28376-01	73,562
SMITH, PHILLIP R.	BIOLOGICAL STRUCTURAL STUDIES USING IMAGE PROCESSING	5R01 GM26723-02	99,951
SMOLEN, JAMES E.	THE INITIATION OF GRANULOCYTE RESPONSES	1R01 GM27223-01	39,402
STEINBERG, MARK L.	VIRAL TRANSFORMATION OF HUMAN KERATINOCYTES	1R23 CA27869-01	48,445
STERN, ARNOLD	OXYGEN TOXICITY IN THE RED CELL	5R01 HL19532-03	41,208
SZER, WLÓDZIMIERZ	REGULATORY MECHANISMS IN PROTEIN BIOSYNTHESIS	5R01 GM23705-08	75,986
TEEBOR, GEORGE W.	REPARABILITY OF CHEMICAL CARCINOGENIC DAMAGE TO DNA	5R01 CA16669-06	75,805
THORBECKE, GEERTRUIDA J.	LYMPHOID CELLS—PRODUCTION OF ANTIBODIES AND COMPLEMENT	5R01 AI03076-21	109,303
THORBECKE, GEERTRUIDA J.	SUPPRESSION, TOLERANCE, AND AGAMMAGLOBULINEMIA	5R01 AI14829-03	110,938
THORBECKE, GEERTRUIDA J.	PROPERTIES OF LYMPHOID TUMOR CELLS IN VIVO AND IN VITRO	5R01 CA14462-08	97,181
TRENKNER, EKKHART	INTERACTIONS DURING CEREBELLAR DEVELOPMENT	3R01 NS16070-01S1	6,680
TRENKNER, EKKHART	INTERACTIONS DURING CEREBELLAR DEVELOPMENT	5R01 NS16070-02	73,758
TROLL, WALTER	INHIBITION OF TUMOR PROMOTION BY PROTEASE INHIBITORS	2R01 CA16060-09	121,747
UNDERWOOD, GRAHAM R.	STUDY OF ULTIMATE CARCINOGEN FROM AROMATIC AMINES	5R01 CA25073-02	52,578
UPTON, ARTHUR C.	RESEARCH IN THE ENVIRONMENTAL HEALTH SCIENCES	2P30 ES00260-18	2,070,631
VAIDYANATHAN, TRITALA K.	DENTAL ALLOY CORROSION RESEARCH	5R23 DE05314-02	35,851
VALENTE, FRED T.	CELL-MEDIATED IMMUNITY IN HUMANS: MECHANISMS AND USES	5R01 CA19529-05	85,653
VAN DUUREN, BENJAMIN L.	CARCINOGENIC ACYLATING AGENTS AND MODE OF ACTION	5R01 CA24124-02	74,882
VAN DUUREN, BENJAMIN L.	CARCINOGENIC INTERMEDIATES OF VINYL CHLORIDE & ANALOGS	5R01 ES01150-06	69,735
VANDERBERG, JEROME P.	THE SPOOROZOITE OF PLASMODIUM	5R01 AI09560-10	90,095
VILCEK, JAN T.	INTERFERON AND RESISTANCE TO VIRUS INFECTION	2R01 AI07057-15	81,575
VILCEK, JAN T.	CHARACTERIZATION OF HUMAN INTERFERON	5R01 AI12948-05	77,395
WEISS, GERSON	PHYSIOLOGY OF HUMAN RELAXIN	5R01 HD12395-02	43,120
WEISSMANN, GERALD	MECHANISMS OF ARTHRITIS	5R01 AM11949-14	155,022

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
WEISSMANN, GERALD.....	LUNG INFLAMMATION: LYSOSOMAL PROTEASES AND LIPOSOMES.....	5R01 HL19721-05	104,969
WESSLER, STANFORD.....	ANTITHROMBOTIC ACTION OF HEPARIN.....	3R01 HL18333-06S1	22,213
WILLIAMSON, SAMUEL J.....	MAGNETIC DETECTION OF IRON DEPOSITED IN BODY TISSUE.....	5R01 AM26654-02	61,847
WILSON, STEPHEN R.....	SYNTHETIC APPLICATIONS OF ALDOXIDE INDUCED (1,3) SHIFTS.....	7R01 GM29259-01	70,117
WITKOVSKY, PAUL.....	RETINAL SYNAPTOGENESIS AND ADAPTATION.....	7R01 EY03570-01	109,628
WOLMAN, SANDRA R.....	DIFFERENTIATION OF CULTURED LEUKEMIC CELLS.....	5R01 CA22942-03	181,053
YOUNG, WISE.....	ELECTROPHYSIOLOGY OF SPINAL CORD INJURY.....	5R01 NS15590-02	46,657
ZADUNAISKY, JOSE A.....	CORNEAL ELECTROPHYSIOLOGY AND OCULAR BARRIERS.....	5R01 EY01340-07	194,698
ZADUNAISKY, JOSE A.....	CHLORIDE TRANSPORT AND OSMOREGULATION.....	5R01 GM25002-03	64,368
ZOLLA-PAZNER, SUSAN B.....	A SOLUBLE MEDIATOR OF TUMOR-INDUCED IMMUNOSUPPRESSION.....	5R01 CA15585-05	63,244
ZUCKER-FRANKLIN, DOROTHEA.....	ULTRASTRUCTURE OF LEUKOCYTES AND PLATELETS.....	5R01 AM12274-13	119,093
ORGANIZATION TOTAL	192 23,327,686		
NEW YORK ZOOLOGICAL SOCIETY ZIP CODE 10460			
KALLMAN, KLAUS D.....	THE GENETIC CONTROL OF SEXUAL MATURITY IN FISH.....	5R01 GM19934-18	61,073
ORGANIZATION TOTAL	1 61,073		
POLYTECHNIC INSTITUTE OF NEW YORK ZIP CODE 11201			
BULKIN, BERNARD J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07063-13	26,109
EMERT, JACK I.....	NOVEL MICROVISCOMETRIC PROBES OF AQUEOUS MICELLES.....	5R01 GM25999-02	44,035
EMERT, JACK I.....	MICELLES AS PROTECTIVE AGENTS FOR HEME COMPLEXES.....	5R01 HL24519-02	40,628
GREEN, MARK M.....	DYNAMIC STEREOCHEMISTRY.....	7R01 GM28497-01	60,795
HOGGARD, PATRICK E.....	LUMINESCENCE OF AMINO ACID AND PEPTIDE COMPLEXES.....	5R01 GM26570-02	49,448
MORAWETZ, HERBERT.....	SYNTHETIC POLYMER STUDIES RELATED TO BIOLOGY.....	5R01 GM05811-20	75,744
WINTER, WILLIAM T.....	SHAPES AND INTERACTIONS OF CAPSULAR ANTIGENS.....	5R01 AI16258-02	57,486
ORGANIZATION TOTAL	7 354,245		
POPULATION COUNCIL ZIP CODE 10017			
BARDIN, CLYDE W.....	ANDROGENS IN REPRODUCTION: PRODUCTION AND ACTION.....	5R01 HD12974-03	55,456
BARDIN, CLYDE W.....	P-50 SPECIALIZED POPULATION RESEARCH CENTER.....	1P50 HD13541-01A1	407,721
DUNBAR, BONNIE S.....	ISOLATION AND CHARACTERIZATION OF ZONA PELLUCIDA ANTIGEN.....	5R01 HD12347-02	66,361
KOIDE, SAMUEL S.....	MEIOSIS AND POLY (ADPR) SYNTHESIS IN OOGENESIS.....	5R01 HD13184-02	92,066
MUSTO, NEAL A.....	SECRETORY PROTEINS OF TESTIS: STRUCTURE AND FUNCTION.....	5R01 HD12976-03	41,192
ORGANIZATION TOTAL	5 662,796		
RIVERSIDE RESEARCH INSTITUTE ZIP CODE 10023			
LIZZI, FREDERIC L.....	ULTRASONIC EVALUATION OF OCULAR TISSUES.....	2R01 EY01212-07	136,930
LIZZI, FREDERIC L.....	STUDY OF ULTRASONICALLY INDUCED OCULAR DAMAGE.....	5R01 EY01480-06	184,828
LIZZI, FREDERIC L.....	ADVANCED CLINICAL ULTRASONIC TISSUE CHARACTERIZATION.....	1R01 GM26850-01	314,743
ORGANIZATION TOTAL	3 636,501		
ROCKEFELLER UNIVERSITY ZIP CODE 10021			
ALLFREY, VINCENT G.....	NUCLEAR PROTEINS IN CARCINOGENESIS OF THE COLON.....	5R26 CA14908-07	162,415
ALLFREY, VINCENT G.....	CHEMISTRY AND METABOLISM OF DNA-ASSOCIATED PROTEINS.....	5R01 GM17383-10	109,451
ASANUMA, HIROSHI.....	CEREBRAL CORTICAL CONTROL OF MOVEMENT.....	5R01 NS10705-09	110,262
BLOBEL, GUNTER K.....	TRANSLOCATION OF PROTEINS ACROSS MEMBRANES.....	1R01 GM27155-01	306,484
BOFFA, LIDIA C.....	SELECTIVE INHIBITION OF COLON TUMOR PROTEIN SYNTHESIS.....	5R26 CA22419-03	60,527
CERAMI, ANTHONY.....	THE IDENTIFICATION OF NEW IRON-CHELATING DRUGS.....	5R01 AM18894-05	62,389
CERAMI, ANTHONY.....	BIOCHEMICAL BASIS OF THE COMPLICATIONS OF DIABETES.....	2R01 AM19655-04	118,231
CERAMI, ANTHONY.....	BIOCHEMICAL & PHARMACOLOGICAL CYSTIC FIBROSIS MUCIN.....	1R01 AM27069-01	42,142
CHANG, KWANG-POO.....	LEISHMANIA-MACROPHAGE CELLULAR INTERACTIONS IN VITRO.....	5R01 AI15183-02	59,761
CHOPPIN, PURNELL W.....	MYXOVIRUS STRUCTURE, REPLICATION, MEMBRANE INTERACTION.....	5R01 AI05600-18	206,611
CHUA, NAM-HAI.....	STRUCTURE AND BIOGENESIS OF THYLAKALOID MEMBRANES.....	5R01 GM21060-07	72,977
CHUA, NAM-HAI.....	TRANSFER OF PROTEINS INTO ORGANELLES.....	5R01 GM25114-03	76,172
COHN, ZANVIL A.....	THE PHYSIOLOGY OF MACROPHAGES.....	5R01 AI07012-15	180,388
CRANFIELD, PAUL F.....	MECHANISM AND PREVENTION OF CARDIAC ARRHYTHMIAS.....	5R01 HL14899-09	109,894
DARNELL, JAMES E, JR.....	RNA AND GROWTH CONTROL IN ANIMAL CELLS.....	5R01 CA16006-07	227,850
DARNELL, JAMES E, JR.....	CORRELATED PROGRAM IN VIRAL ONCOLOGY.....	5P01 CA18213-05	458,103
DE DUVE, CHRISTIAN R.....	SUBCELLULAR EVENTS IN ATHEROSCLEROSIS.....	5R01 HL18157-06	139,159
EDELMAN, GERALD M.....	STRUCTURE AND ACTIVITY OF ANTIBODY-RELATED PROTEINS.....	5R01 AI09273-12	166,721
EDELMAN, GERALD M.....	CELL BIOLOGY & CHEMISTRY OF LYMPHOCYTES & THEIR PRODUCTS.....	5P01 AI11378-08	468,009

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
EDELMAN, GERALD M.	INTERACTION AND ENERGY TRANSFER IN BIOLOGICAL SYSTEMS.	5R01 AM04256-21	106,599
ERICKSON, BRUCE W.	SYNTHESIS OF ANTIBODY PEPTIDES THAT SIGNAL SECRETION	5R01 AI15301-03	82,784
ERICKSON, BRUCE W.	SYNTHESIS OF ANTIBODY PEPTIDES THAT FIX COMPLEMENT.	5R01 CA24435-03	102,044
ERICKSON, BRUCE W.	RECOGNITION OF PATTERNS IN CANCER-RELATED SEQUENCES	1R01 CA28571-01	68,105
ERICKSON, BRUCE W.	SYNTHETIC ANAPHYLATOXINS AND PULMONARY INFLAMMATION	5R01 HL19795-05	82,740
FAUST, IRVING M.	HYPERPLASTIC GROWTH OF ADIPOSE TISSUE	2R01 AM20508-04	99,922
FIELD, FRANK H.	A MASS SPECTROMETRIC BIOTECHNOLOGY RESOURCE	5P41 RR00862-07	180,152
FISCHETTI, VINCENT A.	PROPERTIES OF STREPTOCOCCAL M-PROTEIN	5R01 AI11822-07	54,293
FISCHETTI, VINCENT A.	RELATIONSHIP OF STREPTOCOCCAL M PROTEIN TO TROPOMYOSIN	1R01 HL25219-01	60,888
FISHMAN, JACK.	SPECIALIZED CENTER FOR CANCER ENDOCRINOLOGY	5P01 CA22795-03	889,325
FOWLER, STANLEY D.	CYTOPATHOLOGY OF ATHEROSCLEROSIS	1R01 HL24229-01	103,648
FU, SHU MAN.	IN VITRO STUDIES OF NORMAL AND NEOPLASTIC LYMPHOCYTES	5R01 CA24338-02	75,341
GILULA, NORTON B.	CELL COMMUNICATION—MECHANISM AND ROLE	5R01 GM24753-03	71,248
GILULA, NORTON B.	HEART CELL INTERACTIONS AND CELL JUNCTION BIOGENESIS	2R01 HL16507-06	138,866
GISIN, BALTHASAR F.	STRUCTURE AND FUNCTION OF PEPTIDE INCLUSION COMPLEXES	2R01 GM24047-04	100,274
GISIN, BALTHASAR F.	CA SELECTIVE PEPTIDES FOR METABOLIC CONTROL	1R01 GM27833-01	59,851
GOLDBERG, ALLAN R.	RSV FUNCTIONS INVOLVED IN TRANSFORMATION	5R01 CA13362-09	89,324
GOTTSCHLICH, EMIL C.	IMMUNOCHEMICAL STUDIES ON GONOCOCCAL SURFACE ANTIGENS	5R01 AI10615-10	141,528
GOTTSCHLICH, EMIL C.	IMMUNOCHEMISTRY OF GRP. B. STREPTOCOCCAL TYPE ANTIGENS	5R01 AI15220-03	74,180
GREGORY, JOHN D.	BIOCHEMISTRY OF PROTEOGLYCANS OF THE DERMIS	5R01 AM18635-04	74,437
GREGORY, JOHN D.	BIOSYNTHESIS AND TURNOVER OF PROTEOGLYCANS IN CORNEA	5R01 EY02600-03	49,300
GRINKER, JOEL A.	HUMAN OBESITY: BEHAVIORAL PRECURSORS IN INFANCY	1R01 GM27980-01	106,073
HANAFUSA, HIDESABURO.	CELLULAR ALTERATION INDUCED BY ROUS SARCOMA VIRUS	5R01 CA14935-08	219,747
HAYWARD, WILLIAM S.	RNA TUMOR VIRUS GENE EXPRESSION.	5R01 CA16668-07	70,413
HSU, MING-TA.	GENE REGULATION IN MAMMALIAN CELLS	5R01 CA19073-05	75,230
HUANG, BESSIE P.	GENETIC STUDIES OF FLAGELLAR DYNEIN ARMS	5R01 GM25965-02	104,230
HUH, MARTIN M.	PHARMACOLOGY OF BIOGENIC AMINE METHYLTRANSFERASES	5R01 GM24844-04	91,417
JAZWINSKI, S. MICHAEL	BIOCHEMICAL ANALYSIS OF CELL CYCLE CONTROLS	1R01 GM28099-01	94,637
JELINEK, WARREN R.	GENE ORGANIZATION/MRNA FORMATION IN MAMMALIAN CELLS	5R01 GM26704-02	90,990
JOHNSON, EDWARD M.	STRUCTURE AND ACTIVITY OF RIBOSOMAL GENES IN PHYSARUM	5R01 GM26170-02	28,895
KAPPAS, ATTALLAH.	ENVIRONMENTAL PHARMACOLOGY	2R01 ES01055-06	242,572
KAPPAS, ATTALLAH.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00102-17	1,467,184
KILIJIAN, ARAXIE	HOST-PARASITE INTERACTIONS IN MALARIA	2R01 AI13728-04	151,024
KING, TE PIAO	IMMUNOCHEMICAL STUDIES OF RAGWEED ANTIGEN E	5R01 AI14422-03	55,820
KING, TE PIAO	IMMUNOCHEMICAL STUDIES OF INSECT VENOM ALLERGENS	1R01 AI17021-01	99,034
KNIGHT, BRUCE W. JR.	MATHEMATICAL ANALYSES OF NEURAL NETWORKS	5R01 EY01428-07	85,319
KUNKEL, HENRY G.	STUDIES OF MYELOMA PROTEINS AND ANTIBODIES	5R01 AI10811-15	116,785
KUNKEL, HENRY G.	IMMUNOLOGICAL MECHANISMS IN RHEUMATOID ARTHRITIS	5R01 AM04761-20	117,961
LA BADIE, JON H.	THE CELL SURFACE IN LYMPHOCYTE-MEDIATED CYTOTOXICITY	5R01 AI15867-02	75,262
LANDSBERGER, FRANK R.	BIOPHYSIOLOGY OF ENVELOPED VIRUSES & CELL INTERACTION	5R01 AI14040-03	63,785
LAZAROW, PAUL B.	BIOGENESIS OF RAT LIVER PEROXISOMES	5R01 AM19394-05	125,146
LEDERBERG, JOSHUA	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07065-15	189,787
LIPMANN, FRITZ	GLUCOSE TRANSPORT IN NORMAL AND MALIGNANT CELLS	2R01 GM13972-15	132,412
LIZARDI, PAUL M.	BIOGENESIS OF SILK FIBROIN MESSENGER RNA	5R01 GM22865-05	94,677
LUCK, DAVID J.	BIOCHEMICAL GENETICS OF MICROTUBULES	2R01 GM17132-12	167,842
LUCK, DAVID J.	ELECTRON MICROSCOPE FACILITY	5P41 GM27351-02	22,170
LUINE, VICTORIA N.	MAO AND REGULATION BY HORMONES OF SEXUAL BEHAVIOR	5R01 HD12011-03	66,194
MANNING, JAMES M.	STRUCTURE AND ROLE OF D-AMINO ACID TRANSAMINASE	5R01 AI16190-02	81,850
MANNING, JAMES M.	CHEMICAL STUDIES OF SICKLE CELL HEMOGLOBIN	5R01 HL18819-09	86,775
MAUZERALL, DAVID	CHARGE TRANSFER ACROSS INTERFACES OF BIOLOGICALS	5R01 GM25693-03	65,040
MC CARTY, MACLYN.	CELL SURFACE OF STREPTOCOCCI	5R01 HL03919-22	104,776
MC EWEN, BRUCE S.	GENE EXPRESSION IN NERVOUS TISSUE	5R01 NS07080-15	125,311
MC NAMARA, DONALD J.	HUMAN STEROL SYNTHESIS MEASURED BY MEVALONATE KINETICS	5R01 HL24190-02	110,498
MERRIFIELD, ROBERT B.	SOLID PHASE SYNTHESIS OF PEPTIDES AND PROTEINS	5R01 AM01260-25	203,595
MERRIFIELD, ROBERT B.	SYNTHETIC ANALOGS OF GLUCAGON FOR DIABETES STUDIES	5R01 AM24039-03	54,936
MICHL, JOSEF	EFFECTS OF IMMOBILIZED LIGANDS ON MONONUCLEAR LEUKOCYTES	1R01 AI17125-01	94,824
MILLER, NEAL E.	CARDIOVASCULAR HOMEOSTASIS AND LEARNING	5R01 HL21532-04	172,857
MOORE, STANFORD	BIOCHEMISTRY OF NUCLEASES	5R01 GM25323-03	119,228
MULLER, MIKLOS	IMMUNE CYTOLOGY OF TRICHOMONAS VAGINALIS	5R01 AI11942-07	86,417
NATHAN, CARL F.	ANTITUMOR ACTION OF PHAGOCYTES AND LYMPHOCYTES	2R01 CA22090-04	119,553
NEVINS, JOSEPH R.	MRNA BIOGENESIS USING ADENOVIRUS AS A MODEL	5R01 GM26765-02	66,492

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NORGREN, RALPH E.....	NEURAL SYSTEM OF INGESTIVE BEHAVIOR.....	5R01 NS10150-09	86,995
PETERSON, BARRY W.....	PROPERTIES OF PREMOTOR NEURONS IN GAZE CONTROL SYSTEM.....	5R01 EY02249-03	79,439
PAFF, DONALD W.....	BRAIN MECHANISMS OF REPRODUCTIVE BEHAVIOR.....	5R01 HD05751-09	91,217
RATLIFF, FLOYD.....	VISUAL STIMULATOR/DATA ANALYZER FOR CLINICAL RESEARCH.....	5R01 EY02439-03	81,909
REEKE, GEORGE N, JR.....	COMPUTING METHODS FOR MACROMOLECULAR CRYSTALLOGRAPHY.....	5R01 GM22663-06	55,060
REESE, ROBERT T.....	IMMUNOLOGIC PROTECTION AGAINST MALARIA.....	5R01 AI15468-02	104,957
REICH, EDWARD.....	CHEMOTHERAPEUTIC DEOXYNUCLEOSIDES AND OTHER AGENTS.....	3R01 CA08290-14S1	79,565
REICH, EDWARD.....	CHEMOTHERAPEUTIC DEOXYNUCLEOSIDES AND OTHER AGENTS.....	5R01 CA08290-15	389,797
RIFKIN, MARY R.....	MECHANISM OF TRYPANOCIDAL ACTION OF HUMAN SERUM.....	2R01 AI14045-04	91,693
ROBERTSON, HUGH D.....	RNA PROCESSING ENZYMES IN HELA CELLS.....	1R01 GM27168-01	39,055
ROBERTSON, HUGH D.....	THE ROLE OF RNA IN THE REGULATION OF GENE EXPRESSION.....	1R01 GM28294-01	104,649
RUTISHAUSER, URS S.....	CELL-CELL ADHESION AMONG EMBRYONIC CELLS.....	5R01 HD09635-06	113,565
SAMUEL, PAUL.....	VALIDATION OF A CHOLESTEROL ABSORPTION METHOD IN MAN.....	5R01 HL22567-03	92,233
SCHHEEL, GEORGE A.....	MOLECULAR BASIS OF SECRETION IN THE EXOCRINE PANCREAS.....	5R01 AM18532-06	108,344
SCHHEEL, GEORGE A.....	EXOCRINE PANCREATIC PROTEIN IN CANCER OF THE PANCREAS.....	3R26 CA22582-03S1	9,032
SCHHEEL, GEORGE A.....	EXOCRINE PANCREATIC PROTEINS IN PANCREATIC CANCER.....	2R26 CA22582-04	33,418
SCHOENFELD, ROBERT L.....	A MICROPROCESSOR BIOTECHNOLOGY RESOURCE.....	2P41 RR01089-04	274,356
SEHGAL, PRAVINKUMAR B.....	REGULATION OF HUMAN FIBROBLAST INTERFERON PRODUCTION.....	5R01 AI16262-02	67,550
SHAPLEY, ROBERT M.....	SPATIAL SUMMATION AND DYNAMICS OF VISUAL NEURONS.....	2R01 EY01472-06A1	76,686
SIEKIVITZ, PHILIP.....	CELL BIOLOGY OF THE SYNAPSE.....	2R01 NS12726-04A1	95,198
SILVERSTEIN, SAMUEL C.....	ROLE OF MONONUCLEAR LEUCOCYTES IN IMMUNITY.....	5R01 AI08697-12	166,696
STARK, DENNIS M.....	DIAGNOSTIC CLINICAL LABORATORY PROGRAM.....	5P40 RR01180-03	60,666
STEINACKER, ANTOINETTE.....	SYNAPTIC RECEPTOR PHYSIOLOGY: SULFHYDRYL MODIFICATIONS.....	1R01 NS15956-01	64,859
STEINMAN, RALPH M.....	CHARACTERIZATION OF LYMPHOID DENDRITIC CELLS.....	2R01 AI13013-04A1	115,239
STEVENS, VICTOR J.....	PROTEIN GLYCOSYLATION IN DIABETIC LENS AND NERVE.....	5R01 EY03257-02	6,064
SY, JOSE.....	PGCpP METABOLISM IN BACTERIA; C-AMP FUNCTION IN YEAST.....	1R01 AI17080-01	121,602
TAMM, IGOR.....	VIRUS-INDUCED ALTERATIONS IN ANIMAL CELLS.....	5R01 CA18608-21	140,796
TOMASZ, ALEXANDER.....	PENCILLIN TOLERANCE IN PATHOGENIC STREPTOCOCCI.....	5R01 AI16170-02	52,843
TOMASZ, ALEXANDER.....	INTRINSIC BETA LACTAM RESISTANCE IN PNEUMOCOCCI.....	1R01 AI16794-01	80,393
TSUKAMOTO, TAKUJI.....	MEMBRANE PHOSPHORYLATION IN HUMAN RED CELL FUNCTIONS.....	5R01 HL25586-02	3,129
UNKELESS, JAY C.....	THE FC RECEPTOR: GENETIC AND BIOCHEMICAL ANALYSIS.....	5R01 AI14603-03	90,077
VALINSKY, JAY E.....	APPLICATION OF FLUORESCENT PROBES TO CLINICAL CANCER.....	1R01 CA27123-01	73,708
VAN DE RIJN, IVO J.....	IMMUNOCHEMISTRY OF STREPTOCOCCAL MEMBRANE PROTEINS.....	5R01 AI15686-02	77,920
WATTERSON, DANIEL M.....	MOLECULAR BASIS OF CALCIUM ACTION IN CELL PROCESSES.....	5R01 GM26383-02	84,966
WEISS, JAY M.....	PSYCHOLOGIC/BEHAVIORAL INFLUENCES ON HEART PATHOLOGY.....	5R01 HL19974-04	95,592
WILSON, VICTOR J.....	MOTOR CONTROL STUDIES.....	5R01 NS02619-21	105,681
WINCHESTER, ROBERT J.....	B CELL ALLOANTIGENS, MOLECULAR BASIS AND DISEASE ASPECTS.....	5R01 CA20107-05	102,572
WOOD, HENRY N.....	TRANSFORMATION AND RECOVERY OF CROWN GALL TUMOR CELLS.....	5R01 CA13808-08	116,839
YOUNG, MICHAEL W.....	GENE ORGANIZATION AND FUNCTION IN D. MELANOGASTER.....	5R01 GM25103-03	59,425
ZABRISKIE, JOHN B.....	IMMUNOLOGICAL STUDIES IN STREPTOCOCCAL SEQUELAE.....	5R01 AI14361-04	159,651
ZABRISKIE, JOHN B.....	IMMUNOLOGIC STUDIES IN GLOMERULONEPHRITIS.....	5R01 AM25145-02	70,232
ZIFF, EDWARD B.....	STRUCTURAL STUDIES OF ADENOVIRUS-2 MRNA SYNTHESIS.....	5R01 GM21779-06	71,395
ORGANIZATION TOTAL	122 15,484,216		
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021			
ABBOTT, JOAN.....	PHENOTYPE ANALYSIS OF T LINE-AGE DEVELOPMENT IN VITRO.....	1R01 AI16434-01	98,578
ALBRECHT, ALBERTA M.....	MICROBIAL ENZYMES IN THE THERAPY OF NEOPLASIA.....	5R01 CA17839-05	69,433
ALBRECHT, ALBERTA M.....	ENZYMIC RESCUE IN HIGH DOSE METHOTREXATE THERAPY.....	5R01 CA24907-02	66,965
ANDERSON, LUCY M.....	CHEMICAL CARCINOGENESIS IN THE ATHYMIC MOUSE.....	5R01 CA22498-03	44,945
ANDERSON, LUCY M.....	CHEMICAL FACTORS IN FETAL ONCOGENESIS.....	5R01 CA22509-03	50,297
ANDREEFF, MICHAEL.....	FLOW CYTOMETRY/AUTORADIOGRAPHY MONITORING OF LEUKEMIA.....	1R01 CA25348-01A1	92,829
ARTZT, KAREN.....	TERATOCARCINOMA AND EMBRYONAL TUMORS: SURFACE ANTIGENS.....	5R01 CA21651-04	148,305
AUGENLICHT, LEONARD H.....	PROCESSING OF NUCLEAR RNA IN COLON CARCINOGENESIS.....	5R26 CA22367-03	61,252
AUGENLICHT, LEONARD H.....	MAPPING GLOBIN SEQUENCES IN NUCLEAR RIBONUCLEOPROTEIN.....	5R01 CA26073-02	61,972
BALAZS, IVAN.....	RNA TUMOR VIRUS GENE EXPRESSION DURING THE CELL CYCLE.....	5R01 CA24008-02	95,259
BALIS, M EARL.....	ENZYMES OF NORMAL AND MALIGNANT INTESTINAL MUCOSA.....	5R26 CA14906-08	187,501
BANCROFT, F CARTER.....	REGULATION OF GROWTH HORMONE MESSENGER RNA.....	5R01 GM24442-03	65,846
BENNETT, DOROTHEA.....	CELL INTERACTIONS DURING DIFFERENTIATION IN CHIMERAS.....	1R01 HD14526-01	82,422
BIEDLER, JUNE L.....	CHROMOSOMAL ORGANIZATION OF DIHYDROFOLATE REDUCTASE GENE.....	1R01 CA28679-01	63,915
BIEDLER, JUNE L.....	HUMAN GENE MAPPING IN NEUROBLASTOMA CELL HYBRIDS.....	5R01 NS15482-02	48,047
BIGLER, RODNEY E.....	VASCULAR TUMOR CHANGES IN LUNG EXPOSED TO RADIATION.....	5R01 HL22371-03	58,055

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
BOCKMAN, RICHARD S.	PROSTAGLANDINS AND IMMUNOSUPPRESSION IN CANCER	5R01 CA23500-02	88,956
BORENFREUND, ELLEN	IN VITRO CHEMICAL CARCINOGENESIS	5R01 CA20019-05	66,647
BOYSE, EDWARD A.	IMMUNOGENETICS OF THE TLA REGION OF CHROMOSOME 17	5R01 CA20473-04	65,020
BOYSE, EDWARD A.	IMMUNOGENETICS OF THE TLA REGION OF CHROMOSOME 17	2R01 CA20473-05	143,382
BOYSE, EDWARD A.	IMMUNOGENETICS OF LY SYSTEMS	2R01 CA22131-04	371,348
BOYSE, EDWARD A.	NATIONAL CONGENIC MOUSE SUPPLY—MULTICATEGORY RESEARCH	5P40 RR01001-05	258,179
BROXMEYER, HAL E.	INHIBITORY INTERACTIONS REGULATING HEMATOPOIESIS	5R01 CA23528-03	103,883
CHELLO, PAUL L.	TRANSPORT VS ANTITUMOR EFFECTS OF NUCLEOSIDE ANALOGS	5R01 CA26318-02	69,484
CHIAO, JEN W.	T CELL GROWTH AND DIFFERENTIATION IN LEUKEMIA	1R01 CA28504-01	56,131
CHOI, YONG S.	IMMUNOLOGICAL STUDIES OF AVIAN T LYMPHOCYTES	5R01 AI16115-02	76,170
CHOI, YONG S.	IMMUNOBIOLOGY, IMMUNODEFICIENCY, AND CANCER	5P01 CA17404-06	536,809
CHOU, TING-CHAO	METABOLISM AND EFFECTS OF NEW NUCLEOSIDE ANALOGS	1R01 CA27569-01	75,751
CLARKSON, BAYARD D.	CELL PROLIFERATION KINETICS IN HEMATOPOIETIC TUMORS	5R01 CA19117-05	173,920
CLARKSON, BAYARD D.	HUMAN HEMATOPOIETIC TUMORS PROGRAM PROJECT	2P01 CA20194-04	561,970
CUNNINGHAM-RUNDLES, CHARLOTTE	CIRCULATING IMMUNE COMPLEXES IN IGA DEFICIENCY	1R01 AI15809-01A1	48,933
DARZYNKIEWICZ, ZBIGNIEW	EFFECTS OF NEW ANTICANCER DRUGS ON THE CELL CYCLE	5R01 CA23296-03	127,600
DARZYNKIEWICZ, ZBIGNIEW	CHROMATIN PROBES FOR DISTINGUISHING MALIGNANT CELLS	1R01 CA28704-01	101,976
DE HARVEN, ETIENNE	GM1 IN MYOBLAST DIFFERENTIATION AND TRANSFORMATION	1R01 GM27733-01	22,608
DE LEO, ALBERT B.	CELL SURFACE ANTIGENS OF MOUSE SARCOMAS	1R01 CA28461-01	97,349
DE SOUSA, MARIA A.	IMMUNOGENETICS OF THE ORGANIZATION OF LYMPHOCYTE SETS	5R01 AI15517-02	80,060
DESCHNER, ELEANOR E.	MODIFICATION OF DMH-INDUCED ACUTE RESPONSE IN COLON	1R26 CA26674-01A1	69,617
DONNER, DAVID B.	TARGET CELL DESENSITIZATION IN PEPTIDE HORMONE ACTION	5R01 AM22121-02	65,432
DUPONT, BO	IMMUNOGENETICS OF THE MAJOR HISTOCOMPATIBILITY COMPLEX	5P01 CA22507-03	523,912
EVANS, ROBERT L.	FUNCTIONAL SUBPOPULATIONS OF HUMAN T CELLS	1R01 AI16426-01	67,491
EVENSON, DONALD P.	CHROMATIN ORGANIZATION IN HUMAN SPERMATOZOEA	5R01 HD12196-02	75,222
FAANES, RONALD B.	REGULATORY SIGNALS IN CYTOTOXIC T-CELL DEVELOPMENT	5R01 CA16271-05	95,458
FAANES, RONALD B.	SPECIFIC REPAIR OF DRUG-INDUCED IMMUNE CELLULAR DEFICITS	1R01 CA25608-01A1	80,377
FAMULARI, NANCY G.	INFLUENCE OF MULV ENV AND GAG GENES IN LEUKEMOGENESIS	1R01 CA27950-01	82,511
FERNANDES, GABRIEL	INFLUENCE OF DIET ON REGULATION, AUTOIMMUNITY, AND AGING	1R01 AG02247-01	108,468
FLEISSNER, ERWIN J.	VIRAL AND MOUSE GENES IN LEUKEMIA VIRUS INFECTION	2R01 CA15297-07	133,994
FLEISSNER, ERWIN J.	RNA TUMOR VIRUSES: BIOLOGY OF HOST-VIRUS INTERACTIONS	5P01 CA16599-06	913,472
FOGH, JORGEN E.	ISOZYMES OF HUMAN TUMOR CELLS IN VITRO AND IN VIVO	1R01 CA25548-01A1	72,199
FRIED, JERROLD	GROWTH KINETICS AND DRUG RESPONSE OF CELL POPULATIONS	5R01 CA16757-06	149,351
FRIEDMAN, EILEEN A.	MARKERS OF PREMALIGNANT COLONIC CELLS IN VITRO	1R26 CA28822-01	56,465
GOMATOS, PETER J.	REOVIRUS: ASSEMBLY OF PARTICLES SYNTHESIZING RNA	5R01 AI14466-03	73,941
GOMATOS, PETER J.	SYNTHESIS AND TRANSLATION OF ALPHAVIRUS 26S MRNA	5R22 AI15528-02	88,576
GOOD, ROBERT A.	NONSPECIFIC RESISTANCE TO INFECTION AND INTOXICATION	5R01 AI11843-08	126,234
GOOD, ROBERT A.	CANCER CENTER SUPPORT GRANT	2P30 CA08748-15	6,305,976
GOOD, ROBERT A.	MARROW TRANSPLANTATION IN APLASTIC ANEMIA & LEUKEMIA	5R01 CA23766-03	792,876
GOOD, ROBERT A.	PATHOGENESIS OF CNS AND AUTOIMMUNE DISORDERS	2R01 NS11457-08	141,894
GOOD, ROBERT A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05534-08	195,787
GREEN, SAUL	TUMOR NECROSIS FACTOR: PURIFICATION AND MODE OF ACTION	5R01 CA23906-03	96,131
GUPTA, SOHAN L.	INTERFERON-INDUCED PROTEINS IN MOUSE AND HUMAN CELLS	1R01 CA29991-01	65,617
HADDEN, JOHN W.	MACROPHAGE PROLIFERATION AND ACTIVATION	5R01 CA20178-03	101,124
HAHN, ERIC W.	HEAT & RADIATION ON NEOPLASMS—OPTIMAL FRACTIONATION	3R01 CA17410-05S1	75,889
HAMILTON, JOHN A.	ENVIRONMENTAL DUSTS AND MACROPHAGE ACTIVATION	5R01 ES02014-02	67,493
HAMILTON, MARY G.	SUBFRACTIONATION OF RAT LIVER RIBOSOMAL SUBUNITS	5R01 GM24981-02	64,576
HAMMERLING, ULRICH G.	ONTOGENIC DEVELOPMENT OF B LYMPHOCYTES	5R01 AI14831-03	123,370
HAMMERLING, ULRICH G.	ONTOGENIC RELATIONSHIP OF CR+ & CR-B LYMPHOCYTES	5R01 CA25508-02	63,734
HIGGINS, PAUL J.	ECTOPIC ANTIGENS IN HEPATOCELLULAR CANCER	1R23 CA25285-01A2	46,270
HIRSHAUT, YASHAR	SEROLOGIC SCREENING FOR CONTAGION OF HUMAN SARCOMAS	5R01 CA23404-03	87,975
HIRSHAUT, YASHAR	PURIFICATION OF HUMAN SARCOMA HETEROPHILE ANTIGENS	1R01 CA28619-01	79,027
HOFFMANN, MICHAEL K.	REGULATION OF IMMUNITY BY ANTIBODY AND B-CELLS	5R01 CA17673-06	101,701
HOFFMANN, MICHAEL K.	ACTIVATION AND FUNCTION OF QA5+ NK CELLS	1R01 CA28630-01	62,306
INCEFY, GENEVIEVE S.	T-LYMPHOCYTE DIFFERENTIATION	5R01 CA24476-03	100,824
KIM, JAE H.	CELLULAR RESPONSE TO HEAT AND RADIATION	5R01 CA24791-02	78,904
KIM, YOON B.	NATURAL AND ANTIBODY-DEPENDENT CELLULAR CYTOTOXICITY	5R01 CA25384-02	58,876
KIM, YOON B.	EFFECT OF MATERNAL IMMUNITY ON NEONATAL IMMUNE SYSTEM	5R01 HD12097-02	90,296
KINCADE, PAUL W.	EARLY EVENTS IN MAMMALIAN B-CELL DIFFERENTIATION	5R01 AI12741-06	95,797
KLEIN, ROBERT S.	SYNTHESIS OF C-NUCLEOSIDES FOR ANTICANCER STUDIES	5R01 CA24634-02	155,424

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
KOO, GLORIA C.	IMMUNOGENETICS OF NK-1 PLUS NATURAL KILLER CELLS	5R01 CA25416-02	95,128
KOO, GLORIA C.	H-Y ANTIGEN: SEROLOGY BIOCHEMISTRY AND FUNCTION	1R01 HD14357-01	71,853
KOPELOVICH, LEVY	SV40 TRANSFORMATION OF GARDNER'S SYNDROME FIBROBLASTS	5R26 CA19259-05	70,350
KOURIDES, IONE A.	REGULATION OF ALPHA AND BETA SUBUNITS OF TSH	5R01 CA23185-04	83,549
KOZINER, BENJAMIN	MULTIPLE CELL MARKER ANALYSIS IN HEMATOPOIETIC TUMORS	1R01 CA27690-01	80,754
KROWN, SUSAN E.	BONE MARROW TRANSPLANTATION AFTER LY SUBSET ELIMINATION	5R01 CA23602-02	80,304
KROWN, SUSAN E.	PHASE I TRIAL OF THYMOPOIETIN PENTAPEPTIDE IN CANCER	1R01 CA28657-01	141,345
KRUG, ROBERT M.	REPLICATION OF INFLUENZA VIRUS	5R01 AI11772-07	153,851
LATTIME, EDMUND C.	THYMIC ANTIGENS, TOLERANCE AND SELF-RECOGNITION	5R23 CA25932-02	36,589
LAUGHLIN, JOHN S.	CANCER STUDIES WITH NEW RADIOACTIVE SCANNING COMPOUNDS	5R01 CA18153-05	169,404
LEVINE, PHILIP	FORSSMAN ANTIGEN/ANTIBODY AND HUMAN ADENOCARCINOMA	1R01 CA28448-01	88,197
LITMAN, GARY W.	PHYSICO-CHEMICAL STUDIES OF CRYOIMMUNOGLOBULINS	5R01 AI13528-05	74,319
LITMAN, GARY W.	LOWER VERTEBRATE IMMUNOGLOBULIN AND B2-MICROGLOBULIN	5R01 AI14454-03	57,564
LITMAN, GARY W.	INTERACTION OF BENZOAPYRENE WITH NUCLEAR PROTEINS	5R01 CA24861-02	56,769
LITMAN, GARY W.	UNIQUE HISTONE-LIKE CHROMOSOMAL PROTEIN	1R01 GM28348-01	62,764
LYOED, KENNETH O.	ANTIGENS OF HUMAN MALIGNANT MELANOMA	3R01 CA21445-03S1	6,439
LYOED, KENNETH O.	ANTIGENS OF MALIGNANT MELANOMA AND OTHER HUMAN TUMORS	2R01 CA21445-04	77,649
LYOED, KENNETH O.	ANTIGENS OF HUMAN OVARIAN TUMORS	5R01 CA26184-02	77,956
LOPEZ, CARLOS	GENETICS OF RESISTANCE TO HSV-1 IN THE MOUSE	5R01 AI14832-03	70,098
MARCUS, STUART L.	RAUSCHER LEUKEMIA VIRUS DNA POLYMERASE: BIOCHEMISTRY	5R01 CA18369-05	97,544
MC DONALD, JOSEPH C.	CALORIMETRIC DOSIMETRY FOR NEUTRON RADIOTHERAPY	2R01 CA22038-03	48,609
MC DONALD, JOSEPH C.	DOSIMETRIC STUDIES FOR PARTICLE RADIOTHERAPY	1R01 CA26854-01	96,051
MELERA, PETER W.	CHROMOSOMAL MANIFESTATIONS OF GENE EXPRESSION	5R01 CA24635-02	161,617
MERLUZZI, VINCENT J.	IMMUNOPHARMACOLOGICAL STUDIES OF CYCLOPHOSPHAMIDE	5R23 CA26335-02	37,430
MEYERS, PAUL A.	REGULATION OF HEMATOPOIESIS IN POLYCYTHEMIA VERA	1R23 HL24972-01	44,916
MIKE, VALERIE	STATISTICAL CENTER FOR NAT'L BLADDER CANCER CONFERENCE	5R26 CA24567-03	26,191
MILLER, RICHARD A.	THYMIC HORMONES AND THE IMMUNE RESPONSE	5R23 AG02479-02	43,598
MODAK, MUKUND J.	MOLECULAR EFFECTS OF ENZYMIC DNA SYNTHESIS	2R01 CA21404-04	100,226
MOORE, MALCOLM A.	MARROW CULTURE STUDIES IN HUMAN MYELOID LEUKEMIA	5R01 CA17353-06	121,349
MOORE, MALCOLM A.	DEVELOPMENT AND FUNCTION OF ACTIVATED MACROPHAGES	5R01 CA19052-05	95,114
O'NEILL, GEOFFREY J.	GENETIC CONTROL OF COMPLEMENT C4 AND LINKAGE TO HLA	5R01 AI16093-02	50,577
OETTGEN, HERBERT F.	EXPERIMENTAL THERAPY OF HUMAN MELANOMA WITH VACCINES	1R01 CA28696-01	140,949
OLD, LLOYD J.	HUMAN CANCER SEROLOGY	2P01 CA19765-04	435,119
OLD, LLOYD J.	ANTI-LEUKEMIA ACTIVITY OF COLD INSOLUBLE GLOBIN	5R01 HL24884-02	120,559
OTTER, BRIAN A.	NUCLEOSIDE CONFORMATION AND ANTITUMOR ACTIVITY	5R01 CA24821-02	94,776
PARHAM, JAMES C.	N-AMINOHETEROCYCLES AS CANCER CHEMOTHERAPEUTIC AGENTS	5R01 CA23622-03	51,952
PELUS, LOUIS M.	REGULATION OF NORMAL AND LEUKEMIC MYELOID STEM CELLS	1R23 CA28512-01	56,145
PHILIPS, FREDERICK S.	AN EXPERIMENTAL CANCER CHEMOTHERAPY PROGRAM	5P01 CA18856-05	888,499
POLLACK, MARILYN S.	CYTOTOXIC CELL TYPING: IDENTIFYING NEW ALLOANTIGENS	5R01 AI15227-02	62,408
POSNER, JEROME B.	POSITRON EMISSION TOMOGRAPHY OF THE CNS	5P01 NS15665-02	581,774
PRICE, RICHARD W.	HERPES SIMPLEX VIRUS INFECTION OF AUTONOMIC GANGLIA	5R01 NS12396-05	83,120
RALPH, PETER	FUNCTIONAL ANALYSIS AND REGULATION OF LEUKEMIC CELLS	5R01 CA24300-03	113,028
ROBERTS, JOSEPH	A PROGRAM FOR DEVELOPMENT OF NEW ANTITUMOR ENZYMES	3R01 CA15860-06S1	19,795
ROBERTS, JOSEPH	THERAPY BY ENZYMIC DEPLETION OF ESSENTIAL AMINO ACIDS	5R01 CA18844-05	86,366
SARKAR, NURUL H.	COMPONENTS OF THE MOUSE MAMMARY TUMOR VIRUS	5R01 CA17129-06	106,026
SARKAR, NURUL H.	EFFECT OF DIET ON MURINE MAMMARY TUMORIGENESIS	1R01 CA25679-01A1	120,962
SCHEFFEL, JAMES W.	AUTORECOGNITION AND IMMUNOREACTIVITY	1R23 CA28061-01	37,430
SCHIED, MARGRIT P.	T CELL DIFFERENTIATION: MOLECULAR MECHANISMS	5R01 CA25738-05	68,076
SCHIED, MARGRIT P.	INDUCTION OF T-LYMPHOCYTE DIFFERENTIATION	5R01 HD08415-07	98,492
SHAPIRO, WILLIAM R.	HUMAN GLIOMA HETEROGENEITY AND CHEMOTHERAPY	5R01 CA25956-02	119,520
SHERMAN, MERRY R.	RENAL CORTICOSTEROID RECEPTOR STRUCTURE, PURIFICATION	5R01 AM20505-03	100,751
SHERMAN, MERRY R.	HUMAN LEUKEMIA: STEROID BINDING, RESPONSE, RESISTANCE	1R01 CA28392-01	108,021
SILVERSTONE, ALLEN E.	PROGRAMS OF NORMAL AND MALIGNANT LYMPHOCYTES	5R01 CA22599-03	55,930
SINISCALCO, MARCELLO	COMPLEMENT OF SISTER CHROMATID EXCHANGE TO CELL HYBRIDS	1R01 CA25342-01A1	117,752
SIROTNAK, FRANCIS M.	SELECTIVE ANTITUMOR ACTION ANTIFOLATES	5R01 CA25674-03	97,007
SIROTNAK, FRANCIS M.	APPROACH TO DRUG TRANSPORT/RESPONSE IN HUMAN CANCER	5R01 CA24153-03	48,608
SKIPSKI, VLADIMIR P.	ROLE OF GLYCOCONJUGATES IN FORMATION OF METASTASIS	5R01 CA24419-03	74,930
SNYDER, HARRY W, JR.	CHEMICAL NATURE OF LEUKEMIA ANTIGENS	5R23 CA24357-03	37,099
SONENBERG, MARTIN	CELL SURFACE ALTERATIONS BY GROWTH HORMONES	5R01 AM18759-05	86,820
SONENBERG, MARTIN	INSULIN AND CATECHOLAMINE ON MEMBRANE POTENTIAL	1R01 AM26572-01	74,844
SONENBERG, MARTIN	ION TRANSPORT IN HORMONAL RESPONSIVENESS	5R01 GM27612-06	104,091

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SPIEGELMAN, MARTHA	CELL SURFACE ARCHITECTURE OF EMBRYOS AND SPERM	5R01 HD10669-05	115,063
STACKPOLE, CHRISTOPHER W	PLASMA-MEDIATED LEUKEMIA CELL LYSIS AND MODULATION	3R01 CA16168-05S1	25,275
STAVNEZER, EDWARD	SYNTHESIS AND PROCESSING OF AVIAN RETROVIRUS RNAS	5R01 CA24163-02	99,571
STAVNEZER, JANET M	STRUCTURE AND DIFFERENTIATION OF IMMUNOGLOBULIN GENES	5R01 AI14617-03	145,021
STEWART, WILLIAM E, II	CHARACTERIZATION OF INTERFERONS AND THEIR ACTIONS	5R01 AI16439-05	88,128
STOHRER, GERHARD	METABOLIC AND CHEMICAL STUDIES OF CARCINOGENESIS	5R01 CA22458-02	84,998
STOHRER, GERHARD	PURINE DERIVATIVES AND OTHER CHEMICAL CARCINOGENS	5R01 CA22609-03	71,439
STUTMAN, OSIAS	IMMUNE SURVEILLANCE AND CANCER	5R01 CA15988-07	105,962
STUTMAN, OSIAS	TUMOR IMMUNITY AND TUMOR-HOST INTERACTIONS	5R01 CA17818-05	111,633
TROTTE, PAUL P	MEMBRANE ADASE BINDING PROTEIN: STRUCTURE AND FUNCTION	1R01 AM27611-01	50,965
WACHTEL, STEPHEN S	IMMUNOGENETICS OF SEX DETERMINATION	2R01 AI11982-07	137,738
WACHTEL, STEPHEN S	H-Y ANTIGEN IN HUMANS WITH SEX-CHROMOSOMAL ANOMALIES	5R01 HD10065-05	87,854
WARFEL, ALWIN H	KILLING OF CANCER CELLS BY BCG ACTIVATED CELLS	5R01 CA18893-04	80,113
WATANABE, K A	SYNTHETIC MASKED NUCLEOSIDES FOR ANTICANCER STUDIES	2R01 CA18601-05	203,345
WILLIAMS, NEIL T	REGULATION OF MEGAKARYOPOIESIS	5R01 HL22451-02	87,856
WITKIN, STEVEN S	DNA SYNTHESIZING COMPLEXES IN SEMEN	2R01 HD10826-03A1	41,259
WITKIN, STEVEN S	IMMUNE COMPLEXES, COMPLEMENT AND SPERM AUTOANTIBODIES	1R01 HD13401-01A1	62,653
YAMAZAKI, KUNIO	IMMUNOGENETICS OF SELF-IDENTIFICATION	2R01 CA23676-03	21,663
ZEDECK, MORRIS S	A MODEL SYSTEM FOR STUDIES OF COLON CARCINOGENESIS	2R26 CA15637-37	105,466
ORGANIZATION TOTAL	156	24,651,339	
SOCIAL SCIENCE RESEARCH COUNCIL ZIP CODE 10016			
PREWITT, KENNETH	LIFE-COURSE PERSPECTIVES ON MIDDLE AND OLD AGE	5R01 AG01144-03	94,720
ORGANIZATION TOTAL	1	94,720	
ST. JOHN'S UNIVERSITY ZIP CODE 11439			
CARTER, TIMOTHY H	THE REGULATION OF ADENOVIRUS GENE EXPRESSION	5R01 CA25757-03	46,736
ORGANIZATION TOTAL	1	46,736	
ST. LUKE'S-ROOSEVELT HOSPITAL CENTER ZIP CODE 10025			
FEIGELSON, MURIEL H	MECHANISMS OF POSTNATAL ENZYME DEVELOPMENT	5R01 HD08712-07	132,700
GREENWOOD, MARY R	BEHAVIORAL & METABOLIC CORRELATES OF GENETIC OBESITY	5R01 AM25141-02	81,617
ORGANIZATION TOTAL	2	214,317	
ST. LUKE'S-ROOSEVELT INSTITUTE FOR HEALTH SCIENCES ZIP CODE 10025			
BERTLES, JOHN F	GENETIC CONTROL OF HEMOGLOBIN SYNTHESIS	5R01 AM27116-04	121,602
BOKKENHEUSER, VICTOR D	BIODEGRADATION OF CORTICOIDS AND SEX HORMONES IN MAN	5R01 AM25324-02	100,034
BOKKENHEUSER, VICTOR D	BACTERIA AND STEROID METABOLISM	5R01 CA25763-06	121,501
FAIRCHILD, BEATRICE M	SICKLE CELL HEMOGLOBIN: INTERACTIONS & AGGREGATION	5R01 HL23984-04	101,632
FEIGELSON, MURIEL H	PERINATAL DEVELOPMENT IN OFFSPRING OF DIABETIC MOTHERS	5R01 AM28567-02	92,110
HASHIM, GEORGE A	SUPPRESSION OF EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS	2R01 NS15322-02A1	95,680
HASHIM, SAMI A	MEDIUM CHAIN FATS: PHYSIOLOGY & CLINICAL IMPLICATIONS	5R01 AM26796-04	99,735
HOCHBERG, RICHARD B	STEROID HORMONES IN BREAST CANCER	2R01 CA24512-03	15,445
HOCHBERG, RICHARD B	STEROID HORMONES IN BREAST CANCER	7R01 CA30171-01	15,025
HOCHBERG, RICHARD B	STEROID HORMONES IN BREAST CANCER	2R01 CA30171-02	62,948
HOLT, PETER R	ABSORPTIVE FUNCTION AND CELL TURNOVER IN AGED INTESTINE	1R01 AG01625-01A1	111,920
PASCAL, ROBERT R	IDENTIFY CARCINOEMBRYONIC ANTIGENS IN CYTOLOGY SPECIMENS	1R01 CA26863-01	56,114
PHILLIPS, GERALD B	ETIOLOGY OF MYOCARDIAL INFARCTION	5R01 HL20645-03	92,162
PHILLIPS, GERALD B	BIOMEDICAL RESEARCH SUPPORT	7S07 RR05840-01	105,366
ROSNER, WILLIAM	ESTROGEN BINDING IN HUMAN SERUM	5R01 AM28562-02	138,598
RYAN, STEPHEN F	EXPERIMENTAL ACUTE ALVEOLAR INJURY	5R01 HL23981-04	124,862
SPRINSON, DAVID B	REGULATION OF ERGOSTEROL AND CHOLESTEROL BIOSYNTHESIS	5R01 AM28563-02	82,900
VAN ITALLIE, THEODORE B	OPTIMAL DIETS FOR TREATMENT OF OBESITY: METABOLIC BASIS	1R01 AM26688-01	335,437
WEISS, HARVEY J	PLATELET REACTIVITY & DISORDERS OF PLATELET FUNCTION	2R01 HL14595-09	149,012
ORGANIZATION TOTAL	19	2,022,083	
ST. VINCENT'S HOSPITAL AND MEDICAL CENTER OF NEW YORK ZIP CODE 10011			
BARTFELD, HARRY	CAUSE AND MECHANISMS OF AMYOTROPHIC LATERAL SCLEROSIS	5P50 NS11605-06	213,601
SCHWARZ, GEORGE	X-RAY DOSE RATE EFFECTS ON CELL KINETICS	3R01 CA17582-05S1	37,011
SCHWARZ, GEORGE	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05502-16	23,735
ORGANIZATION TOTAL	3	274,347	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
BIANCO, CELSO	REGULATION OF MACROPHAGE MOTILITY BY COMPLEMENT	5R01 AI15221-03	53,281
BRODY, NEIL I.	STUDIES OF THE IMMUNOBIOLOGY OF B-16 MELANOMA	5R01 CA24244-02	62,993
CRAECO, ROGER Q.	EVOKED SPINAL RESPONSE	2R01 NS12039-05	74,676
CRAMER, EVA B.	TRANSEPIHELIAL MIGRATION OF HUMAN NEUTROPHILS	1R01 AI16480-01	55,498
DEBONS, ALBERT F.	HYPOTHALAMIC REGULATION OF FOOD INTAKE	5R01 AM12479-13	53,375
DETWILER, THOMAS C.	REACTIONS OF THROMBIN AND COLLAGEN WITH PLATELETS	2R01 HL16355-07	101,216
DETWILER, THOMAS C.	STIMULUS-RESPONSE COUPLING IN PLATELETS	5R01 HL17729-06	53,634
DURKIN, HELEN G.	THYMUS CORTEX AS SITE OF ORIGIN OF SUPPRESSOR T CELLS	5R01 AI15603-02	72,945
ERLIJ, DAVID J.	ACTIVATION OF MEMBRANE PROCESSES BY INSULIN	5R01 AM24064-03	53,651
ESTEBAN, MARIANO	MECHANISM OF ACTION OF INTERFERON	1R01 AI16780-01	75,736
ETLINGER, JOSEPH D.	MYOFIBRILLAR ASSEMBLY AND BREAKDOWN IN CARDIAC MUSCLE	5R01 HL21970-03	48,312
FEINMAN, RICHARD D.	MECHANISM OF THROMBIN ACTION	5R01 HL14992-09	55,900
FRIEDMAN, STANLEY	THE EFFECT OF 5-AZACYTIDINE ON THE METHYLATION OF DNA	1R01 GM27787-01	54,739
FURCHGOTT, ROBERT F.	FACTORS INFLUENCING RESPONSES TO ADRENERGIC DRUGS	5R01 HL21860-20	83,434
GAETJENS, ERIC	STEROID BINDING IN BREAST CANCER BY IMMUNOFLOURESCENCE	5R01 CA23623-03	53,622
GARDNER, BERNARD	CLINICAL CANCER EDUCATION PROGRAM	2R25 CA17982-03A2	107,877
GIDARI, ANTHONY S.	REGULATORY ASPECTS OF ERYTHROID PROLIFERATION	5R01 AM21602-03	30,857
GOOTMAN, PHYLLIS M.	POSTNATAL MATURATION OF CARDIOVASCULAR REGULATORY SYSTEM	5R01 HL20864-03	52,381
HALPERN, MIMI N.	FUNCTIONAL STUDIES OF THE VOMERONASAL SYSTEM	2R01 NS11713-07	84,402
HERBERT, VICTOR D.	VITAMIN B12 AND FOLATE METABOLISM	5R01 AM20526-04	121,764
JAFFE, BERNARD M.	SEROTONIN AND SUBSTANCE P IN GASTROINTESTINAL PHYSIOLOGY	5R01 AM26522-02	100,268
KAO, CHIEN-YUAN	BIOELECTRIC PROPERTIES OF UTERINE MUSCLE	2R01 HD00378-21	78,631
KAO, CHIEN-YUAN	CELLULAR ACTIONS OF TETRODOTOXIN ANALOGUES	5R01 NS14551-02	50,724
KAPLAN, DAVID	MULTIPURPOSE ARTHRITIS CENTER	5P60 AM20625-03	521,676
KAUFFMAN, SHIRLEY L.	LUNG PRENEOPLASTIC HYPERPLASIA AND CHEMICAL CARCINOGENS	5R01 CA17569-06	53,128
KAUFFMAN, SHIRLEY L.	PULMONARY GROWTH IN MICE EXPOSED TO DEXAMETHASONE	5R01 HD12008-03	33,471
KAVALER, FREDERIC	IONIC COUPLING IN ACTIVATION OF CARDIAC MUSCLE	5R01 HL12774-10	59,398
KIRPEKAR, S M.	FACTORS INFLUENCING TRANSMISSION AT ADRENERGIC SYNAPSES	5R01 HL22170-03	56,357
KIRSCHENBAUM, DONALD M.	COMPIATION OF PROTEIN RELATED ANALYTICAL DATA	1R01 LM03591-01	14,263
LANKS, KARL W.	PROTEASES IN GROWTH CONTROL AND MALIGNANT TRANSFORMATION	5R01 CA16740-06	81,373
LANKS, KARL W.	MECHANISMS OF NORMAL AND NEOPLASTIC CELL ATTACHMENT	5R01 GM24592-03	44,331
LANKS, KARL W.	PROTEIN SYNTHESIS CONTROL IN NON-PROLIFERATING CELLS	1R01 GM26167-01A1	84,900
LEE, STANLEY L.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00318-14A1	344,322
LEE, STANLEY L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05401-19	149,803
LEWIS, JOHN A.	SYNTHESIS OF MEMBRANE PROTEINS BY CULTURED MOUSE CELLS	5R01 GM26375-02	46,481
MARGOLIS, RENEE K.	GLYCOPROTEINS IN BRAIN	2R01 NS09348-10	105,425
MARSH, WALTON H.	PANCREAS DIFFERENTIATION IN ORGAN CULTURE	5R01 AM21769-03	31,328
MC GOWAN, ELEANOR B.	PLATELET CALCIUM-BINDING PROTEIN STRUCTURE & FUNCTION	3R23 HL21413-03S1	3,236
MOSESSON, MICHAEL W.	FIBRINOGEN AND FIBRONECTIN STRUCTURE AND METABOLISM	2P01 HL17419-06	459,375
MOSESSON, MICHAEL W.	SEPARATION OF FIBRONECTIN-RICH PLASMA FRACTIONS	5R01 HL24834-02	72,601
OJAKIAN, GEORGE K.	FREEZE-ETCH STUDIES OF DEVELOPING TIGHT JUNCTIONS	5R01 GM25125-03	129,697
PARSA, ISMAIL	AN IN VITRO MODEL OF HUMAN PANCREAS CARCINOGENESIS	5R26 CA22682-03	44,601
PENNRICK, SUZANNE M.	REGULATION OF TENSION AND ACTIVE STATE IN THE HEART	5R01 HL22401-03	79,447
PERTSCHUK, LOUIS P.	PROSTATE STEROID RECEPTORS BY FLUORESCENCE MICROSCOPY	5R26 CA25760-02	72,455
RAFLA, SAMEER	CANCER AND LEUKEMIA GROUP B	5R10 CA25119-02	116,746
RANCK, JAMES B, JR.	ELECTROPHYSIOLOGY OF LIMBIC NEURONS	5R01 NS14497-03	60,783
RIEDER, RONALD F.	PROTEIN SYNTHESIS IN ERYTHROID PRECURSORS	3R01 AM12401-13S1	21,600
RIEDER, RONALD F.	PROTEIN SYNTHESIS IN ERYTHROID PRECURSORS	5R01 AM12401-14	104,096
ROSENTHAL, CONSTANTIN J.	SERUM AMYLOID A	2R01 AM20080-04	82,023
ROTHENBERG, SHELDON P.	KINETICS OF B12, INTRINSIC FACTOR, AND OTHER PROTEINS	7R01 AM28561-01	72,448
ROTHENBERG, SHELDON P.	FOLATE REDUCTASE: INDUCTION, SUPPRESSION, THERAPEUTICS	7R01 CA30141-01	29,897
SCHUSSLER, GEORGE C.	THYROID HORMONE TRANSPORT AND CELLULAR UPTAKE	5R01 AM26692-02	89,553
SHED, BERTRUM	CYTOTOXIC FACTOR(S) FROM HUMAN OVARIAN ADENOCARCINOMA	1R01 CA26993-01	51,018
SILVERSTEIN, EMANUEL	ENZYME MECHANISM AND CONTROL	5R01 GM18453-07	74,672
SILVERSTEIN, EMANUEL	BIOCHEMISTRY AND MOLECULAR BIOLOGY OF SARCOIDOSIS	5R01 HL19077-02	73,599
STRACHER, ALFRED	CHARACTERIZATION OF CONTRACTILE PROTEINS IN PLATELETS	5R01 HL14020-08	68,650
SULTZER, BARNET M.	BIOLOGICAL ACTIVITIES OF B. PERTUSSIS	5R01 AI09683-11	126,995
SULTZER, BARNET M.	IMMUNOBIOLOGY OF ENDOTOXIN PROTEIN	1R01 AI16782-01	70,926
VASSALLE, MARIO	DIGITALIS EFFECTS ON CARDIAC AUTOMATICITY MECHANISMS	2R01 HL17451-07	68,695

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
VROMAN, LEO	FLOW AND FLEXING AT BLOOD/BIOMATERIAL INTERFACES	5R01 HL23899-03	50,349
WAKADE, ARUN R.	REGULATION OF NEUROTRANSMITTER RELEASE BY ADENOSINE	5R01 HL18601-03	34,005
WOODRUFF, JUDITH J.	IMMUNOLOGY AND PHYSIOLOGY OF RECIRCULATING LYMPHOCYTES	5R01 AI10080-11	159,893
ORGANIZATION TOTAL	62 5,423,532		
STATE UNIVERSITY OF NEW YORK—STATE COLLEGE OF OPTOMETRY ZIP CODE 10010			
POLA, JORDAN R.	THE MECHANISM OF SMOOTH PURSUIT EYE MOVEMENTS	5R01 EY02878-02	27,526
YAGER, C DEAN	BEHAVIORAL ASSESSMENT OF RECOVERY OF VISUAL FUNCTION	5R01 NS14876-02	37,015
ORGANIZATION TOTAL	2 64,541		
TEACHERS COLLEGE ZIP CODE 10027			
BLACKMAN, LEONARD S.	COGNITIVE STRATEGIES IN THE MENTALLY RETARDED	5P01 HD07329-08	296,429
STEVENS, BARBARA J.	BIOMEDICAL RESEARCH SUPPORT	1S07 RR07200-01	35,738
ORGANIZATION TOTAL	2 332,167		
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—PHS HOSPITAL ZIP CODE 10304			
KACHADORIAN, WILLIAM A.	MEMBRANE STRUCTURE IN TOAD BLADDER AND RAT KIDNEY	5R01 AM18710-05	34,767
ORGANIZATION TOTAL	1 34,767		
YESHIVA UNIVERSITY ZIP CODE 10033			
ADAMANY, ANTHONY M.	SMOOTH MUSCLE CELL MEMBRANE GLYCOPROTEIN BIOSYNTHESIS	5R01 HL19011-05	123,639
AISEN, PHILIP	IRON-BINDING PROTEINS AND CONTROL OF IRON METABOLISM	3R01 AM15056-09S1	6,000
AISEN, PHILIP	IRON-BINDING PROTEINS AND CONTROL OF IRON METABOLISM	5R01 AM15056-10	222,763
ARIAS, IRWIN M.	THE MECHANISM OF BILE PIGMENT EXCRETION	5R01 AM02019-23	347,492
ARIAS, IRWIN M.	HEPATITIS CIRRHOSIS CENTER	3P01 AM17702-06S1	477,787
ARIAS, IRWIN M.	HEPATITIS CIRRHOSIS CENTER	5P01 AM17702-07	978,299
ARONSON, RONALD S.	THE ELECTROPHYSIOLOGY OF CARDIAC HYPERTROPHY	3R23 HL21167-03S1	7,947
ATKINSON, PAUL H.	SURFACE MEMBRANES IN NORMAL AND CANCER CELLS	5R01 CA13402-08	173,840
BAEZ, SILVIO	BIOGENIC-MECHANICAL FACTORS IN MICROCIRCULATION	5R01 HL06736-20	137,953
BARNETT, HENRY L.	PEDIATRIC NEPHROLOGY: DRUG TRIALS AND CLINICAL SURVEYS	5R01 AM18234-06	436,349
BASES, ROBERT E.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18009-05	167,502
BAUM, STEPHEN G.	INTERACTION OF ONCOGENIC VIRUSES (ADENOVIRUS & SV40)	5R01 CA10945-11	101,617
BENNETT, MICHAEL V.	FUNCTION OF ELECTRICAL COUPLING IN EMBRYONIC TISSUES	5R01 HD04248-12	87,355
BENNETT, MICHAEL V.	SYNAPTIC TRANSMISSION IN THE CNS	5R01 NS12627-05	98,415
BHARGAVA, MADHU M.	LIGANDIN:STRUCTURE, REGULATION, ROLE IN HEPATOCARCINOMA	5R01 CA24842-02	71,371
BIENKOWSKI, ROBERT S.	INTRACELLULAR DEGRADATION OF NEWLY SYNTHESIZED COLLAGEN	5R01 HL22729-03	81,442
BIRSSTEIN, BARBARA K.	CELLULAR AND STRUCTURAL STUDIES OF MYELOMA MUTANTS	5R01 AI13509-05	89,705
BLOOM, BARRY R.	THE BIOCHEMICAL BASIS OF DELAYED HYPERSENSITIVITY	5R01 AI07118-15	138,401
BLOOM, BARRY R.	THE CELLULAR BASIS OF DELAYED-TYPE HYPERSENSITIVITY	5R01 AI09807-11	129,248
BLUMENFELD, OLGA O.	PROTEINS OF THE CELL MEMBRANE	5R01 GM16389-11	125,414
BOOKCHIN, ROBERT M.	STUDIES OF SICKLING MECHANISMS & HEMOGLOBIN INTERACTIONS	5R01 AM12597-13	182,318
BORNSTEIN, MURRAY B.	PATHOGENESIS AND TREATMENT OF MULTIPLE SCLEROSIS	2P50 NS11920-06	825,884
BREWER, CURTIS F.	NMR STUDIES OF SACCHARIDE BINDING TO CONCAVALIN A	2R01 CA16054-06	139,997
BRIEHL, ROBIN W.	SICKLE HEMOGLOBIN: PHYSICAL CHEMISTRY & PATHOGENESIS	2R01 HL07451-18	222,514
BUCKLEY, NANCY M.	POSTNATAL DEVELOPMENT OF PERIPHERAL CIRCULATORY FUNCTION	5R01 HL21865-02	88,013
CAMMER, WENDY	CARBONIC ANHYDRASE AND CNP IN MYELIN AND CNS CELLS	5R01 NS12890-02	94,613
CHASE, JOHN W.	BIOCHEMICAL STUDIES OF E. COLI EXONUCLEASE VII	5R01 GM23451-03	40,484
CONDEELIS, JOHN S.	STUDY OF CYTOPLASMIC MOTILITY USING MODEL SYSTEMS	5R01 GM25290-03	87,823
CONDEELIS, JOHN S.	INTERACTIONS OF ACTIN CYTOSKELETON WITH PLASMA MEMBRANE	5R01 GM25813-02	64,074
COSTANTINO-CECCARINI, E.	ROLE OF CEREBROSIDE SYNTHESIS IN DEVELOPING BRAIN	2R01 NS12807-04	111,603
CRAIN, STANLEY M.	DEVELOPMENT OF ORGANOTYPIC CNS NETWORKS IN CULTURE	5R01 NS14990-02	103,077
DALY, MARIE M.	CREATINE TRANSPORT AND METABOLISM IN CULTURED CELLS	1R01 AM26601-01A1	105,241
DAS, KIRON M.	PATHOGENESIS OF INFLAMMATORY BOWEL DISEASE	5R01 AM21832-03	148,701
DAS, KIRON M.	ETIOLOGY OF CROHN'S DISEASE	1R01 AM26403-01	93,983
DAVIES, PETER	AGING & DEMENTIA: CHOLINERGIC NEURON BIOCHEMISTRY	5R01 AG01066-02	110,203
DIAMOND, BETTY	PROPERTIES OF FUNCTIONAL MACROPHAGE CELL LINES	5R01 AI16166-02	91,330
DINA, DINO	REGULATION OF MURINE RNA TUMOR VIRUS GENE EXPRESSION	5R01 CA24223-03	109,882
DURAN-REYNALS, MARIA L.	POSSIBLE NEOPLASTIC EFFECTS OF NON-NEOPLASTIC VIRUSES	5R01 CA07160-16	197,593
DUTTAGUPTA, CHANDRALEKHA ..	CYCLOC GMP LEVELS IN GYNECOLOGIC NEOPLASMS	5R01 CA25357-02	75,235
EAGLE, HARRY	CANCER CENTER CORE GRANT	5P30 CA13330-09	3,140,036
EDELMANN, CHESTER M, JR.	ACIDOSIS IN NEONATAL AND DEVELOPING ANIMALS	5R01 HD12170-03	89,398

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
EDELMANN, CHESTER M, JR.....	BICARBONATE TRANSPORT BY THE MATURING PROXIMAL TUBULE.....	5R01 HD13232-02	125,973
EISENSTADT, RAURICE.....	STUDY OF MEMBRANE PERMEABILITY BY NMR RELAXATION.....	5R01 HL17571-05	127,387
ENGLAND, SASHA.....	HYDROXYLATION REACTIONS IN BIOSYNTHESIS OF CARNITINE.....	5R01 AM21197-03	126,736
FIELDS, KAY.....	NEUROIMMUNOLOGY: SURFACE ANTIGENS OF NEURONS AND GLIA.....	5R01 NS14580-02	126,730
FINKELSTEIN, ALAN.....	MODEL SYNAPTIC VESICLES INTERACTION WITH LIPID BILAYER.....	5R01 NS14246-03	150,975
FLEISCHER, NORMAN S.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20541-04	955,545
FRIEDMAN, EPHRAIM.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05397-19	189,787
GARTNER, LAWRENCE M.....	PATHOGENESIS OF NEONATAL JAUNDICE AND KERNICTERUS.....	5R01 HD03783-12	143,204
GASKIN, FELICIA A.....	BIOPHYSICAL STUDIES ON NEUROFIBROUS PROTEINS IN AGING.....	5R01 NS12418-06	113,329
GHOSSAIN, NEMETALLAH A.....	POSTOPERATIVE RADIOTHERAPY COLORECTAL CANCER TREATMENT.....	5R01 CA17251-06	67,390
GINZBERG, ROSEMARY D.....	INNERVATION AND SYNAPTOGENESIS IN THE LABYRINTH.....	1R01 NS16560-01	66,548
GLUECKSOHN-WAELSCH, SALOME.....	GENETIC CONTROL OF MAMMALIAN DIFFERENTIATION.....	9R01 GM27250-25	156,379
GOLDFISCHER, SIDNEY L.....	VASCULAR DISEASE—CYTOCHEMISTRY AND ULTRASTRUCTURE.....	5R01 HL21756-13	157,513
GULATI, JAGDISH.....	CONTRACTION OF FROG AND MAMMALIAN SKINNED FIBERS.....	1R01 AM26632-01	122,841
HALL, DAVID H.....	MORPHOPHYSIOLOGY OF IDENTIFIED NEURONS AND SYNAPSES.....	1R01 NS15909-01	29,145
HALL, LINDA M.....	GENETIC ANALYSIS OF SODIUM CHANNELS.....	2R01 NS16204-02	179,487
HAYS, RICHARD M.....	CONTROL OF WATER AND SOLUTE MOVEMENT ACROSS THE CELL.....	3R01 AM03858-19S1	14,132
HEHRE, EDWARD J.....	SCOPE AND MECHANISM OF ENZYME-CATALYZED GLYCOSYLATION.....	5R01 GM25478-02	85,274
HENRY, SUSAN A.....	GENETICS AND DEVELOPMENT OF YEAST MEMBRANE MUTANTS.....	5R01 GM19629-09	129,427
HIGHSTEIN, STEPHEN M.....	MORPHOPHYSIOLOGY OF PRE-NUCLEAR OCULOMOTOR NEURONS.....	5R01 EY01670-06	104,979
HIGHSTEIN, STEPHEN M.....	VESTIBULAR AFFERENT AND EFFERENT ACTIVITY.....	5R01 NS15218-02	31,194
HORWITZ, MARSHALL S.....	ADENOVIRUS DNA SYNTHESIS AND POLYPEPTIDE ASSEMBLY.....	5R01 CA11512-11	157,431
HORWITZ, SUSAN B.....	BIOCHEMICAL PHARMACOLOGY OF ANTITUMOR DRUGS.....	5R01 CA15714-06	171,165
HORWITZ, SUSAN B.....	NEW ANTITUMOR AGENTS: MECHANISM OF ACTION.....	5R01 CA23187-03	106,210
HURWITZ, JERARD.....	CARCINOGENS ON PRO- AND EUKARYOTIC DNA REPLICATION.....	5R01 CA21622-04	95,659
HURWITZ, JERARD.....	MACROMOLECULAR ALTERATION AND SYNTHESIS.....	5R01 GM13344-15	220,766
JAFFE, ERNST R.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00050-19	776,259
KAPLAN, BARRY H.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA14958-06	87,023
KARMEN, ARTHUR.....	MICROANALYSIS USING GAS CHROMATOGRAPHY.....	5R01 GM19478-06	99,085
KATZ, IRA R.....	OXYGEN AND NEUROTRANSMITTERS IN SYNAPTOSOMES.....	5R01 AG01478-02	56,727
KATZMAN, ROBERT.....	SPECIAL INITIATIVES RELATED TO DEMENTIA.....	5R21 AG01184-03	110,774
KATZMAN, ROBERT.....	SENILE DEMENTIA: ALZHEIMER AND VASCULAR.....	1P01 AG02478-01	470,010
KATZMAN, ROBERT.....	NEUROLOGICAL CENTER: METABOLIC/DEGENERATIVE DISORDERS.....	5P50 NS03356-20	1,103,247
KATZMAN, ROBERT.....	BIOGENIC AMINES AND NEUROLOGICAL DISORDERS.....	5P01 NS09649-09	403,668
KATZMAN, ROBERT.....	SENILE DEMENTIA: ALZHEIMER AND VASCULAR.....	1R01 NS17156-01	448,724
KEISER, HAROLD D.....	STRUCTURE AND IMMUNOLOGY OF CARTILAGE PROTEOGLYCAN.....	5R01 AM25711-02	204,136
KERN, HAROLD L.....	CHARACTERIZATION OF TRANSPORT-PROTEINS IN THE LENS.....	3R01 EY00268-15S1	3,940
KERN, HAROLD L.....	CHARACTERIZATION OF TRANSPORT-PROTEINS IN THE LENS.....	5R01 EY00268-16	154,417
KIRK, EDWARD S.....	CORONARY COLLATERAL CIRCULATION IN MYOCARDIAL ISCHEMIA.....	5R01 HL23171-03	232,961
KLINGER, HAROLD P.....	GENE REGULATION & INTERACTION—NORMAL & MALIGNANT CELLS.....	5R01 CA16720-07	219,953
KRUEGER, JOHN W.....	SARCOMERE MECHANISMS IN CARDIAC CONTRACTION.....	2R01 HL21325-04	118,891
LEDEEN, ROBERT W.....	STUDY OF NERVOUS SYSTEM GANGLIOSIDES AND RELATED LIPIDS.....	5R01 NS04834-17	206,680
LEDEEN, ROBERT W.....	STUDY OF NEW MYELIN ENZYMES.....	1R01 NS16181-01	58,716
LEGENDY, CHARLES R.....	EXTRARETINAL INFLUENCES ON STRIATE CORTEX NEURONS.....	1R01 EY03072-01A1	97,544
LEVENSON, STANLEY M.....	BURN DEBRIDEMENT: CHEMICAL, ENZYMIC.....	5R01 GM19328-09	117,411
LEVINE, SHERMAN D.....	WATER AND NONELECTROLYTE TRANSPORT ACROSS TOAD BLADDER.....	1R01 AM27411-01	116,979
LEVINE, WALTER G.....	ROLE OF METABOLISM IN THE BILIARY EXCRETION OF DRUGS.....	5R01 CA14231-09	122,303
LEVITT, SELWYN B.....	MEDICAL VS SURGICAL THERAPY OF VESICoureTERAL REFLUX.....	1R01 AM23082-01A1	118,511
LILLY, FRANK.....	GENETIC CONTROL OF RESISTANCE TO FRIEND VIRUS DISEASE.....	2R01 CA19873-04	110,399
LILLY, FRANK.....	MECHANISM OF THE H-2 EFFECT ON VIRAL LEUKEMOGENESIS.....	2R01 CA19931-04	149,744
LISTOWSKY, IRVING.....	CONFORMATION OF FERRITIN AND ITS ROLE IN IRON METABOLISM.....	5R01 HL11511-12	117,075
MAIO, JOSEPH J.....	DNA TRANSCRIPTION CONTROL IN NORMAL AND CANCER CELLS.....	5R01 CA16790-06	178,881
MAITRA, UMADAS.....	ENZYME SYNTHESIS OF BIOLOGICALLY ACTIVE MACROMOLECULES.....	5R01 GM15399-12	164,209
MAKMAN, MAYNARD H.....	AGING AND BRAIN MONOAMINE RECEPTORS AND DRUG RESPONSE.....	5R01 AG01400-02	77,029
MARCUS, DONALD M.....	ANTIBODY INTERACTIONS WITH HAPTENS AND GLYCOLIPIDS.....	5R01 AIO5336-17	110,296
MARIANS, KENNETH J.....	STUDIES OF DNA REPLICATION.....	5R01 GM26410-02	87,499
MARMUR, JULIUS.....	THE ROLE OF YEAST MITOCHONDRIA AND CANCER.....	5R01 CA12410-10	218,356
MC CONN, RITA.....	BLOOD STORAGE: THE PRODUCTION OF CARDIOTOXIC MATERIAL.....	3R01 HL17479-05S1	7,214
MEARS, JOHN G.....	REGULATION OF HUMAN GLOBIN GENE EXPRESSION.....	1R01 GM28841-01	133,916
MIDELFORT, CHRISTIAN F.....	OXYGEN LABELING STUDIES OF COUPLED ATP DEPENDENT ENZYMES.....	5R01 GM24667-03	83,378
MODEL, PATRICIA G.....	MAUTHNER NEURON DEVELOPMENT AND SYNAPTIC TRANSMISSION.....	5R01 NS13587-03	64,372

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
NADAL-GINARD, BERNARDO	TRANSFORMING GENE OF ROUS SARCOMA VIRUS	1R01 CA26860-01	57,139
NADAL-GINARD, BERNARDO	MYOSIN HEAVY CHAIN EXPRESSION IN A MUSCLE CELL LINE	5R01 GM26358-02	80,435
NAGEL, RONALD L	SICKLE CELL ANEMIA AND OTHER HEMOGLOBINOPATHIES	5P01 HL21016-04	735,573
NATHENSON, STANLEY G	BIOCHEMICAL STUDIES ON HISTOCOMPATIBILITY ANTIGENS	5R01 AI07289-15	214,958
NEIGHBOUR, PHILIP A	IMMUNOREGULATORY MECHANISMS IN MULTIPLE SCLEROSIS	1R01 NS15541-01A1	95,273
NITOWSKY, HAROLD M	SUPPORT FOR GENETICS RESEARCH CENTER	5P50 GM19100-08	754,959
NORTON, WILLIAM T	THE CHEMISTRY OF CELLS AND CELL PORTIONS FROM THE CNS	2R01 NS02476-21	291,368
NOVIKOFF, ALEX B	BIOCHEMICAL CYTOLOGY OF NORMAL AND MALIGNANT TISSUES	2R01 CA06576-18	403,691
NOVIKOFF, PHYLLIS M	GOLGI APPARATUS & GERL IN NORMAL AND PATHOLOGIC LIVER	5R01 AM23078-02	105,483
ORR, GEORGE A	SELECTIVE RETRIEVAL OF LABELED MEMBRANE COMPONENTS	1R01 GM27851-01	115,820
ORR, GEORGE A	PHOSPHOLIPID ANALOGS AND MEMBRANE FUNCTION	1R01 GM28170-01	100,124
PAIDINO, ALBERT M	GOLGI STUDY OF NEURONS IN IMMATURE CORTEX	5R01 NS13832-03	63,702
PARK, SUNG S	FUNCTION AND CONTROL OF RESPIRATORY MUSCLES	1R01 HL25230-01	106,514
PEISACH, JACK	HEME PROTEIN STRUCTURE AND FUNCTION	5R01 HL13399-18	216,295
PETERSON, EDITH R	NEUROMUSCULAR RELATIONS IN ORGANOTYPIC CULTURES	5R01 NS08770-09	92,704
POLLACK, SIMEON	SIDEROSIS: CHELATION THERAPY AND MECHANISMS	5R01 HL21560-02	82,734
PURPURA, DOMINICK P	SUPPORT FOR MENTAL RETARDATION RESEARCH CENTER	5P30 HD01799-16	963,091
PURPURA, DOMINICK P	NEURONAL DEVELOPMENT, INTERACTION, AND ORGANIZATION	2P01 NS07512-13	668,993
RAINE, CEDRIC S	EM CYTOPATHOLOGY OF ORGANIZED CNS AND PNS CULTURES	2R01 NS08952-12	209,518
RICHARDSON, STEPHEN A	GROWING UP AS A MENTALLY SUBNORMAL YOUNG PERSON	3R01 HD07907-04S2	162,073
RITTER, WALTER P	ELECTROPHYSIOLOGICAL CORRELATES OF COGNITIVE PROCESSES	2R01 HD10804-04	116,288
ROBINSON, THOMAS F	STRUCTURE-FUNCTION OF LINKS AMONG HEART MUSCLE CELLS	5R01 HL24336-02	26,939
ROSE, SUSAN A	COGNITIVE DEFICITS IN HIGH RISK INFANTS	1R01 HD13810-01A1	116,576
ROSEN, ORA M	PROTEINS INVOLVED IN THE ACTION OF CYCLIC AMP	5R01 AM09038-16	115,267
ROSEN, ORA M	HORMONAL REGULATION OF ADIPOCYTE DEVELOPMENT IN VITRO	5R01 AM21248-04	87,754
ROSEN, ORA M	USE OF MACROPHAGE-LIKE CELL LINES	1R01 GM29042-01	222,864
RUBIN, CHARLES S	CONTROL OF THE EXPRESSION OF FATTY ACID SYNTHETASE	1R01 AM27165-01	60,237
RUBIN, CHARLES S	CYCLIC AMP AND PROTEIN KINASES IN CELL REGULATION	2R01 GM22792-04A1	62,064
RUBIN, MERYL S	REGULATION OF MEMBRANE PERMEABILITY: MOLECULAR BASIS	5R01 AM18128-06	122,658
RUBINSTEIN, ARYE	MUCOSAL CHANGES INDUCED BY VIRUSES	5R01 HL23589-03	92,573
RUFF, HOLLY A	THE DEVELOPMENT OF ORAL PERCEPTION IN HUMAN INFANTS	2R01 HD11916-03	70,408
SATIR, BIRGIT H	MEMBRANES PRIOR TO AND DURING FUSION	5R01 GM24724-04	140,341
SATIR, BIRGIT H	GENETICS OF EXOCYTOSIS IN MORTAL/IMMORTAL PROTOZOA	1R01 GM27298-01	141,489
SATIR, BIRGIT H	EM FACILITY FOR CELL BIOLOGY STUDIES	5P41 GM27343-02	21,496
SATIR, PETER	MEMBRANE-CYTOSKELETAL RELATIONSHIPS	1P01 GM27859-01	366,764
SATIR, PETER	STRUCTURE AND MOTION OF CILIA	5R01 HL22560-04	180,929
SCARPELLI, EMILE M	GENERATION & DEVELOPMENT OF FETAL BREATHING MOVEMENT	5R01 HL23995-02	160,783
SCHARFF, MATTHEW D	SYNTHESIS AND ASSEMBLY OF IMMUNOGLOBULINS	5R01 AI05231-17	104,493
SCHARFF, MATTHEW D	CELL BIOLOGY OF LYMPHOID CELLS	5P01 AI10702-09	731,806
SCHAUMBURG, HERBERT H	A TOXICOLOGICAL STUDY OF THE PRIMATE CNS	5R01 ES02168-02	105,256
SCHLONDORFF, DETLEF O	PATHOPHYSIOLOGY OF CYCLIC NUCLEOTIDES IN THE KIDNEY	5R01 AM22036-03	100,889
SCHUBART, ULRICH K	CYCLIC AMP-DEPENDENT PHOSPHOPROTEINS AND INSULIN RELEASE	5R01 AM25326-03	74,520
SCHULMAN, LA DONNE H	PROTEIN-NUCLEIC ACID INTERACTIONS	5R01 GM16995-12	145,228
SEIFTER, SAM	BIOCHEMICAL ASPECTS OF AGING IN VITRO AND IN VIVO	5P01 AG00374-09	723,021
SHAFRITZ, DAVID A	PROTEIN SYNTHESIS IN NORMAL AND REGENERATING LIVER	2R01 AM17609-07	160,038
SHAPIRO, LUCILLE	GENETIC CONTROL OF CELL GROWTH AND DEVELOPMENT	3P01 GM11301-17S1	36,445
SHAPIRO, LUCILLE	GENETIC CONTROL OF CELL GROWTH AND DEVELOPMENT	2P01 GM11301-18	696,585
SHERWOOD, LOUIS M	REGULATION OF THE PARATHYROID GLANDS	7R01 AM28556-01	97,018
SHIELDS, DENNIS	IN VITRO BIOSYNTHESIS OF INSULIN AND GLUCAGON	5R01 AM21860-03	82,946
SHIN, SEUNG-IL	DIABETES AND PANCREATIC TUMORS	5R01 AM26106-02	83,651
SHIN, SEUNG-IL	GENETIC ANALYSIS OF MALIGNANT TRANSFORMATION	5R01 CA21054-05	91,092
SHULMAN, KENNETH M	THE BIOMECHANICS OF BRAIN EDEMA & INTRACRANIAL PRESSURE	5R01 NS07871-12	152,307
SKOULTCHI, ARTHUR I	CONTROL OF DIFFERENTIATION OF ERYTHROLEUKEMIC CELLS	2R01 CA16368-07	142,711
SOMBERG, JOHN C	CARDIOTOXICITY OF DIGITALIS	7R23 HL27324-01	47,897
SONNENBLICK, EDMUND H	MECHANISMS OF HEART FAILURE IN THE MYOPATHIC HAMSTER	5R01 HL18824-05	304,282
SONNENBLICK, EDMUND H	MYOCARDIAL FUNCTION IN DIABETES MELLITUS	5R01 HL20426-05	172,514
SONNENBLICK, EDMUND H	HYPERTENSIVE HYPERTROPHY: EFFECTS OF CARDIAC MECHANICS	5R01 HL21993-03	160,880
SPENCER, PETER S	CONTROL OF MYELINATION IN PATHOLOGIC STATES	5R01 NS13106-05	80,090
SPITZER, ADRIAN	THE DEVELOPING KIDNEY IN HEALTH AND DISEASE	5R01 AM25291-03	121,935
SPITZER, ADRIAN	THE KIDNEY AND PHOSPHATE HOMEOSTASIS IN THE NEONATE	5R01 AM26004-02	65,661
SPITZER, ADRIAN	WORKSHOP OF DEVELOPMENTAL RENAL PHYSIOLOGY	1R13 AM27520-01	10,000

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SPRAY, DAVID C.	BIOPHYSICS OF GAP JUNCTION CHANNELS	1R01 NS16524-01	47,894
SPUDICH, JOHN L.	FUNCTION OF BACTERIORHODOPSIN IN SENSORY TRANSDUCTION	1R01 GM27750-01	86,113
STANLEY, EVAN R.	HORMONE-DEPENDENCE AND AUTONOMY IN TUMOR GROWTH	5R01 CA21605-04	81,493
STANLEY, EVAN R.	REGULATION OF GRANULOCYTE AND MACROPHAGE PRODUCTION	5R01 CA26504-02	169,270
STEINMAN, HOWARD M.	SUPEROXIDE DISMUTASES: STRUCTURE, FUNCTION, EVOLUTION	5R01 GM24527-04	104,009
STEINMAN, HOWARD M.	A PROTEIN-PEPTIDE SPINNING CUP SEQUENCER FACILITY	5P41 GM27374-02	8,500
SUZUKI, KINUKO.	EXPERIMENTAL PATHOLOGY OF DEVELOPING NERVOUS SYSTEM	5R01 NS10803-09	97,231
SUZUKI, KUNIIHIKO	CHEMICAL PATHOLOGY OF NEUROLOGICAL DISORDERS	5R01 NS10885-09	224,754
SUZUKI, KUNIIHIKO	CHOLESTEROL ESTER METABOLISM IN THE BRAIN	2R01 NS13578-04	99,835
SWANEY, JOHN B.	STRUCTURE OF THE HUMAN PLASMA LIPOPROTEINS	5R01 HL21202-02	88,212
TAKAHASHI, SHIZUKO	ALPHA-GLUTAMYLTRANSFERASE OF CELL IN CULTURE	5R01 AG00637-02	90,912
TAKAHASHI, SHIZUKO	COLLAGENASE FUNCTION AND ACTIVITY IN FIBROTIC LIVER	5R01 AI15631-02	77,971
TERRY, ROBERT D.	THE AGING NERVOUS SYSTEM: STRUCTURE AND FUNCTION	5R01 NS02255-22	93,747
VAN DE WATER, THOMAS R.	EMBRYOLOGY OF THE INNER EAR	2R01 NS08365-13	289,298
VAUGHAN, HERBERT G, JR.	CEREBRAL DYSFUNCTION IN LOW-BIRTH-WEIGHT INFANTS	5R01 HD11562-03	140,970
VOLK, HERBERT	NATIONAL SURGICAL ADJUVANT BREAST & BOWEL CANCER PROJECT	2R10 CA12040-09	56,644
WARNER, JONATHAN R.	RIBOSOMAL PROTEIN GENES OF SACCCHAROMYCES SEREVISIAE	5R01 GM25532-03	93,403
WITTENBERG, BEATRICE A.	INTRACELLULAR OXYGEN SUPPLY TO HEART MUSCLE CELLS	5R01 HL19299-05	133,898
WITTNER, MURRAY	TRYPANOSOMA CRUZI: MECHANISMS OF IMMUNE RESISTANCE	5R01 AI12770-05	145,462
WITTNER, MURRAY	LUNG EPITHELIAL CELL INTERACTIONS IN VITRO	5R01 HL22883-03	106,788
WOLINSKY, HARVEY	STRUCTURE-FUNCTION RELATIONS OF BLOOD VESSELS	5R01 HL12766-11	184,428
WOLKOFF, ALLAN W.	HEPATIC ORGANIC ANION UPTAKE AND TRANSPORT	5R01 AM23026-02	115,375
YELLIN, EDWARD L.	DYNAMIC DETERMINANTS OF LEFT VENTRICULAR FILLING	5R01 HL19391-05	97,173
YEN, SHU-HUI C.	THE AGING BRAIN: IMMUNOHISTOLOGY AND BIOCHEMISTRY	5R01 AG01136-03	41,931
YOPAN, CHAIM	DYNAMIC DETERMINANTS OF ACUTE MITRAL REGURGITATION	5R01 HL24638-02	142,393
ORGANIZATION TOTAL	188	35,802,920	
OLD WESTBURY			
STATE UNIVERSITY OF NEW YORK—COLLEGE AT OLD WESTBURY ZIP CODE 11568			
GARRITY, EVELYN M.	MINORITY BIOMEDICAL SUPPORT	1S06 RR08180-01	303,106
ORGANIZATION TOTAL	1	303,106	
ORANGEBURG			
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—ROCKLAND PSYCHIATRIC CENTER ZIP CODE 10962			
KLINE, NATHAN S.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05651-14	23,533
MARKS, NEVILLE	CONVERSION AND INACTIVATION OF PEPTIDYL HORMONES	5R01 NS12578-05	43,273
ORGANIZATION TOTAL	2	66,806	
PLATTSBURGH			
STATE UNIVERSITY OF NEW YORK—COLLEGE AT PLATTSBURGH ZIP CODE 12901			
HEINTZ, ROGER L.	MECHANISM OF RIBOSOMAL GTP HYDROLYSIS	5R01 AM21666-04	37,526
MOORE, RICHARD D.	MECHANISM OF INSULIN ACTION UPON SODIUM PUMP	5R01 AM17531-06	41,558
MOORE, RICHARD D.	ROLE OF NA PUMP AND PH IN CELLULAR ACTION OF INSULIN	2R01 AM21059-04	137,977
ORGANIZATION TOTAL	3	217,061	
POTSDAM			
CLARKSON COLLEGE OF TECHNOLOGY ZIP CODE 13676			
KRATOCHVIL, JOSIP P.	STUDIES OF AGGREGATION OF BILE SALTS	5R01 AM21495-03	20,928
PATEL, RAMESH C.	THERMODYNAMIC KINETIC STUDIES ON LAC OPERATOR SEQUENCES	5R01 GM24523-03	57,329
PETHICA, BRIAN A.	DIETARY FIBER—THE PHYSICAL CHEMISTRY OF LIGNINS	5R01 CA26379-02	99,912
PETHICA, BRIAN A.	THE EFFECTS OF APPLIED ELECTRIC FIELDS ON SURFACE FILMS	2R01 GM24068-03	51,362
PETHICA, BRIAN A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07105-02	19,207
WILSON, G EDWIN, JR.	BINDING SITE STUDIES OF PROTEIN ELONGATION FACTORS	7R01 GM29240-01	52,858
ZEPPETELLA, ANTHONY J.	STUDY OF THE ADAPTING BUMP MODEL OF THE EYE OF LIMULUS	5R01 EY02161-02	26,403
ORGANIZATION TOTAL	7	327,999	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
POUGHKEEPSIE			
VASSAR COLLEGE ZIP CODE 12601			
GREENWOOD, MARY R.....	NUTRITION AND ADIPOCYTE GROWTH AND DEVELOPMENT.....	5R01 HD12637-03	81,231
JOHNSON, PATRICIA R.....	GROWTH OF ZUCKER RAT PREADIPOCYTES AND FETAL HEPATOCYTES.....	5R01 AM19382-05	77,202
ORGANIZATION TOTAL	2 158,433		
ROCHESTER			
EASTMAN DENTAL CENTER ZIP CODE 14620			
CURZON, MARTIN E.....	STRONTIUM AND DENTAL CARIES.....	5R01 DE04330-06	87,789
CURZON, MARTIN E.....	PHYSICO-CHEMISTRY OF STRONTIUM IN CARIES LESIONS.....	1R01 DE05510-01	91,915
HANDELMAN, STANLEY L.....	EFFECT OF FISSURE SEALANT ON PROGRESS OF DENTAL CARIES.....	5R01 DE03713-05	100,841
JENSEN, OVID E.....	ASSESSMENT OF WEAR OF FOUR DIFFERENT SEALANTS IN VIVO.....	5R23 DE05042-02	17,154
MC HUGH, WILLIAM D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05548-17	14,171
ORGANIZATION TOTAL	5 311,870		
GENESEE HOSPITAL ZIP CODE 14607			
CHANG, TA-MIN.....	HYBRID PROTEINS FOR RECEPTOR-MEDIATED TRANSPORT STUDY.....	5R01 GM26489-02	43,997
CHEY, WILLIAM Y.....	PHYSIOLOGY AND THE PATHOPHYSIOLOGY OF SECRETIN.....	5R01 AM25962-02	79,376
ORGANIZATION TOTAL	2 123,373		
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
ABRAHAM, GEORGE N.....	AUTOIMMUNE RESPONSE AND MONOCLONAL IGG CRYOGLOBULINS.....	5R01 AI11550-05	88,426
ADFR, ROBERT.....	BEHAVIORALLY CONDITIONED IMMUNOSUPPRESSION.....	2R01 NS15071-05	84,847
AMATRUDA, JOHN M.....	INSULIN ACTION IN LIVER AND ADIPOSE TISSUE.....	5R01 AM20948-03	46,743
ANDERSON, CLARK L.....	FC RECEPTOR STRUCTURE AND FUNCTION.....	3R01 CA24067-02S1	1,133
ANDERSON, CLARK L.....	FC RECEPTOR STRUCTURE AND FUNCTION.....	5R01 CA24067-03	43,167
ANGERER, ROBERT C.....	INDIVIDUAL EMBRYO MRNAS: TIME AND SITE OF EXPRESSION.....	5R01 GM25553-03	98,750
BAKEMEIER, RICHARD F.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17988-06	195,650
BALDUZZI, PIERO C.....	GENETIC STUDIES OF RNA TUMOR VIRUSES.....	5R01 CA15716-07	88,243
BALLARD, DANA H.....	ANATOMICAL MODELS IN COMPUTER-AIDED IMAGE ANALYSIS.....	5R23 HL21253-03	50,099
BAMBARA, ROBERT A.....	ENZYMATIC MECHANISMS OF DNA SYNTHESIS.....	5R01 GM24441-02	54,887
BANERJEE, SHAILESH P.....	CARDIAC GLYCOSIDES AND DIURETICS: ROLE OF NA+ PUMP.....	5R01 HL18185-06	121,471
BEECHAM, JACKSON B.....	GYNECOLOGICAL ONCOLOGY GROUP.....	2R10 CA12482-10	95,410
BEGENISICH, TED B.....	IONIC PERMEABILITY MECHANISMS IN NERVE.....	5R01 NS14138-03	47,484
BELL, JOHN E.....	CELL SURFACE CARBOHYDRATE AND LYMPHOCYTE INTERACTIONS.....	1R01 CA27854-01	57,494
BENNETT, JOHN M.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA11083-13	400,224
BENTLEY, DAVID W.....	PNEUMOCOCCAL VACCINE IN THE INSTITUTIONALIZED ELDERLY.....	5R01 AI15778-02	66,186
BERNHARD, WILLIAM A.....	EFFECTS OF IONIZING RADIATION ON NUCLEIC ACIDS.....	5R01 GM20688-06	32,495
BLAIR, MARTHA L.....	NEURAL CONTROL OF RENIN SECRETION.....	5R23 HL22728-03	40,244
BOECKMAN, ROBERT K, JR.....	SYNTHESIS OF ANTILEUKEMIC AND ANTITUMOR LACTONES.....	7R01 CA28864-01	25,571
BOECKMAN, ROBERT K, JR.....	SYNTHESIS OF ADRIAMYCIN AND RELATED ANTITUMOR AGENTS.....	5R01 CA28897-02	54,602
BOSMANN, H BRUCE.....	GLYCOPROTEIN SHEDDING AND METASTASIS.....	3R01 CA19757-03S1	7,490
BOYD, ELEANOR H.....	CORTICAL UNIT RESPONSES DURING M-WAVE AND CNV.....	5R01 NS12999-03	49,102
BRENNAN, JAMES K.....	MODULATORS OF GRANULOPOIESIS FROM HUMAN CELL LINES.....	5R01 CA25512-02	109,346
BURGENER, FRANCIS A.....	PORTAL HYPERTENSION: RADIOLOGIC DIAGNOSIS & TREATMENT.....	5R01 AM19474-02	112,998
CAMPBELL, ROBERT G.....	CONTROL OF FOOD AND WATER INTAKE IN MAN.....	2R01 AM20494-04	131,893
CARSTENSEN, EDWIN L.....	INTERACTION OF ULTRASOUND WITH BIOLOGICAL MATERIAL.....	2R01 GM09933-18	106,893
CHOI, BEN H.....	EFFECTS OF METHYLMERCURY ON FETAL BRAIN.....	5R01 ES01722-03	116,964
CHRISTENSEN, J ROGER.....	MECHANISM BY WHICH N GENE OF LAMBDA EXCLUDES PHAGE T1.....	5R01 GM26147-02	43,923
CLARK, ROGER W.....	ZIMM-TYPE SPEED DEPENDENCE AT LARGE DNA M GAMMA.....	1R01 GM27988-01	48,437
CLARKSON, THOMAS W.....	TRACE CONTAMINANTS AS ENVIRONMENTAL HEALTH HAZARDS.....	2P30 ES01247-06	1,228,028
CLARKSON, THOMAS W.....	HEAVY METALS AS ENVIRONMENTAL HAZARDS TO MAN.....	5P01 ES01248-05	873,600
CLAYTON, CLAUDIA J.....	AGING AND THE LHRH NEURON SYSTEM.....	1R23 AG01903-01	42,276
COHEN, JULIUS J.....	RENAL SUBSTRATE UTILIZATION IN RELATION TO FUNCTION.....	5R01 AM03602-22	103,043
COHEN, JULIUS J.....	RENAL ISCHEMIA AND HYPOXIA: METABOLISM AND FUNCTION.....	1R01 AM26431-01	53,878
COHEN, NICHOLAS.....	COMPARATIVE AND DEVELOPMENTAL IMMUNOBIOLOGY.....	5R01 HD07901-13	115,864
COKELET, GILES R.....	THE RHEOLOGY AND CAPILLARY FLOW OF BLOOD.....	5R01 HL23355-02	81,171
COLEMAN, PAUL D.....	COMPUTER AIDED STUDY OF DENDRITES IN AGING HUMAN BRAIN.....	5R01 AG01121-03	49,989

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
CONNETT, RICHARD J.	ENDOCRINE AND SUBSTRATE CONTROLS ON CARBON FLOW	5R01 AM22124-03	41,524
CONROY, PETER J.	RADIATION SENSITIZER NEUROTOXICITY	1R01 NS16147-01	102,102
COOPER, ROBERT A. JR.	CORE CANCER CENTER SUPPORT GRANT	5P30 CA11198-12	1,469,506
CORWIN, THOMAS R.	PSYCHOPHYSICAL DIAGNOSIS OF RETINITIS PIGMENTOSA	5R01 EY02366-03	54,438
DAVIDSON, PHILIP W.	REHABILITATION OF HAPTIC PERCEPTION IN THE BLIND	3R01 EY01790-03S2	10,814
DAVIDSON, PHILIP W.	REHABILITATION OF HAPTIC PERCEPTION IN THE BLIND	2R01 EY01790-04	44,908
DEL CERRO, MANUEL	PATHOGENESIS OF RETINAL IMMUNOPATHOLOGIES	5R01 EY02632-03	52,057
DI STEFANO, VICTOR	CARBON DISULFIDE TOXICITY: EFFECTS ON CATECHOLAMINES	5R01 ES02039-02	65,300
DOTY, ROBERT W.	DETECTION OF MICROSTIMULATION IN STRIATE CORTEX	1R01 NS16180-01	81,523
DRUCA, KARL A.	STRUCTURE OF THE BACTERIAL CHROMOSOME	2R01 GM24320-04	97,651
DRUCKER, WILLIAM R.	METABOLIC BASIS FOR HOMEOSTASIS IN SHOCK	5R01 GM25043-04	114,821
EDDY, HUBERT A.	THERAPEUTIC AGENTS AND TUMOR INDUCED VESSELS	5R01 CA22999-02	52,564
FEIBEL, JOHN H.	CARDIAC ABNORMALITIES AFTER BRAIN DAMAGE IN HUMANS	5R01 NS14178-03	32,776
FORBES, GILBERT B.	LEAN BODY MASS IN PREGNANT WOMEN	5R01 HD11502-03	75,175
FORBES, GILBERT B.	BODY COMPOSITION AND METABOLIC RATE IN NEONATES	1R01 HD13690-01	71,665
FORSYTH, JAMES M.	INSTRUMENTATION FOR FAST BIOSTRUCTURAL KINETIC STUDIES	1R01 GM27364-01	210,160
FRANCE, ROBERT R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07069-15	125,829
GASH, DON M.	NEURAL TRANSPLANTS: GROWTH, REINNERVATION IN THE BRAIN	5R01 NS15109-02	56,908
GODLESKI, STEPHEN A.	SYNTHESIS OF SPIROCYCLIC NATURAL PRODUCTS	1R01 GM27328-01	67,028
GOROVSKY, MARTIN A.	REPEATED GENES: ORGANIZATION, EVOLUTION AND FUNCTION	2R01 GM21793-06	183,902
GOROVSKY, MARTIN A.	CONTROL OF GENE ACTIVITY AND ORGANELLE BIOGENESIS	5R01 GM26973-02	96,906
GRAMIAK, RAYMOND	NEW CONCEPTS IN CARDIAC ULTRASOUND TECHNOLOGY	5R01 HL15016-09	118,978
GREENE, WILLIAM A.	PSYCHOSOCIAL FACTORS AND COURSE AFTER HEART ATTACKS	1R01 HL25266-01A1	50,787
GRIFFITHS, T. DANIEL	DNA SYNTHESIS AND AGING IN HUMAN FIBROBLASTS	5R01 AG01412-02	60,721
GUNTER, THOMAS E.	ION TRANSPORT: MECHANISM AND SIGNIFICANCE	5R01 AM20359-02	75,779
HATTMAN, STANLEY M.	ANALYSIS OF DNA MODIFICATION BY MASS SPECTROMETRY	5R01 GM26892-02	164,818
HATTMAN, STANLEY M.	DNA MODIFICATION/RESTRICTION IN PRO- AND EUKARYOTES	9R01 GM29227-09	86,514
HAYWOOD, ANNE M.	INTERACTIONS OF VIRAL MEMBRANES WITH LIPOSOMES	5R01 AI15540-02	119,154
HENSHAW, EDGAR C.	INTERMEDIARY METABOLISM IN ANIMALS AND IN MAN	5R01 CA21663-05	185,242
HERNDON, ROBERT M.	STUDIES IN REMYELINATION	5R01 NS15283-02	87,208
HILF, RUSSELL	ROLE OF INSULIN IN HORMONAL CONTROL OF BREAST CANCER	5R01 CA16660-06	65,901
HINKLE, DAVID C.	ENZYMATIC MECHANISM OF DNA REPLICATION	5R01 GM21782-05	52,355
HINKLE, PATRICIA M.	MODULATION OF RECEPTOR NUMBER IN CULTURED CELLS	2R01 AM19974-04	88,624
HOFFMAN, GLORIA E.	IMMUNOCYTOCHEMISTRY OF LH-RH AND OTHER NEUROPEPTIDES	2R01 NS13725-04	47,432
HONIG, CARL R.	CONTROLS OF O ₂ TRANSPORT IN HEART AND SKELETAL MUSCLE	5R01 HL03290-24	112,713
HOROWICZ, PAUL	PROPERTIES OF THE INWARD RECTIFIER OF SKELETAL MUSCLE	5R01 NS14128-03	66,920
HYDE, RICHARD W.	LUNG TISSUE AND WATER VOLUME	2R01 HL16784-05	156,145
INSEL, RICHARD A.	ANTIBODY TO INFLUENZA CAPSULAR POLYSACCHARIDE	1R01 AI17217-01	112,637
IZZO, JOSEPH L.	EXPERIMENTAL STUDIES—INSULIN, GLUCAGON, PROINSULIN	5R01 AM03556-20	95,507
JACOBS, LAURENCE S.	STORAGE AND SECRETION OF PEPTIDE HORMONES	5R01 AM21783-03	85,923
JOSEPH, SHIRLEY A.	HUMAN FETAL NEUROENDOCRINOLOGY	5R01 HD07926-06	40,244
KASS, ROBERT S.	TRANSIENT CURRENTS INDUCED BY STROPHANTHIDIN IN HEART	5R01 HL21922-03	10,070
KENDE, ANDREW S.	ANTHRACYCLINE AND CHROMOMYCIN ANTITUMOR AGENTS	5R01 CA11326-12	94,411
KENDE, ANDREW S.	TAXANE ANTITUMOR AGENTS	5R01 CA18846-05	95,830
KENG, PETER C.	PHASE SPECIFIC DNA REPAIR IN IRRADIATED TUMOR CELLS	1R23 CA28329-01	33,240
KIMMICH, GEORGE A.	MECHANISM OF SODIUM-DEPENDENT METABOLITE TRANSPORT	5R01 AM15365-09	79,304
KLEMPERER, MARTIN R.	COOPERATIVE STUDY OF CHILDREN'S CANCER	5R01 CA11174-11	78,091
KNAUF, PHILIP A.	ION TRANSPORT MECHANISMS IN ERYTHROID CELLS	1R01 AM27495-01	132,051
KNIGGE, KARL M.	FORMATION AND DELIVERY OF NEUROHORMONES	5R01 AM22029-03	55,422
KNIGGE, KARL M.	BASIC NEUROENDOCRINOLOGY: CENTRALLY ACTING PEPTIDES	5P01 NS15345-02	194,130
KREILICK, ROBERT W.	LOCAL STRUCTURE OF BIOLOGICAL DRUG COMPLEXES	5R01 GM22793-05	69,437
KRUGH, THOMAS R.	MOLECULAR BASIS OF ANTICANCER DRUG-DNA INTERACTIONS	5R01 CA14103-08	83,974
KRUGH, THOMAS R.	PHYSICOCHEMICAL STUDIES OF INTERCALATING DRUGS	5R01 CA17865-06	92,420
LA CELLE, PAUL L.	DETERMINANTS OF RBC DEFORMABILITY AND CAPILLARY FLOW	5R01 HL16421-10	54,547
LA CELLE, PAUL L.	CENTER FOR THE STUDY OF BLOOD CELL RHEOLOGY	2P01 HL18208-06	591,236
LAWRENCE, CHRISTOPHER W.	RADIATION MUTAGENESIS AND REPAIR IN SACCHAROMYCES	5R01 GM21858-06	96,958
LE CLERC, JOSEPH E.	MECHANISMS OF MUTAGENESIS DURING DNA REPLICATION	1R01 GM27817-01	81,030
LEDDY, JOHN P.	INTERDISCIPLINARY RESEARCH CENTER IN IMMUNOLOGIC DISEASE	5P50 AI15372-03	301,657
LEDDY, JOHN P.	IMMUNOLOGIC ACTIVATION OF HUMAN PLATELETS	5R01 AI16089-02	72,326
LIGHTMAN, MARSHALL A.	MEMBRANE TRANSPORT ADAPTATIONS BY HUMAN LYMPHOCYTES	2R01 CA12790-09	125,778
LINDAHL, LASSE A.	COORDINATION OF E. COLI RIBOSOMAL PROTEIN SYNTHESIS	5R01 AI15286-03	119,380

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LIVINGSTON, JAMES N.....	INSULIN BINDING SITES AND INSULIN ACTION.....	5R01 AM25116-03	40,412
LOCKWOOD, DEAN H.....	INSULIN ACTION IN NORMAL AND RESISTANT STATES.....	5R01 AM20129-05	146,330
LORD, EDITH M.....	IN SITU ANTI-TUMOR IMMUNITY AND EFFECTS OF RADIATION.....	1R01 CA28332-01	87,967
LOVE, BRUCE B.....	FLUORESCENCE ANALYSIS OF PHOSPHOLIPID EXCHANGE PROTEIN.....	5R01 GM24484-02	42,135
LU, SHIN-TSU.....	EFFECTS OF MICROWAVES ON NEUROENDOCRINE FUNCTION.....	5R01 ES02313-02	76,973
MAIMAN, LOIS A.....	MOTHER-INITIATED MEDICATION BEHAVIOR FOR CHILDREN.....	1R01 HD15357-01	102,693
MAKOUS, WALTER L.....	VISUAL SCIENCE RESEARCH CENTER SUPPORT.....	5P30 EY01319-07	165,180
MAKOUS, WALTER L.....	DUPPLICITY THEORY AND THE STILES-CRAWFORD EFFECT.....	7R01 EY03594-01	58,335
MANILOFF, JACK.....	CELLULAR AND MOLECULAR BIOLOGY OF MYCOPLASMAS.....	5R01 AI07939-13	82,047
MANILOFF, JACK.....	BIOLOGY OF MYCOPLASMA VIRUSES.....	5R01 AI10605-09	62,500
MARDER, VICTOR J.....	STRUCTURE OF FACTOR VIII-VON WILLEBRAND PROTEIN.....	5R01 HL21379-03	133,927
MARIN, MATTHEW G.....	RESPIRATORY TRACT SECRETION OF IONS, WATER AND MUCUS.....	2R01 HL21314-04	119,333
MAYEWSKI, RAYMOND J.....	HYPERINFLATION AND CHEST MECHANICS IN QUADRIPLÉGIA.....	5R01 HL23197-02	62,922
MC LENDON, GEORGE L.....	CONFORMATION STUDIES OF MUTANT HEMOGLOBINS.....	1R01 AM26999-01	59,674
MC LENDON, GEORGE L.....	HEME GROUP PROTEIN INTERACTIONS IN HEMOPROTEINS.....	5R01 HL21461-03	54,816
MERIGAN, WILLIAM H.....	ENVIRONMENTAL TOXICITY EXPRESSED IN VISUAL DYSFUNCTION.....	5R01 ES01885-03	99,555
MERRITT, THURMAN A.....	HUMAN NEWBORN TRACHEAL ASPIRATES.....	5R01 HD13279-02	87,935
MILLER, LEON L.....	NET SYNTHESIS OF PLASMA PROTEINS BY PERFUSED LIVER.....	5R01 AM11029-15	63,676
MILLER, LEON L.....	DIABETES MELLITUS AND PLASMA GLYCOPROTEIN SYNTHESIS.....	2R01 AM21225-04	60,128
MILLER, MORTON W.....	BIOLOGICAL RESPONSES TO BIOMEDICAL ULTRASOUND.....	5R01 GM22680-06	80,534
MILLER, RICHARD K.....	TRANSPLENTAL CARCINOGENESIS.....	3R01 CA22335-02S1	4,380
MILLER, RICHARD K.....	TRANSPLENTAL CARCINOGENESIS.....	5R01 CA22335-03	102,355
MOORE, CAROL W.....	MODES OF ACTION OF ANTICANCER DRUGS.....	5R01 CA25609-02	64,192
MORRIS, THOMAS W.....	VENOUS STRUCTURE AND FUNCTION.....	5R01 HL19677-05	65,188
MORRIS, THOMAS W.....	FACTORS PROMOTING FIBRILLATION IN CORONARY ARTERIOGRAPHY.....	5R01 HL22744-02	68,289
MOSS, ARTHUR J.....	FOLLOW-UP STUDY OF ACUTE CORONARY HEART ATTACKS.....	5R01 HL15790-08	89,179
MOSS, ARTHUR J.....	MULTICENTER POSTCORONARY RISK STRATIFICATION PROGRAM.....	5R01 HL22982-03	316,234
MOXLEY, RICHARD T, III.....	ALTERED INSULIN SENSITIVITY IN MYOTONIC DYSTROPHY.....	5R01 AM22048-03	74,428
NEUMAN, WILLIAM F.....	THE ROLE OF BONE MEMBRANES IN CALCIUM REGULATION.....	5R01 AM17074-06	100,390
NICHOLSON, MARY L.....	PROTEIN MEDIATORS OF LETHAL GLUCOCORTICOID EFFECTS.....	5R23 CA25655-02	50,566
NOTIDES, ANGELO C.....	THE UTERINE ESTROGEN-BINDING PROTEINS.....	5R01 HD06707-09	184,092
NOTTER, ROBERT H.....	INTERFACIAL PROPERTIES OF LUNG SURFACTANT COMPONENTS.....	1R01 HL25170-01	68,004
NUZ, URI.....	THE CONTROL OF HETEROCHROMATIZATION IN INSECTS.....	5R01 HD13132-02	17,672
OHLSOHN-WILHELM, BETSY M.....	RADIATION SENSITIVE HAPLOID FROG CELLS.....	5R01 CA25731-02	71,002
OLMSTED, JOANNA B.....	CELLULAR CONTROL OF NEURONAL CYTOSKELETON ASSEMBLY.....	5R01 GM22214-05	87,847
OLMSTED, JOANNA B.....	NIGMS SHARED INSTRUMENTATION PROGRAM ELECTRON MICROSCOPE.....	5P41 GM27521-02	14,933
PACKMAN, CHARLES H.....	RED CELL MEMBRANE-COMPLEMENT INTERACTIONS.....	5R23 HL22742-03	44,921
PASTERNAK, TATIANA.....	DEVELOPMENT OF VISION IN STROBOSCOPIC ILLUMINATION.....	3R01 EY01875-03S1	48,175
PERACCHIA, CAMILLO.....	STRUCTURE & FUNCTION IN LOW RESISTANCE JUNCTIONS.....	5R01 GM20113-07	93,753
PIEKUT, DIANE T.....	NEW APPROACHES TO STUDY OF PINEAL STRUCTURE-FUNCTION.....	5R01 HD12956-02	45,558
PLEWEES, DONALD B.....	A SCANNING EQUALIZATION SYSTEM FOR CHEST RADIOGRAPHY.....	1R01 CA27823-01	47,624
PRAKASH, LOUISE.....	ALKYLATING AGENTS: DNA DAMAGE, REPAIR, AND MUTAGENESIS.....	5R01 ES02433-01	75,908
PRAKASH, LOUISE.....	REPAIR OF DAMAGED DNA AND MUTAGENESIS IN YEAST.....	5R01 GM19261-09	58,244
PRAKASH, SATYA.....	GENE VARIATION IN NATURAL POPULATIONS.....	5R01 GM19217-08	63,616
PUSKIN, JEROME S.....	SPECTROSCOPIC STUDIES OF MEMBRANE STRUCTURE.....	5R01 GM21664-04	48,529
RICHTER, GOETZ W.....	IRON IN CELL PATHOLOGY.....	5R01 AM12381-13	122,939
ROBERTS, NORBERT J, JR.....	VIRAL INFECTION AND CELL-MEDIATED IMMUNITY.....	5R23 AI15547-02	43,800
ROWLEY, PETER T.....	CONTROL OF FETAL HEMOGLOBIN SYNTHESIS.....	5R01 AM16847-08	77,157
ROWLEY, PETER T.....	BETA-THALASSEMIA SCREENING AND GENETIC COUNSELING.....	5R01 HL17465-06	73,821
RUBIN, PHILIP.....	CLINICAL RADIATION RESEARCH CENTER.....	2P01 CA11051-12	862,475
RUBIN, PHILIP.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA12262-09	139,999
RUBIN, PHILIP.....	PULMONARY SURFACTANT SYSTEM AND RADIATION PNEUMONITIS.....	1R01 CA27791-01	202,447
SCHLESSINGER, RICHARD H.....	THE SYNTHESIS OF PENTALENE-DERIVED NATURAL PRODUCTS.....	5R01 CA21469-04	78,160
SCHLESSINGER, RICHARD H.....	THE SYNTHESIS OF CYTOTOXIC LACTONE SYSTEMS.....	5R01 CA23257-03	89,239
SCHWARTZ, SEYMOUR I.....	PULMONARY PLATELETS IN SHOCK, TRAUMA AND EMBOLIZATION.....	5R01 HL13466-10	96,157
SCOTT, DAVID A.....	EYE DEVELOPMENT: GROWTH CONE STRUCTURE IN DROSOPHILA.....	5R01 EY02475-03	38,980
SCOTT, DAVID E.....	NEUROPEPTIDES: DEVELOPMENT AND AGING.....	1R13 AG02475-01	8,476
SCOTT, DAVID E.....	STRUCTURE CORRELATION OF PERINATAL NEUROENDOCRINOLOGY.....	5R01 NS13717-02	55,627
SELANDER, ROBERT K.....	BIOCHEMICAL GENETICS OF NATURAL POPULATIONS.....	5R01 GM22126-05	129,978
SENIOR, ALAN E.....	TIGHTLY-BOUND NUCLEOTIDES AND MG IN THE PROTON-ATPASE.....	5R01 GM25349-03	100,205
SHAIKH, ZAHIR A.....	METALLOTHIONEIN IN METABOLISM AND TOXICITY OF CADMIUM.....	2R01 ES01448-04	42,663

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SHERMAN, FRED	GENETIC CONTROL OF CYTOCHROME C IN YEAST	5R01 GM12702-16	201,148
SHRAGER, PETER G.	BIOCHEMICAL PROBES OF EXCITABLE MEMBRANES	5R01 NS10500-08	36,566
SLADEK, CELIA D.	NEUROLOGICAL MECHANISMS IN VASOPRESSIN SECRETION	2R01 AM19761-04	57,750
SLADEK, JOHN R, JR	AGING: EFFECTS ON PEPTIDERGIC AND AMINERGIC NEURONS	5R01 AG00847-02	76,793
SLADEK, JOHN R, JR	AGING AND THE MAGNOCELLULAR NEUROSECRETORY SYSTEM	5R21 AG01456-02	87,512
SLADEK, JOHN R, JR	NEURONAL INTERACTIONS: VASOPRESSIN-NOREPINEPHRINE	1R01 NS15816-01	55,304
STERNBERGER, LUDWIG A	FUNCTION OF INTRACELLULAR NEUROHORMONE RECEPTORS	5R01 HD12932-02	98,148
STERNBERGER, LUDWIG A	DEVELOPMENT OF PEPTIDERGIC SYSTEMS	1R01 NS15809-01	71,838
STERNBERGER, LUDWIG A	INTRACEREBAL NEUROPEPTIDE PROJECTIONS	1R01 NS15843-01	84,561
SUTHERLAND, ROBERT M.	COMBINED RADIOTHERAPY-CHEMOTHERAPY STUDIES	5R01 CA20329-05	223,896
SVYVERSON, RAE E	BIOTYPING & EPIDEMIOLOGICAL STUDIES OF CANDIDA ALBICANS	1R01 AI16896-01	51,155
TANG, FRANK Y.	REGULATION OF MAMMARY GLAND GROWTH AND REGRESSION	5R01 CA25455-02	69,480
TANG, LORETTA K	STEROID REGULATION OF GONADOTROPINS IN CELL CULTURES	5R01 HD10837-03	35,896
TAYLOR, DAVID A	EVOLUTION OF MENTAL ACTIVITY	5R01 HD13343-02	76,205
TURNER, DOUGLAS H	KINETIC AND SPECTROSCOPIC STUDIES OF NUCLEIC ACIDS	5R01 GM22939-05	75,668
TUTTLE, JOHN R.	QUANTITATIVE ANALYSIS OF NECTURUS RETINAL NETWORK	5R01 EY02598-03	52,328
VIOLANTE, MICHAEL R.	DEVELOPMENT OF PARTICULATE RADIOCONTRAST MEDIA	1R01 GM27097-01	139,814
WATERHOUSE, CHRISTINE	HEPATIC SYNTHESIS AND RELEASE OF TRIGLYCERIDE	2R01 CA07123-15A1	74,613
WEITKAMP, LOWELL R.	GENETIC VARIANTS OF BLOOD PROTEINS AND HEALTH	1R01 HD14487-01	142,374
WEITKAMP, LOWELL R	CHOLINESTERASE GENOTYPES IN HUNTINGTON'S DISEASE	5R01 NS14897-02	48,717
WHEELER, KENNETH T, JR	BRAIN TUMOR THERAPY: RADIATION, DRUGS & DNA REPAIR	3R01 CA21662-03S1	46,457
WHEELLESS, LEON L, JR	PROGRAM FOR CELL ANALYSIS AND SORTING IN BIOMEDICINE	5P01 GM23088-03	533,227
WIBERG, JOHN S.	REGULATION OF PROTEIN SYNTHESIS BY BACTERIOPHAGE T4	2R01 GM21999-04A1	118,337
WILHELM, JAMES M.	PROTEIN SYNTHESIS ERRORS IN EUKARYOTIC CELLS	5R01 GM25168-03	46,968
WOOLF, PAUL D.	EFFECTS OF RENAL INSUFFICIENCY ON MENSTRUAL FUNCTION	1R01 AM27303-01	80,306
WOOLF, PAUL D.	NEURAL CONTROL OF HYPOTHALAMIC RELEASING FACTORS	1R01 NS13734-01A2	89,367
YOUNG, DONALD A.	MECHANISMS OF ACTION OF STEROID HORMONES	5R01 AM16177-09	119,804
YOUNG, FRANK E	BIOLOGY OF GONORRHEA	5R01 AI11709-07	81,272
YOUNG, FRANK E	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00044-20	717,925
YOUNG, FRANK E	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05403-19	189,787
ZAIN, SAYEEDA B.	TRANSCRIPTION CONTROL & MRNA PROCESSING IN ADENOVIRUS2	5R01 AI16127-02	83,496
ZIGMAN, SEYMOUR	NEAR ULTRAVIOLET LIGHT EFFECTS ON OCULAR TISSUES	3R01 EY00459-10S1	9,280
ZIGMAN, SEYMOUR	NEAR ULTRAVIOLET LIGHT EFFECTS ON OCULAR TISSUES	5R01 EY00459-11	120,110
ORGANIZATION TOTAL	192	22,160,848	
SARANAC LAKE			
TRUDEAU INSTITUTE ZIP CODE 12983			
CARTER, PHILIP B	HOST RESPONSE TO INTESTINAL FLORA	5R01 AM18530-06	116,033
COLLINS, FRANK M.	A MOUSE INFECTION MODEL OF LEPROMATOUS LEPROSY	2R22 AI14065-04	103,202
COLLINS, FRANK M	PATHOGENESIS OF CHRONIC LUNG DISEASE	2R01 HL19774-04	138,923
HAVELL, EDWARD A	CHARACTERIZATION OF HUMAN INTERFERONS	5R01 AI15348-02	108,858
NORTH, ROBERT J	PRODUCTION & DEPLOYMENT OF MEDIATORS OF CELL IMMUNITY	5R01 AI10351-09	161,819
NORTH, ROBERT J	IMMUNOLOGICAL BASIS OF TUMOR REGRESSION	5R01 CA16642-06	108,069
NORTH, ROBERT J	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05705-11	63,891
PATEL, PARSOTTAM J.	THE EFFECT OF AGING ON CELL-MEDIATED IMMUNITY	5R01 AG01234-02	103,715
SPIITALNY, GEORGE L	SUBVERSION OF IMMUNE MECHANISMS IN MALIGNANT TUMORS	5R01 CA21360-03	110,581
SUNDSMO, JOHN S.	COMPLEMENT MEMBRANE ATTACK PROTEINS BINDING/BIOSYNTHESIS	5R01 CA27452-02	39,851
ORGANIZATION TOTAL	10	1,054,942	
SCHENECTADY			
UNION COLLEGE AND UNIVERSITY—UNION COLLEGE ZIP CODE 12308			
BUTTERSTEIN, GEORGE M	NEUROENDOCRINE CORRELATES OF PUBERTY	1R01 HD13424-01A1	48,754
SCHMIDT, MARIE L.	CLB—A MORPHOLOGICAL CORRELATE OF VISUAL FUNCTION	5R01 EY02892-02	19,985
ORGANIZATION TOTAL	2	68,739	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
STONY BROOK			
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE—LONG ISLAND RESEARCH INSTITUTE ZIP CODE 11794			
KARTEN, HARVEY J.	RETINAL GANGLION CELLS AND ACCESSORY OPTIC NUCLEI	2R01 EY02146-04	139,184
MITLER, MERRILL M.	CIRCADIAN RHYTHMS: INTER-RELATIONSHIP STUDIES	1R01 NS15787-01	65,681
WHALEN, RICHARD E.	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05836-01	18,396
ORGANIZATION TOTAL	3	223,261	
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794			
ARBEIT, LEONARD A.	RENAL KALLIKREIN-KININ SYSTEM: SODIUM & WATER METABOLISM	1R01 AM27481-01	59,288
ARNHEIM, NORMAN	GENETIC AND MOLECULAR STUDIES OF HUMAN AND MOUSE DNA	5R01 GM25365-02	88,102
BAUER, WILLIAM R.	VIRAL AND PLASMID DNA STRUCTURE, PROTEIN INTERACTIONS	2R01 GM21176-07	94,936
BENJAMIN, WILLIAM B.	RELATION OF PROTEIN PHOSPHORYLATION TO INSULIN ACTION	5R01 AM18905-06	66,118
BERGOFKY, EDWARD H.	BIOLOGY OF NORMAL & HYPERTROPHIED PULMONARY VESSELS	5R01 HL23210-02	113,303
BRINK, PETER R.	COUPLED AND UNCOUPLED JUNCTIONAL MEMBRANES	5R01 GM24905-02	68,805
BROACH, JAMES R.	GENE EXPRESSION OF THE YEAST PLASMID, 2 MICRON CIRCLE	5R01 GM27929-02	90,078
BROWN, JOEL E.	VISUAL RECEPTOR POTENTIALS	5R01 EY01914-05	72,445
BROWN, JOEL E.	ANATOMY AND PHYSIOLOGY OF VISION	5R01 EY01915-05	62,716
BRUGGE, JOAN S.	THE ASY TRANSFORMING PROTEIN & ITS CELLULAR HOMOLOGUE	1R01 CA27951-01	74,655
CABOT, JOHN B.	NEURAL MECHANISMS OF CENTRAL CARDIOVASCULAR CONTROL	5R01 HL24103-02	60,913
CARTER, CAROL A.	COVALENT MODIFICATIONS & ACTIVATION OF REOVIRUS ENZYMES	5R01 AI15377-02	75,063
COHEN, IRA S.	CARDIAC ELECTROPHYSIOLOGY: EFFECTS OF IONS AND DRUGS	2R01 HL20558-04	44,901
COHEN, SEYMOUR S.	POLYAMINES IN VIRUS INFECTION OF CHLOROPLASTS	5R01 GM25522-02	70,876
COLLER, BARRY S.	BIOPHYSICS/BIOCHEMISTRY—I DEGREE PLATELET AGGREGATION	5R01 HL19278-05	58,082
DAVIS, BRIAN K.	NATURAL AND SYNTHETIC ANTI-FERTILIZATION VESICLES	2R01 HD12998-02A1	108,402
DELIHAS, NICHOLAS	STRUCTURE AND FUNCTION OF 5S RNA IN SITU	2R01 GM20052-07A1	33,806
DEWEY, MAYNARD M.	THE EFFECT OF FILAMENT LENGTH ON STRIATED MUSCLE TENSION	5R01 AM18750-05	88,827
DEWEY, MAYNARD M.	LIMULUS THICK FILAMENT STRUCTURE	5R01 GM26392-02	49,746
DUDOCK, BERNARD S.	SEQUENCE ANALYSIS OF BIOLOGICALLY ALTERED TRNA	5R01 GM25254-11	55,282
EISENBERG, MOISES	VOLTAGE GATED PORES IN MEMBRANES: ALAMETHICIN	1R01 GM27756-01	44,482
FINCH, STEPHEN J.	LONGITUDINAL STUDY OF AIR POLLUTION ON MORTALITY	3R23 ES01686-02S1	4,052
FINCH, STEPHEN J.	LONGITUDINAL STUDY OF AIR POLLUTION ON MORTALITY	5R23 ES01686-03	45,895
FREUNDLICH, MARTIN	MOLECULAR MECHANISMS IN MULTIVALENT REPRESSION	5R01 GM17152-12	79,825
GARANT, PHILIAS R.	ULTRASTRUCTURE OF EXPERIMENTAL PERIODONTITIS	5R01 DE03745-09	88,692
GARANT, PHILIAS R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05778-05	36,586
GOLUB, LORNE M.	GINGIVAL COLLAGEN METABOLISM IN HEALTH AND DISEASE	5R01 DE03987-06	93,295
GOREVIC, PETER D.	SENILE AMYLOIDOSIS: BIOCHEMISTRY & IMMUNOHISTOCHEMISTRY	1R01 AG01973-01	41,533
GOREVIC, PETER D.	MIXED CRYOGLOBULINEMIA: SEROLOGICAL STUDIES	1R01 AM26588-01	35,198
GROLLMAN, ARTHUR P.	MOLECULAR PHARMACOLOGY OF TUMOR AND VIRUS INHIBITORS	5R01 CA17395-06	199,918
GWINNETT, A JOHN	A MICROSCOPIC AND CLINICAL STUDY OF CERVICAL EROSION	5R01 DE05137-02	29,636
HABICHT, GAIL S.	IMMUNOLOGICAL TOLERANCE AND AGING	5R01 AG00801-03	96,091
HELQUIST, PAUL M.	SYNTHESIS OF ANTICANCER AGENTS	5R01 CA20701-04	35,998
HELQUIST, PAUL M.	SYNTHESIS OF PHYSIOLOGICALLY ACTIVE RING SYSTEMS	5R01 CA22741-02	54,524
HULTIN, MAE B.	THROMBOGENICITY OF HUMAN FACTOR IX CONCENTRATES	5R01 HL24893-02	43,633
INOUE, MASAYORI	CELL DIVISION AND MEMBRANE PROTEINS	2R01 GM19043-09	150,850
INOUE, MASAYORI	MORPHOGENESIS AND GENE EXPRESSION	1R01 GM26843-01A1	89,249
JACOBSON, ANN B.	STRUCTURAL STUDIES ON RNA-CONTAINING VIRAL GENOMES	5R01 AI15273-03	45,516
JANOFF, AARON	HUMAN LEUKOCYTE PROTEASES AND THEIR LUNG TARGETS	5R01 HL14262-09	83,365
JESTY, JOLYON	CONTROL MECHANISMS IN COAGULATION	5R01 HL21113-03	41,443
JONES, RAYMOND F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07067-15	107,181
KALOYANIDES, GEORGE J.	RENAL PHARMACOLOGY AND TOXICITY OF AMINOGLYCOSIDES	1R01 AM27051-01	118,577
KAPLAN, ALLEN P.	PATHOGENESIS OF URTICARIA, ANGIOEDEMA AND VASCULITIS	5P50 AI16337-02	73,561
KAPLAN, ALLEN P.	INITIATION OF COAGULATION AND FIBRINOLYSIS IN MAN	5R01 HL23714-02	83,266
KARTEN, HARVEY J.	ANATOMICAL ORGANIZATION OF THE BRAIN	2R01 NS12078-07	62,218
KATZ, EUGENE R.	DEVELOPMENTAL GENETIC STUDIES ON CELLULAR SLIME MOLDS	5R01 GM18476-08	79,775
KLEINBERG, ISRAEL	EFFECT OF SALIVA ON THE METABOLISM OF DENTAL PLAQUE	5R01 DE03993-06	151,869
KLEINSCHMIDT, JOCHEN	NEUROTRANSMITTER MECHANISMS IN THE DENTAL RETINA	1R01 EY03499-01	84,924
KRANTZ, ALLEN	MODES OF REACTIVITY OF FLAVINS AND FLAVOPROTEINS	5R01 NS13220-03	44,335
KUSCHNER, MARVIN	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05736-08	149,754
LAUTERBUR, PAUL C.	APPLICATIONS OF NMR ZEUGMATOGRAPHY IN CANCER RESEARCH	2R01 CA15300-07	104,482

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
LAUTERBUR, PAUL C.	CARDIOVASCULAR NMR ZEUGMATOGRAPHY	5R01 HL19851-02	143,055
LEVINE, ARNOLD J.	DNA REPLICATION IN SV40 INFECTED CELLS	7R01 CA28033-01	83,803
LEVINE, ARNOLD J.	DIFFERENTIATION OF TERATOCARCINOMA CELLS	5R01 CA28106-02	85,402
LEVINE, ARNOLD J.	SV40 CELLULAR ANTIGENS AND HOST RANGE	1R01 CA28127-01	101,643
LIDSKY, THEODORE I.	NEUROPSYCHOLOGICAL STUDIES OF THE BASAL GANGLIA	1R01 NS16054-01	47,698
LUCAS, JOSEPH J.	ANALYSIS OF GENE REGULATION BY NUCLEAR TRANSPLANTATION	2R01 CA22302-04	44,927
MALBON, CRAIG C.	HORMONE REGULATION OF HEPATOCYTE CARBOHYDRATE METABOLISM	5R01 AM25410-02	49,880
MARCUS, KENNETH B.	REGULATION OF EXPRESSION OF EUKARYOTIC GENE FAMILIES	5R01 GM26939-02	57,137
MC LAUGHLIN, STUART G.	DIVALENT CATIONS AND MEMBRANES	5R01 GM24971-03	72,775
MENDELL, LORNE M.	MECHANISMS OF PLASTICITY IN NEURONAL CONNECTIONS	7R01 NS16996-01	43,318
MOORE, LEON C.	INTRARENAL CONTROL OF JUXTAMEDULLARY NEPHRON FUNCTION	1R01 AM26341-01	45,669
MOORE, ROBERT Y.	HISTOCHEMICAL STUDIES OF BIOGENIC AMINES IN BRAIN	5R01 NS16303-02	65,813
MOORE, ROBERT Y.	CENTRAL MECHANISMS IN CIRCADIAN RHYTHM REGULATION	5R01 NS16304-02	63,028
MORRISON, SIDONIE A.	KINETICS OF PROTHROMBIN ACTIVATION	5R01 HL22955-03	13,874
OHTSUBO, EIICHI	MOLECULAR BIOLOGY ON GENETIC FUSION IN THE E. COLI	5R01 GM22007-06	61,036
OHTSUBO, HISAKO H.	DNA REPLICATION OF E. COLI PLASMID R 100	5R01 GM26779-02	79,466
OWEN, WILLIAM G.	SIGNAL TRANSFER BETWEEN RECEPTORS AND BIPOLAR CELLS	5R01 EY02493-02	51,996
PALATNIK, CARL M.	DEVELOPMENTALLY REGULATED MRNAS IN DICTYOSTELIUM	5R01 GM27652-02	94,599
POLLOCK, JERRY J.	LYSOZYME-CELL SURFACE INTERACTIONS AND ORAL DEFENSE	5R01 DE04296-06	129,576
PRESTWICH, GLENN D.	FLUOROPHYTOSTEROLS—ARTHROPOD-SPECIFIC METABOLIC POISONS	1R01 AI17031-01	86,007
RAISFELD, ILENE H.	DRUG INTERACTIONS IN THE ELDERLY	5R01 AG02033-02	82,946
RAISFELD, ILENE H.	ROLE OF DRUG STRUCTURE IN DRUG INDUCED LUNG FIBROSIS	5R01 HL23874-02	80,895
RAMIREZ, FAUSTO.	SUPERPHOSPHORYLATING AGENTS	2R01 GM20672-20	94,186
RAMIREZ, FAUSTO.	PHOSPHOLIPIDS: SYNTHESIS AND MEMBRANE PROPERTIES	5R01 HL23126-02	64,726
RAPAPORT, FELIX T.	INDUCTION OF UNRESPONSIVENESS TO ALLOGRAFTS	5R01 AI14453-04	190,105
RAPAPORT, FELIX T.	MECHANISMS OF CELL DAMAGE IN SEVERE BURNS	5R01 GM24481-04	125,659
RILEY, MONICA.	EVOLUTION OF THE BACTERIAL GENOME	1R01 GM28926-01	86,551
SACHS, JOHN R.	PHYSIOLOGICAL ASPECTS OF MEMBRANE CATION TRANSPORT	5R01 AM19185-06	83,408
SARMA, RAGHUPATHY	X-RAY CRYSTAL STRUCTURE AND FUNCTION OF PROTEINS	5R01 CA25048-08	51,187
SARMA, RAGHUPATHY	EM AND DIFFRACTION STUDIES OF A MEMBRANE LIPOPROTEIN	5R01 GM25883-02	32,785
SCOTT, SHERYL A.	DEVELOPMENT OF SKIN INNERVATION PATTERNS	1R01 NS16067-01	60,889
SHENK, THOMAS E.	STRUCTURE AND FUNCTION OF DNA TUMOR VIRUS GENOMES	7R01 CA28919-01	92,663
SHERMAN, S MURRAY	EFFECTS OF VISUAL DEPRIVATION ON THE VISUAL SYSTEM	5R01 EY03038-02	170,897
SIMON, SANFORD R.	MECHANISMS OF PESTICIDE INHIBITION OF NA-K ATPASE	5R01 ES02162-02	42,414
SIMPSON, MELVIN V.	MITOCHONDRIA: NUCLEIC ACID SYNTHESIS AND ROLE OF DNA	5R01 GM22333-14	65,262
SOKAL, ROBERT R.	SPATIAL ANALYSIS OF HUMAN VARIATION	1R01 GM28262-01	82,884
SOKOLOFF, LEON	IN VITRO CULTURE OF ARTICULAR CHONDROCYTES	2R01 AM17258-06	107,789
STERNGLANZ, ROLF	ISOLATION OF AN E. COLI DNA TOPOISOMERASE I MUTANT	1R01 GM28220-01	54,691
STRICHARTZ, GARY R.	STRUCTURE AND DISTRIBUTION OF SODIUM CHANNELS	2R01 NS12828-04A1	47,257
TAICHMAN, LORNE B.	STABILITY OF DIFFERENTIATION: CRANIOFACIAL STUDY	5R01 DE04511-05	73,640
TEGTMAYER, PETER J.	MECHANISMS OF VIRAL ONCOGENESIS—SV40 PROTEIN FUNCTION	5R01 CA18808-06	118,623
TEGTMAYER, PETER J.	TUMOR VIRUS AND HOST INTERACTIONS	1P01 CA28146-01	546,109
TEWARSON, REGINALD P.	NUMERICAL SOLUTION OF RENAL TRANSPORT EQUATIONS	5R01 AM17593-05	46,295
TRUNCA, CAROLYN	THE MEIOTIC BEHAVIOR OF RECIPROCAL TRANSLOCATIONS	5R01 GM25057-02	25,924
TWAROG, BETTY M.	PHARMACOLOGY OF RELAXATION IN SMOOTH MUSCLE	5R01 HL23614-03	59,217
VAN DER KLOOT, WILLIAM G.	TRANSMITTER RELEASE BY NERVE TERMINALS	5R01 NS10320-09	27,619
WALCOTT, BENJAMIN	NEURAL BASIS OF MAGNETIC FIELD DETECTION	1R01 GM28804-01	46,726
WEINSTEIN, STEPHEN W.	SOURCES OF ENERGY FOR RENAL SODIUM TRANSPORT	1R01 AM26763-01	82,650
WEITZMAN, STEPHEN	DEFECTS IN IMMUNOGLOBULIN PRODUCTION IN MOUSE MYELOMA	5R01 CA25166-02	72,614
WHITE, RICHARD R.	ELASTASE SECRETION BY MACROPHAGES	5R23 HL24186-02	8,906
WILLIAMS, DAVID L.	HORMONAL REGULATION OF VITELLOGENIN SYNTHESIS	5R01 AM18171-06	69,236
WILSON, JAMES R.	DEVELOPMENT OF CENTRAL VISUAL PATHWAYS	5R01 EY03345-02	80,992
WIMMER, ECKARD A.	VIRAL ONCOLOGY: RETROVIRUSES AND POLIOVIRUS	5R01 AI15122-07	142,120
WISHNIA, ARNOLD	PRESSURE-JUMP STUDIES OF RIBOSOMES	1R01 GM27176-01	64,739
WU, CHENG-WEN	MECHANISM AND REGULATION OF GENE TRANSCRIPTION	1R01 GM28069-01	141,092
WU, FELICIA Y.	ROLE OF METAL IN GENE EXPRESSION	1R01 GM28057-01	68,399
YAZULLA, STEPHEN	SYNAPTIC TRANSMISSION IN THE RETINA	5R01 EY01682-05	70,117
ORGANIZATION TOTAL	108	8,618,981	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
SYRACUSE			
STATE UNIVERSITY OF NEW YORK—COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY		ZIP CODE 13210	
FLASHNER, MICHAEL	STRUCTURAL BIOCHEMISTRY OF BACTERIAL NEURAMINIDASES	5R01 AI12532-05	69,201
NAKATSUGAWA, TSUTOMU	ORGANOPHOSPHATE-BIOMACROMOLECULE INTERACTIONS	2R01 ES01019-06	67,757
SCHUERCH, CONRAD	SYNTHETIC CARBOHYDRATE ANTIGENS AND HAPTENS	5R01 AI12509-06	92,769
SCHUERCH, CONRAD	STEREOSPECIFIC SYNTHESIS OF POLYSACCHARIDES	5R01 GM06168-21	61,483
SILVERSTEIN, ROBERT M.	SEX PHEROMONES IN DISEASE TRANSMITTING TICKS	5R01 AI10987-07	41,013
TANENBAUM, STUART W.	BIOCHEMISTRY OF CYTOTOXIC FUNGAL METABOLITES	5R01 AI11902-07	72,581
TANENBAUM, STUART W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07174-04	25,083
ORGANIZATION TOTAL	7	429,887	
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER		ZIP CODE 13210	
ANDERSON, GUNNAR H, JR.	ROLE OF ANGIOTENSIN SENSITIVITY IN RENIN RELEASE	3R01 HL19428-04S1	6,391
ARGYRIS, BERTIE F.	CELL INTERACTIONS IN TUMOR IMMUNITY	5R01 CA15462-06	85,230
ARGYRIS, THOMAS S.	EFFECTS OF AGING ON EPIDERMAL REGENERATION	5R01 AG01324-02	46,094
ARGYRIS, THOMAS S.	RIBOSOMAL RNA SYNTHESIS IN EPIDERMAL REGENERATION	5R01 AM18219-06	67,303
AUST, JOHN C.	INTERDISCIPLINARY CANCER EDUCATION PROGRAM	5R25 CA19434-03	117,510
BLUMENTHAL, STANLEY A.	REGULATION OF HEPATIC PRODUCTION AND UPTAKE OF GLUCOSE	5R01 AM21246-03	34,297
BORTOFF, ALEXANDER	COORDINATION OF VISCERAL SMOOTH MUSCLE ACTIVITY	2R01 AM06958-15A1	98,626
COULSON, RICHARD	RENAL RESPONSES TO CYCLIC NUCLEOTIDE ANALOGUES	5R01 AM25926-02	24,760
CROSS, RICHARD L.	MECHANISM OF ATP SYNTHESIS BY THE RESPIRATORY CHAIN	2R01 GM23152-04A1	83,814
DUBROFF, LEWIS M.	MOLECULAR MECHANISMS IN LUPUS ERYTHEMATOSUS	5R01 AM25893-02	65,416
DUDGEON, DAVID L.	EFFECTS OF STRESS ON NEONATAL INTESTINAL HEMODYNAMICS	5R01 HD12933-02	58,703
FLASHNER, MARCIA S.	BIOCHEMICAL STUDIES OF THE NA, K-ATPASE ENZYME	5R01 GM25033-03	47,594
FREEDMAN, JEFFREY C.	ELECTROPHYSIOLOGY OF HUMAN RED BLOOD CELLS	1R01 GM28839-01	67,490
FROMM, DAVID G.	GASTRIC MUSCOSA PERMEABILITY AND ION TRANSPORT	5R01 AM25227-04	53,113
GOODMAN, DONALD C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05402-19	129,525
GOTTLIEB, ARLAN J.	PARTICIPATION IN CANCER AND LEUKEMIA GROUP B	5R10 CA21060-04	182,598
GROSSMAN, ZACHARY D.	PULMONARY ARTERIAL OCCLUSION DIAGNOSIS—COMPUTER TOMOG	5R01 HL24230-02	55,752
HOLZ, GEORGE G, JR.	LIPIDS OF LEISHMANIAS	5R01 AI05802-17	92,511
HSU, ROBERT Y.	MECHANISM OF FATTY ACID SYNTHESIS IN ANIMALS	5R01 AM13390-13	89,163
KEATING, E GREGORY	RECOVERY FROM CORTICAL BLINDNESS	5R01 EY02941-03	49,197
KRIEBEL, MAHLON E.	TRANSMITTER RELEASE AT THE NEUROMUSCULAR JUNCTION	5R01 NS11996-06	75,676
LAU, YAT H.	TRANSVERSE-TUBULE AND SARCOPLASM RETICULUM STUDIES	1R23 HL26036-01	44,921
LUCAS, JOHN J.	MEMBRANE GLYCOPROTEIN CHANGES DURING DIFFERENTIATION	5R01 HD09046-06	53,419
MARTONOSI, ANTHONY N.	THE BIOCHEMISTRY OF SARCOPLASMIC RETICULUM	1R01 AM26545-01	207,601
MC AFEE, JOHN G.	NUCLEAR DIAGNOSTIC METHODS FOR RENAL DISEASES	2R01 GM18248-10	125,246
MC AFEE, JOHN G.	RADIOACTIVE LABELING OF LEUKOCYTES AND PLATELETS	2R01 GM23033-04	139,839
MEYER, FRANZ D.	STUDIES OF THE LIPID METABOLISM IN PARASITIC HELMINTHS	5R01 AI07486-13	79,151
MILLER, DEAN G.	STRESS AND MYOCARDIAL INJURY: A SYSTEMATIC STUDY	5R01 HL22810-02	93,544
MOZELL, MAXWELL M.	THE ELECTROPHYSIOLOGY OF OLFACTORY DISCRIMINATION	5R01 NS03904-17	90,903
PACKARD, DAVID S, JR.	CONTROL OF AVIAN SOMITE FORMATION	5R01 HD13396-02	39,524
PARKINS, CHARLES W.	PRINTED CIRCUIT MULTICHANNEL COCHLEAR IMPLANT	1R01 NS14916-01A1	73,297
PRESTON, JAMES B.	SUPRASEGMENTAL INFLUENCES ON SPINAL MOTONEURONS	5R01 NS02957-20	70,981
ROBINSON, JOSEPH D.	CHANGES IN BRAIN MICROSOMAL STRUCTURE AND COMPOSITION	2R01 NS05430-15	65,767
ROBINSON, JOSEPH D.	CALCIUM TRANSPORT IN THE NERVOUS SYSTEM	5R01 NS12193-05	39,560
ROBSON, JOHN A.	STUDIES OF THE VISUAL SYSTEM	1R01 EY03490-01	60,067
ROSS, CHARLES R.	RENAL TRANSPORT CARRIER FOR ORGANIC COMPOUNDS	5R01 HL02835-23	85,892
SCHROEDER, EDWARD T.	RENIN, PROTAGLANDINS AND RENAL FUNCTION IN CIRRHOSIS	5R01 AM26085-02	44,681
SCHWARTZ, SHELTON E.	EFFECT OF SULFASALAZINE ON SODIUM FLUX IN THE COLON	5R01 AM21088-03	46,964
STACH, ROBERT W.	NERVE GROWTH FACTOR INVESTIGATIONS	5R01 NS12325-06	70,405
STELZNER, DENNIS J.	FACTORS IN CNS REGENERATION	5R01 NS14096-03	54,132
STELZNER, DENNIS J.	SPARING OF FUNCTION IN DEVELOPING SPINAL CORD	1R01 NS16105-01	36,932
STOCKMAN, JAMES A, III	THE ANEMIA OF PREMATURITY—ADAPTIVE MECHANISMS	5R01 HD12019-03	92,230
STREETEN, BARBARA W.	THE FIBER-GEL STRUCTURE OF THE OCULAR ZONULE	5R01 EY01602-06	66,688
STREETEN, DAVID H.	ROLE OF ANGIOTENSIN II IN VASOPRESSIN RELEASE	5R01 HL22051-03	91,543
STREETEN, DAVID H.	ROLE OF VASOPRESSIN IN HUMAN HYPERTENSION	1R01 HL26261-01	96,732
STUART, MARIE J.	ARACHIDONIC ACID METABOLISM—INFANTS OF DIABETIC MOTHERS	1R01 HD14405-01	111,976
TEPPERMAN, JAY	ADAPTATION OF MEMBRANE-ASSOCIATED FUNCTIONS	5R01 AM05410-19	111,874

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
TERJUNG, RONALD L.....	SKELETAL MUSCLE ADAPTATIONS INDUCED BY TRAINING.....	5R01 AM21617-04	78,333
TRIMBLE, MARY E.....	RENAL FATTY ACID TRANSPORT AND METABOLISM.....	1R01 AM25695-01A1	23,927
WEINER, IRWIN M.....	BIOCHEMICAL ASPECTS OF RENAL ELECTROLYTE TRANSPORT.....	5R01 AM20533-16	110,215
WILLIAMS, WILLIAM J.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00229-15	440,700
ORGANIZATION TOTAL	51 4,277,807		
SYRACUSE RESEARCH CORPORATION ZIP CODE 13210			
BANERJEE, SUJIT.....	STEREOCHEMISTRY OF OXIDATION BY CYTOCHROME P-450.....	2R01 GM25519-02	41,298
SIKKA, HARISH C.....	THE FATE AND ACTION OF DICHLOROBENZIDINE IN MAMMALS.....	5R01 ES02015-02	109,985
SIKKA, HARISH C.....	DISPOSITION AND METABOLISM OF DIBENZ (A,H) ACRIDINE.....	1R01 ES02572-01	122,655
ORGANIZATION TOTAL	3 273,938		
SYRACUSE UNIVERSITY SYRACUSE ZIP CODE 13210			
BARLOW, ROBERT B. JR.....	FUNCTIONAL ORGANIZATION OF THE VISUAL SYSTEM.....	5R01 EY00667-08	163,097
CHAMBERLAIN, STEVEN C.....	ADAPTIVE MECHANISMS THAT MAINTAIN VISUAL SENSITIVITY.....	1R01 EY03446-01	77,678
CHAN, SAMUEL H.....	ADENINE NUCLEOTIDE TRANSLOCATION IN TUMOR MITOCHONDRIA.....	3R01 CA20454-03S1	14,127
CROUCH, WAYNE W.....	EVALUATION OF THE PRESEARCH INTERVIEW.....	5R01 LM03074-02	76,245
DABROWIAK, JAMES C.....	THE MECHANISM OF ACTION OF BLEOMYCIN.....	5R01 CA25112-02	61,179
DAVIS, LOWELL E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07068-15	112,741
DOSA, MARTA L.....	DEVELOPMENT/EVALUATION OF HEALTH INFORMATION SHARING.....	5R01 LM02800-04	177,753
ENGRETSOEN, GUSTAV A.....	VISUAL INFORMATION PROCESSING BY THE PARIETAL EYE.....	5R01 EY03359-02	82,981
FALK, DARREL R.....	TISSUE DYNAMICS OF PYRIMIDINE SYNTHESIS IN DROSOPHILA.....	5R01 GM24049-04	68,025
FLORINI, JAMES R.....	EFFECT OF AGING ON LEVELS AND ACTIONS OF SOMATOMEDINS.....	2R01 AG00629-04	80,924
FLORINI, JAMES R.....	RNA AND PROTEIN SYNTHESIS IN REPAIR OF HEART INJURY.....	5R01 HL11551-13	88,329
GARVEY, JUSTINE S.....	ANTIGEN METABOLISM IN MATURING AND SENESCENT ANIMALS.....	2R01 AG00111-04	109,250
GARVEY, JUSTINE S.....	CADMIUM: TOXICITY AND EFFECTS ON THE IMMUNE RESPONSE.....	1R01 ES01629-01A2	73,235
HARTH, ERICH.....	NEW APPROACHES IN VISION RESEARCH.....	5R01 EY01215-07	109,339
LEVY, H. RICHARD.....	MECHANISMS OF CONTROL OF ENZYMIC ACTIVITY.....	5R01 AM07720-15	91,846
NAFIE, LAURENCE A.....	VIBRATIONAL OPTICAL ACTIVITY.....	5R01 GM23567-03	55,427
STARMER, WILLIAM T.....	GENETICS OF LONGEVITY IN DROSOPHILA POPULATIONS.....	5R01 AG02064-02	78,835
STURR, JOSEPH F.....	MECHANISMS OF VISUAL SENSITIVITY.....	5R01 EY01571-06	45,052
SULLIVAN, DAVID T.....	STRUCTURE AND FUNCTION OF THE GDPH LOCUS OF DROSOPHILA.....	5R01 GM26830-02	91,108
TUPPER, JOSEPH T.....	ROLE OF SERUM AND CATIONS IN MALIGNANT CELL GROWTH.....	5R01 CA17203-05	67,617
VERRILLO, RONALD T.....	CUTANEOUS MECHANORECEPTOR SYSTEMS.....	2R01 NS09940-09	132,116
VOURNAKIS, JOHN N.....	SECONDARY STRUCTURE OF EUKARYOTIC MESSENGER RNA.....	5R01 GM22280-06	71,465
WANG, CHIU-SEN.....	DEPOSITION OF HYGROSCOPIC AEROSOLS.....	5R01 HL19700-05	73,879
WARE, BENNIE R.....	AUTOMATED ELECTROPHORETIC ANALYSIS OF LIVING CELLS.....	5R01 GM27633-02	72,893
WARNER, FRED D.....	CILIARY MOTION: DYNEIN BEHAVIOR AND MICROTUBULE SLIDING.....	2R01 GM20690-07	94,442
WAYNER, MATTHEW J.....	A STUDY OF CHEMOSENSITIVE HYPOTHALAMIC NEURONS.....	5R01 NS13543-03	46,140
ZWISLOCKI, JOZEF J.....	SENSORY PROCESSES.....	5R01 NS03950-19	224,905
ORGANIZATION TOTAL	27 2,440,628		
TRIOY			
RENSSELAER POLYTECHNIC INSTITUTE ZIP CODE 12181			
BRUNSKI, JOHN B.....	IN VIVO FORCES ON ENDOSSEOUS DENTAL IMPLANTS.....	5R23 DE05418-02	20,949
COWARD, JAMES K.....	RATIONAL DRUG DESIGN BASED ON CHEMICAL MECHANISMS.....	5R01 CA28097-02	71,404
DIWAN, JOYCE J.....	MITOCHONDRIAL SOLUTE TRANSPORT MECHANISMS.....	5R01 GM20726-06	53,255
HANNA, MICHAEL H.....	ESTABLISHMENT OF MULTICELLULARITY IN P. VIOLACEUM.....	1R01 GM27892-01	46,668
JOHNSON, MARVIN W.....	DIELECTRIC PROPERTIES OF FLUID SATURATED BONE.....	1R01 AM26534-01	49,987
KORETZ, JANE F.....	A COMPUTER MODEL FOR LENS ACCOMMODATION.....	5R01 EY02195-03	19,170
KORETZ, JANE F.....	STUDIES OF NATURAL AND SYNTHETIC MYOSIN FILAMENTS.....	5R01 NS14377-03	43,355
MC DANIEL, CARL N.....	AMINO ACID TRANSPORT SYSTEMS AND MUTANTS.....	5R01 GM25838-02	41,880
MOW, VAN C.....	MECHANICS, ELECTROMECHANICS AND CHEMISTRY OF CARTILAGE.....	1R01 AM26440-01	263,379
NEWELL, JONATHAN C.....	PULMONARY HEMODYNAMICS IN ATELECTASIS AND HYPOXIA.....	5R01 HL18630-05	52,941
PFALZ, CHARLES J.....	MAINTENANCE OF PERSISTENT MURINE LCM VIRUS INFECTION.....	1R01 AI16562-01	57,350
POTTS, KEVIN T.....	THEORETICAL DESIGN AND SYNTHESIS OF ANTITUMOR AGENTS.....	1R01 CA27241-01	102,814
POTTS, KEVIN T.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07104-14	55,122
SCHULTZ, ARTHUR G.....	SYNTHESIS OF ASPIDOSPERMA AND DENDROBINE ALKALOIDS.....	2R01 GM26568-03	90,491
WARDEN, JOSEPH T.....	ESR STUDIES OF ELECTRON TRANSPORT IN PHOTOSYSTEM 2.....	5R01 GM26133-02	35,402

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
ZELMAN, ALLEN	ELECTROSMOTIC PROCESSING OF CRYOPRESERVED RBC	5R01 HL24466-02	92,104
ORGANIZATION TOTAL	16 1,096,271		
UPTON			
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY ZIP CODE 11973			
ATKINS, HAROLD L	MELANOMA DETECTION WITH RADIOPHARMACEUTICALS	5R01 CA24597-02	66,185
ATKINS, HAROLD L	DIAGNOSIS OF MYOCARDIAL INFARCTION BY RADIOISOTOPES	3R01 HL16553-06S1	4,923
BIELSKI, BENON H	BIOLOGICAL SUPEROXIDE RADICAL MECHANISMS	2R01 GM23656-04	75,747
CARSTEN, ARLAND L	MUTAGENICITY AND TOXICITY OF ENVIRONMENTAL POLLUTANTS	1R01 ES02328-01	160,931
COHN, STANTON H	GERONTOLOGICAL CHANGES IN SKELETAL MASS	5R01 AG00918-03	115,493
COHN, STANTON H	IN VIVO MEASUREMENT OF BODY IRON BY NUCLEAR RESONANCE	5R01 HL24177-02	79,811
CRONKITE, EUGENE P	HEMOPOIETIC REGULATORS FORMED IN CELL CULTURE	3R01 HL15685-06S1	8,410
CRONKITE, EUGENE P	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05731-09	115,221
ELZINGA, MARSHALL	STRUCTURE-FUNCTION STUDIES ON ACTIN AND MYOSIN	5R01 HL21471-04	105,680
FAIRCHILD, RALPH G	BORON EPITHERMAL NEUTRON CAPTURE THERAPY	5R01 CA22749-03	84,747
LACKS, SANFORD A	DNA MISMATCH REPAIR IN TRANSFORMATION AND MUTAGENESIS	5R01 AI14885-03	64,967
MILLER, MARILYN E	REGULATORY MECHANISMS OF ERYTHROPOIETIN PRODUCTION	5R01 HL22650-03	111,229
SELTZER, STANLEY	MECHANISM STUDIES OF ENZYMIC CIS-TRANS ISOMERIZATION	1R01 GM27636-01	53,568
STUDIER, F WILLIAM	REPLICATION OF T7 DNA	5R01 GM21872-06	73,447
SUTHERLAND, BETSY M	DNA REPAIR—HUMAN E. COLI PHOTOREACTIVATING ENZYMES	2R01 CA23096-04	123,157
WALL, JOSEPH S	ELECTRON MICROSCOPE FACILITY	5P41 RR00715-08	290,852
WILLIAMS, GRAHEME J	STRUCTURES OF DIHYDROFOLATE REDUCTASE AND INHIBITORS	5R01 GM24385-02	36,905
WOLF, ALFRED P	A PROGRAM IN SUPPORT OF NUCLEAR MEDICINE	5R01 NS15380-05	205,443
WOLF, ALFRED P	POSITRON EMITTERS & PETT IN METABOLIC & NEUROLOG SCIENCE	3P01 NS15638-01S1	106,805
WOLF, ALFRED P	POSITRON EMITTERS & PETT IN METABOLIC & NEUROLOG SCIENCE	5P01 NS15638-02	661,138
ORGANIZATION TOTAL	20 2,544,659		
UTICA			
MASONIC FOUNDATION FOR MEDICAL RESEARCH AND HUMAN WELFARE ZIP CODE 13501			
MOE, GORDON K	DIGITALIS AND MODELS OF CARDIAC ARRHYTHMIA	2R01 HL19487-05	230,431
MOE, GORDON K	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05837-01	14,399
TUTTLE, RICHARD S	EFFECT OF PROPRANOLOL ON CAROTID SINUS NERVE ACTIVITY	5R01 HL22600-02	27,153
WULF, VERNER J	A STUDY OF VISUAL COUPLING REACTIONS	5R01 EY00236-18	30,660
ORGANIZATION TOTAL	4 302,643		
VALHALLA			
AMERICAN HEALTH FOUNDATION ZIP CODE 10595			
FIALA, EMERICH S	MECHANISM OF ACTION OF COLON CARCINOGENESIS	5R26 CA15400-08	95,023
HECHT, STEPHEN S	ENVIRONMENTAL NITROSAMINES—METABOLISM & CARCINOGENESIS	5R01 CA23901-02	65,561
REDDY, BANDARU S	METABOLIC EPIDEMIOLOGY OF COLON CANCER	5R26 CA16382-06	95,722
WEISBURGER, JOHN H	CARCINOGENS AND MUTAGENS IN COLON CANCER	5R26 CA24217-03	75,158
ORGANIZATION TOTAL	4 331,464		
NEW YORK MEDICAL COLLEGE ZIP CODE 10595			
ABITBOL, ANDRE A	RADIATION THERAPY ONCOLOGY GROUP	5R10 CA18358-05	119,354
BLACK, MAURICE M	SPECIFIC IMMUNITY AND PROGNOSIS IN BREAST CANCER	5R01 CA25165-02	258,326
CABELLO, FELIPE C	NEONATAL MENINGITIS: GENETIC STUDIES OF E. COLI K1	1R01 AI16078-01A2	65,369
CHANDER, PRAVEEN N	BENCE JONES PROTEIN PROPERTIES & TUBULOTOXICITY	1R23 CA27893-01	54,400
DANISHEFSKY, ISIDORE	HEPARIN, BLOOD COAGULATION AND LIPID METABOLISM	5R01 HL16955-07	96,188
DANISHEFSKY, ISIDORE	BLOOD COAGULATION COMPONENTS: CARBOHYDRATE STRUCTURES	5R01 HL23847-02	43,551
ELSEVIERS, DIRK	ACCURACY IN GENE EXPRESSION	5R01 GM24576-03	53,720
GORDON, EDWIN E	INSULIN AND GLUCAGON INTERACTION WITH KIDNEY CELLS	5R01 AM20184-03	5,347
GUIDERI, GIANCARLO	VENTRICULAR FIBRILLATION BY DRUG-DRUG INTERACTION	5R01 HL20052-02	67,601
GUTSTEIN, WILLIAM H	NEURAL FACTORS IN ATHEROGENESIS	5R01 HL18085-05	130,005
HERP, ANTHONY	PROTEASE INHIBITION IN CORNEAL ULCERS	1R01 EY03433-01	85,358
HOCHSTADT, JOY	CARCINOGENESIS/MEMBRANE ENZYME & PERMEABILITY MUTANTS	3R01 CA23095-02S1	1,500
HOCHSTADT, JOY	CARCINOGENESIS/MEMBRANE ENZYME & PERMEABILITY MUTANTS	5R01 CA23095-03	121,972

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NEW YORK—Continued			
HOCHSTADT, JOY	PURINE TRANSPORT BY CANCER CELL LINE MEMBRANE VESICLES	1R01 CA26814-01	73,958
HOROWITZ, MARTIN I.	BIOCHEMISTRY OF GASTRIC SULFATED GLYCOPROTEINS	5R01 AM15475-10	126,866
HOROWITZ, MARTIN I.	BIOCHEMISTRY AND NUTRITION OF GASTRIC PHOSPHOLIPIDS	1R01 AM27034-01	114,853
KIKKAWA, YUTAKA	ALVEOLAR TYPE II CELLS IN HEALTH AND DISEASE	9R01 HL24817-05	182,482
LEVERE, RICHARD D.	CONTROL MECHANISMS IN HEME SYNTHESIS	2R01 AM21682-03	61,622
LOUD, ALDEN V.	HYPOTHERMIA AND THE HEART	5R01 HL14713-08	102,031
MC GIFF, JOHN C.	PROSTAGLANDINS KININ, ANGIOTENSIN-INTERACTION	2R01 HL25394-02	244,069
MESSINA, EDWARD J.	PROSTAGLANDINS: MICROCIRCULATORY ROLE IN HYPERTENSION	1R01 HL24934-01	68,074
NARDONE, LINDA L.	PULMONARY SURFACTANT PRODUCTION BY TYPE II CELLS	1R01 HL25775-01	102,667
NEWMAN, STUART A.	NUCLEOSOME CONFORMATION AND GENE CONTROL	5R01 GM27674-02	53,637
REDDI, ALLURU S.	TURNOVER RENAL GLOMERULAR BASEMENT MEMBRANE IN DIABETICS	1R01 AM26363-01A1	57,351
REICHBERG, SAMUEL B.	HORMONAL REGULATION OF HEXOSE MEMBRANE TRANSPORT	1R23 AM26540-01	43,072
ROSS, WILLIAM N.	ANALYSIS OF GRADED VISUAL SIGNALS	1R01 NS16295-01	113,835
ROTHENBERG, SHELDON P.	FOLATE REDUCTASE: INDUCTION, SUPPRESSION, THERAPEUTICS	5R01 CA08976-14	65,703
RUBIN, SAMUEL H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05398-19	146,375
SCHWARTZ, IRA S.	RIBOSOME BINDING SITES FOR PROTEIN SYNTHESIS FACTORS	7R01 GM29265-01	76,479
SHARMA, SANSAR C.	GENESIS OF NEURAL SPECIFICITY IN THE VISUAL SYSTEM	5R01 EY01426-06	79,498
SLOMIANY, AMALIA	BIOCHEMISTRY OF NEUTRAL AND SULFATED GLYCOSPHINGOLIPIDS	5R01 AM25372-02	117,710
SLOMIANY, BRONISLAW L.	BIOCHEMISTRY OF GLYCOLIPIDS IN GASTRIC SECRETION	5R01 AM21684-03	123,869
SMITH, FRED B.	METABOLISM OF NEUTRAL LIPIDS IN THE PULMONARY ALVEOLUS	5R23 HL21251-03	40,324
SOUTHREN, A LOUIS	CORTISOL METABOLISM IN GLAUCOMA	5R01 EY01313-06	160,243
SOUTHREN, A LOUIS	STUDIES OF GLUCOCORTICOID INDUCED CATARACT	5R01 EY02652-03	107,341
SPRINGER, ALAN D.	NEUROPEPTIDE FACILITATION OF MEMORY IN SENESCENCE	5R01 AG02150-02	34,991
STRAUS, MARC J.	CELLULAR KINETICS OF CLINICAL CANCER CHEMOTHERAPY	1P01 CA27719-01	464,648
SZABO, ANDREW J.	INSULIN-SENSITIVE GLUCOREGULATOR IN THE C N S.	5R01 AM17347-08	116,823
TERRAGNO, ALICIA D.	PROSTAGLANDINS: RENAL FUNCTION AND BLOOD PRESSURE	5R01 HL24811-02	98,336
TERRAGNO, NORBERTO A.	HORMONAL REGULATION OF BLOOD PRESSURE AND BLOOD FLOW	5R01 HL25406-02	161,697
THEIS, GAIL A.	RESPONSES OF LYMPHOCYTES TO AN ONCOGENIC HERPES VIRUS	5R01 CA18904-05	113,055
VILLANUEVA, GERMAN B.	STUDIES ON ANTITHROMBIN III-THROMBIN-HEPARIN REACTIONS	5R01 HL23265-02	77,897
VITTEK, JOZEF	SEX STEROID METABOLISM IN ORAL TISSUES	2R01 DE04039-03A3	96,860
WALLACE, SUSAN S.	MODIFICATION OF X-RAY INDUCED DAMAGES IN PHAGE T4	5R01 CA21342-05	96,215
WALLACE, SUSAN S.	RADIATION REPAIR IN DROSOPHILA MELANOGASTER	5R01 CA24953-02	30,457
WARD, PATRICK E.	THE GASTROINTESTINAL KALLIKREIN AND RENIN SYSTEMS	1R01 AM28184-01	51,038
WONG, PATRICK Y.	PROSTAGLANDINS AND THROMBOXANE IN PERIODONTAL DISEASES	5R23 DE05601-02	36,964
WONG, PATRICK Y.	PROSTACYCLIN, THROMBOXANE, BLOOD VESSELS & HYPERTENSION	5R01 HL25316-02	115,018
ORGANIZATION TOTAL	48	4,858,749	
WHITE PLAINS			
BURKE REHABILITATION CENTER	ZIP CODE 10605		
BLASS, JOHN P.	DISORDERS OF THE HUMAN PYRUVATE DEHYDROGENASE COMPLEX	7R01 NS16994-01	72,963
GIBSON, GARY E.	NEUROTRANSMITTER METABOLISM IN AGED RODENTS	7R01 NS16997-01	63,670
ORGANIZATION TOTAL	2	136,633	
STATE TOTAL	2,546	319,490,402	
NORTH CAROLINA			
CHAPEL HILL			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	ZIP CODE 27514		
BACHENHEIMER, STEVEN L.	TRANSCRIPTION OF THE HERPES SIMPLEX VIRUS GENOME	5R01 AI14377-03	43,312
BARROW, EMILY S.	GENETIC LINKAGE IN VON WILLEBRAND'S DISEASE	5R01 HL24207-02	63,048
BASSFORD, PHILIP J. JR.	FACTORS DETERMINING PROTEIN LOCALIZATION	1R01 AI17292-01	78,222
BAWDEN, JAMES W.	FLUORINE ION BINDING BY EARLY ENAMEL MATRIX PROTEINS	5R01 DE05289-02	66,506
BLAUROCK, ALLEN E.	LOCATING PROTEINS IN THE MYELIN MEMBRANE	5R01 NS15658-02	57,614
BONDURANT, STUART	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00046-20	932,361
BONDURANT, STUART	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05406-19	213,787
BOTT, KENNETH F.	CHARACTERIZATION OF THE B SUBTILIS CHROMOSOME ORIGIN	5R01 GM26399-02	54,570

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
BOUCHER, RICHARD C.	THE AIRWAY MUCOSAL BARRIER	5R01 HL22924-03	53,934
BOULDIN, THOMAS W.	THE BLOOD-NERVE BARRIER IN PERIPHERAL NEUROPATHIES	5R23 ES02083-02	45,839
BREESE, GEORGE R.	NEUROPSYCHOPHARMACOLOGY OF DEVELOPMENTAL DISORDERS	5P01 HD10570-04	579,419
BRIGGAMAN, ROBERT A.	UTILIZATION OF EPIDERMAL CELL MODEL FROM HUMAN SKIN	2R01 AM10546-15	99,588
BRINKHOUS, KENNETH M.	BLOOD COAGULATION AND HEMOPHILIA	2R01 HL01648-33	107,589
BROOKS, FREDERICK P, JR.	GRAPHICS RESOURCE FOR MOLECULAR STRUCTURE STUDIES	3P41 RR00898-06S1	77,952
BROOKS, FREDERICK P, JR.	GRAPHICS RESOURCE FOR MOLECULAR STRUCTURE STUDIES	5P41 RR00898-07	314,980
BUTLER, THOMAS C.	STEREOCHEMISTRY OF METABOLISM OF SOME ANTIEPILEPTICS	5R01 NS14852-02	36,041
CAPLOW, MICHAEL	BIOCHEMICAL MECHANISMS RELEVANT TO DENTISTRY	5R01 DE03246-11	78,437
CARL, PHILIP L.	PROTEASE ACTIVATED PRODRUGS IN CANCER CHEMOTHERAPY	7R01 CA29837-01	41,264
CARTER, CHARLES W, JR.	STRUCTURAL STUDIES OF PROTEIN-TO-NUCLEIC ACID BINDING	5R01 GM21991-05	55,812
CARTER, CHARLES W, JR.	TRP-TRNA LIGASE AND SUBSTRATE COMPLEXES: X-RAY STUDY	5R01 GM26203-02	53,337
CHAE, CHI-BOM	ROLE OF CHROMOSOMAL PROTEASE IN AGING	3R01 AG001103-05S1	3,000
CHAE, CHI-BOM	ROLE OF CHROMOSOMAL PROTEASE IN AGING	5R01 AG00103-06	41,944
CHAE, CHI-BOM	ROLE OF CHROMOSOMAL PROTEASE IN NUCLEAR FUNCTIONS	2R01 GM21846-05	48,997
CHAE, CHI-BOM	GLOBIN GENE BINDING NONHISTONE PROTEINS	1R01 GM27839-01	67,735
CHANDROSS, RONALD J.	MOLECULAR ORGANIZATION OF PRIMITIVE STRUCTURAL PROTEINS	5R01 AM24071-02	70,799
CHANVEY, STEPHEN G.	ANTINEOPLASTIC PROTEIN SYNTHESIS INHIBITORS	5R01 CA26466-02	60,701
CHENG, YUNG-CHI	DEVELOPMENT AND STUDY OF NEW ANTICANCER AGENTS	5R01 CA27364-02	85,032
CHENG, YUNG-CHI	CANCER CHEMOTHERAPY AND DEOXYNUCLEOTIDE METABOLISM	5R01 CA27448-02	78,457
CLEMMONS, DAVID R.	THE EFFECT OF AGING ON HORMONAL CONTROL OF REPLICATION	1R01 AG02331-01	55,560
CLYDE, WALLACE A, JR.	PULMONARY SCOR: LUNG INJURY BY CHILDHOOD INFECTIONS	5P50 HL19171-04	613,364
COOPER, CARY W.	CALCIUM, CALCIC HORMONES AND GASTRIN	2R01 AM17743-06	103,064
DOMBROSE, FREDERICK A.	THROMBOGENIC PHOSPHOLIPID SURFACES	5R01 HL22771-03	78,683
DOMNAS, ARISTOTLE J.	BIOLOGICAL CONTROL OF MOSQUITOES WITH LAGENIDIUM	1R01 AI17024-01	80,314
DUDLEY, KENNETH H.	STUDIES RELEVANT TO RATIONAL ANTIEPILEPTIC THERAPY	5R01 NS12791-03	80,950
EDGELL, CORA-JEAN S.	COAGULATION FACTOR VIII ANTIGEN IN ENDOTHELIAL HYBRIDS	1R23 HL26077-01	38,947
EDGELL, MARSHALL H.	EUKARYOTIC GENE ORGANIZATION	2R01 GM21313-06	155,102
EISENBERG, ROBERT A.	INVESTIGATION OF SLE IN MICE AND MAN	1R01 AM26574-01	151,614
ELDRIDGE, FREDERIC L.	NEUROPHYSIOLOGICAL STUDIES OF RESPIRATORY CONTROL	5R01 HL17689-08	70,950
ELSTON, ROBERT C.	GENETIC ANALYSIS OF MULTIFACTORIAL TRAITS	5R01 GM16697-11	25,866
FAREL, PAUL B.	DEVELOPMENT AND DETERMINANTS OF NEURONAL CONNECTIVITY	1R01 NS16030-01	46,796
FAUST, ROBERT G.	INTESTINAL AND RENAL MEMBRANE TRANSPORT SYSTEMS	5R01 AM21063-03	99,092
FINN, ARTHUR L.	TRANSPORT AND ELECTROPHYSIOLOGY IN ISOLATED EPITHELIA	5R01 AM17854-07	110,362
FINN, ARTHUR L.	CONTROL OF CELL VOLUME IN NA-TRANSPORTING EPITHELIA	5R01 AM25483-02	55,481
FORDHAM, CHRISTOPHER C, III	CHILD DEVELOPMENT AND MENTAL RETARDATION	5P30 HD03110-14	608,045
FOWLER, ELIZABETH F.	STRUCTURE-FUNCTION RELATIONSHIPS OF ANTITUMOR LECTINS	5R01 CA26055-02	73,290
FOWLER, ELIZABETH F.	SEGREGATION OF CHROMOSOMAL PROTEINS	5R01 GM25864-02	71,733
FOWLER, WESLEY C, JR.	GYNECOLOGIC ONCOLOGY GROUP	2R10 CA23073-03	86,403
FRENCH, FRANK S.	DEVELOPMENT OF MALE REPRODUCTIVE FUNCTION	5R01 HD04466-10	112,769
FRIEDMAN, MITCHELL	HYPOXEMIC RESPIRATORY FAILURE: PHYSIOLOGIC EVALUATION	5R23 HL21168-03	26,791
GATZY, JOHN T, JR.	AIRBORNE METALS AND LUNG PERMEABILITY	5R01 HL16674-07	49,591
GERATZ, J, DIETER	SPECIFIC INHIBITORS OF COAGULATION AND FIBRINOLYSIS	5R01 HL21540-04	72,128
GETTES, LEONARD S.	EFFECT OF DRUGS ON ISCHEMIC CARDIAC CELLS	5R01 HL23624-03	183,657
GOLD, AVRAM	ACTIVATION OF POLYCYCLIC ENVIRONMENTAL MUTAGENS	1R01 CA28622-01	67,104
GOTTSCHALK, CARL W.	MICROPUNCTURE STUDY OF KIDNEY FUNCTION	5R01 HL02334-25	304,196
GOZ, BARRY	IODURD AND ALKALINE PHOSPHATASE IN HUMAN CANCER CELLS	3R01 CA16460-05S1	6,819
GRAHAM, JOHN B.	HEMOSTASIS RESEARCH PROGRAM—GENETICS	5P01 HL06350-19	596,626
GRAY, T KENNEY	MINERAL METABOLISM: MATERNAL AND FETAL ASPECTS	1R01 HD13547-01	92,543
GREENBERG, BERNARD G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05450-19	46,527
GRIGGS, THOMAS R.	STUDIES OF ENDOTHELIUM IN RELATION TO ATHEROGENESIS	5R01 HL24609-02	91,864
GRISHAM, JOE W.	TOXICITY IN DNA REPAIR DEFICIENT AND PROFICIENT CELLS	5R01 CA24144-03	85,780
GULICK, JOHN	LIFE COURSES OF FEMALE YOUTH IN CAIRO, EGYPT	5R01 HD12403-02	89,561
GWYNNE, JOHN T.	SERUM LIPOPROTEINS AND CELL CHOLESTEROL METABOLISM	3R01 HL20061-03S1	3,867
HADLER, NORTIN M.	HYALURONATE MATRIX STRUCTURE AND SOLUTE MOVEMENT	5R01 AM19992-02	56,126
HALL, IRIS H.	ANTHYPERLIPIDEMIC PHTHALIMIDE ANALOGUES	1R01 HL25680-01	40,357
HANKER, JACOB S.	SALIVARY GLANDS AND THEIR INNERVATION IN DIABETES	5R01 DE04730-03	68,498
HARDEN, T KENDALL	SYNTHESIS OF BETA-ADRENERGIC RECEPTORS	1R01 GM27820-01	116,244
HARDEN, T KENDALL	NEUROTRANSMITTER RECEPTORS OF CULTURED HEART CELLS	5R23 HL22490-03	40,249
HARPER, CURTIS	ENVIRONMENTAL ORGANOHALOGENS LUNG TOXICITY	5R01 CA21705-03	71,592
HARRIS, ALBERT K.	CONTROL AND GUIDANCE OF TISSUE CELL LOCOMOTION	5R01 GM24251-04	70,295

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
HARRISON, JOHN H.	STRUCTURAL PROPERTIES OF MALATE DEHYDROGENASE	5R01 HL12585-12	75,415
HASKILL, JOHN S.	IMMUNITY TO HUMAN OVARIAN TUMORS AND CHEMOTHERAPY	5R01 CA23648-03	145,188
HASSELL, THOMAS M.	PHENYTOIN: PATHOGENESIS OF GINGIVAL OVERGROWTH	1R01 DE05459-01	75,128
HAUGHTON, GEOFFREY	ANTIGEN INDUCED LYMPHOMA OF MICE	5R01 CA23770-02	85,447
HAYWARD, JAMES N.	CENTRAL NEURAL REGULATION OF BODY FLUIDS	2R01 NS13411-05	108,005
HEIZER, WILLIAM D.	INTESTINAL PEPTIDASES: PROPERTIES AND FUNCTIONS	2R01 AM15119-10	129,111
HENSON, O'DELL W., JR.	MECHANISMS OF ACOUSTIC PERCEPTION AND ORIENTATION	5R01 NS12445-06	65,366
HERMANS, JAN	ASSEMBLY, STRUCTURE AND INTERACTIONS OF FIBRIN	2R01 HL20319-04	108,173
HIRSCH, PHILIP F.	REGIONAL DENTAL RESEARCH CENTER	2P50 DE02668-14	1,500,000
HISKEY, RICHARD G.	GAMMA-CARBOXYGLUTAMIC ACID ROLE IN BLOOD COAGULATION	5R01 HL20161-04	124,322
HOLCOMB, GEORGE R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07072-15	121,980
HUANG, ENG-SHANG	ANALYSIS OF HUMAN CYTOMEGALOVIRUSES	5R01 AI12717-06	84,628
HUANG, ENG-SHANG	CYTOMEGALOVIRUSES AND HUMAN MALIGNANCY	5R01 CA21773-02	56,012
HUTCHISON, CLYDE A., III	GENETICS AND DNA CHEMISTRY OF PHAGE PHI X-174	5R01 AI08998-12	100,680
HUTT-FLETCHER, LINDSEY M.	FUNCTIONS OF ATYPICAL LYMPHOCYTES	2R01 CA22093-04	76,534
IBRAHIM, MICHEL A.	PILOT EVALUATION STUDIES OF HIGH BLOOD PRESSURE CONTROL	5R01 HL24003-02	248,844
IRVIN, J. LOGAN	CHANGES IN NUCLEAR PROTEINS IN SPERMATOGENESIS	2R01 HD05277-09	65,205
JACOBSON, KENNETH A.	LATERAL MOBILITY OF MOLECULES AT CELL SURFACE	9R01 GM29234-02	136,098
JENKINS, DAVID B.	ANATOMICAL INVESTIGATION OF THE INNER EAR	5R01 NS14961-02	37,639
JOHNSON, CHARLES S., JR.	HEMOGLOBIN S GELS: FACTORS INFLUENCING AGGREGATION	5R01 AM17823-05	61,869
JONES, MARY E.	CARBAMYL ENZYMES AND DIFFERENTIATION	5R01 HD12717-03	113,831
KAFER, ENID R.	EFFECTS OF ANESTHESIA AND LOADING ON RESPIRATION	5R01 HL17314-06	35,962
KAUFMAN, DAVID G.	CHEMICAL CARCINOGENESIS AND CELL PROLIFERATION	2R01 CA20658-04	68,359
KIERSZENBAUM, ABRAHAM L.	HORMONE-CYCLOC NUCLEOTIDES IN SERTOLI CELL CULTURES	5R01 HD11884-03	111,526
KIZER, JOHN S.	BIOCHEMISTRY OF OLIGOPEPTIDES AFFECTING THE PITUITARY	9R01 HD14005-04A1	127,043
KLAPPER, DAVID G.	RAGWEED POLLEN ALLERGEN ANTIGEN E	5R23 AI14908-03	40,503
KOEHLER, KARL A.	STRUCTURAL REQUIREMENTS FOR FRAGMENT-1 FUNCTION	5R01 HL23881-02	68,551
KRIGMAN, MARTIN R.	NEUROBIOLOGY OF ENVIRONMENTAL POLLUTANTS	3P01 ES01104-05S1	145,245
KUNO, MOTOY	INDUCTIVE INTERACTIONS OF MOTONEURON AND MUSCLE	5R01 NS10319-10	69,545
LANGER, ALAN W.	BLOOD PRESSURE CONTROL AND PSYCHOLOGICAL STRESS	5R23 HL24643-02	44,594
LANGFORD, GEORGE M.	CALCIUM INDUCTION OF COILED SHEET POLYMERS OF TUBULIN	7R01 GM28107-01	25,693
LAUDER, JEAN M.	HORMONAL AND HUMORAL INFLUENCES ON BRAIN DEVELOPMENT	2R01 NS15706-02	62,340
LAWSON, EDWARD E.	NEUROPHYSIOLOGIC CONTROL OF CENTRAL APNEA IN NEWBORNS	5R01 HD13280-02	51,909
LEE, KUO-HSIUNG	PLANT ANTITUMOR AGENTS	5R01 CA17625-06	68,795
LEINFELDER, KARL F.	CORROSION OF PRECIOUS METAL ALLOYS	5R01 DE04101-06	67,337
LIGHT, ALAN R.	DESCENDING MODULATION OF SPINAL SUBSTANTIA GELATINOSA	1R01 NS16433-01	83,664
LIGHT, KATHLEEN A.	BLOOD PRESSURE DURING STRESS—LABORATORY & FIELD STUDY	5R23 HL23718-02	46,278
LOCKWOOD, ARTHUR H.	MICROTUBULE ASSEMBLY IN NORMAL AND TRANSFORMED CELLS	5R01 GM25558-03	61,151
LUCCHESI, JOHN C.	GENETIC REGULATION IN DROSOPHILA: DOSAGE COMPENSATION	5R01 GM15691-13	152,467
MAILMAN, RICHARD B.	INFANTILE LEAD TREATMENT ALTERS DRINKING BEHAVIOR	5R23 ES02087-02	43,524
MANN, JOHN D.	TOXIC EFFECTS OF LEAD ON INTRACRANIAL FLUID DYNAMICS	1R01 HD14443-01	71,653
MARONI, GUSTAVO P.	REGULATION OF ALCOHOL DEHYDROGENASE IN DROSOPHILA	5R01 GM26207-02	43,350
MATTHYSSE, ANN G.	THE MECHANISM OF TUMORIGENESIS BY A. TUMEFACIENS	5R01 CA18604-05	39,715
MC CARTHY, KENNY D.	FRACTIONATION OF BRAIN CELLS VIA MONOCLONAL ANTIBODY	1R01 NS16229-01	65,140
MC DONAGH, JAN M.	MOLECULAR BIOLOGY OF FACTOR XIII	2R01 HL21139-04	93,761
MC DONAGH, JAN M.	MOLECULAR PATHOLOGY OF FIBRINOGEN AND FACTOR XIII	5R01 HL22505-03	50,224
MC ILWAIN, DAVID L.	BULK ISOLATION OF LARGE SPINAL NEURONS	5R01 NS12103-06	57,117
MECHANIC, GERALD L.	PHYSIOLOGY AND CHEMISTRY OF BONE: VITAMIN D NUTRITION	5R01 AM19969-02	32,026
MEISSNER, GERHARD W.	SARCOPLASMIC RETICULUM FUNCTION AND REASSEMBLY	2R01 AM18687-05	97,003
MERRITT, JOHN C.	CANNABINOID'S EFFECT ON INTRAOCULAR AND BLOOD PRESSURE	1R01 EY03401-01	74,299
MINKOFF, ROBERT	ANALYSIS OF PRIMARY PALATE FORMATION	2R01 DE04731-04	94,093
MORELL, PIERRE	ASSEMBLY AND MAINTENANCE OF BRAIN MEMBRANES	5R01 NS11615-08	121,801
MORELL, PIERRE	DEVELOPMENTAL NEUROBIOLOGY OF ORGANO-METAL TOXICITY	1R01 NS16371-01	55,762
NAYFEH, SHIHADEH N.	THE ROLE OF THYROTROPIN RECEPTOR IN THYROID CANCER	1R01 AM23080-01A1	71,736
NEDRUD, JOHN G.	ORGAN CULTURE MODELS OF CYTOMEGALOVIRUS INFECTIONS	1R23 AI17182-01	43,002
NEWSOME, JAMES F.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17973-06	230,407
O'KEEFE, EDWARD J.	EPIDERMAL GROWTH FACTOR IN PROLIFERATIVE SKIN DISEASE	5R01 AM25871-02	63,335
O'RAND, MICHAEL G.	CHARACTERIZATION OF SPERM MEMBRANE AUTOANTIGENS	1R01 HD14232-01	54,362
O'TUAMA, LORCAN A.	REGULATION OF NEURAL DISTRIBUTION OF HEAVY METALS	5R01 ES01151-06	97,432
OBRIST, PAUL A.	BLOOD PRESSURE CONTROL: RELATION TO BEHAVIORAL STRESS	5R01 HL18976-05	148,071
ONTJES, DAVID A.	HORMONE RECEPTORS AND ADENYLATE CYCLASE IN THE ADRENAL	5R01 AM19288-05	96,950

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
ORNSTEIN, PETER A.....	THE DEVELOPMENT OF CHILDREN'S MNEMONIC SKILLS.....	5R01 HD08459-06	44,178
PAGANO, JOSEPH S.....	ACYCLOVIR INHIBITION OF EPSTEIN-BARR VIRUS REPLICATION.....	1R01 AI17205-01	78,166
PAGANO, JOSEPH S.....	CANCER CENTER SUPPORT GRANT.....	5P30 CA16086-06	395,091
PAGANO, JOSEPH S.....	DNA VIRUS GENOMES, ONCOGENESIS AND LATENCY.....	2P01 CA19014-04	480,741
PARKER, JOHN C.....	ION TRANSFER AND METABOLISM IN MAMMALIAN RED BLOOD CELLS.....	2R01 AM11356-14	114,415
PARR, ROBERT G.....	THE QUANTUM THEORY OF MOLECULAR ISOELECTRONIC CHANGES.....	2R01 GM20208-06	65,791
PERKINS, JOHN P.....	CHARACTERISTICS OF PGE-SENSITIVE ADENYLATE CYCLASES.....	5R01 GM25163-03	81,004
PERL, EDWARD R.....	SPINAL AND PROJECTION MECHANISMS RELATED TO PAIN.....	2R01 NS10321-10	164,014
PERL, EDWARD R.....	RECOVERY AND REGENERATION AFTER SPINAL NEURON INJURY.....	5P01 NS14899-02	494,405
PETRUSZ, PETER.....	SECRETORY PROTEINS IN THE MALE REPRODUCTIVE SYSTEM.....	1R01 HD13781-01	70,014
PETRUSZ, PETER.....	NEUROENDOCRINE PEPTIDES IN BRAIN AND PITUITARY.....	1R01 NS14904-01A2	74,323
PIMMEL, RUSSELL L.....	MEASUREMENT OF AIRWAYS MECHANICS.....	5R01 HL19118-05	55,140
PIMMEL, RUSSELL L.....	FORCED RANDOM NOISE RESPIRATORY MECHANICS IN CHILDREN.....	5R01 HL23822-02	53,358
PLEDGER, WARREN J.....	REGULATION OF MAMMALIAN CELL CYCLE.....	5R01 CA24193-02	89,331
POWELL, DON W.....	MECHANISMS OF INTESTINAL SECRETION.....	5R01 AM15350-09	67,247
POWELL, DON W.....	THE ESOPHAGEAL MUCOSAL BARRIER.....	5R01 AM21873-02	102,910
PROFFIT, WILLIAM R.....	INFLUENCES ON VERTICAL DENTO-FACIAL GROWTH.....	1R01 DE05198-01	64,626
PROFFIT, WILLIAM R.....	INFLUENCES ON STABILITY FOLLOWING ORTHOGNATHIC SURGERY.....	5R01 DE05215-02	120,235
PUKILA, PATRICIA J.....	MEIOSIS AND GENETIC RECOMBINATION IN COPRINUS CINEREUS.....	1R01 GM27863-01	70,038
RAJ, MADHWA H.....	INHIBITION OF FOLLICLE STIMULATING HORMONE IN THE MALE.....	5R01 HD12254-02	97,645
RAMEY, CRAIG T.....	LONGITUDINAL INTERVENTION FOR HIGH-RISK CHILDREN.....	5P01 HD09130-06	604,927
REINKE, LESTER A.....	INFLUENCE OF ETHANOL ON CARCINOGEN ACTIVATION.....	1R01 CA28798-01	6,492
REISNER, HOWARD M.....	GENETIC HETEROGENEITY IN HEMOPHILIA A.....	5R01 HL23698-02	42,634
RHEINGOLD, HARRIET L.....	SOCIAL AND EXPLORATORY BEHAVIOR OF THE INFANT.....	5R01 HD01107-16	75,045
ROSS, GORDON D.....	MEMBRANE COMPONENTS OF NORMAL AND LEUKEMIC LEUKOCYTES.....	5R01 CA25613-03	145,438
RUSSELL, STEPHEN W.....	MACROPHAGE-MEDIATED INJURY CAUSING TUMOR REGRESSION.....	5R01 CA23686-03	116,513
RUSSELL, STEPHEN W.....	MONOCLONAL ANTIBODY DEPLETION OF MACROPHAGES IN VIVO.....	1R01 CA28423-01	70,089
RUSTIONI, ALDO.....	ASCENDING PATHS & INTRINSIC SYNAPTOLOGY OF RELAY NUCLEI.....	5R01 NS12440-06	54,198
RUSTIONI, ALDO.....	DESCENDING CONTROL OF SOMATOSENSORY INPUT.....	1R01 NS16264-01	96,894
SALMON, EDWARD D.....	MECHANISMS OF MITOTIC SPINDLE ASSEMBLY AND FUNCTION.....	5R01 GM24364-03	38,910
SCARBOROUGH, GENE A.....	ENERGY TRANSDUCTION IN NEUROSPORA PLASMA MEMBRANES.....	5R01 GM24784-04	76,576
SCARBOROUGH, GENE A.....	MEMBRANE POTENTIAL AND NEUROSPORA ADENYLATE CYCLASE.....	5R01 GM26500-02	38,123
SCHWAB, JOHN H.....	BACTERIAL CELL WALLS IN RELAPSING EROSIVE SYNOVITIS.....	9P01 AM25733-04	300,206
SEALOCK, ROBERT W.....	MECHANISMS OF ACETYLCHOLINE RECEPTOR LOCALIZATION.....	5R01 NS15293-02	69,366
SHY, CARL M.....	DRINKING WATER QUALITY AND COLON CANCER.....	1R01 ES02232-01	64,665
SORSEY, MARK D.....	VIRUS CONTAMINATION OF SHELLFISH AND THEIR HABITAT.....	8R01 AI17277-05	60,104
SPARLING, PHILIP F.....	NORTH CAROLINA PROGRAM ON SEXUALLY TRANSMITTED DISEASE.....	5P01 AI15036-03	517,388
SPREMULLI, LINDA L.....	MECHANISM OF PROTEIN BIOSYNTHESIS IN CHLOROPLASTS.....	5R01 GM24963-03	63,846
SPREMULLI, LINDA L.....	MECHANISM OF A EUKARYOTIC RIBOSOME DISSOCIATION FACTOR.....	5R01 GM26731-02	35,396
STAFFORD, DARREL W.....	CONTROL OF RNA TRANSCRIPTION IN MOUSE MYELOMA CELLS.....	5R01 GM24233-02	79,815
STUART, ANN E.....	NEURAL MECHANISMS IN PROCESSING VISUAL INFORMATION.....	5R01 EY03347-02	111,934
STUMPF, WALTER E.....	HORMONE RECEPTORS IN THE BRAIN.....	2R01 NS09914-09	135,007
SUCHINDRAN, CHIRAYATH M.....	REMARriage, FERTILITY, AND STABILITY OF REMARRIAGES.....	1R01 HD13709-01	143,985
SWIFT, MICHAEL R.....	GENES FOR CARDIAC, VASCULAR, OR RENAL DISEASE.....	1R01 AM28135-01	148,855
SWIFT, MICHAEL R.....	NEOPLASIA-PREDISPOSING GENES OF MAN.....	3R01 CA14235-08S1	39,425
SWIFT, MICHAEL R.....	NEOPLASIA-PREDISPOSING GENES IN CELL CULTURE.....	3R01 CA15207-06S1	6,128
TAYLOR, DUANE F.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05333-19	73,199
THOMAS, COLIN G, JR.....	BIOLOGIC CHARACTERISTICS OF THYROID CANCER.....	3R01 CA01915-25S1	1,100
THURMAN, RONALD G.....	PHARMACOLOGY OF CARCINOGEN ACTIVATION IN INTACT CELLS.....	2R01 CA23080-04	86,564
TOPAL, MICHAEL D.....	EFFECTS OF CARCINOGEN MODIFICATION OF DNA PRECURSORS.....	1R01 CA28632-01	79,089
TOPAL, MICHAEL D.....	MOLECULAR BASIS OF ENVIRONMENTALLY INDUCED MUTATIONS.....	5R01 GM24798-02	69,792
TOVERUD, SVEIN U.....	ACID PHOSPHATASES IN DEVELOPING BONES AND TEETH.....	5R01 DE05210-02	59,498
TOVERUD, SVEIN U.....	VITAMIN D AND CALCIUM IN LACTATING AND SUCKLING RATS.....	1R01 HD12496-01A1	58,889
UDRY, J RICHARD.....	POPULATION RESEARCH CENTER.....	2P30 HD05798-06A2	290,241
UDRY, J RICHARD.....	PUBERTAL AND SOCIAL FACTORS OF ADOLESCENT SEXUALITY.....	5R01 HD12806-02	232,963
UNDERWOOD, LOUIS E.....	THE HORMONAL CONTROL OF FETAL GROWTH.....	5R01 HD08299-07	49,972
UTIGER, ROBERT D.....	THYROID STIMULATING HORMONES IN PLASMA.....	2R01 AM26112-02	114,059
VAN WYK, JUDSON J.....	ROLE OF ENDOCRINE SECRETIONS IN GROWTH AND DEVELOPMENT.....	2R01 AM01022-25	196,454
VIG, PETER S.....	SPEECH ADAPTATIONS TO ORTHOGNATHIC SURGERY.....	5R01 DE05203-02	35,396
WALKER, DAVID H.....	PATHOGENESIS OF CELL INJURY IN SPOTTED FEVER.....	5R01 AI16023-02	58,896
WARREN, DONALD W.....	CLEFT PALATE, MALOCCLUSION AND LINGUAL ARTICULATION.....	5R01 DE04267-05	90,217

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
WERTZ, GAIL T.....	STUDIES OF VIRAL RIBONUCLEIC ACID REPLICATION.....	5R01 AI12464-05	78,972
WERTZ, GAIL T.....	PROTEINS INVOLVED IN REGULATION OF VIRAL RNA SYNTHESIS.....	5R01 AI15134-03	21,320
WHITE, JAMES R.....	STREPTONIGRIN: MECHANISMS OF ACTION.....	5R01 AI14962-03	46,141
WHITEHEAD, TONY L.....	COMMON RESIDENCE, NETWORK DYNAMICS, AND BLOOD PRESSURE.....	1R23 HL22323-01A1	48,227
WHITSEL, BARRY L.....	INFORMATION PROCESSING BY S-I AND S-II/R NEURONS.....	5R01 NS10865-07	72,792
WHITTEN, DAVID G.....	PHOTOCHEMICAL STUDIES OF MOLECULAR COMPLEXES.....	5R01 GM15238-13	75,655
WILSON, JOHN E.....	EFFECTS OF BEHAVIOR ON BRAIN PHOSPHOPROTEINS.....	1R01 NS15334-01A1	75,830
WOLFENDEN, RICHARD V.....	CHEMICAL MECHANISMS OF BIOSYNTHESIS.....	3R01 GM18325-09S1	11,474
WOLFENDEN, RICHARD V.....	CHEMICAL MECHANISMS OF BIOSYNTHESIS.....	2R01 GM18325-10	114,954
WYRICK, PRISCILLA B.....	VIRULENCE FACTORS OF CHLAMYDIAE.....	5R01 AI13446-02	73,526
ORGANIZATION TOTAL	201 23,044,308		
CHARLOTTE			
JOHNSON C. SMITH UNIVERSITY ZIP CODE 28216			
CAIN, WILBERT.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08022-09	194,990
ORGANIZATION TOTAL	1 194,990		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE ZIP CODE 28223			
OLIVER, JAMES D.....	ECOLOGY OF A RECENTLY IDENTIFIED PATHOGENIC VIBRIO SP.....	1R01 AI17059-01	94,303
ORGANIZATION TOTAL	1 94,303		
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
ABOU-DONIA, MOHAMED B.....	MODEL FOR ORGANOPHOSPHORUS NEUROTOXICITY.....	5R01 ES02211-02	103,938
ADAMS, DOLPH O.....	TUMORICIDAL EFFECTS OF MACROPHAGES: PATHOLOGIC STUDY.....	5R01 CA16784-06	44,127
AMOS, D BERNARD.....	IMMUNOLOGIC STUDY OF HUMAN HLA AND MOUSE H-2 ANTIGENS.....	2R01 AI08897-12	343,616
AMOS, D BERNARD.....	F.A.C.S. OF IMMUNOLOGIC COMPONENTS.....	5R01 CA28099-02	10,413
AMOS, D BERNARD.....	THE IMMUNOGENETICS OF MAN, MICE & VIRUSES.....	2R01 GM10356-17	409,251
ANDERSON, C WILLIAM.....	A HOMOGENEOUS VOLTAMMETRIC IMMUNOASSAY.....	1R01 GM28306-01	58,989
ANDERSON, NELS C, JR.....	BIOPHYSICS OF PARATHYROID CALCIUM SENSING MECHANISM.....	2R01 AM12779-03	56,100
ANDERSON, PAGE A.....	DEVELOPING HEART: BIOPHYSICAL ASPECTS.....	5R01 HL20749-03	47,892
ANLYAN, WILLIAM G.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05405-19	189,787
ARNETT, EDWARD M.....	CHIRAL MONOLAYERS.....	1R01 GM28757-01	79,500
BALDWIN, STEVEN W.....	PHOTOANNEALATIONS IN NATURAL PRODUCTS SYNTHESIS.....	5R01 GM26266-02	40,667
BARTOLOME, JORGE V.....	DEVELOPMENTAL NEUROTOXICOLOGY OF MERCURY.....	1R01 HD14484-01	86,618
BASTIA, DEEPAK.....	ORIGINS AND TERMINI OF REPLICATION OF PLASMIDS.....	7R01 GM28020-01	74,229
BAUMANN, GILBERT.....	EXPERIMENTAL TESTING OF THE MODULAR CHANNEL CONCEPT.....	1R01 GM27260-01A1	62,920
BELL, ROBERT M.....	REGULATION OF GLYCEROLIPID SYNTHETIC ENZYMES.....	2R01 AM20205-04	112,489
BELL, ROBERT M.....	REGULATION OF MEMBRANE PHOSPHOLIPID SYNTHESIS.....	5R01 GM20015-07	74,604
BENNETT, PETER B.....	EFFECTS OF PRESSURE ON RESPIRATION AND CIRCULATION.....	2P01 HL07896-17	922,392
BENNETT, PETER B.....	HIGH PRESSURE NERVOUS SYNDROME/LIQUID & HELIUM BREATHING.....	5R01 HL24049-02	57,410
BIGNER, DARELL D.....	ETIOLOGY, IMMUNOLOGY AND BIOLOGY OF BRAIN TUMORS.....	2R01 CA11898-10	138,205
BIGNER, DARELL D.....	CELL SURFACE ANTIGENS GLIAL BRAIN TUMOR CELLS.....	5R01 CA22790-03	44,252
BJORNSSON, THORIR D.....	CLINICAL PHARMACOLOGY OF HEPARIN.....	5R01 HL24343-02	37,017
BLUM, JACOB J.....	CONTROL OF METABOLISM IN TETRAHYMENA.....	5R01 HD01269-18	134,058
BOLLINGER, RALPH R.....	TOLERANCE INDUCTION WITH HC ANTIGEN-CELL CONJUGATES.....	1R01 AI17193-01	73,252
BOLOGNESI, DANI P.....	CONTROL OF NEOPLASIA BY PASSIVE SERUM THERAPY.....	1P01 CA25863-01	488,447
BONAVENTURA, JOSEPH.....	NIH'S MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	3P30 ES01908-02S1	7,112
BONAVENTURA, JOSEPH.....	NIH'S MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	5P30 ES01908-03	158,100
BONAVENTURA, JOSEPH.....	MOLECULAR ADAPTATION: HEMOGLOBIN SYSTEMS OF FISH.....	5R01 HL15460-08	97,338
BOYNTON, JOHN E.....	HEREDITARY CONTROL OF ORGANELLE STRUCTURE AND FUNCTION.....	2R01 GM19427-09	220,487
BRUMLEY, GEORGE W.....	PULMONARY SURFACTANT-FACTORS INFLUENCING PRODUCTION.....	5R01 HL21299-02	58,493
BUCKLEY, REBECCA H.....	STUDIES OF IMMUNOREGULATION IN ATOPIC ECZEMA.....	2P50 AI12026-07	109,483
BURNS, RICHARD O.....	MOLECULAR MECHANISMS OF BIOLOGICAL CONTROL.....	2R01 GM12551-16	101,612
CAMBIER, JOHN C.....	MOLECULAR BIOLOGY OF B-CELL TOLERANCE.....	5R01 AI16128-02	33,913
CANT, NELL.....	NEUROANATOMY OF THE AUDITORY SYSTEM.....	5R01 NS14655-03	65,315
CASSEDAY, JOHN H.....	NEURAL MECHANISMS FOR HEARING.....	5R01 NS12322-06	114,020
COHEN, HARVEY J.....	SOUTHEASTERN CANCER STUDY GROUP.....	3R10 CA05634-19S1	17,035

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
COLEMAN, ROSALIND A.....	REGULATION OF ENZYMES OF TRIACYLGLYCEROL METABOLISM.....	1R23 HL25927-01	46,785
CONN, PAUL M.....	REGULATION OF PITUITARY RESPONSIVENESS DURING AGING.....	5R01 AG01204-02	46,154
CONN, PAUL M.....	GONADOTROPIN RELEASING HORMONE ACTION—ROLE OF CA ²⁺ IONS.....	5R01 HD13220-02	45,453
CORLESS, JOSEPH M.....	RETINAL ROD PHOTORECEPTOR MEMBRANE STRUCTURE/FUNCTION.....	5R01 EY01659-05	134,010
CORLEY, RONALD B.....	HELPER T CELLS: COMPARISON OF T-T AND T-B INTERACTION.....	1R01 AI16565-01	92,982
COSTELLO, MARTIN J, III.....	COMBINED X-RAY/EM ANALYSIS OF INTRAMEMBRANE PARTICLES.....	1R01 GM27914-01	65,922
COX, EDWIN B.....	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES.....	2R10 CA21192-04	107,547
COX, JAMES L.....	SURGICAL TREATMENT OF CARDIAC ARRHYTHMIAS.....	1R01 HL25983-01	156,080
CRAPO, JAMES D.....	SUPEROXIDE DISMUTASE IMMUNOCYTOCHEMISTRY/OXYGEN TOXICITY.....	5R01 HL23805-02	106,895
CRAPO, JAMES D.....	OXYGEN INDUCED INJURY TO THE PULMONARY ENDOTHELIUM.....	5R01 HL25044-02	97,700
CREASMAN, WILLIAM T.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA12534-10	159,964
CRESSWELL, PETER.....	MOLECULAR STUDIES OF THE MIXED LYMPHOCYTE RESPONSE.....	2R01 AI14016-04	98,384
CRESSWELL, PETER.....	SUBCLASS-SPECIFIC ANTIGENS OF HUMAN T-CELLS.....	5R01 AI15775-02	63,304
DANIELS, CHARLES A.....	THE INFLAMMATORY RESPONSE IN VIRAL INFECTION.....	5R01 DE04609-03	55,320
DAVIS, JAMES N.....	DUKE-V.A. CENTER FOR CEREBROVASCULAR RESEARCH.....	2P50 NS06233-15	607,012
DAVIS, JAMES N.....	BERMUDA WORKSHOP TRANSCRIPTS.....	1R13 NS16740-01	7,170
DAY, EUGENE D.....	STUDIES OF GLIAL CELL MEMBRANES AND MYELIN.....	5R01 NS10237-09	87,212
DENNIS, VINCENT W.....	TRANSPORT AND METABOLISM IN PROXIMAL RENAL TUBULES.....	5R01 AM26201-02	123,074
DREZNER, MARC K.....	PATHOGENESIS OF VITAMIN D REFRACTORY OSTEOMALACIAS.....	1R01 AM27032-01	49,274
DURACK, DAVID T.....	CRYPTOCOCCAL MENINGITIS: A NEW IN VIVO MODEL.....	1R01 AI16527-01A1	87,956
ECKERMAN, CAROL O.....	THE SOCIAL INTERACTIVE SKILLS OF THE HUMAN INFANT.....	5R01 HD12635-02	94,054
EISENBARTH, GEORGE S.....	CHARACTERIZATION OF ISLET CELL SURFACE MOLECULES.....	5R23 AM25778-02	50,722
ENDOW, SHARYN A.....	GENETIC MECHANISMS REGULATING TRANSCRIPTION/REPLICATION.....	5R01 GM25583-03	43,857
ERICKSON, CARL J.....	ENDOCRINE FACTORS IN THE SOCIAL BEHAVIOR OF ANIMALS.....	5R01 HD04482-11	64,596
ERICKSON, HAROLD P.....	IMMUNO-ELECTRON MICROSCOPY OF FIBRINOGEN AND FIBRIN.....	3R01 HL23454-01S1	20,200
ERICKSON, HAROLD P.....	IMMUNO-ELECTRON MICROSCOPY OF FIBRINOGEN AND FIBRIN.....	5R01 HL23454-02	134,613
EVANS, EVAN A.....	RBC MEMBRANE MATERIAL CHARACTERISTICS.....	2R01 HL16711-07	103,407
EVANS, EVAN A.....	RBC MEMBRANE ADHESION AND DEFORMATION ENERGIES.....	1R01 HL24796-01	33,618
FALLETTA, JOHN M.....	SOUTHWEST ONCOLOGY GROUP.....	2R10 CA15525-07	95,582
FAY, JOSEPH W.....	HUMAN LEUKEMIA MARROW.....	5R23 CA26401-02	32,750
FRIDOVICH, IRWIN.....	THE BIOLOGICAL FUNCTIONS OF SUPEROXIDE DISMUTASES.....	5R01 GM10287-18	133,504
GALLAGHER, JOHN J.....	PHYSIOLOGICAL BASIS OF ARRHYTHMIAS AND THEIR THERAPY.....	5R01 HL15190-09	157,509
GLASGOW, LOWRIE R.....	ADHERENCE OF MYCOPLASMAS TO CELL SURFACE CARBOHYDRATES.....	1R01 AM27199-01	75,012
GOLDSMITH, LOWELL A.....	STRUCTURAL PROTEINS IN GENETIC DEFECTS OF EPIDERMIS.....	5R01 AM17253-08	90,384
GOLDSMITH, LOWELL A.....	MONOCLONAL ANTIBODIES TO HUMAN EPIDERMIS.....	1R01 AM27531-01	101,829
GREEN, ROBERT W.....	DETECTION OF UROGENITAL NORMAL AND NEOPLASTIC ANTIGENS.....	1R01 CA27213-01	78,614
GREENE, RONALD C.....	BIOCHEMISTRY OF SULFONIUM COMPOUNDS.....	5R01 GM10317-18	50,035
GREENFIELD, JOSEPH C, JR.....	THE DISTRIBUTION OF FLOW IN THE MYOCARDIUM.....	5R01 HL18468-05	123,614
GREENLEAF, ARNO L.....	BIOCHEMICAL GENETICS OF DROSOPHILA RNA POLYMERASE II.....	1R01 GM28078-01	121,081
GROSS, SAMSON R.....	REGULATORY MECHANISMS OF ENZYME SYNTHESIS IN NEUROSPORA.....	1R01 GM28331-01	137,213
GRUBB, BARBARA R.....	CARDIAC FUNCTION DURING EXERCISE.....	5R23 HL24269-02	40,464
GRUFFERMAN, SEYMOUR.....	THE EPIDEMIOLOGY OF CHILDHOOD RHABDOMYOSARCOMA.....	3R01 CA21244-02S1	15,179
GRUFFERMAN, SEYMOUR.....	THE EPIDEMIOLOGY OF MULTIPLE MYELOMA.....	2R01 CA22104-04	106,297
GUILD, WALTER R.....	PNEUMOCOCCAL PHAGE AS GENETIC TOOLS.....	5R01 GM21887-05	58,125
GUTHROW, CLYDE E, JR.....	GLUCOSULFATED SERUM PROTEINS IN DIABETES MELLITUS.....	1R01 AM26998-01	26,440
GUTKNECHT, JOHN W.....	HEAVY METAL TRANSPORT AND EFFECTS ON MEMBRANES.....	1R01 ES02289-01	48,819
HAGEN, PER-OTTO F.....	SURGICAL AND METABOLIC ASPECTS OF VENOUS GRAFTS.....	3R01 HL15448-07S1	20,498
HALL, WILLIAM C.....	STRUCTURE AND FUNCTION OF NEOCORTEX.....	5R01 NS09623-09	55,083
HANDWERGER, STUART.....	THE CHEMISTRY AND PHYSIOLOGY OF PLACENTAL LACTOGEN.....	5R01 HD07447-06	140,350
HARRIS, ROBERT H.....	URINARY FACTORS INFLUENCING RENAL FUNCTION AND GROWTH.....	5R01 AM26202-02	90,681
HAYES, EDWARD C, III.....	REPLICATION AND ENCAPSIDATION OF REOVIRUS RNA.....	5R01 AI10132-09	36,024
HERSHFIELD, MICHAEL S.....	A LYMPHOBLAST MODEL FOR DISEASES OF PURINE METABOLISM.....	5R01 AM20902-03	57,150
HERSHFIELD, VICKERS.....	STREPTOCOCCUS PLASMIDS: MOLECULAR GENETIC ANALYSIS.....	5R01 AI15619-02	66,237
HEYMAN, ALBERT.....	CASE-CONTROL STUDY OF PRESENILE AND SENILE DEMENTIA.....	5R21 AG01186-03	74,186
HEYMAN, ALBERT.....	DETECTION OF TIA IN AN ELDERLY COMMUNITY.....	5R01 NS13643-04	88,808
HILL, ROBERT L.....	STRUCTURE AND FUNCTION OF PROTEINS.....	5R01 GM25766-20	202,323
HIRSCHMAN, CHARLES.....	ASIAN-AMERICANS: IMMIGRATION AND ADAPTATION.....	1R01 HD14337-01	74,099
HOCHMUTH, ROBERT M.....	DISSIPATION IN RED CELL MEMBRANE AND LIPID BILAYERS.....	5R01 HL23728-02	108,198
HOLMES, EDWARD W, JR.....	PURINE METABOLISM IN GOUT.....	5R01 AM12413-13	114,687
JENNINGS, ROBERT P.....	MYOCARDIAL ISCHEMIA.....	5R01 HL23138-03	186,732
JIRTLE, RANDY L.....	SURVIVAL AND CARCINOGENESIS IN TRANSPLANTED HEPATOCYTES.....	5R01 CA25951-02	43,583

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
JIRTLE, RANDY L.	MICROWAVES, HYPERTHERMIA AND TUMOR CIRCULATION	1R01 CA26904-01A1	77,607
JOBSS, FRANS F.	IN VIVO REDOX RELATIONS OF BRAIN FUNCTION	5R01 NS15682-02	98,490
JOHNSON, EDWARD A.	FUNCTIONS AND MECHANISM OF CELL MEMBRANE ION TRANSPORT	5P01 HL12157-13	709,741
JOHNSON, G ALLAN	NEW FLUORESCENT X-RAY TUBES FOR MAMMOGRAPHY	5R23 CA25372-02	27,378
JOKLIK, WOLFGANG K.	MACROMOLECULAR SYNTHESIS IN VIRUS-INFECTED CELLS	5R01 AI08909-13	221,297
JOKLIK, WOLFGANG K.	VIRUS- AND CELL-INHIBITORY ACTIVITY OF INTERFERON	5R01 CA24987-02	60,943
JONES, RAYFORD S.	CONTROL OF CANALICULAR AND DUCTULAR BILE PRODUCTION	5R01 AM16421-07	81,087
JONES, ROBERT H.	RADIONUCLIDE STUDIES IN CONGENITAL HEART DISEASE	2R01 HL20677-04	50,635
KAMIN, HENRY	BIOLOGICAL OXIDATIONS IN MITOCHONDRIA AND MICROSOMES	5R01 GM21226-19	131,656
KEENE, JACK D.	REPLICATIVE MECHANISMS OF THE NEGATIVE STRAND VIRUSES	5R01 AI16099-02	70,041
KIRSHNER, NORMAN	BIOCHEMISTRY OF THE ADRENAL MEDULLA	2R01 AM05427-19	77,165
KLINTWORTH, GORDON K.	EXPERIMENTAL APPROACH TO DISEASES OF THE CORNEA	5R01 EY00146-09	159,839
KOREN, HILLEL S.	NATURAL TUMOR CELL KILLING IN HUMANS	5R01 CA23354-02	103,302
KRAMER, RICHARD S.	REGULATION OF CEREBRAL MITOCHONDRIAL RESPIRATION	1R01 NS16253-01	92,426
KREDICH, NICHOLAS M	REGULATION OF SULFUR METABOLISM	2R01 AM12828-13	92,617
LACK, LEON	PHARMACOLOGY OF INTESTINAL BILE SALT TRANSPORT	5R01 AM09582-17	92,124
LANG, DAVID J.	PREGNANCY IN ADOLESCENCE: FACTORS AFFECTING OUTCOME	1R01 HD13263-01	114,806
LASZLO, JOHN	MECHANISMS OF DRUG INHIBITION OF HUMAN LEUKEMIC CELLS	5R01 CA08800-14	121,719
LASZLO, JOHN	CLINICAL CANCER RESEARCH PROGRAM	2P01 CA11265-11	617,770
LAZARUS, GERALD S.	THE ROLE OF PROTEINASES IN CUTANEOUS CATABOLISM	5R01 AM19067-06	181,672
LAZARUS, GERALD S.	ANTI-CELL SURFACE PEMPHIGUS ANTIBODY	5R01 AM21848-03	87,042
LEBOVITZ, HAROLD E.	HORMONES AND INTERMEDIARY METABOLISM	5R01 AM01324-24	111,310
LEFKOWITZ, ROBERT J.	MOLECULAR PROPERTIES OF CARDIAC ADRENERGIC RECEPTORS	5R01 HL16037-08	135,224
KREDICH, ROBERT J.	MOLECULAR PROPERTIES OF ALPHA-ADRENERGIC RECEPTORS	2R01 HL20339-04	64,622
LEVY, NELSON L.	IMMUNITY TO HUMAN CANCER—FUNCTIONAL COMPONENTS	5R01 CA13070-09	110,411
LIVNAT, SHMUEL	SEQUENTIAL INTERACTION OF MACROPHAGES AND T CELL SUBSETS	1R01 AI17019-01	43,699
LYNN, WILLIAM S.	SILICATE, PULMONARY SECRETIONS AND LUNG DISEASE	5P01 ES01581-03	256,238
LYNN, WILLIAM S.	STRUCTURE, SOURCE AND FUNCTIONS OF ALVEOLAR GLYCOPROTEIN	5R01 HL21480-03	78,529
MACHEMER, ROBERT	VITRECTOMY THROUGH THE PARS PLANA	5R01 EY02903-03	147,806
MADDOX, GEORGE L.	RESEARCH SUPPORT SERVICES FOR GERONTOLOGY CENTER	3P30 AG00371-07S1	96,249
MADDOX, GEORGE L.	INFLATION AND THE ECONOMIC WELFARE OF THE ELDERLY	1R01 AG02345-01	121,515
MANDEL, LAZARO J.	OXIDATIVE METABOLISM AND TRANSPORT IN RENAL TUBULES	1R01 AM26816-01	105,990
MANDEL, LAZARO J.	MECHANISMS OF ACTIVE AND PASSIVE SOLUTE TRANSPORT	9R01 GM29256-09	82,663
MANTON, KENNETH G.	DEMOGRAPHIC STUDY OF MULTIPLE CAUSES OF DEATH	2R01 AG01159-04	133,133
MARCHASE, RICHARD B.	LIGATIN: A BASEPLATE PROTEIN IN RETINOTECTAL ADHESION	5R01 EY02845-02	162,054
MC CLAY, DAVID R, JR	CELL SURFACE MOLECULES IN EMBRYONIC CELL ADHESION	5R01 GM22477-05	51,180
MC CLAY, DAVID R, JR	EMBRYONIC CELL RECOGNITION: SPECIFICITY DETERMINANTS	1R01 HD14483-01	50,210
MC INTOSH, THOMAS J	LIPID BILAYER STRUCTURE: EFFECT OF SMALL MOLECULES	1R01 GM27278-01	46,402
MC KEE, PATRICK A.	STRUCTURE-FUNCTION STUDIES OF HUMAN FACTOR VIII/VWF	5R01 HL15615-08	135,183
MC KINNEY, JOHN C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07070-15	110,518
MC PHAIL, ANDREW T.	SYNTHESIS AND ANTIARTHRITIC ACTIVITY OF BORON ANALOGS	5R01 AM26016-02	42,734
MENDELL, LORNE M	MECHANISMS OF PLASTICITY IN NEURONAL CONNECTIONS	2R01 NS08411-12	37,226
MENZEL, DANIEL B.	ABSORPTION OF INHALED SUB-MICRON TRACE METALS	5R01 ES01859-02	86,480
MENZEL, DANIEL B.	SYNTHETIC PEROXIDES IN THROMBOTIC MECHANISMS	5R01 HL22284-02	77,535
METZGAR, RICHARD S.	IMMUNOLOGICAL STUDIES OF PRIMATE MEMBRANE ANTIGENS	2R01 AM08054-17	117,127
METZGAR, RICHARD S.	HUMAN LEUKEMIA ASSOCIATED ANTIGENS	2R01 CA08975-14	162,700
MICHALOPOULOS, GEORGE	IN VITRO STUDIES IN CHEMICAL HEPATOCARCINOGENESIS	5R01 CA23398-03	66,405
MILLER, JOHN N.	EARLY INTERSTITIAL LUNG WATER CHANGES IN ACUTE TRAUMA	5R01 GM25688-03	114,707
MILLS, ELLIOTT	PHARMACOLOGY OF CENTRAL CARDIOVASCULAR CONTROL	5R01 HL22861-03	63,654
MODRICH, PAUL L.	ENZYMATIC BASIS OF TYPE II RESTRICTION AND MODIFICATION	5R01 GM23719-05	68,272
MOORE, JOHN W.	PHYSIOLOGY OF EXCITABLE MEMBRANES	5R01 NS03437-20	96,286
MOORE, JOHN W.	COMPUTER METHODS FOR PHYSIOLOGICAL PROBLEMS	5R01 NS11613-06	52,563
MOSES, MONTROSE J.	CHROMOSOME ANALYSIS IN LEMURIFORM PRIMATES	2R01 GM23047-05	93,581
MYERS, GEORGE C.	CERTIFICATION OF CANCER RELATED DEATHS	5R01 CA23399-03	171,869
NADLER, J VICTOR	EXCITATORY AMINO ACID TRANSMITTERS IN CNS	1R01 NS16064-01	80,177
NEBES, ROBERT D.	AGE AND SELECTIVE ATTENTION IN VISUAL SEARCH	1R01 AG02163-01	62,004
NICKLAS, R BRUCE	ANALYSIS AND CONTROL OF CHROMOSOME MOVEMENT	5R01 GM13745-15	59,532
NICKLAS, R BRUCE	SHARED ELECTRON MICROSCOPE FACILITY	5P41 GM27569-02	7,500
NIJHOUT, MARY M.	ACTIVATION OF GAMETOGENESIS IN PLASMODIUM	1R01 AI16800-01	25,552
O'RAND, ANGELA M.	THE DETERMINANTS OF RETIREMENT AMONG OLDER WOMEN	5R01 AG02136-02	37,593
PALMER, RICHARD A.	PHOTOACOUSTIC SPECTROSCOPY OF THE AGING LENS	3R01 EY02577-02S1	4,794

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
PALMORE, ERDMAN B.....	DETERMINANTS AND CONSEQUENCES OF RETIREMENT.....	1R01 AG02023-01	116,431
PARMENTIER, JAMES L.....	MODE OF ACTION OF VOLATILE ANESTHETICS.....	5R01 GM24936-03	51,776
PAULSON, DAVID F.....	DETECTION AND ISOLATION OF HUMAN BLADDER ANTIGENS.....	5R26 CA15292-07	86,355
PAULSON, DAVID F.....	TISSUE CULTURE OF MAMMALIAN UROTHELIUM.....	5R26 CA15972-07	107,625
PESSAR, PATRICIA R.....	PROCESS OF DOMINICAN MIGRATION TO THE UNITED STATES.....	1R01 HD14298-01	93,597
PETROW, VLADIMIR.....	STEROIDS FOR PROSTATIC CANCER.....	5R26 CA27374-02	72,323
PINNELL, SHELDON R.....	COLLAGEN BIOSYNTHESIS IN CONNECTIVE TISSUE DISEASE.....	5R01 AM17128-08	136,002
PISETSKY, DAVID S.....	IDIOTYPE EXPRESSION IN MURINE AUTOIMMUNE DISEASE.....	1R01 AM27166-01	59,803
PIZZO, SALVATORE V.....	CELL RECEPTORS IN COAGULATION AND ATHEROGENESIS.....	5R01 HL24066-02	60,374
PORTER, NED A.....	PEROXY RADICALS TO PROSTAGLANDINS IN VESSELS & LUNG.....	5R01 HL17921-06	110,315
PORTER, NED A.....	PROSTACYCLIN & PEROXIDES IN BLOOD & MEMBRANE DISEASE.....	5R01 HL22219-03	50,745
PRITCHETT, EDWARD L.....	THE MECHANISM OF SPONTANEOUS TACHYCARDIA.....	1R01 HL24920-01	85,591
RAJAGOPALAN, K V.....	STRUCTURE AND FUNCTION OF ENZYMES—ROLE OF METALS.....	5R01 GM00091-35	133,295
RAMON, FIDEL.....	A MODEL SYSTEM FOR CARDIAC ACTION POTENTIALS.....	5R01 HL22767-03	32,607
REEDY, MICHAEL K.....	MYOFIBRILLAR FINE STRUCTURE IN STRIATED MUSCLE.....	5R01 AM14317-11	145,144
RICHARDSON, DAVID C.....	CRYSTALLOGRAPHIC ANALYSIS OF PROTEIN STRUCTURES.....	5R01 GM15000-11	144,293
ROBERTSON, J DAVID.....	STRUCTURE OF PARA-CRYSTALLINE BIOLOGICAL MEMBRANES.....	1R01 GM28224-01	176,745
ROBINSON, STUART F.....	STUDY OF ELEVATED BILIARY PRESSURES ON HEPATIC LIPIDS.....	1R01 AM26664-01	102,767
ROCHE, JAMES K.....	IMMUNOLOGICAL MECHANISMS FOR GUT INFLAMMATION.....	1R01 AM27260-01	93,037
ROSATI, ROBERT A.....	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH.....	2P50 HL17670-06	1,423,479
ROSE, MARY C.....	BRONCHIAL SECRETIONS: PHYSICAL AND CHEMICAL STUDIES.....	5R01 HL24896-02	79,071
ROSEN, GERALD M.....	HEPATIC METABOLIC DYSFUNCTION ASSOCIATE WITH TRAUMA.....	5R01 GM25188-03	61,540
ROSEN, GERALD M.....	POST TRAUMATIC FATTY ACID METABOLISM AND CELLULAR INJURY.....	5R01 GM25753-02	126,636
ROSES, ALLEN D.....	BIOCHEMICAL STUDIES OF MEMBRANE PROTEINS IN DUCHENNE MD.....	2R01 NS13455-04	104,133
ROSES, ALLEN D.....	ISOLATED MEMBRANE GLYCOPROTEINS.....	5R01 NS15060-02	74,326
ROSSE, WENDELL F.....	IMMUNOLOGICAL LYSIS IN NEOPLASTIC DISEASE.....	5R01 CA10267-14	92,342
SABISTON, DAVID C, JR.....	CORONARY INSUFFICIENCY AND MYOCARDIAL REVASCULARIZATION.....	2R01 HL09315-17	188,828
SALZANO, JOHN V.....	REGULATION OF AIRWAY SMOOTH MUSCLE TONE.....	5R01 HL23812-02	76,220
SCHACHAT, FREDERICK H.....	MOLECULAR BIOLOGY OF MUSCLE.....	5R01 NS15269-02	68,127
SCHIFFMAN, SUSAN S.....	GUSTATORY AND OLFACTORY QUALITY CHANGES WITH AGE.....	2R01 AG00443-08	104,590
SCHMIDT-NIELSEN, KNUD.....	RESPIRATION, CIRCULATION AND THERMOREGULATION.....	2R01 HL02228-26	130,603
SCHOMBERG, DAVID W.....	GONADOTROPIN RECEPTOR REGULATION IN VITRO AND IN VIVO.....	5R01 HD11827-03	101,995
SCOTT, DAVID W.....	MECHANISM OF TOLERANCE AND TRIGGERING IN LYMPHOCYTES.....	2R01 AI10716-09	190,574
SCOTT, DAVID W.....	IMMUNE RESPONSE TO MODIFIED SELF AND TUMOR ANTIGENS.....	5R01 CA22845-03	103,338
SHIGLER, HILLIARD F.....	IMMUNODIAGNOSIS OF MELANOMA.....	3R01 CA20364-03S1	27,345
SEAW, BARBARA R.....	CHANGES IN NUCLEOSOME STRUCTURE DURING EMBRYOGENESIS.....	2R01 GM23681-04	89,083
SHINGLETON, WILLIAM W.....	COMPREHENSIVE CANCER CENTER SUPPORT GRANT.....	5P30 CA14236-08	1,902,427
SHINGLETON, WILLIAM W.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA17987-06	147,674
SHRIVASTAV, BRIJ B.....	EFFECTS OF NEURO-ACTIVE AGENTS ON NERVE CONDUCTION.....	5R01 GM21724-06	72,305
SIEDOW, JAMES N.....	ELECTRON CARRIERS IN CYANIDE-RESISTANT RESPIRATION.....	5R01 GM26095-02	45,297
SILBERMAN, HAROLD R.....	COOPERATIVE STUDIES IN CANCER THERAPY.....	2R10 CA03177-24	225,774
SLOTKIN, THEODORE A.....	DRUGS AND DEVELOPMENT OF ADRENERGIC NERVOUS SYSTEM.....	5R01 HD09713-05	84,307
SLOTKIN, THEODORE A.....	DEVELOP CARDIOVASCULAR REGULATION/CENTRAL/SYMPATHETIC NS.....	5R01 HL24115-02	80,346
SMITH, RALPH E.....	BIOCHEMISTRY OF RNA TUMOR VIRUS REPLICATION.....	5R01 CA12323-09	70,011
SNOW, THOMAS R.....	MECHANISMS OF MYOCARDIAL RESPONSE TO HYPOXIA.....	1R01 HL24569-01A1	79,796
SNYDERMAN, RALPH.....	HUMORAL AND CELLULAR MEDIATORS OF INFLAMMATION.....	5R01 DE03738-08	92,018
SOMJEN, GEORGE G.....	CELLULAR SEIZURE MECHANISMS.....	5R01 NS11933-07	55,820
SOMMER, JOACHIM R.....	STRUCTURE-FUNCTION CORRELATION IN THE ATRIUM.....	5R01 HL12486-12	145,365
SPACH, MADISON S.....	BIOPHYSICAL STUDIES IN PEDIATRIC CARDIOLOGY.....	5P01 HL11307-14	663,423
STARMER, C FRANK.....	MEDICAL DATA BASES AND CLINICAL INVESTIGATION.....	5P01 LM03373-02	241,886
STEEGE, DEBORAH A.....	LAC REPRESSOR MRNA TRANSLATION INITIATION CONTROLS.....	5R01 AI14882-03	38,059
STEVENS, ROBERT D.....	STABILITY AND STRUCTURE OF LIPID AGGREGATES IN BILE.....	5R01 AM21501-02	62,693
STRAUSS, HAROLD C.....	CHARACTERIZATION OF CARDIAC PACEMAKER ACTIVITY.....	5R01 HL19216-05	75,326
SURWIT, RICHARD S.....	BEHAVIORAL TREATMENT OF RAYNAUD'S DISEASE.....	5R01 HL22547-03	64,948
SYLVIA, AVIS L.....	BRAIN FUNCTION AND OXIDATIVE METABOLISM DURING AGING.....	5R01 AG00517-05	110,391
TANFORD, CHARLES.....	PROTEIN INTERACTIONS AND BIOLOGICAL FUNCTION.....	5R01 AM04576-21	132,290
THURSTONE, FREDRICK L.....	DYNAMIC CARDIOVASCULAR MEASUREMENT USING ULTRASOUND.....	5R01 HL12715-12	245,409
TISHER, C CRAIG.....	WATER AND ELECTROLYTE MOVEMENT IN RENAL TUBULES.....	5R01 AM13845-11	109,500
TOURIAN, ARA Y.....	HUNTINGTON'S CHOREA: STUDIES OF PROTEIN GLYCOSYLATION.....	1R01 NS15255-01A1	123,133
TURNER, STEPHEN R.....	FACTORS AFFECTING PHAGOCYTE RESPONSES TO LIPIDS.....	5R01 CA23681-03	72,334
URBANIAK, JAMES R.....	TISSUE INJURY, REVASCULARIZATION, AND TRANSPLANTATION.....	5R01 GM25666-03	147,442

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
VANAMAN, THOMAS C.....	THE ROLE OF BRAIN SPECIFIC PROTEIN IN NERVE FUNCTION.....	5R01 NS10123-09	77,453
WEBB, KAREN S.....	SERODETECTION OF NEOANTIGENS IN UROGENITAL MALIGNANCIES.....	5R01 CA22902-03	36,028
WEBSTER, ROBERT E.....	BIOSYNTHESIS OF A MEMBRANE PROTEIN.....	5R01 GM18305-09	78,386
WECHSLER, ANDREW S.....	SURGICAL HEART BYPASS: PHYSIOLOGY OF CARDIAC INJURY.....	1R01 HL26302-01	236,068
WEINBERG, JOE B.....	MACROPHAGE TUMOR CELL KILLING AND RED CELL CATABOLISM.....	5R01 CA27070-02	37,591
WELLS, SAMUEL A, JR.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00030-19	869,298
WILLIAMS, REDFORD B, JR.....	PSYCHOSOCIAL FACTORS AND OUTCOME IN CORONARY DISEASE.....	5R01 HL18589-05	65,958
WILLIAMS, REDFORD B, JR.....	BEHAVIOR AND CARDIOVASCULAR DISEASE: BASIC MECHANISMS.....	5R01 HL22740-03	112,034
WILLIAMS, ROBERT S.....	MEMBRANE RECEPTORS AND PHYSICAL CONDITIONING.....	1R23 HL25146-01	45,560
WILSON, WILKIE A.....	CONTROL OF NEURONAL FIRING BY ADAPTATION.....	5R01 NS15212-02	15,815
WOODBURY, MAX A.....	DATA ANALYSIS IN LONGITUDINAL STUDIES OF AGING.....	5R01 AG01023-02	44,656
WOODBURY, MAX A.....	QUANTITATIVE METHODOLOGIES FOR HLA SPECIFICITIES.....	5R01 AI15513-02	100,499
WOODBURY, MAX A.....	MIXED CONTINUOUS-DISCRETE DISEASE STATE MODELS.....	5R01 GM16725-11	98,142
YARGER, WILLIAM E.....	RENAL FUNCTION IN THE DISEASED KIDNEY.....	5R01 AM25704-02	84,940
YOUNG, STEPHEN L.....	LUNG METABOLISM AND ALVEOLOCAPILLARY PERMEABILITY.....	5R23 HL21853-03	38,332
ORGANIZATION TOTAL	233 29,077,809		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA CENTRAL UNIVERSITY ZIP CODE 27707			
PATTILLO, WALTER H, JR.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08049-10	299,918
ORGANIZATION TOTAL	1 299,918		
WHITEHEAD MEDICAL RESEARCH INSTITUTE ZIP CODE 27710			
REYNOLDS, JACQUELINE A.....	ASSEMBLY OF CIRCULATING SERUM LIPOPROTEINS.....	5R01 HL22570-03	58,857
ORGANIZATION TOTAL	1 58,857		
ELIZABETH CITY			
UNIVERSITY OF NORTH CAROLINA SYSTEM—ELIZABETH CITY STATE UNIVERSITY ZIP CODE 27909			
KHAN, SEKENDER A.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08087-07	100,085
ORGANIZATION TOTAL	1 100,085		
GREENSBORO			
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY ZIP CODE 27411			
BENNETT, RICHARD, JR.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08019-10	343,539
ORGANIZATION TOTAL	1 343,539		
GREENVILLE			
UNIVERSITY OF NORTH CAROLINA SYSTEM—EAST CAROLINA UNIVERSITY ZIP CODE 27834			
BURDEN, HUBERT W.....	OVARIAN NERVES AND REPRODUCTIVE FUNCTION.....	5R01 HD06899-05	66,328
FLETCHER, PAUL L, JR.....	EFFECT OF SCORPION VENOM ON THE EXOCRINE PANCREAS.....	5R01 AM27114-02	76,749
HUNTER, ANDREA L.....	HEPATOTOXIC EFFECTS OF THIONO-SULFUR COMPOUNDS.....	5R01 GM24569-02	40,963
LAUPUS, WILLIAM E.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05812-01	35,470
MUSTAFA, S JAMAL.....	MECHANISMS OF CORONARY FLOW REGULATION BY ADENOSINE.....	7R01 HL27339-01	80,361
THOMAS, JUDITH M.....	ACTION OF RABBIT ANTI-HUMAN THYMOCYTE GLOBULIN.....	5R01 AI16930-02	86,109
VOLKMAN, ALVIN.....	MECHANISMS OF MACROPHAGE DIVERSITY.....	1R01 AI17162-01	65,912
VOLKMAN, ALVIN.....	POLYARTHROPATHY IN SALMONELLA-INFECTED RATS.....	5R01 AM21360-04	95,643
ORGANIZATION TOTAL	8 547,535		
RALEIGH			
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES ZIP CODE 27611			
GOTTLIEB, GILBERT.....	SENSORY AND PERCEPTUAL DETERMINANTS OF IMPRINTING.....	5R01 HD00878-19	30,662
ORGANIZATION TOTAL	1 30,662		
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES--DOROTHEA DIX HOSPITAL ZIP CODE 27611			
OPPENHEIM, RONALD W.....	FUNCTIONAL EFFECTS ON NEURO-BEHAVIORAL DEVELOPMENT.....	1R01 NS16301-01	15,811
ORGANIZATION TOTAL	1 15,811		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH ZIP CODE 27607			
BEWLEY, GLENN C.....	GENETIC CONTROL OF THE SYNTHESIS OF CATALASE.....	5R01 AG01739-02	50,661
BEWLEY, GLENN C.....	REGULATION OF GENE EXPRESSION DURING DEVELOPMENT.....	2R01 GM23617-04	75,879
COCKERHAM, C. CLARK.....	QUANTITATIVE GENETICS RESEARCH PROGRAM.....	5P01 GM11546-17	567,127
CURTIN, TERENCE M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07071-15	85,277
EISEN, EUGENE J.....	PHYSIOLOGICAL BASIS OF POLYGENIC OBESITY.....	5R01 AM21950-02	47,948
HODGSON, ERNEST.....	MECHANISMS OF PESTICIDE TOXICITY.....	5P01 ES00044-16	289,411
JOHNSTON, ROBERT E.....	EARLY EVENTS IN THE REPLICATION OF SINDBIS VIRUS.....	5R23 AI15196-03	41,215
JONES, EVAN E.....	ORNITHINE TRANSCARBAMYLASE: REGULATION AND INHIBITION.....	5R01 HD12082-02	37,660
LEVERE, THOMAS E.....	THE NATURE OF BEHAVIORAL RECOVERY AFTER BRAIN DAMAGE.....	2R01 NS12459-04A1	29,850
LONGMUIR, IAN S.....	GRADIENT AND TRANSPORT OF OXYGEN IN TISSUE AND ORGANS.....	5R01 HL16828-06	127,470
MILLER, WILLIAM L.....	PITUITARY CELL CULTURE: ESTROGEN CONTROL OF FSH.....	5R01 HD10773-03	49,933
SCANDALIOS, JOHN G.....	CONTROL OF GENE EXPRESSION IN EUKARYOTE DEVELOPMENT.....	5R01 GM22733-05	66,985
SHIH, JASON C.....	BIOSYNTHESIS OF LIPOIC ACID AND ATHEROSCLEROSIS.....	5R01 HL21912-03	24,435
THEIL, ELIZABETH C.....	RED CELL FERRITIN: REGULATION, STRUCTURE AND FUNCTION.....	2R01 AM20251-04	67,672
ORGANIZATION TOTAL	14 1,561,523		
RESEARCH TRIANGLE PARK			
RESEARCH TRIANGLE INSTITUTE ZIP CODE 27709			
COOK, CLARENCE E.....	THERAPEUTIC IRON CHELATING AGENT METABOLISM.....	5R01 AM26175-02	93,628
COOK, CLARENCE E.....	PHARMACOLOGY OF STEROSELECTIVE RADIOIMMUNOASSAY.....	5R01 GM23197-05	98,441
MC CARTNEY, MICHAEL L.....	ENGINEERING DEVELOPMENT OF AN ULTRASONIC VENTILOMETER.....	5R01 HL25078-02	62,282
WALL, MONROE E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05791-04	34,827
ORGANIZATION TOTAL	4 289,178		
WINSTON-SALEM			
UNIVERSITY OF NORTH CAROLINA SYSTEM—WINSTON-SALEM STATE UNIVERSITY ZIP CODE 27102			
ATKINSON, WILVERIA B.....	BIOMEDICAL SCIENCES—PROJECT STRENGTHEN.....	2S06 RR08040-10	299,553
ORGANIZATION TOTAL	1 299,553		
WAKE FOREST UNIVERSITY ZIP CODE 27109			
ADES, IBRAHIM Z.....	BIOGENESIS OF CHICK LIVER AMINOLEVULINATE SYNTHETASE.....	1R01 GM27878-01	64,757
ANGELO, JEAN N.....	PRIMATE MODELS OF AGE ASSOCIATED CONDITIONS OF HUMANS.....	1R21 AG01893-01	72,589
BASS, DAVID A.....	EOSINOPHIL FUNCTION IN PULMONARY GRANULOMAS.....	5R01 AI14929-02	38,470
BLIZARD, DAVID A.....	GENETICS, REACTIVITY TO STRESS AND BIOGENIC AMINES.....	7R01 GM28874-01	94,736
BUCKALEW, VARDAMAN M, JR.....	STUDIES OF A HUMORAL INHIBITOR OF SODIUM TRANSPORT.....	5R01 AM17341-07	80,901
BUCKALEW, VARDAMAN M, JR.....	STUDIES OF A HUMORAL VASCULAR SENSITIZING FACTOR.....	1R01 HL26431-01	48,270
BULLOCK, BILL C.....	A RESOURCE FOR THE STUDY OF NONHUMAN PRIMATES.....	2P40 RR00919-06	161,935
CLARKSON, THOMAS B.....	A/S SCOR—COMPARATIVE AND EXPERIMENTAL ATHEROSCLEROSIS.....	5P50 HL14164-09	1,166,200
COOPER, M. ROBERT.....	CANCER AND LEUKEMIA GROUP B.....	5R10 CA03927-23	194,752
DE CHATELET, LAWRENCE R.....	PATHOPHYSIOLOGY AND METABOLISM OF THE LEUKOCYTE.....	5R01 AI10732-09	90,257
DODGE, WILLIAM H.....	NORMAL AND LEUKEMIC GRANULPOIESIS.....	5R01 CA19275-05	72,647
DOELLGAST, GEORGE J.....	TUMOR IMMUNOLOGY: PHOSPHATASE ISOENZYMES.....	5R01 CA23533-03	53,502
DOELLGAST, GEORGE J.....	PLACENTAL PHOSPHATASE: GENETICS AND BIOCHEMISTRY.....	5R01 HD11569-03	57,426
GREISS, FRANK C, JR.....	UTERINE BLOOD FLOW AND CHANGES IN PREGNANCY.....	5R01 HD11339-20	97,758
GUSDON, JOHN P, JR.....	IMMUNOLOGICAL STUDIES OF HERPES INDUCED FIBROSARCOMA.....	1R01 CA25214-01A1	104,065
HALE, ARTHUR H.....	MODELS FOR IDENTIFICATION OF ANTIGEN-CTL INTERACTIONS.....	5R01 AI15785-02	43,103
HALE, ARTHUR H.....	INTERACTIONS BETWEEN TUMOR CELLS AND T LYMPHOCYTES.....	1R01 CA26084-01A1	48,684
HERNDON, C. NASH.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05404-19	157,968
HOMESLEY, HOWARD D.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA21946-03	200,129
HUTCHINS, PHILLIP M.....	MICROVASCULAR RESPONSES IN HYPERTENSION.....	5R01 HL13936-08	88,043
JACKSON, DON V, JR.....	MODIFICATION OF VINCRISTINE-INDUCED NEUROTOXICITY.....	5R01 CA24740-02	42,479
KAPLAN, JAY R.....	ATHEROSCLEROSIS: BEHAVIORAL/ENVIRONMENTAL INFLUENCES.....	1R01 HL26561-01	140,918
KREMKAU, FREDERICK W.....	ABSORPTION OF ULTRASOUND IN PROTEIN SOLUTIONS.....	5R01 GM24677-03	62,549
KUHN, RAYMOND E.....	IMMUNOSUPPRESSION IN CHAGAS' DISEASE.....	5R01 AI13128-05	77,376
KUHN, RAYMOND E.....	IMMUNE REJECTION OF TRYPANOSOMA CRUZI.....	5R01 AI14841-03	78,324
KUTE, TIMOTHY E.....	TUMOR CELL CHARACTERIZATION BY FLUORESCIN ESTRADIOL.....	3R01 CA26359-01S1	7,720
KUTE, TIMOTHY E.....	TUMOR CELL CHARACTERIZATION BY FLUORESCIN ESTRADIOL.....	5R01 CA26359-02	71,994

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH CAROLINA—Continued			
LANDFIELD, PHILIP W	HORMONAL-PHARMACOLOGICAL STUDIES OF BRAIN AGING	3R01 AG01552-01S1	2,572
LANDFIELD, PHILIP W	HORMONAL-PHARMACOLOGICAL STUDIES OF BRAIN AGING	5R01 AG01552-02	62,115
LANDFIELD, PHILIP W	NEUROPHYSIOLOGICAL STUDIES OF BRAIN AGING	2R01 AG01737-02	55,241
LIU, MAW-SHUNG	HEPATIC GLUCOSE METABOLISM IN SHOCK	1R01 GM26790-01A1	94,061
LIU, MAW-SHUNG	SUBSTRATE METABOLISM IN ISOLATED MYOCYTES IN SHOCK	3R01 HL23618-02S1	22,783
LYLES, DOUGLAS S	FUSION OF VIRUS ENVELOPE WITH CELL MEMBRANES	5R01 AI15892-02	52,169
MC CALL, CHARLES E	FUNCTIONAL & METABOLIC PROPERTIES OF TOXIC NEUTROPHILS	5R01 AI09169-08	102,957
MILLER, INGLIS J, JR	GUSTATORY CHEMOSENSITIVITY OF THE ORAL PALATE	5R01 DE05259-02	48,544
MORRIS, MARIANA	NEUROENDOCRINE INVOLVEMENT IN HYPERTENSION	5R01 HL22411-03	42,895
MYRVIK, QUENTIN N	PATHOBIOLOGIC AND HOST DEFENSE REACTIONS IN THE LUNG	5P01 HL16769-07	380,748
NADITCH, MURRAY P	MULTIVARIATE PREDICTORS OF OUTCOME IN WEIGHT CONTROL	1R01 AM27333-01	59,418
O'STEEN, WENDALL K	REPRODUCTIVE HORMONES AND RETINAL DEGENERATION	5R01 EY02359-04	48,475
PHILP, JAMES R	ADVERSE DRUG EFFECTS AND CELLULAR DEFENSE OF THE LUNG	1R01 AI16412-01	61,514
RESNICK, MARTIN I	URINARY MACROMOLECULES AND RENAL LITHIASIS	5R01 AM20066-04	46,240
RILEY, WARD A, JR	OPTICAL DIFFRACTION ANALYSIS OF PULSED ULTRASOUND	1R01 GM27755-01	99,309
ROSE, JAMES C	PRENATAL AND NEONATAL PITUITARY ADRENAL FUNCTION	5R01 HD12110-03	66,886
ROTHBERGER, HENRY	PROCOAGULANT ACTIVITY PRODUCTION BY LEUKOCYTES	3R01 AM21940-01S1	2,210
ROTHBERGER, HENRY	PROCOAGULANT ACTIVITY PRODUCTION BY LEUKOCYTES	5R01 AM21940-02	48,033
RUDEL, LAWRENCE L	NUTRITIONAL EFFECTS ON NONHUMAN PRIMATE HDL	5R01 HL24736-02	136,865
SMITH, PETER B	SARCOLEMMA MEMBRANE ALTERATIONS IN DIABETES	5R01 AM21264-03	37,519
SMITH, PETER B	BIOCHEMICAL DEVELOPMENT OF THE SARCOLEMMA MEMBRANE	5R01 HD12562-02	38,909
SPURR, CHARLES L	MULTIDISCIPLINARY ONCOLOGY RESEARCH CENTER	2P30 CA12197-08A1	578,990
SPURR, CHARLES L	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA19439-05	139,586
STRANDHOY, JACK W	INTRARENAL EFFECTS OF DOPAMINE	5R23 HL22443-02	39,376
SUNDBERG, DAVID K	HYPOTHALAMIC LHRH BIOSYNTHESIS AND SECRETION	5R01 HD10900-03	57,086
TOOLE, JAMES F	CEREBROVASCULAR RESEARCH CENTER	3P50 NS06655-14S1	17,183
TOOLE, JAMES F	CEREBROVASCULAR RESEARCH CENTER	5P50 NS06655-15	398,828
TURNER, JAMES E	CENTRAL NERVOUS SYSTEM REGENERATION—NERVE GROWTH FACTOR	5R01 NS12070-06	39,714
WAGNER, WILLIAM D	AORTIC PROTEOGLYCANS AND ATHEROSCLEROSIS	1R01 HL25161-01	87,263
WAITE, B MOSELEY	METABOLISM AND FUNCTION OF MEMBRANE PHOSPHOLIPIDS	2R01 AM11799-13	112,083
WITCOFSKI, RICHARD L	ULTRASONIC ENHANCEMENT OF CANCER RADIOTHERAPY	5R01 CA17581-05	60,214
ORGANIZATION TOTAL	58	6,457,338	
STATE TOTAL	527	62,415,409	

NORTH DAKOTA

FARGO

NORTH DAKOTA STATE UNIVERSITY ZIP CODE 58103

BEATTY, WILLIAM W	HORMONAL ORGANIZATION OF SOCIAL PLAY	5R01 HD12620-02	31,865
KILLILEA, S DEREK	REGULATION OF HEART GLYCOGEN SYNTHASE	1R01 AM26056-01	50,264
KLEPAC, ROBERT K	PAIN TOLERANCE IN THE TREATMENT OF DENTAL FEAR	5R01 DE04976-03	73,193
MC CAUL, KEVIN D	PERSONALIZED RISK AND PREVENTION OF ADOLESCENT SMOKING	5R01 HD13335-02	33,277
ORGANIZATION TOTAL	4	188,599	

GRAND FORKS

UNIVERSITY OF NORTH DAKOTA ZIP CODE 58201

BERGSTROM, DONALD E	NUCLEOSIDE, NUCLEOTIDE, AND POLYNUCLEOTIDE ANALOGS	7R01 CA30050-01	10,302
DUERRE, JOHN A	BRAIN HISTONE METHYLASES	5R01 NS09725-08	60,727
LAMBETH, DAVID O	SYNTHESIS AND PROPERTIES OF S-ALKYLISOTHIAZOLIDINES	5R01 GM25252-03	20,752
LOW, FRANK N	FINE STRUCTURAL LINING OF THE SUBARACHNOID SPACE	5R01 NS09363-09	72,751
LOW, FRANK N	MICROAPPENDAGES OF THE PLASMALEMMA	5R01 NS12106-06	40,164
LOW, FRANK N	BIOMEDICAL RESEARCH SUPPORT	2507 RR05407-19	16,588
NORDLIE, ROBERT C	LIVER PYROPHOSPHATE-PHOSPHOTRANSFERASE ACTIVITIES	5R01 AM07141-18	78,210
RAY, PAUL D	HORMONE AND DIET CONTROL OF GLUCONEOGENESIS	5R01 AM12705-11	41,671

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
NORTH DAKOTA—Continued			
VOSIKA, GERALD J.....	BACTERIAL COMPONENT IMMUNOTHERAPY IN CANCER.....	7R01 CA29597-01	65,663
ORGANIZATION TOTAL	9 406,828		
STATE TOTAL	13 595,427		
OHIO			
AKRON			
CHILDREN'S HOSPITAL MEDICAL CENTER OF AKRON ZIP CODE 44308			
AGAMANOLIS, DIMITRIS P.....	VITAMIN B12 DEFICIENCY IN RHESUS MONKEYS.....	5R01 EY02899-03	28,668
ORGANIZATION TOTAL	1 28,668		
ATHENS			
OHIO UNIVERSITY ATHENS ZIP CODE 45701			
BARR, RONALD.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07189-01	15,567
DOWNEY, RONALD J.....	BIOSYNTHESIS OF NITRATE REDUCTASE IN FUNGI.....	1R01 GM29245-01	53,705
FINLAY, ROGER W.....	BASIC PHYSICAL DATA FOR NEUTRON DOSIMETRY.....	5R01 CA25193-02	59,985
GRIFFITHS, PETER R.....	FT-IR CIRCULAR DICHROISM SPECTROMETRY.....	5R01 GM25691-03	34,064
JOHNSON, PETER.....	PULMONARY ARTERY INTERMEDIATE FILAMENT STRUCTURE.....	5R01 HL23233-03	43,251
PATTERSON, MICHAEL M.....	STUDIES OF SPINAL RESPONSE PLASTICITY.....	5R01 NS14545-03	28,141
SULLIVAN, PAUL D.....	ANTIOXIDANTS INTERACTION WITH BENZOPYRENE & DERIVATIVES.....	5R01 CA22209-02	54,105
WAGNER, THOMAS E.....	MATURE SPERM CHROMOSOMES: STRUCTURE AND RELEASE MODE.....	5R01 HD09042-06	43,687
ORGANIZATION TOTAL	8 332,505		
BOWLING GREEN			
BOWLING GREEN STATE UNIVERSITY AT BOWLING GREEN ZIP CODE 43403			
FIORAVANTI, CARMEN F.....	ANAEROBIC ENERGY METABOLISM OF PARASITIC HELMINTHS.....	5R01 AI15597-02	44,334
HEBERLEIN, GARY T.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07192-01	30,037
HOEMANN, HARRY W.....	COMMUNICATION SKILLS IN DEAF AND HEARING CHILDREN.....	5R01 NS09590-08	63,636
MC KEEVER, WALTER F.....	LATERAL DOMINANCE AND LATERAL WORD RECOGNITION.....	5R01 NS10214-09	27,458
NECKERS, DOUGLAS C.....	STUDIES OF FUSED CYCLOBUTENES AS BENZODIAZEPINE ANALOGS.....	5R01 NS14883-02	45,819
PANKSEPP, JAAK.....	MEDIAL HYPOTHALAMIC REGULATION OF BODY ENERGY BALANCE.....	5R01 AM17157-07	53,763
ORGANIZATION TOTAL	6 265,047		
CINCINNATI			
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 45229			
AKESON, RICHARD A.....	NERVE AND MUSCLE SURFACE MACROMOLECULE INTERACTION.....	2R01 NS13241-04	60,857
CAMERON, BRUCE F.....	CINCINNATI COMPREHENSIVE SICKLE CELL CENTER.....	5P60 HL15996-08	1,011,244
CLARK, LELAND C, JR.....	EVALUATION OF NEW FLUOROCARBONS FOR BLOOD SUBSTITUTES.....	5R01 HL23526-02	51,259
DIGNAN, PETER.....	CORE PROGRAM FOR MENTAL RETARDATION RESEARCH.....	3P30 HD05221-10S1	317,739
DONALDSON, VIRGINIA H.....	HYDROLYTIC ENZYMES OF BLOOD IN HEALTH AND DISEASE.....	5R01 HL15690-09	114,576
GANSCHOW, ROGER E.....	GENETIC CONTROL OF MAMMALIAN ENZYME EXPRESSION.....	5R01 AM14770-11	113,663
JAMES, FREDERICK W.....	MAXIMAL EXERCISE TESTING IN HYPERLIPIDEMIC CHILDREN.....	5R01 HL18454-05	76,376
LAMPKIN, BEATRICE C.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA25557-02	76,357
LAMPKIN, BEATRICE C.....	CHILDREN'S CANCER STUDY GROUP.....	5R10 CA26126-02	101,352
LATHROP, DAVID A.....	AGE RELATED CHANGES IN PURKINJE FIBER ACTION POTENTIALS.....	1R23 HL25137-01	50,868
NEELY, JOHN E.....	DETAILED CELL KINETIC ANALYSES OF HUMAN NEUROBLASTOMA.....	5R23 CA26956-02	33,604
O'GRADY, DONALD J.....	NEUROPSYCHOLOGICAL CONSEQUENCES OF REYE'S SYNDROME.....	5R01 NS14696-02	38,886
SCHUBERT, WILLIAM K.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00123-17	610,918
SCHUBERT, WILLIAM K.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05535-18	85,345
SCOTT, WILLIAM J, JR.....	BASES OF CELLULAR SENSITIVITY TO TERATOGENIC AGENTS.....	5R01 HD09951-05	107,476
SOUKUP, SHIRLEY W.....	EARLY CHANGES IN POTENTIAL BRAIN TUMOR TISSUE.....	5R01 CA18588-05	28,373
SPERLING, MARK A.....	GLUCAGON PHYSIOLOGY IN THE FETUS, NEWBORN AND CHILD.....	2R01 HD12613-02	106,742
WEST, CLARK D.....	GLOMERULONEPHRITIS AND INHERITED COMPLEMENT DEFECTS.....	1R01 AM26279-01	44,067

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
ZIMMERMAN, ERNEST F.....	TERATOGENS ON CLEFT PALATE FORMATION.....	5R01 DE03469-09	135,408
ZIMMERMAN, ERNEST F.....	MOLECULAR ASPECTS OF NEURAL RELATED BIRTH DEFECTS.....	5P01 HD12285-02	205,135
ORGANIZATION TOTAL	20 3,370,245		
CHRIST HOSPITAL ZIP CODE 45219			
KRUEGER, ROBERT G.....	VARIABLE REGIONS OF BICLONAL IMMUNOGLOBULINS.....	5R01 CA20818-03	70,348
PONS, MARCEL W.....	RESPIRATORY SYNCYTIAL VIRUS.....	5R01 AI14133-03	63,020
PONS, MARCEL W.....	BIOCHEMICAL STUDIES OF INFLUENZA VIRUS INFECTED CELLS.....	5R01 AI14225-04	79,877
ROCHOVANSKY, OLGA M.....	INFLUENZA VIRAL RNA SYNTHESIS IN VITRO.....	5R01 AI14733-02	76,556
SCHIFF, GILBERT M.....	CONTINUED EVALUATION OF RUBELLA VACCINES.....	5R01 AI15949-02	64,867
SCHIFF, GILBERT M.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05826-01	22,671
SCHIFF, GILBERT M.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09127-03	55,675
ORGANIZATION TOTAL	7 433,014		
JEWISH HOSPITAL OF CINCINNATI ZIP CODE 45229			
WEXLER, BERNARD C.....	EXPERIMENTAL MYOCARDIAL INFARCTION.....	5R01 HL21418-04	54,624
ORGANIZATION TOTAL	1 54,624		
UNIVERSITY OF CINCINNATI AT CINCINNATI ZIP CODE 45221			
ALEXANDER, J WESLEY.....	HOST DEFENSE MECHANISMS: CONTROL OF SURGICAL INFECTION.....	5R01 AI12936-04	353,101
ARMENTROUT, RICHARD W.....	EVENTS OF PARVOVIRUS AND ANIMAL CELL DNA SYNTHESIS.....	5R01 CA16517-06	53,925
ASHRAF, MUHAMMAD.....	ISCHEMIC HEART ULTRASTRUCTURE: MODIFICATION BY THERAPY.....	5R01 HL23597-02	70,601
BANKS, ROBERT O.....	THE ROLE OF OXYTOCIN IN VOLUME REGULATION.....	5R01 HD12160-02	68,054
BAXTER, C STUART.....	CELL CULTURE STUDIES OF ENVIRONMENTAL PROMOTERS.....	5R01 CA24022-02	79,035
BAXTER, C STUART.....	IN VITRO STUDY OF PROMOTION IN CHEMICAL CARCINOGENESIS.....	5R01 ES02066-02	45,047
BEHNKE, WILLIAM D.....	INTERACTION OF LECTINS WITH NORMAL, DISEASED FIBROBLASTS.....	5R01 HL23741-02	56,969
BJORNSON, ANN B.....	HUMORAL FACTORS OF HOST DEFENSE AGAINST BACTEROIDES.....	5R01 AI13688-04	60,333
BJORNSON, ANN B.....	HOST DEFENSE AGAINST S PNEUMONIAE IN SICKLE CELL DISEASE.....	3R01 HL20314-03S1	4,241
BJORNSON, HENRY S.....	CHARACTERIZATION OF VIRULENCE FACTORS OF F. NECROPHORUM.....	1R01 AI16528-01	44,877
BJORNSON, HENRY S.....	THE ROLE OF BACTEROIDACEAE IN THROMBOEMBOLIC DISEASE.....	5R01 HL23693-02	36,652
BLUMENTHAL, KENNETH M.....	STRUCTURE AND ACTION OF POLYPEPTIDE AXONAL TOXINS.....	5R01 NS14368-03	48,050
BOBST, ALBERT M.....	SPIN ASSAY FOR NUCLEIC ACID BINDING PROTEINS.....	3R01 GM27002-04S1	11,170
BONVENTRE, PETER F.....	NEOPLASM AND RESISTANCE TO INFECTIONS.....	5R01 CA22957-03	107,770
BRIDENBAUGH, PHILLIP O.....	EFFECT OF TONICITY ON SPINAL ANESTHESIA IN THE MONKEY.....	1R01 GM28267-01	39,841
BROOKS, STUART M.....	MECHANISMS RESPONSIBLE FOR DISEASE SEVERITY IN ASTHMA.....	5R01 HL22415-03	69,377
BROWN, RONALD D.....	GENERATION OF ANTIBODY DIVERSITY DURING DEVELOPMENT.....	5R01 GM22766-05	58,608
BRYANT, SHIRLEY H.....	ELECTROPHYSIOLOGY AND PHARMACOLOGY OF MYOTONIC MUSCLE.....	5R01 NS03178-18	74,769
BULLOCK, WARD E.....	IMMUNOREGULATION IN DISSEMINATED HISTOPLASMOSIS.....	7R01 AI17339-01	89,260
CARDELL, ROBERT R, JR.....	SUBCELLULAR EFFECTS OF METABOLIC HORMONES ON RAT LIVER.....	5R01 AM27097-02	94,336
CLARK, KENNETH E.....	MATERNO-FETAL RESPONSE TO REDUCED UTERINE BLOOD FLOW.....	5R01 HD13490-02	75,915
CLYNE, DAVID H.....	MYELOMA KIDNEY—PROTEIN NEPHROTOXICITY.....	5R01 AM18466-05	47,166
COATS, EUGENE A.....	SYNTHESIS OF SELECTIVE DEHYDROGENASE INHIBITORS.....	5R01 CA26946-02	39,433
DANIELS, ROBERT S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05408-19	203,787
DEUTSCH, EDWARD A.....	DEVELOPMENT OF 99mTC MYOCARDIAL IMAGING AGENTS.....	2R01 HL21276-04	99,527
DI SALVO, JOSEPH.....	REGULATION OF CORONARY ARTERIAL SMOOTH MUSCLE.....	5R01 HL20196-04	58,459
FISCHER, JOSEF E.....	NEUROTRANSMITTERS AND HEPATIC COMA.....	5R01 AM25638-03	117,880
FISCHER, JOSEF E.....	A CENTRAL MECHANISM FOR ANOREXIA IN CANCER.....	5R01 CA25786-02	98,264
FONDACARO, JOSEPH D.....	BILE ACID MALABSORPTION IN CYSTIC FIBROSIS.....	1R01 AM26650-01	54,182
FORD, DOUGLAS J.....	SPECIES DIFFERENCES IN HALOTHANE HEPATOTOXICITY.....	1R01 GM28155-01	71,059
FOULKES, ERNEST C.....	RENAL REABSORPTION OF GLUTAMATE.....	1R01 ES02453-01	60,369
FRANKLIN, DEAN.....	PATHOPHYSIOLOGY OF PROGRESSIVE CORONARY OCCLUSION.....	5R01 HL23571-02	16,871
FREISHEIM, JAMES H.....	STRUCTURE-FUNCTION STUDIES OF DIHYDROFOLATE REDUCTASE.....	5R01 CA11666-11	116,345
GOLDBERG, MARTIN.....	MECHANISMS OF HYPERCALCAEMIA.....	7R01 HL26322-01	87,250
GROOD, EDWARD S.....	DRUG EFFECTS ON ELECTRICALLY EXCITABLE MEMBRANES.....	5R01 NS12635-03	61,351
HALSALL, HALLEN B.....	PROGESTERONE BINDING TO OROSMUCOID.....	5R01 HD13207-02	29,469
HAMMOND, PAUL B.....	BEHAVIORAL EFFECTS OF LEAD EXPOSURE IN CHILDREN.....	5P01 ES01566-02	519,221
HEINEMAN, WILLIAM R.....	IMMUNOASSAY BY ELECTROCHEMICAL TECHNIQUES.....	1R01 AI16753-01	66,733
HEINEMAN, WILLIAM R.....	EFFICACIOUS SKELETAL IMAGING RADIOPHARMACEUTICALS.....	1R01 GM27832-01	91,022
HERMAN, JEROME H.....	IMMUNOBIOLOGY OF CARTILAGE.....	5R01 AM16894-08	102,465
HESS, EVELYN V.....	MULTIPURPOSE ARTHRITIS CENTER FOR THE TRI-STATE AREA.....	5P60 AM20615-02	154,265
HESS, EVELYN V.....	IMMUNOLOGIC FACTORS IN HUMAN INFERTILITY.....	5R01 HD11416-02	62,278

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
HIGHSMITH, ROBERT F.	VASCULAR-DERIVED PLASMINOGEN ACTIVATOR	5R01 HL23926-02	55,279
HITZEMANN, ROBERT J.	SYNAPTIC MEMBRANES, GLYCOPROTEINS AND DEVELOPMENT	5R01 NS16061-02	81,512
JACKSON, RICHARD L.	STRUCTURE AND FUNCTION OF HUMAN PLASMA APOLIPOPROTEINS	5R01 HL23019-02	196,173
JACKSON, RICHARD L.	EFFECT OF DIET ON PLASMA HIGH DENSITY LIPOPROTEINS	5R01 HL24744-02	155,153
JACOBSON, EUGENE D.	INTESTINAL ISCHEMIA	2R01 AM20540-03	85,365
KANESHIRO, EDNA S.	MEMBRANE ALTERATIONS IN BEHAVIORAL MUTANTS	5R01 GM20910-05	89,212
KARP, RICHARD D.	THE ORIGINS OF ADAPTIVE IMMUNITY	5R01 AI15601-02	34,760
KASHYAP, MOTI L.	ROLE OF APOLIPOPROTEINS IN HYPERTRIGLYCERIDEMIA	5R01 HL22618-03	56,315
KNOWLES, HARVEY C. JR.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00068-18	1,056,903
KRUEGER, ROBERT C.	STRUCTURE AND TEMPLATE ACTIVITY OF CHROMATIN	5R01 GM23030-05	36,729
KYRIAZIS, ANDREAS P.	CHEMOTHERAPY OF HUMAN BLADDER CANCER IN ATHYMIC MICE	5R26 CA26693-02	121,798
LANE, LOIS K.	STRUCTURE & FUNCTION STUDY OF THE DIGITALIS RECEPTOR	1R01 HL25545-01	98,873
LINGREL, JERRY B.	MECHANISM OF THE SWITCH FROM FETAL TO ADULT HEMOGLOBIN	5R01 AM20119-04	93,020
LINGREL, JERRY B.	MAMMALIAN MESSENGER RNA AND ITS SYNTHESIS	5R01 GM10999-16	59,507
LINNMANN, CALVIN C. JR.	SEROLOGICAL EPIDEMIOLOGY OF LEGIONNAIRES' DISEASE	1R01 AI16403-01	22,119
LOWENHAUPT, ROSALIN W.	BIOCHEMISTRY OF HUMAN PLATELET CHEMOTAXIS	5R01 HL21988-03	45,363
MANDEL, FREDERIC.	TRANSIENT STATE KINETICS OF SARCOPLASMIC RETICULUM	1R01 HL26049-01	42,888
MANSON, JEANNE M.	HERBICIDE-INDUCED RESPIRATORY DISTRESS IN NEONATES	5R01 HD13299-02	89,449
MARTELO, ORLANDO J.	HUMAN RETICULOCYTE EIF-2ALPHA KINASE & HEME DEFICIENCY	1R01 AM27011-01	60,348
MARTELO, ORLANDO J.	PROTEIN KINASES IN NORMAL AND LEUKEMIC LYMPHOCYTES	5R01 CA26036-02	56,859
MARTELO, ORLANDO J.	SOUTHEASTERN CANCER STUDY GROUP	1R10 CA28138-01	93,689
MARTIN, ANNE F.	CONTROL OF PROTEIN METABOLISM IN HEART MUSCLE	5R01 HL22651-03	47,703
MEYER, RALPH R.	REGULATION OF DNA SYNTHESIS IN THE NOVOKOFF HEPATOMA	5R01 CA17723-06	82,826
MICHAEL, JACOB G.	REAGINIC ANTIBODY FORMATION TO BACTERIAL ANTIGENS	5R01 AI13877-03	60,935
MICHAELS, JOHN E.	EFFECTS OF DIAZOONORLEUCINE ON COLON SURFACE CELLS	5R01 GM24604-02	33,949
MILLARD, RONALD W.	COLLATERAL FLOW IN ISCHEMIC MYOCARDIUM	5R01 HL23558-02	84,817
MORRIS, RANDAL E.	CELL SURFACE ANTIGENS ON MALIGNANT LYMPHOCYTES	5R01 AI14173-02	56,340
MOULTON, BRUCE C.	ENDOMETRIAL MECHANISMS OF OVARIAN HORMONE SYNERGISM	5R01 HD07255-08	58,090
MOULTON, BRUCE C.	LYSOSOMAL MECHANISMS OF OVUM IMPLANTATION	2R01 HD10721-04	60,875
NOYES, FRANK R.	BIOMECHANICAL FUNCTION OF KNEE LIGAMENTS	5R01 AM21172-03	116,088
NOYES, FRANK R.	BIOMECHANICS OF LIGAMENT/TENDON REPAIRS AND GRAFTS	1R01 AM27517-01	185,760
OLINGER, CHARLES P.	COMPUTER AIDED BIOACOUSTIC ARTERIAL DIAGNOSTICS	5R01 HL23671-02	55,959
ODI, YUET M.	MECHANISMS OF INHERITED COMPLEMENT DISORDERS	1R01 AI16729-01	63,920
POLLAKE, VICTOR E.	CLINICOPATHOLOGIC AND OTHER STUDIES ON RENAL DISEASE	2R01 AM17196-07A1	140,670
POLLAK, VICTOR E.	ANCROD IN RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS	5R01 AM20711-02	65,454
RUDNEY, HARRY	REGULATION OF ENZYMES IN MEVALONATE SYNTHESIS	5R01 AM12402-13	87,157
SADLER, THOMAS W.	EPITHELIAL FUSION: FACTORS INVOLVED IN TERATOGENESIS	5R01 HD14220-02	37,351
SCHWARTZ, ARNOLD	CELLULAR MECHANISMS OF HEART FAILURE	3P01 HL22619-02S1	180,659
SCHWARTZ, ARNOLD	CELLULAR MECHANISMS OF HEART FAILURE	5P01 HL22619-03	843,427
SCOTT, RALPH C.	THE JUVENILE DIABETIC HEART	5R01 HL20428-05	125,283
SHERTZER, HOWARD G.	NITROGENOUS LIGANDS AND HEPATIC MONOOXYGENASES	5R01 GM27928-02	38,681
STINNETT, J DWIGHT	NEUTROPHIL FUNCTIONS AND POSSIBLE SUBPOPULATIONS	1R01 AI15675-01A1	68,710
STYS, STANLEY J.	PARTURITIONAL CHANGES IN THE UTERINE CERVIX	1R01 HD14150-01	79,753
SUBBIAH, M T.	EARLY INTERVENTION OF AGE-RELATED ARTERIAL CHANGES	5R01 HL24071-02	68,803
SUBBIAH, M T.	PATHOGENESIS OF ATHEROSCLEROSIS	5R01 HL24162-02	96,639
SUBBIAH, M T.	DEVELOPMENT OF CHOLESTEROL HOMEOSTATIC MECHANISM	5R01 HL24263-02	93,426
SUSKIND, RAYMOND R.	ENVIRONMENTAL HEALTH SCIENCES CENTER GRANT	5P30 ES00159-15	1,305,918
TSANG, REGINALD C.	DIABETES IN PREGNANCY	5P01 HD11725-03	478,979
WARSHAWSKY, DAVID	PULMONARY METABOLISM OF THE N-HETEROCYCLIC AROMATICS	5R01 CA23515-03	68,318
WILFINGER, WILLIAM W.	PITUITARY SECRETION: EFFECT OF CELL-CELL INTERACTIONS	1R01 HD13739-01	72,200
ZIMMER, HANS W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07075-06	28,341
ORGANIZATION TOTAL	93	11,117,672	

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AGLE, DAVID P.	PSYCHOLOGICAL IMPACT OF HEMOPHILIC HOME-CARE THERAPY	5R01 HL22790-02	34,687
AIKAWA, MASAMICHI	ELECTRON MICROSCOPY OF PLASMODIUM-HOST INTERACTIONS	5R01 AI10645-09	49,704
AIKAWA, MASAMICHI	INTERACTION BETWEEN BABESIA AND HOST CELL	1R01 AI16680-01	42,791
ALTOSE, MURRAY D.	RESPIRATORY SENSATION AND CONTROL OF BREATHING	1R01 HL25048-01	38,873

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
ANDERSON, JAMES M.....	PROSTHETIC VALVE ENDOCARDITIS: ETIOLOGY AND THERAPY.....	5R01 HL22888-03	72,813
BEHRMAN, RICHARD E.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05410-19	203,787
BENSUSAN, HOWARD B.....	COLLAGEN-PLATELET INTERACTION.....	2R01 HL22081-22	76,129
BENSUSAN, HOWARD B.....	SEQUENCE OF EVENTS IN STIMULATED BLOOD PLATELETS.....	5R01 HL23476-02	59,121
BETTICE, JOHN A.....	THE CARDIAC RESPONSE TO CHRONIC METABOLIC ACIDOSIS.....	5R23 HL19601-03	39,121
BIAGLOW, JOHN E.....	MODIFICATION OF X-RAY RESPONSE OF ANOXIC-HYPOXIC CELLS.....	5R01 CA13747-09	190,857
BICKERS, DAVID R.....	SKIN AS A SITE OF DRUG AND CARCINOGEN METABOLISM.....	2R01 ES01900-03	102,785
BROWN, RICHARD H.....	IN VIVO LOADING ON TOTAL KNEE JOINTS.....	5R01 AM21559-03	72,611
BROWN, RICHARD H.....	THREE-DIMENSIONAL ANALYSIS OF KNEE MOTION.....	5R01 AM21929-03	73,192
BURKE, MORRIS.....	CONTRACTION OF VERTEBRATE SKELETAL MUSCLES.....	5R01 NS15319-02	42,396
CAPLAN, ARNOLD I.....	CELLULAR AND DEVELOPMENTAL CONTROL OF CALCIFICATION.....	5R01 DE04008-06	92,939
CAPLAN, ARNOLD I.....	PROTEOGLYCAN SYNTHESIS DURING DEVELOPMENT AND AGING.....	5R01 HD12724-02	108,965
CAPLAN, ARNOLD I.....	THE CONTROL OF LIMB MESENCHYMAL CELL DEVELOPMENT.....	5R01 HD13016-02	62,439
CARTER, JAMES R, JR.....	BIOSYNTHESIS OF RED CELL MEMBRANE PROTEINS.....	5R01 AM18389-06	77,960
CATTO, BRIAN A.....	SCHISTOSOME METABOLISM OF NITRODAZOLE.....	1R23 AI16966-01	46,800
CEDERQUIST, K ROBERT.....	EFFECTS OF MECHANICAL FORCES ON CRANIOFACIAL GROWTH.....	1R23 DE05627-01	46,458
CHENG, PI-WAN.....	BIOSYNTHESIS OF HUMAN RESPIRATORY MUCOUS GLYCOPROTEIN.....	5R23 HL22818-03	49,345
CHERNIACK, NEIL S.....	REGULATION OF BREATHING IN THE AGED.....	5R01 AG01403-02	76,908
CHERNIACK, NEIL S.....	RESPIRATORY NEUROCHEMICAL CONTROL.....	5R01 HL20847-02	50,964
COOPER, CECIL.....	THE ROLE OF KETOGENIC AMINO ACIDS IN KETOGENESIS.....	1R01 AM26513-01	44,210
COX, RODY P.....	INBORN ERRORS OF METABOLISM IN CELL CULTURE.....	5R01 AM26758-02	159,620
COX, RODY P.....	MODULATION OF GENE EXPRESSION IN CELL CULTURE.....	5R01 GM27613-02	80,140
CULP, LLOYD A.....	PROTEOGLYCANS AND ADHESION (PROJECT I).....	5R01 AM25646-03	75,028
DANIEL, THOMAS M.....	SPECIFIC MYCOBACTERIAL ANTIGENS.....	5R22 AI15102-03	87,281
DE MARCO, THOMAS J.....	BIOMEDICAL RESEARCH SUPPORT.....	2507 RR05335-19	16,438
DEARBORN, DORR G.....	THE ROLE OF LYSYL RESIDUES IN ENZYME CATALYSIS.....	5R01 GM25930-02	80,398
DOERSHUK, CARL F.....	CYSTIC FIBROSIS.....	5P01 AM08305-17	980,922
DOUGLAS, JANICE G.....	ANGIOTENSIN II RECEPTORS: MECHANISMS OF REGULATION.....	5R01 HL22990-03	64,717
DUNN, MICHAEL J.....	PROSTAGLANDINS, THE KIDNEY AND HYPERTENSION.....	5R01 HL22563-04	169,139
ELLNER, JERROLD J.....	ADHERENT CELL REGULATION OF MICROBIAL IMMUNITY IN MAN.....	5R23 AI15109-03	47,400
ENLOW, DONALD H.....	CRANIOFACIAL GROWTH AND REMODELING.....	5R01 DE05078-04	79,677
EVANS, HELEN H.....	RADIATION INDUCED MUTAGENESIS AND CARCINOGENESIS.....	5R01 CA23427-03	113,740
FACKLER, JOHN P, JR.....	REACTIONS-COORDINATING COMPOUNDS-O,S AND SE LIGANDS.....	5R01 GM19050-08	65,406
FANGER, MICHAEL W.....	HUMAN AND RABBIT LYMPHOCYTE SUBPOPULATIONS.....	5R01 AI10148-09	82,476
FANGER, MICHAEL W.....	ANTIBODY DEPENDENT CELL CYTOTOXICITY REACTIONS.....	1R01 CA27915-01	102,717
FU, YAO S.....	NUCLEAR DNA STUDY OF GYNECOLOGICAL CANCERS.....	5R01 CA24932-02	42,924
GAMBETTI, PIERLUIGI.....	SYNAPTOSOMES AND AXONS STUDIES.....	5R01 NS14509-04	140,733
GERSHMAN, HOWARD.....	CONTROL OF CELLULAR MOBILITY.....	3R01 CA20323-03S1	37,208
GOLDBERG, ALAN D.....	CARDIOVASCULAR EVENTS IN HYPERTENSIVES.....	5R01 HL22032-03	27,031
GOLDBERG, VICTOR M.....	BONE ALLOTRANSPLANTATION.....	5R01 AM22166-02	201,022
GOLDMAN, MICHAEL D.....	MECHANICS AND NEUROMUSCULAR CONTROL OF BREATHING.....	1R01 HL25233-01	80,970
GOLDSMITH, GEORGE H, JR.....	CLINICAL INVESTIGATOR AWARD.....	1R23 HL25922-01	47,381
GOLDTHWAIT, DAVID A.....	REPAIR OF X-IRRADIATED DNA IN NORMAL AND CANCER CELLS.....	5R01 CA18747-05	54,762
GOLDTHWAIT, DAVID A.....	CHEMICAL CARCINOGENESIS AND DNA REPAIR.....	1R01 CA27528-01	87,798
GOODRIDGE, ALAN G.....	REGULATION OF THE SYNTHESIS OF LIPOGENIC ENZYMES.....	5R01 AM21594-04	156,402
GOODRIDGE, ALAN G.....	REGULATION OF FUNCTION IN SEBACEOUS GLANDS.....	1R01 AM27018-01	74,922
GOTHE, BARBARA.....	CHEMICAL REGULATION OF BREATHING.....	1R01 HL25259-01	64,197
GREENE, BRUCE M.....	ONCHOCERCIASIS: IMMUNOLOGICALLY-MEDIATED EYE DISEASE.....	3R01 EY03318-01S1	5,200
GREENE, BRUCE M.....	ONCHOCERCIASIS: IMMUNOLOGICALLY-MEDIATED EYE DISEASE.....	5R01 EY03318-02	116,054
GREGG, EARLE C.....	MUTANTS AND ALTERED RADIORESPONSE OF CELLS AND TUMORS.....	3R01 CA15901-06S1	118,909
GREGG, EARLE C.....	CORE SUPPORT FOR RADIATION ONCOLOGY RESEARCH.....	5P30 CA19283-05	364,775
GROSS, SAMUEL.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA20320-03	43,513
HANSON, RICHARD W.....	REGULATION OF GLUCONEOGENESIS IN MAMMALIAN LIVER.....	5R01 AM25537-03	117,887
HANSON, RICHARD W.....	HORMONAL REGULATION OF ENZYME LEVELS IN MAMMALIAN TISSUE.....	2R01 AM25541-03	120,332
HARRIS, JOHN W.....	STUDIES OF ERYTHROCYTE PRODUCTION AND DESTRUCTION.....	5R01 AM00745-26	155,896
HARRIS, JOHN W.....	MAGNETIC MEASUREMENT OF HUMAN IRON STORES.....	5R01 AM25105-02	126,299
HARRIS, JOHN W.....	MAGNETIC MEASURE OF HEART & LIVER IRON IN THALASSEMIA.....	5R01 HL24198-02	197,789
HAUG, MARIE R.....	SOCIAL-BEHAVIORAL RESEARCH INITIATIVES IN AGING.....	1R21 AG02251-01	65,423
HEIPLE, KINGSBURY G.....	IN VIVO LOADING ON TOTAL HIP JOINT REPLACEMENTS.....	5R01 AM16600-06	106,219
HILTNER, P ANNE.....	LONG TERM BIODEGRADATION OF ELASTOMERIC BIOMATERIALS.....	1R01 HL25239-01	114,410
HOCHBERG, KENNETH J.....	POPULATION PROCESSES IN GENETICS AND BIOLOGY.....	1R01 GM28336-01	18,717

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
HOGG, ROBERT W.	CHARACTERIZATION OF L-ARABINOSE BINDING PROTEIN	2R01 AM13791-10	114,936
HOPFER, ULRICH	MEMBRANE TRANSPORT	5R01 AM25170-02	72,636
HOPPEL, CHARLES L.	PATHWAYS AND CONTROL OF FATTY ACID OXIDATION	2R01 AM15804-09	86,890
ILAN, JOSEPH.	ESTRADIOL AND PROTEIN SYNTHESIS IN DEVELOPING LIVER	5R01 AM21312-02	86,967
ILAN, JOSEPH.	MESSANGER RNA TRANSLATION DURING EMBRYOGENESIS	5R01 HD06727-07	100,430
ILAN, JUDITH.	HUMAN PLACENTAL CHORIONIC GONADOTROPIN BIOSYNTHESIS	5R01 HD11596-03	91,782
ILAN, JUDITH.	PLACENTAL LACTOGEN REGULATION IN GESTATIONAL DIABETES	1R01 HD14072-01	114,740
JACKSON, DAVID L.	PATHOPHYSIOLOGY/THERAPY OF POST-ARREST BRAIN DAMAGE	1R01 HL23582-01A1	117,623
JACOBS-LORENA, MARCELO	BIOCHEMICAL STUDIES OF DROSOPHILA OOGENESIS	5R01 GM25327-03	57,089
JONES, JANICE L.	DEFIBRILLATOR WAVESHAPE OPTIMIZATION	5R01 HL24606-02	55,882
KAISERMAN-ABRAMOF, ITA R.	STRUCTURE AND DEVELOPMENT OF THE VISUAL SYSTEM	5R01 EY01018-08	96,521
KALHAN, SATISH C.	CARBOHYDRATE METABOLISM IN CHRONIC UREMIA	5R01 AM25596-02	51,426
KATONA, PETER G.	OPTIMAL AUTOMATED CONTROL OF PHYSIOLOGICAL SYSTEMS	5R01 GM25538-02	67,606
KATONA, PETER G.	NONINVASIVE ASSESSMENT OF AUTONOMIC CARDIAC CONTROL	5R01 HL20328-03	40,250
KAZURA, JAMES W.	MECHANISMS OF HOST RESISTANCE IN MURINE TRICHINOSIS	1R01 AI16545-01A1	65,215
KEAN, EDWARD L.	GLYCOLIPID AND GLYCOPROTEIN METABOLISM IN EYE TISSUE	5R01 EY00393-13	153,781
KELLERMAYER, ROBERT W.	SOUTHEASTERN CANCER STUDY GROUP	2R10 CA15584-04A3	188,115
KELSEN, STEVEN G.	NEURAL CONTROL OF BREATHING IN PAPAIN INDUCED EMPHYSEMA	5R01 HL24537-02	70,888
KHAN, SOHAIB A.	ENZYME MARKER FOR HEMATOPOIETIC CELLS	5R23 CA27782-02	31,660
KIRBY, ALBERT C.	LEFT VENTRICULAR CALCIUM CONTENT AND CONTRACTILITY	5R01 HL22008-03	48,301
KLEIN, LEROY.	QUANTITATIVE DYNAMICS OF BONE REMODELLING WITH AGE	5R01 AG00258-12	232,739
KLEIN, LEROY.	AN INTERDISCIPLINARY PROGRAM OF RESEARCH IN AGING	5P01 AG00361-21	516,884
KLEIN, LEROY.	KINETICS OF MINERAL RECYCLING IN TEETH AND BONE	1R01 DE05487-01	94,376
KO, WEN H.	MICROELECTRONICS LABORATORY FOR BIOMEDICAL SCIENCES	5P01 GM14267-14	482,143
KO, WEN H.	BIOMEDICAL ELECTRONICS RESOURCE	5P41 RR00857-06	682,384
KOLETSKY, SIMON.	PATHOGENESIS OF ATHEROSCLEROSIS IN RATS	5R01 HL22341-03	58,220
KOWAL, JEROME	ENZYMATIC CONTROL OF STEROID BIOSYNTHESIS	3R01 AM15236-09S1	20,867
KOWAL, JEROME	ENZYMATIC CONTROL OF STEROID BIOSYNTHESIS	2R01 AM15236-10	68,871
KUHNERT, BETTY R.	DRUG METABOLISM BY THE HIGH RISK MOTHER AND NEONATE	5R01 HD13359-02	38,113
KURCZYNSKI, THADDEUS W.	BETA GALACTOSIDASES IN GLOBOID CELL LEUKODYSTROPHY	5R01 GM24860-03	61,463
KUSHNER, IRVING	INDUCTION OF ACUTE PHASE PROTEIN BIOSYNTHESIS	1R01 AG02467-01	57,851
LANCASTER, WAYNE D.	BOVINE PAPILLOMA VIRUS DNA AND NEOPLASIA	5R23 CA24505-03	37,909
LANDAU, BERNARD R.	CARBOHYDRATE AND LIPID METABOLIC PATHWAYS	5R01 AM14507-11	136,238
LASEK, RAYMOND J.	AGING CHANGES IN NEURONAL STRUCTURE AND FUNCTION	5P01 AG00795-03	318,495
LASEK, RAYMOND J.	AXONAL REGENERATION IN SPINAL CORD	5R01 NS14900-02	89,273
LEIS, JONATHAN P.	PROCESSING AND TRANSLATION OF TUMOR VIRUS RNA IN VITRO	5R01 CA27414-02	131,365
LINDLEY, BARRY D.	EXCITATION-CONTRACTION COUPLING IN DENERVATED MUSCLE	5R01 NS10196-07	86,771
LITTLE, A BRIAN.	HORMONE METABOLISM IN REPRODUCTION	5R01 HD02378-15	83,269
LITTLE, A BRIAN.	SPECIALIZED POP. RES. CTR. IN REPRODUCTIVE BIOLOGY	5P50 HD07640-07	372,425
LOZOFF, BETSY.	IRON DEFICIENCY ANEMIA AND INFANT BEHAVIOR	1R01 HD14122-01	60,101
MAGUIRE, MICHAEL E.	ROLE OF MAGNESIUM IN CELL RESPONSE TO HORMONE	1R01 GM26340-01A1	111,237
MAHAJAN, DAMODAR K.	STEROIDS AND FOLLICULAR DEVELOPMENT	5R01 HD10302-03	54,672
MAHMOUD, ADEL A.	MULTIDISCIPLINARY PROGRAM IN PARASITIC INFECTIONS	5P01 AI15351-03	423,159
MAKKER, SUDESH P.	PATHOGENESIS OF MEMBRANOUS GLOMERULONEPHROPATHY	5R01 AM25782-02	61,587
MALEMUD, CHARLES J.	HUMAN CARTILAGE IN AGING AND OSTEOARTHRITIS	1R01 AG02205-01	98,975
MANSOUR, EDWARD G.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R01 CA14548-06	138,185
MARSHALL, JAMES S.	THYROXINE-BINDING GLOBULIN AND SERUM GLYCOPROTEINS	5R01 AM15308-09	76,139
MATEESCU, GHEORGHE D.	NMR SPECTRAL STUDIES OF VISUAL PIGMENTS	5R01 EY02998-02	87,625
MEIGS, ROBERT A.	AROMATIZATION: ENZYMES, ORGANIZATION AND CONTROL	5R01 HD12931-02	105,578
MERRICK, WILLIAM C.	MECHANISM OF PROTEIN SYNTHESIS INITIATION	5R01 GM26796-02	82,406
MIEVAL, JOHN J.	HEMOPROTEIN-DRUG INTERACTIONS: ROLE IN METABOLISM	5R01 GM24076-03	59,414
MILLER, CHARLES G.	GENETICS AND BIOCHEMISTRY OF INTRACELLULAR PROTEOLYSIS	5R01 AI10333-09	97,931
MILLER, RICHARD E.	GLUTAMINE SYNTHETASE IN CULTURED 3T3-L1 ADIPOCYTES	5R01 AM21145-03	56,035
MOORE, ALLEN C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07113-13	152,761
MOSKOWITZ, ROLAND W.	PATHOGENESIS AND THERAPY OF EXPERIMENTAL OSTEOARTHRITIS	5R01 AG01305-02	120,304
MOSKOWITZ, ROLAND W.	NORTHEAST OHIO ARTHRITIS CENTER SUPPORT	5P60 AM20618-02	273,720
NEET, KENNETH E.	INTERACTION OF SUBUNITS IN ENZYMES AND PROTEINS	5R01 AM12881-12	105,611
NORBY, DAVID P.	FIBROCARILAGE: ROLE IN JOINT DEVELOPMENT AND DISEASE	1R01 AM26848-01	127,172
OCCHINO, JOSEPH C.	CHARACTERIZATION OF ORAL MUCOSA AND SKIN BASAL LAMINA	5R01 DE04338-05	90,060
OLEINICK, NANCY L.	RADIATION-INDUCED MODIFICATIONS IN PROTEIN SYNTHESIS	2R01 CA15378-07	164,074
OLEINICK, NANCY L.	THE MECHANISM OF RADIATION-INDUCED MITOTIC DELAY	5R01 CA22727-03	99,158

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
PATEL, MULCHAND S.	CONTROL OF FETAL AND NEONATAL GLUCOSE METABOLISM	5R01 HD05740-09	100,137
PATEL, MULCHAND S.	EFFECT OF MATERNAL DIABETES ON METABOLISM IN NEWBORNS	5R01 HD12643-03	101,519
PEARSON, OLOF H.	ENDOCRINE FACTORS INFLUENCING TUMOR GROWTH IN MAN	5R01 CA05197-21	116,582
POLNSEY, ROBERT	STUDY OF CARDIAC SOURCES OF THE ECG	5R01 HL23645-02	48,663
POLMAR, STEPHEN H.	CELLULAR IMMUNITY TO PSEUDOMONAS IN CYSTIC FIBROSIS	5R01 HL24244-02	82,004
POWELL, ARNOLD E.	LEUKOCYTE ADHERENCE INHIBITION ASSAY IN HUMAN CANCER	5R01 CA26144-02	168,049
PRZYBYLSKI, RONALD J.	REGULATION OF INSULIN EFFECTS ON MUSCLE	5R01 AM25202-03	80,817
PURNELL, EDWARD W.	STUDY OF EYE PHYSIOLOGY AND DISEASE BY ULTRASOUND	5R01 EY00224-18	185,614
RATNOFF, OSCAR D.	HEMOSTATIC MECHANISMS	2R01 HL01661-29	206,808
RECKNAGEL, RICHARD O.	SECONDARY MECHANISMS IN LIPOPEROXIDATIVE CELL INJURY	2R01 ES01821-24	136,609
RHODES, ROBERT S.	GLUCONEOGENESIS AND MITOCHONDRIAL FUNCTION IN SHOCK	5R23 GM26397-02	40,701
ROBBINS, FREDERICK C.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00210-16	712,492
ROBERTSON, ABEL L.	ATHEROSCLEROSIS AND ARTERIAL CELL FUNCTIONS	2R01 HL20924-04	202,456
RODMAN, HARVEY M.	DIABETES AND CELL-MEDIATED IMMUNITY	5R01 AM21259-03	82,760
ROOS, BERNARD A.	REGULATION OF CALCITONIN BIOSYNTHESIS AND SECRETION	5R01 AM21567-03	49,263
ROSENBERRY, TERRONE L.	ACETYLCHOLINESTERASE IN EXCITABLE MEMBRANES	5R01 NS16322-02	35,081
ROSENBERRY, TERRONE L.	ATTACHMENT AND ROLE OF SYNAPTIC ACETYLCHOLINESTERASE	1R01 NS16577-01	58,051
RUDOLPH, STEPHEN A.	PROTEIN PHOSPHORYLATION AND ADRENERGIC EFFECTS	5R01 HL21995-03	70,234
RUDY, YORAM	NORMALIZED BODY SURFACE POTENTIAL MAPS	5R01 HL17931-06	150,961
RUSTAD, RONALD C.	CELL CYCLE DEPENDENT CHANGES IN RADIATION SENSITIVITY	5R01 GM26484-02	70,421
SABLE, HENRY Z.	STUDIES OF POLYHYDROXYCYCLOALKANES	5R01 AM07719-17	67,502
SABLE, HENRY Z.	MECHANISM OF ACTION OF THIAMIN PYROPHOSPHATE	5R01 AM18888-05	61,560
SAIDEL, GERALD M.	INTRA-RENAL TRANSPORT IN REGULATION OF SALT EXCRETION	1R01 AM26073-01	47,929
SALOMON, ROBERT G.	PREPROTAGLANDIN EXOPEEROXIDES	5R01 GM21249-05	73,230
SCHAFFER, IRWIN A.	CHONDROCYTE CULTURE AND GENETIC BONE DYSPLASIA	5R01 AM25557-02	57,936
SENA, ELISSA P.	MITOCHONDRIAL DNA INHERITANCE	5R01 GM23643-03	63,575
SHURIN, SUSAN B.	OPSONIC RECOGNITION BY PHAGOCYTES	5R01 AI16060-02	75,848
SIMMELINK, JAMES W.	ULTRASTRUCTURAL HISTOPATHOLOGY OF HUMAN DENTAL ENAMEL	5R01 DE02525-15	86,379
SINGER, MARCUS	NERVOUS REGENERATION; INTRINSIC AND EXTRINSIC FACTORS	1P01 NS15731-01	533,099
SKEGGS, LEONARD T.	CAUSE OF CHRONIC EXPERIMENTAL RENAL HYPERTENSION	2R01 HL17243-07	102,363
SMITH, REX N.	THE IMMUNOLOGICAL MAINTENANCE OF PREGNANCY	5R01 HD13260-02	101,054
SORENSEN, RICARDO U.	IN VITRO HUMAN CELLULAR RESPONSES TO KILLED BACTERIA	5R23 AI14682-03	47,400
SPETZLER, ROBERT F.	THERAPEUTIC MANAGEMENT OF STROKE	1R01 NS15411-01A1	124,126
STEINBERG, ARTHUR G.	NATURE & DISTRIBUTION OF HUMAN GAMMA-GLOBULIN FACTORS	5R01 GM07214-20	72,552
STUEHR, JOHN E.	KINETIC INVESTIGATION OF BIOCHEMICAL REACTIONS	5R01 GM13116-15	85,998
SUDILOVSKY, OSCAR	MALIGNANT PHENOTYPES: CYTOPLASMIC AND NUCLEAR CONTROL	1R01 CA25164-01A1	77,725
SUKENIK, CHAIM N.	AQUEOUS MICELLE MEDIATED CHEMICAL SELECTIVITY	1R01 GM27355-01	74,625
THOMAS, CECIL W.	SYNTHESIZED CHROMOSOME IMAGES	5R01 GM26499-02	69,027
THOMASSEN, MARY J.	PSEUDOMONAS INFECTION IN CYSTIC FIBROSIS	1R01 AI16557-01	52,871
THOMPSON, WILMER L.	SYSTEM OF EMERGENCY TREATMENT OF POISONED PATIENTS	5R01 GM22317-05	137,160
URBACH, FRED L.	AN ELECTRON PARAMAGNETIC RESONANCE RESEARCH FACILITY	5P41 GM27519-02	4,945
UTTER, MERTON F.	STRUCTURE OF BIOTIN ENZYMES	5R01 AM12245-13	212,655
UTTER, MERTON F.	INBORN ERRORS OF PYRUVATE METABOLISM	5R01 AM20478-03	106,679
UTTER, MERTON F.	STRUCTURE AND FUNCTION OF PEP CARBOXYKINASE ISOZYMES	5R01 AM21859-03	76,345
UTTER, MERTON F.	ELECTRON MICROSCOPY OF ENZYMES	5R01 GM22920-05	43,636
WALLICK, DON W.	NEURAL CONTROL OF ATRIOVENTRICULAR JUNCTIONAL RHYTHM	1R23 HL25997-01	38,048
WALTON, ALAN G.	STRUCTURE OF BLOOD PROTEINS BY NEW CD METHODOLOGY	5R01 GM26903-02	42,546
WISOTZKY, JOEL	MYOFIBROBLAST CONTRACTION IN PERIODONTIUM	1R01 DE05495-01	60,736
WOOD, HARLAND G.	SUBUNIT-SUBUNIT INTERACTIONS OF TRANSCARBOXYLASE	2R01 GM22579-06	185,010
WOOD, HARLAND G.	UTILIZATION OF CO ₂ AND THE TOTAL SYNTHESIS OF ACETATE	5R01 GM24913-03	90,544
YOUNKIN, STEVEN G.	LONG-TERM INFLUENCE OF NERVE ON MUSCLE	5R01 NS15219-03	91,090
ORGANIZATION TOTAL	177	20,239,440	
CLEVELAND CLINIC HOSPITAL ZIP CODE 44106			
ANTUNEZ, ANTONIO R.	NEUTRON BEAM RADIOTHERAPY	3P01 CA19720-03S2	363,999
BATTISTO, JACK R.	NATURALLY OCCURRING DELAYED-TYPE ISO-HYPERSENSITIVITY	5R01 AI12468-06	116,245
BUMPUS, F MERLIN	CARDIOVASCULAR DISEASES AND BLOOD PRESSURE CONTROL	5P01 HL06835-19	1,159,455
BUMPUS, F MERLIN	BIOMEDICAL RESEARCH SUPPORT	2507 RR05674-12	105,408
CHISOLM, GUY M, III	EARLY VASCULAR ALTERATIONS IN HYPERTENSION	1R01 HL26230-01	31,856
DEODHAR, SHARAD D.	IMMUNOPATHOLOGY OF EXPERIMENTAL BERYLLIUM DISEASE	5R01 HL24580-02	50,476
DYMENT, PAUL G.	SOUTHWEST ONCOLOGY GROUP	1R10 CA26756-01	58,172

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator		Project title	Grant number	Dollars
OHIO—Continued				
FINKE, JAMES H.....		KILLER ASSISTING FACTOR IN CELL MEDIATED LYMPHOLYSIS.....	5R01 CA24474-03	44,919
GERRITY, ROSS G.....		THE STRUCTURE AND PERMEABILITY OF ARTERIAL ENDOTHELIUM.....	5R01 HL21438-04	82,947
GOLDING, LEONARD A.....		PHYSIOLOGICAL STUDIES OF CHRONIC NONPULSATILE BLOOD FLOW.....	1R01 HL26267-01	154,827
GREENWALD, A SETH.....		THE MECHANICS AND FUNCTION OF HUMAN SYNOVIAL JOINTS.....	5R01 AM17479-05	38,593
GREENWALD, A SETH.....		BONE AND IMPLANT INTERFACE ANALYSIS.....	1R01 GM27868-01	48,204
HEWLETT, JAMES S.....		SOUTHWEST ONCOLOGY GROUP.....	5R10 CA04919-21	144,772
HOLZBACH, R THOMAS.....		BILIARY CHOLESTEROL SOLUBILITY.....	5R01 AM17562-07	171,319
KIRALY, RAYMOND J.....		HEXSYN LEAFLET VALVE.....	1R01 HL25689-01	76,185
KRAKAUER, RANDALL S.....		LOSS OF SUPPRESSOR CELLS IN SYSTEMIC LUPUS ERYTHEMATOSUS.....	1R23 AI16621-01	40,360
NOSE, YUKIHIKO.....		BIVENTRICULAR ASSIST AND REPLACEMENT STUDIES.....	5R01 HL24286-02	155,380
PROFFITT, MAX R.....		AUTOIMMUNITY AND VIRUS-INDUCED LEUKEMIA.....	2R01 CA20242-05	110,229
SHAINOFF, JOHN R.....		FIBRIN COMPLEXES IN INTERMEDIARY COAGULATION.....	5R01 HL16361-05	58,831
SHAINOFF, JOHN R.....		PATHOCHEMISTRY OF FIBRINOGEN.....	5R01 HL19767-03	48,228
ORGANIZATION TOTAL	20	3,060,405		
INTERNATIONAL CYSTIC FIBROSIS ASSOCIATION ZIP CODE 44105				
STURGESS, JENNIFER M.....		8TH INTERNATIONAL CONGRESS ON CYSTIC FIBROSIS.....	1R13 AM27518-01	12,265
ORGANIZATION TOTAL	1	12,265		
MOUNT SINAI HOSPITAL OF CLEVELAND ZIP CODE 44106				
HAAS, ERWIN.....		EXPERIMENTAL RENAL AND NEUROGENIC HYPERTENSION.....	5R01 HL17947-06	189,913
LEVY, MATTHEW N.....		NEURAL CONTROL OF THE HEART.....	5R01 HL10951-13	139,658
LEVY, MATTHEW N.....		CATECHOLAMINE RELEASE IN THE HEART.....	5R01 HL15758-08	93,878
LEVY, MATTHEW N.....		BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05658-13	36,216
MARTIN, PAUL J.....		NEURAL CONTROL OF CARDIAC CONDUCTION AND EXCITATION.....	5R01 HL22484-03	81,938
SACHS, SIDNEY H.....		SURGICAL ADJUVANT PROJECT FOR BREAST AND BOWEL CANCERS.....	1R10 CA26730-01	35,714
ORGANIZATION TOTAL	6	577,317		
ST. LUKE'S HOSPITAL OF THE UNITED METHODIST CHURCH ZIP CODE 44104				
COWAN, DALE H.....		STUDIES OF THE PLATELET INTERACTION WITH COLLAGEN.....	5R01 HL23986-02	72,197
ORGANIZATION TOTAL	1	72,197		
ST. VINCENT CHARITY HOSPITAL ZIP CODE 44115				
NAIR, PANKAJAM.....		COMPARATIVE STUDY OF HEART FUNCTION.....	5R01 HL11906-13	75,337
NAIR, PANKAJAM.....		MECHANISM OF CHEMORECEPTOR DISCHARGE.....	5R01 HL13134-09	51,152
ORGANIZATION TOTAL	2	126,489		
UNIVERSITY HOSPITALS OF CLEVELAND ZIP CODE 44106				
ROBBINS, FREDERICK C.....		GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00080-18	811,062
ORGANIZATION TOTAL	1	811,062		
COLUMBUS				
BATTELLE MEMORIAL INSTITUTE ZIP CODE 43201				
BARKER, ANNA D.....		BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05723-09	55,918
HASSLER, CRAIG R.....		ELECTRICAL AUGMENTATION OF BONE FORMATION & INGROWTH.....	5R01 AM19280-05	81,851
HASSLER, CRAIG R.....		INVESTIGATIONS OF ELECTRICALLY INDUCED OSTEOGENESIS.....	5R01 AM21867-03	91,099
LEININGER, ROBERT I.....		AN EVALUATION OF BLOOD-SURFACE INTERACTIONS.....	5R01 HL24015-02	250,206
ORGANIZATION TOTAL	4	479,074		
CHILDREN'S HOSPITAL ZIP CODE 43205				
HOFFMANN, PETER J.....		CHARACTERIZATION OF HERPES SIMPLEX VIRUS POLYPEPTIDES.....	1R01 AI16827-01	58,629
NEWTON, WILLIAM A, JR.....		CHILDREN'S CANCER STUDY GROUP.....	5R10 CA03750-23	199,911
ORGANIZATION TOTAL	2	258,540		
OCLC, INC. ZIP CODE 43212				
PENNIMAN, WILLIAM D.....		MODELING AND EVALUATION OF ON-LINE USER BEHAVIOR.....	1R01 LM03444-01	88,013
ORGANIZATION TOTAL	1	88,013		
OHIO STATE UNIVERSITY ZIP CODE 43210				
ACKERMAN, G ADOLPH.....		SURFACE DIFFERENTIATION OF DEVELOPING HEMIC CELLS.....	5R01 AM21512-03	55,039

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
ALBEN, JAMES O.	NEW SPECTRAL PROBES IN HEMOLYTIC ANEMIAS	5R01 HL17839-05	57,977
ALLEN, JAMES N.	RADIATION ENHANCEMENT IN NERVOUS SYSTEM TUMOR MODELS	5R01 CA20348-05	105,857
ALLRED, JOHN B.	SHORT TERM DIETARY CONTROL OF LIVER LIPOGENESIS	2R01 AM19555-04	55,775
BALCERZAK, STANLEY P.	LEUKEMIA-LYMPHOMA PROGRAM	5P01 CA15147-06	395,297
BARTH, ROLF F.	IMMUNITY TO TUMOR-LOCALIZED, CHEMICALLY-MODIFIED DRUGS	3R01 CA27615-01S1	8,854
BEAL, JACK L.	CHEMISTRY AND PHARMACOLOGY OF THALICTRUM CONSTITUENTS	2R01 HL07502-15	92,770
BEHRMAN, EDWARD J.	SYNTHESIS OF SUGAR NUCLEOTIDES & ANALOGS	5R01 GM20002-04	30,804
BERLINER, LAWRENCE J.	HUMAN THROMBIN: BINDING AND RECOGNITION SITES	5R01 HL24549-02	69,849
BIRKY, C WILLIAM, JR.	MECHANISMS OF ORGANELLE TRANSMISSION GENETICS	5R01 GM19607-08	112,478
BOULANT, JACK A.	THE NEURAL CONTROL OF TEMPERATURE REGULATION	5R01 NS14644-03	45,706
BOZLER, EMIL	MECHANICAL CONTROL AND ENERGETICS OF MUSCLE CONTRACTION	2R01 AM20049-04	10,908
BRESNAHAN, JACQUELINE C.	PAIN MECHANISMS AFTER SPINAL CORD LESIONS	5R01 NS14457-03	73,804
BRIERLEY, GERALD P.	ION TRANSPORT BY HEART MITOCHONDRIA	5R01 HL09364-16	83,897
BRIERLEY, GERALD P.	PATHOLOGY OF MITOCHONDRIA IN ISCHEMIC MYOCARDIUM	5R01 HL23166-03	73,344
BRIGGS, JOHN D.	BIOLOGICAL CONTROL OF VECTORS OF HUMAN DISEASE	5R21 AI16285-02	57,164
BRUEGGEMEIER, ROBERT W.	BIOTRANSFORMATIONS OF ESTROGENS AND CANCER	1R01 CA28578-01	76,588
BURRY, RICHARD W.	CONTROL OF SYNAPTOGENESIS IN CULTURES OF THE CNS	1R01 NS15894-01	64,600
BUSCH, DARYLE H.	BIOMIMETIC METAL COMPLEXES OF MACROCYCLIC LIGANDS	5R01 GM10040-18	99,085
CERILLI, G JAMES	ANTIVASCULAR ENDOTHELIAL ANTIBODY	3R01 AM16804-06S1	16,065
CERILLI, G JAMES	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18016-05	79,279
CLARKE, STEVEN D.	REGULATION OF LIPOGENESIS BY POLYUNSATURATED FATS	5R01 HL23159-03	42,981
CORNWELL, DAVID G.	PATHOGENESIS OF EXPERIMENTAL ATHEROSCLEROSIS	2R01 HL11897-13	85,037
CRAMBLETT, HENRY G.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00034-20	586,779
CRAMBLETT, HENRY G.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05409-19	136,841
DEAN, DONALD H.	ISOLATION AND GENETIC ANALYSIS OF SPORULATION GENES	3R01 GM26172-02S1	105,000
DEAN, DONALD H.	ISOLATION AND GENETIC ANALYSIS OF SPORULATION GENES	5R01 GM26172-03	38,857
DENLINGER, DAVID L.	STRATEGIES TO DISRUPT PREGNANCY IN THE TSETSE FLY	1R01 AI16723-01	10,905
DUDEWICZ, EDWARD J.	A MODEL FOR MEDICAL TREATMENTS EVALUATION	5R01 CA26254-02	52,820
FLIGNER, MICHAEL A.	A NEW APPROACH TO A GENERALIZED BEHRENS-FISHER PROBLEM	5R01 GM25452-02	18,542
FREY, PERRY A.	ENZYME CATALYSIS OF ELECTRON AND GROUP TRANSFER	5R01 AM13502-12	64,518
FREY, PERRY A.	NUCLEOTIDYL AND PHOSPHOTRANSFERASE STEREOCHEMISTRY	5R01 GM24390-03	44,538
GAGINELLA, TIMOTHY S.	INTESTINAL SECRETION NEUROCHEMICAL RECEPTOR MECHANISMS	7R01 AM28299-01	42,653
GLASER, RONALD	EXPRESSION OF EPSTEIN-BARR VIRUS IN HYBRID CELLS	5R01 CA23807-03	75,590
GROSSIE, JAMES A.	PROPERTIES OF SKELETAL MUSCLE IN ALLOXAN DIABETES	5R01 AM23019-03	25,691
HANSEN, POUL M.	EFFECTS OF PROCESSING AND STORAGE ON HUMAN MILK	5R01 HD12418-02	27,656
HART, DAVID J.	SYNTHESIS OF BIOLOGICALLY ACTIVE ALKALOIDS	1R01 GM27647-01	52,420
HEBERT, LEE A.	INTRARENAL PRESSURE AND RENAL FUNCTION	3R01 HL25404-01S1	13,281
HILL, RICHARD M.	THE CORNEAL ENVIRONMENT	5R01 EY02383-03	12,807
HOOVER, EDWARD A.	PATHOGENESIS OF ANIMAL LEUKEMIA	2R01 CA25257-04	72,992
HORROCKS, LLOYD A.	GLYCEROPHOSPHOLIPID METABOLISM IN THE BRAIN	2R01 NS08291-08	109,977
HORROCKS, LLOYD A.	PLASMALOGENASE AND WHITE MATTER INJURY	5R01 NS14381-03	42,793
HORTON, DEREK.	SYNTHESIS OF BIOLOGICALLY IMPORTANT CARBOHYDRATES	5R01 GM11976-15	106,018
HORTON, DEREK.	NMR SPECTROMETER FOR CORE USER GROUP	5P41 GM27431-02	18,585
HUNT, WILLIAM E.	SPINAL CORD INJURY RESEARCH CENTER	5P50 NS10165-09	494,045
INGLING, CARL R, JR.	THE COLOR AND BRIGHTNESS CHANNELS OF THE VISUAL SYSTEM	5R01 EY03236-02	41,345
IVES, DAVID H.	MECHANISMS OF NUCLEOSIDE KINASE REGULATION	5R01 GM26900-02	42,931
JOHNSON, LEE F.	REGULATION OF DIHYDROFOLATE REDUCTASE GENE EXPRESSION	5R01 CA26470-02	45,037
JONES, RONALD	CLINICAL IMPLICATIONS OF VERGENGE-ANOMALY	5R01 EY02532-03	41,237
JORNS, MARILYN S.	FLAVOENZYME MECHANISMS: REDOX AND NONREDOX REACTIONS	5R01 GM22662-05	51,015
KAPRAL, FRANK A.	THE IN VIVO GROWTH OF STAPHYLOCOCCI	5R01 AI07826-12	82,441
KELLER, MARTIN D.	A CANCER CENTER PATIENT DATA SYSTEM	2R10 CA21751-04	76,148
KING, JAMES S.	THE DEVELOPMENT OF PRECEREBELLAR NUCLEI	5R01 NS08798-09	53,734
KOESTNER, ADALBERT	NEURO ONCOGENESIS BY RESORPTIVE CARCINOGENS	2R01 CA11224-11A1	102,926
KOESTNER, ADALBERT	A MODEL OF PARAINFECTIONOUS DEMYELINATING ENCEPHALITIS	5R01 NS14821-12	121,180
KRUGER, FRED A.	ALPHA-ADRENERGIC EFFECTS ON HEART METABOLISM	5R01 HL22354-03	62,888
KUNZ, ALBERT L.	OPEN LOOP FORCING OF CHEST VOLUME AND CO2 CONCENTRATION	5R01 HL23780-02	47,836
KUWANA, THEODORE	SPECTROELECTROCHEMISTRY OF BIO-ELECTRON TRANSFERS	5R01 GM19181-09	48,266
LA PIDUS, JULES B.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07074-15	115,731
LI, WEN L.	ADJUSTMENT AND IMPACT OF RECENT IMMIGRANTS	1R01 HD14274-01	30,928
LIM, DAVID J.	OTITIS MEDIA WITH EFFUSION	5R01 NS08854-11	185,537
LIMA, JOHN J.	NORPACE KINETICS AND BIOAVAILABILITY IN HEART FAILURE	1R01 GM28424-01	47,723

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
LOWERY, BRIAN D.....	MODELS AND MECHANISMS OF ACUTE LUNG INJURY AFTER SHOCK.....	5R23 GM26865-02	42,600
MAGNUS, PHILIP D.....	SYNTHESIS OF MOLECULES OF BIOLOGICAL INTEREST.....	5R01 GM25231-03	46,903
MAGNUS, PHILIP D.....	SYNTHESIS OF HISTRIONICOTOXIN, A NEUROTOXIC DRUG.....	5R01 NS14622-02	50,173
MALSPEIS, LOUIS.....	BIOTRANSFORMATION OF M-AMSA AND RELATED ANALOGUES.....	1R01 CA27633-01	89,039
MARUSHIGE, KEIJI.....	CHROMATIN IN SPERMATOGENESIS AND FERTILIZATION.....	5R01 HD12265-02	52,395
MARZLUF, GEORGE A.....	REGULATION OF GENE EXPRESSION IN NEUROSPORA.....	5R01 GM23367-04	43,641
MAYER, ROBERT M.....	DEXTRAN SUCRASE OF STREPTOCOCCUS SANGUIS.....	5R01 DE03731-05	35,773
MENDELL, JERRY R.....	ROLE OF AXOPLASMIC TRANSPORT IN DIABETIC NEUROPATHY.....	5R01 NS15499-02	47,873
MILLER, DUANE D.....	CARDIOPULMONARY ACTIONS: TRIMETOQUINOL ANALOGS.....	5R01 HL22533-02	56,029
MILLER, DUANE D.....	ALPHA-ADRENERGIC AND DOPAMINERGIC STEREOCHEMICAL STUDIES.....	5R01 NS14774-03	44,114
MILO, GEORGE E.....	CHEMICAL CARCINOGEN INDUCED NEOPLASTIC TRANSFORMATION.....	3R01 CA25907-01S1	11,690
MINTON, JOHN P.....	HORMONES AND BREAST CANCER PROSTAGLANDIN BIOSYNTHESIS.....	5R01 CA22892-03	36,279
MORTENSEN, RICHARD F.....	C-REACTIVE PROTEIN REGULATION OF TUMOR IMMUNITY.....	7R01 CA30015-01	62,946
NEIDHART, JAMES A.....	POLYMERIZED TUMOR ANTIGEN-ADJUVANT IMMUNOTHERAPY.....	5R01 CA26286-02	61,740
NEIDHART, JAMES A.....	IMIDAZOLE AND ITS METABOLITES.....	5R01 CA26436-02	39,176
NEWMAN, MELVIN S.....	SYNTHESIS OF SUBSTITUTED POLYCYCLIC HYDROCARBONS.....	5R01 CA07394-16	45,150
PANGANAMALA, RAO V.....	DIABETES-VITAMIN E-VASCULAR DEGENERATION.....	5R01 HL23439-02	42,692
PAQUETTE, LEO A.....	POLYCONDENSED ALICYCLICS AND THEIR ANTIVIRAL ROLE.....	5R01 AI11490-07	84,242
PAQUETTE, LEO A.....	UNSATURATED POLYOLEFINS AND HYDROCARBON CARCINOGENESIS.....	5R01 CA12115-10	115,904
PAQUETTE, LEO A.....	SYNTHETIC ELABORATION OF POLYQUINANE NATURAL PRODUCTS.....	1R01 GM28468-01	65,901
PARSONS, DONALD O.....	WORK BEHAVIOR OF RETIREMENT AGE MALES.....	5R01 AG02003-02	69,932
PATIL, POPAT N.....	IRIS PIGMENTATION, MELANINS AND OCULAR DRUG EFFECTS.....	5R01 EY01308-06	34,429
PERLMAN, PHILIP S.....	DELETIONS AND MITOCHONDRIAL GENETIC RECOMBINATION.....	5R01 GM21896-05	66,220
PIEPER, HEINZ P.....	ENERGY OUTPUT AND EFFICIENCY OF LEFT VENTRICLE.....	5R01 HL18933-05	62,242
PIEPER, HEINZ P.....	PULMONARY VASCULAR SMOOTH MUSCLE FUNCTIONAL CHARACTER.....	5R01 HL23239-03	48,396
PRAKASH, CHANDRA.....	STUDIES OF SEMINAL PLASMA IMMUNE RESPONSE INHIBITOR.....	7R01 HD15031-01	66,112
RAHWAN, RALF G.....	ANTIARRHYTHMIC STUDIES ON 2-SUBSTITUTED AMINOINDENES.....	5R01 HL21670-03	32,323
RALL, JACK A.....	ENERGETICS OF CALCIUM CYCLING DURING MUSCLE CONTRACTION.....	5R01 AM20792-03	19,617
REEVE, JOHN N.....	PROTEIN STABILITY AND AGING IN ANUCLEATE CELLS.....	5R01 AG01546-02	80,872
RICHARDSON, KEITH E.....	OXALIC ACID METABOLISM AND PRIMARY HYPEROXALURIA.....	5R01 AM12960-11	70,054
RIESKE, JOHN S.....	SUBUNIT STUDIES OF A HEART RESPIRATORY COMPLEX.....	1R01 HL26298-01	68,292
RINEHART, JOHN J.....	HEMOGLOBIN IRON METABOLISM BY HUMAN MACROPHAGES.....	5R01 AM25685-02	26,483
ROEHRRIG, KARLA L.....	HORMONAL AND DIETARY CONTROL OF ATP CITRATE LYASE.....	1R01 GM29255-01	27,073
SAGONE, ARTHUR L.....	THE ROLE OF OXYGEN RADICALS ON EFFECTOR/TUMOR CELLS.....	5R01 CA24289-03	81,469
SHECHTER, HAROLD.....	DIAZO, DIAZIRINO, AZOXY AND NOVEL METEROCYCLIC COMPOUNDS.....	5R01 CA11185-11	67,320
SOKOLOSKI, THEODORE D.....	NITROGLYCERIN TOLERANCE.....	5R01 HL23303-02	35,486
SOLOWAY, ALBERT H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RRO5607-14	42,028
SPRECHER, HOWARD W.....	EFFECTS OF DIETARY CHANGE ON LIPID BIOSYNTHESIS.....	2R01 AM18844-05	49,857
SPRECHER, HOWARD W.....	FACTORS MODIFYING BLOOD PLATELET FUNCTION IN DIABETICS.....	3R01 AM20387-03S1	2,805
STEVENSON, JOANNE S.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RRO9119-02	99,998
SWENTON, JOHN S.....	SYNTHESIS OF ANTHARACYCLINE ANTITUMOR AGENTS.....	5R01 CA17712-03	40,535
TARGOWSKI, STANISLAW.....	EXPERIMENTALLY INDUCED MUCCOID ENTERITIS.....	1R24 RRO1197-01A1	63,226
URETSKY, NORMAN J.....	AMPHETAMINE, MONOAMINES, AND BEHAVIOR.....	5R01 NS13888-02	61,929
VASKO, JOHN S.....	PHYSIOLOGY & HISTOPATHOLOGY OF ARTERIALIZED VEIN GRAFTS.....	5R01 HL17337-04	93,741
WEBB, THOMAS E.....	POST-TRANSCRIPTIONAL CONTROL IN EUKARYOTIC CELLS.....	5R01 CA12411-08	58,845
WHISLER, RONALD L.....	IN VITRO IMMUNOGLOBULIN PRODUCTION IN HEPATITIS.....	5R23 AI14918-03	42,600
WILLIAMS, THOMAS E, JR.....	A NEW METHOD FOR ANALYSIS OF CORONARY ARTERY BEHAVIOR.....	3R01 HL22801-02S1	3,447
WILSON, HENRY E.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA04920-21	173,979
WITIAK, DONALD T.....	PHARMACOLOGY OF ICRF-159 RELATED ANALOGUES.....	5R01 CA25445-02	125,710
WITIAK, DONALD T.....	HYPOCHOLESTEROLEMIC AGENTS: STEREOCHEMICAL STUDIES.....	5R01 HL12740-12	75,146
WRIGHT, RONALD A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RRO5463-18	41,520
YEARY, ROGER A.....	COMPARATIVE STUDIES IN PERINATAL TOXICOLOGY.....	5R01 HD03867-11	80,460
YOHN, DAVID S.....	COMPREHENSIVE CANCER CENTER SUPPORT GRANT (CORE).....	2P30 CA16058-07	1,750,471
ZWILLING, BRUCE S.....	IMMUNOPROPHYLAXIS AND IMMUNOTHERAPY OF LUNG CANCER.....	5R01 CA16342-06	67,786
ORGANIZATION TOTAL	116 9,948,032		

DAYTON

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SINGER, SANFORD S.....	STERIOD SULFOTRANSFERASES AND GLUCOCORTICOID ACTION.....	2R01 AM19669-04	46,733
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
TURGEON, ROBERT.....	CROWN GALL TUMOR DISEASE: SUPPRESSION AND RECOVERY.....	3R01 CA23261-03S1	2,432
ORGANIZATION TOTAL	2 49,165		
WRIGHT STATE UNIVERSITY ZIP CODE 45431			
BATTINO, RUBIN.....	THE SOLUBILITY OF GASES IN LIQUIDS.....	5R01 GM14710-13	65,110
BELJAN, JOHN R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05794-04	75,655
BURT, WAYNE R.....	HYDROXOMATE AND VIRULENCE IN HISTOPLASMOSIS.....	5R01 AI15989-02	49,739
CUMMINGS, SUE C.....	THERMODYNAMIC AND EPR STUDIES ON MODEL OXYGEN CARRIERS.....	5R01 HL15640-08	41,453
FLICK, PARKE K.....	REGULATION OF RAT LIVER FATTY ACID SYNTHETASE.....	5R01 AM21957-03	47,436
GOTSHALL, ROBERT W.....	EFFECT OF PRESSURE ON RENAL BLOOD FLOW AND FUNCTION.....	3R23 HL21382-03S1	4,300
HUTCHINGS, BRIAN L.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07155-05	19,829
KANTOR, GEORGE J.....	EFFECTS OF RADIATION ON HUMAN CELLS CULTURED IN VITRO.....	5R01 CA16477-06	44,648
LEFFAK, IRA M.....	CHROMATIN STRUCTURE AND REPLICATION.....	5R01 GM26803-02	56,728
ORGANISCIAK, DANIEL T.....	ENVIRONMENTAL LIGHT AND RETINAL MEMBRANE DEVELOPMENT.....	2R01 EY01959-04	83,855
PETROFSKY, JERROLD S.....	CARDIO-RESPIRATORY RESPONSES TO ISOMETRICS.....	1R01 HL25977-01	87,303
PETROFSKY, JERROLD S.....	MICROPROCESSOR STIMULATION OF MUSCLE IN THE PARALYZED.....	5R01 NS16003-02	50,123
ROCHE, ALEXANDER F.....	PATTERNS OF DENTOCRANIOFACIAL GROWTH AND MATURATION.....	5R01 DE05160-04	122,402
ROCHE, ALEXANDER F.....	ASSESSMENT OF SKELETAL MATURITY.....	2R01 HD12251-04A1	145,346
ROCHE, ALEXANDER F.....	SUBCUTANEOUS FAT, BLOOD LIPIDS AND HEALTH.....	2R01 HD12252-04	375,296
SIERVOGEL, ROGER M.....	GENETICS OF HYPERTENSION AND ASSOCIATED VARIABLES.....	3R01 HL23194-03S1	2,319
SIERVOGEL, ROGER M.....	GENETICS OF HYPERTENSION AND ASSOCIATED VARIABLES.....	5R01 HL23194-04	148,011
VARANDANI, PARTAB T.....	REGULATION AND FUNCTION OF INSULIN DEGRADATION.....	2R01 AM24057-05	204,551
ORGANIZATION TOTAL	18 1,624,104		
DELAWARE			
OHIO WESLEYAN UNIVERSITY ZIP CODE 43015			
STEGE, THOMAS E.....	LIPID PEROXIDATION IN HEPATOCYTES.....	5R01 AG01407-02	25,050
ORGANIZATION TOTAL	1 25,050		
KENT			
KENT STATE UNIVERSITY AT KENT ZIP CODE 44242			
ADAMS, WALTER C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07182-02	26,048
HIRSCHMAN, RICHARD.....	EFFECTS OF PHYSIOLOGICAL FEEDBACK ON DENTAL FEAR.....	5R01 DE04769-03	31,115
KILLIAN, GARY J.....	ESR STUDIES ON SPERM CAPACITATION.....	5R01 HD13422-02	53,933
ROE, BRUCE A.....	THE ROLE OF MODIFIED NUCLEOTIDES IN MAMMALIAN tRNA.....	5R01 GM21405-05	63,870
ROE, BRUCE A.....	SEQUENCE ANALYSIS OF MAMMALIAN tRNA AND tRNA GENES.....	5R01 GM25962-02	44,046
TSAI, CHUN-CHE.....	BINDING OF DRUGS TO NUCLEIC ACIDS.....	5R01 GM24259-03	35,415
ORGANIZATION TOTAL	6 254,427		
OXFORD			
MIAMI UNIVERSITY OXFORD ZIP CODE 45056			
SEIVER, DANIEL A.....	A NEW APPROACH TO HOUSEHOLD FERTILITY DECISIONS.....	1R01 HD14603-01	22,621
ORGANIZATION TOTAL	1 22,621		
ROOTSTOWN			
NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE ZIP CODE 44272			
DEPEW, RICHARD E.....	BACTERIAL W PROTEINS: BIOCHEMISTRY AND GENETICS.....	5R01 GM25500-03	32,801
FINKELSTEIN, JUDITH A.....	HYPOTHALAMIC STRUCTURE AND FUNCTION.....	5R01 NS14344-03	48,018
HOPPEs, WILLIAM L.....	STUDY OF ANAEROBIC INFECTIONS IN DIABETIC PATIENTS.....	5R01 AM25644-02	35,883
KOO, PETER H.....	TUMOR SUPPRESSION BY ALPHA-MACROGLOBULINS OF MICE.....	5R01 CA24337-03	59,764
LIEBELT, ROBERT A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05806-02	20,000
ROSENTHAL, KEN S.....	HERPES SIMPLEX VIRUS GLYCOPROTEINS AND INFECTION.....	1R23 CA28342-01	38,845
STUESSE, SHERRY L.....	NEURAL REGULATION OF THE HEART.....	5R23 HL23964-02	22,730
TEVLER, TIMOTHY J.....	SEX-LINKED EFFECTS OF GONADAL STEROIDS IN HIPPOCAMPUS.....	1R01 NS16507-01	43,043
WESTERMAN, PHILIP W.....	DMR STUDIES OF PROTEIN-PHOSPHOLIPID BILAYER MEMBRANES.....	1R01 GM27127-01	50,266
ORGANIZATION TOTAL	9 351,350		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43699			
ASKARI, AMIR	EFFECTS OF MERCURIAL POISONS ON NA ⁺ , K ⁺ -ATPASE	2R01 ES01599-04	123,730
ASKARI, AMIR	CARDIAC GLYCOSIDES: MECHANISMS OF CELLULAR ACTIONS	5R01 HL19129-06	97,218
BIRKHAHN, RONALD H.	BRANCHED-CHAIN AMINO ACID OXIDATION DURING TRAUMA	5R01 GM26872-02	54,817
BRAND, PAUL H.	MECHANISM OF PROXIMAL RENAL TUBULAR LACTATE TRANSPORT	2R01 AM19350-04A1	57,977
BUDD, GEOFFREY C.	ASSESSMENT OF INTRAPORTAL HEPATOCYTE TRANSPLANTATION	5R01 AM21380-03	60,338
CHIU, TED H.	BENZODIAZEPINE RECEPTOR: REGULATION AND PURIFICATION	1R01 NS16595-01	50,296
CLIFFORD, DONALD H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05700-11	102,513
DOBELBOWER, R R, JR.	125 I, 5-FU, & EXTERNAL RADIOOTHERAPY—PANCREATIC CANCER	7R26 CA29518-01	42,136
FABER, LEE E.	PROGESTERONE RECEPTORS	2R01 HD09367-04A3	85,590
GARLID, KEITH D.	THE STATE OF WATER AND SOLUTES IN MITOCHONDRIA	5R01 GM24297-03	64,905
KOECHER, DANIEL A.	RENAL NECROSIS INDUCED BY CHEMICALS	5R01 GM26775-02	59,599
LEVIN, JEROME A.	INACTIVATION OF NOREPINEPHRINE IN VASCULAR TISSUE	3R01 HL12647-09S1	8,572
LEVIN, JEROME A.	PULMONARY VASCULAR INACTIVATION OF BIOGENIC AMINES	5R01 HL24656-02	26,817
LONG, CALVIN L.	METABOLIC RESPONSE TO TRAUMA	5P01 GM23065-05	337,072
MANNING, MAURICE.	DESIGN AND SYNTHESIS OF NEUROHYPOPHYSIAL PEPTIDES	5R01 GM25280-09	93,245
MC PARTLAND, RICHARD P.	BIOCHEMICAL EVENTS IN GENETIC HYPERTENSION IN RATS	5R23 HL23389-02	47,395
MULROW, PATRICK J.	PROSTAGLANDINS AND HYPERTENSION	5R01 HL19229-04	108,182
MULROW, PATRICK J.	ETIOLOGICAL FACTORS IN HYPERTENSION	3R01 HL19644-04S1	19,679
NELSON, A DENNIS	SCINTIGRAPHIC DIAGNOSIS OF CORONARY ARTERY DISEASE	5R23 HL24236-02	42,471
PEARLMUTTER, ANNE F.	HORMONE INTERACTION STUDIED BY KINETIC TECHNIQUES	5R01 AM18383-04	53,956
POPA, VALENTIN T.	EFFECT OF ENDOGENOUS HISTAMINE ON HUMAN AIRWAYS	5R01 HL23679-02	50,592
RAPP, JOHN P.	BIOCHEMISTRY AND GENETICS OF SALT HYPERTENSION	5R01 HL20176-04	146,001
REIMANN, ERWIN M.	BIOCHEMICAL ROLE OF CYCLIC AMP IN THE GASTRIC MUCOSA	5R01 AM15611-09	69,537
REIMANN, ERWIN M.	REGULATION OF GLYCOGEN SYNTHASE BY PROTEIN KINASES	5R01 AM19231-05	58,648
SAWICKI, DOROTHEA L.	REGULATION OF ALPHAVIRUS TRANSCRIPTION	5R22 AI15123-03	38,296
SCHLENDER, KEITH K.	REGULATION OF THE RENAL GLYCOGEN SYNTHASE SYSTEM	5R01 AM14723-10	60,291
SOLOFF, MELVYN S.	MECHANISMS OF OXYTOCIN ACTION	5R01 HD08406-06	72,380
SOLOFF, MELVYN S.	MECHANISMS OF RELAXING ACTION	1R01 HD14642-01	72,210
TURNER, JOHN W, JR.	HORMONAL CONTROL OF SEXUAL DIFFERENTIATION OF THE BRAIN	5R01 HD09429-05	69,450
WUU, TING-CHI	BIO SYNTHESIS OF NEUROPHYSINS	1R01 AM25892-01A1	48,550
ORGANIZATION TOTAL	30 2,222,463		
UNIVERSITY HEIGHTS			
JOHN CARROLL UNIVERSITY ZIP CODE 44118			
KECK, MAX J.	INTEROCULAR TRANSFER OF AFTEREFFECTS IN STRABISMUS	2R01 EY02087-03	37,136
ORGANIZATION TOTAL	1 37,136		
WILBERFORCE			
CENTRAL STATE UNIVERSITY ZIP CODE 45384			
JOHNSON, MELVIN A, JR.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08052-10	124,896
ORGANIZATION TOTAL	1 124,896		
WOOSTER			
COLLEGE OF WOOSTER ZIP CODE 44691			
HINTON, CLAUDE W.	CHROMOSOME BEHAVIOR IN DROSOPHILA	2R01 GM16536-12	22,982
ORGANIZATION TOTAL	1 22,982		
OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER ZIP CODE 44691			
BOHL, EDWARD H.	IMMUNITY AGAINST ENTERIC VIRAL INFECTIONS	5R01 AI10735-07	66,065
ORGANIZATION TOTAL	1 66,065		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OHIO—Continued			
YOUNGSTOWN			
YOUNGSTOWN STATE UNIVERSITY ZIP CODE 44555			
DEL BENE, JANET E.....	HYDROGEN BONDING, H+ & LI+ ASSOCIATION—MOLECULAR ORBIT.....	1R01 GM27955-01	31,213
ORGANIZATION TOTAL	1	31,213	
STATE TOTAL	539	56,106,081	
OKLAHOMA			
DURANT			
SOUTHEASTERN OKLAHOMA STATE UNIVERSITY ZIP CODE 74701			
ROBINSON, JACK L.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08003-10	167,986
ORGANIZATION TOTAL	1	167,986	
NORMAN			
UNIVERSITY OF OKLAHOMA NORMAN ZIP CODE 73069			
BASTIAN, JOSEPH A, JR.....	MECHANISMS OF SENSORY PROCESSING.....	5R01 NS12337-06	31,522
DRYHURST, GLENN.....	ELECTROCHEMISTRY OF PURINES.....	2R01 GM21034-07	69,063
DRYHURST, GLENN.....	REDOX CHEMISTRY OF PTERIDINES.....	5R01 GM25842-02	47,578
FLETCHER, JOHN S.....	SENESCENCE OF PLANT SUSPENSION CULTURES.....	5R01 AG01709-02	28,965
HAINES, HOWARD B.....	VASOPRESSIN AND ACCLIMATION TO WATER SCARCITY.....	1R01 AM25189-01A1	49,595
JOHNSON, ARTHUR E.....	THE INTERACTION OF AA-TRNA AND RIBOSOMES.....	5R01 GM26494-02	57,233
LARSH, HOWARD W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07078-07	39,914
LEHR, ROLAND E.....	DIOL EPOXIDE/OTHER DERIVATIVES OF PAH & AZA-PAH-SAR'S.....	5R01 CA22985-04	44,527
MURPHY, JUNEANN W.....	ROLE OF T CELLS IN IMMUNITY TO CRYPTOCOCCOSIS.....	1R01 AI15716-01A1	71,595
SCHMITZ, FRANCIS J.....	ANTITUMOR AGENTS FROM MARINE ORGANISMS.....	5R01 CA17256-06	57,670
THOMPSON, JAMES N, JR.....	GENE NUMBER AND DEVELOPMENT IN QUANTITATIVE TRAITS.....	5R01 GM24809-02	34,669
VAN DER HELM, DICK.....	STRUCTURE OF ANTICANCER AGENTS BY X-RAY DIFFRACTION.....	5R01 CA17562-06	61,236
VAN DER HELM, DICK.....	STRUCTURE/CONFORMATION—SIDEROCHROME & PEPTIDE CHELATES.....	5R01 GM21822-06	77,540
YOSHINO, TIMOTHY P.....	IMMUNOBIOLOGY OF SCHISTOSOME-MOLLUSK INTERACTIONS.....	5R22 AI15503-02	32,963
ORGANIZATION TOTAL	14	704,070	
OKLAHOMA CITY			
OKLAHOMA MEDICAL RESEARCH FOUNDATION ZIP CODE 73104			
ALAUPOVIC, PETAR.....	THE CHEMISTRY AND PHYSIOLOGY OF LIPID TRANSPORT.....	5P01 HL23181-02	427,857
BOTTOMLEY, RICHARD H.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA16957-06	168,594
BRADFORD, REAGAN H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05538-18	82,937
CARPENTER, MARY P.....	METABOLISM OF THE TESTIS IN VITAMIN E DEFICIENCY.....	5R01 HD05641-19	62,781
CARUBELLI, RAUL.....	BIOCHEMICAL STUDY OF THE TRACHEOBRONCHIAL SECRETIONS.....	5R01 HL23110-02	99,992
FLOYD, ROBERT A.....	CARCINOGEN FREE RADICALS IN ARYLAMINE METABOLISM.....	5R01 CA18591-06	36,303
FLOYD, ROBERT A.....	FREE RADICALS IN NITROSO-UNSATURATED LIPID REACTIONS.....	5R01 CA21542-03	34,983
GRIFFIN, MARTIN J.....	ROLE OF EPOXIDE HYDRASE IN CHEMICAL CARCINOGENESIS.....	5R01 CA24459-02	64,607
JOHNSON, B CONNOR.....	VITAMIN A METABOLISM AND FUNCTION.....	5R01 AM22053-03	61,727
JOHNSON, B CONNOR.....	NUTRITIONAL REGULATION OF ENZYME ACTIVITY.....	3R01 HL12138-09S1	4,477
JOHNSON, B CONNOR.....	VITAMIN K FUNCTION IN PROTEIN CARBOXYLATION.....	5R01 HL17619-05	74,750
KING, M MARGARET.....	MAMMARY CARCINOGENESIS: DIETARY FATS AND ANTIOXIDANTS.....	5R23 ES01789-03	44,023
MC CAY, PAUL B.....	OXIDASE-GENERATED FREE RADICALS IN VIT. E DEFICIENCY.....	5R01 AM08397-20	58,744
MC CONATHY, WALTER J.....	RELATIONSHIP BETWEEN HUMAN LIPOPROTEIN D AND LCAT.....	5R01 HL23719-02	38,407
RADCLIFFE, ROBERT D.....	PURIFICATION OF BOVINE PLASMINOGEN PROACTIVATOR.....	3R01 HL20846-03S1	1,943
RADCLIFFE, ROBERT D.....	HUMAN VASCULAR PLASMINOGEN ACTIVATOR.....	1R01 HL25444-01	40,286
SCHMIDT, PAUL G.....	NMR OF TRANSFER RNA.....	5R01 GM25261-03	34,848
SCHMIDT, PAUL G.....	ACID PROTEASE STRUCTURE, DYNAMICS AND MECHANISM.....	5R01 GM25703-03	45,932
TANG, JORDAN J.....	STUDIES OF THE COMPONENTS OF HUMAN GASTRIC JUICE.....	5R01 AM01107-25	80,061
TANG, JORDAN J.....	STRUCTURE AND FUNCTION OF MAMMALIAN CATHEPSIN D.....	5R01 GM20212-05	54,432

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OKLAHOMA—Continued			
WANG, CHI-SUN	THE BILE SALT ACTIVATED LIPASE OF HUMAN MILK	1R01 HD14104-01	38,759
WANG, CHI-SUN	HUMAN MILK LIPOPROTEIN LIPASE	5R01 HL23705-02	70,285
ORGANIZATION TOTAL	22 1,626,728		
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190			
ANDERSON, PAUL S. JR.	CAUSES OF DIABETES AND OBESITY IN OKLAHOMA INDIANS	5R01 AM21462-03	78,915
ANDERSON, PAUL S. JR.	APOLIPOPROTEIN PATTERNS IN DIABETES	1R01 HL25124-01	69,884
BLACKSTOCK, REBECCA	CRYPTOCOCCOSIS: REGULATION OF PROTECTION	1R01 AI16081-01	49,494
BROYLES, ROBERT H.	REGULATION OF HB SWITCHING IN VIVO AND IN VITRO	5R01 AM21764-02	37,740
DORMER, KENNETH J.	CARDIODYNAMICS AND HYPERTENSION UNDER CEREBELLAR CONTROL	5R23 HL22747-03	30,818
DOWELL, RUSSELL T.	DEVELOPMENT OF HEART METABOLISM AND CONTRACTILE FUNCTION	5R01 HD13127-02	41,355
DOWELL, RUSSELL T.	ADAPTIVE HEART GROWTH IN NEONATES AND ADULTS	5R01 HL23025-03	47,263
FARBER, JAY P.	DEVELOPMENT OF EXPIRATORY MOTOR RESPONSES	1R01 HL24865-01	41,555
FOREMAN, ROBERT D.	CENTRAL ORGANIZATION OF CARDIAC AFFERENT NERVES	5R01 HL22732-03	23,006
GRAVES, DONALD C.	BOVINE LEUKEMIA VIRUS	5R23 CA23980-03	31,881
HINSHAW, LERNER B.	VENTRICULAR RELAXATION AND MYOCARDIAL EDEMA IN SHOCK	5R01 HL24590-02	47,464
HOWES, ROBERT I. JR.	ROOT FORMATION IN LOWER VERTEBRATE TOOTH TRANSPLANTS	5R01 DE03709-07	18,247
HUMPHREY, G. BENNETT	SOUTHWEST ONCOLOGY GROUP	2R10 CA11233-12	132,063
KEM, DAVID C.	INTRACELLULAR ACTION OF ALDOSTERONE IN HYPERTENSION	5R01 HL19279-05	102,587
KOSANKE, STANLEY D.	ANIMAL RESOURCE DIAGNOSTIC LABORATORY	3P40 RR01098-03S1	20,741
LAZZARA, RALPH	CELLULAR ELECTROPHYSIOLOGY OF ISCHEMIC MYOCARDIUM	1R01 HL26079-01	61,565
LERNER, MICHAEL P.	PURIFICATION OF HUMAN BREAST TUMOR PROTEINS	5R01 CA22541-03	60,283
LEVINE, MARTIN	SOURCES OF TOXINS FROM HUMAN DENTAL PLAQUE	1R23 DE05050-01A2	38,432
LYNN, THOMAS N.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05411-19	111,830
MANDAL, ANIL K.	CHRONIC SPLENECTOMY IN RENAL TUBULAR LESIONS	5R01 AM26022-02	30,061
MA'ES, JARY S.	ENZYME REPLACEMENT IN FABRY'S DISEASE	1R01 AM26515-01	50,184
METCOFF, JACK	REGULATION OF CELL METABOLISM IN UREMIA	3R01 AM19503-03S1	35,168
POLLAY, MICHAEL	TRANSCAPILLARY EXCHANGE IN EXPERIMENTAL BRAIN TUMORS	2R01 CA21427-05	77,530
REINKE, LESTER A.	INFLUENCE OF ETHANOL ON CARCINOGEN ACTIVATION	7R01 CA30137-01	43,390
RENNERT, OWEN M.	HUMAN MILK PEPTIDES, METALLO-PEPTIDES AND TRACE METALS	5R01 HD12465-02	72,753
RIKANS, LORA E.	AGING MODIFICATION OF MICROSOMAL DRUG METABOLISM	5R23 AG01202-02	34,368
RIKANS, LORA E.	VITAMIN C DEFICIENCY AND MICROSOMAL ENZYMES	1R01 GM26480-01A1	43,578
SOKATCH, JOHN R.	STRUCTURE OF BRANCHED CHAIN KETO ACID DEHYDROGENASE	5R01 AM21737-02	64,259
STONE, HUBERT L.	CARDIAC ADAPTATION TO PHYSICAL TRAINING	5R01 HL22154-03	52,742
STONE, HUBERT L.	REPETITIVE EXERCISE AND CARDIAC ENLARGEMENT	3R01 HL23206-02S1	4,978
TAYLOR, FLETCHER B. JR.	THROMBOSIS AND PLASMA PROTEINS	2P01 HL17812-06	535,574
TORRES-PINEDO, RAMON B.	FLUID LOSS IN SOYBEAN PROTEIN INTOLERANCE	5R01 HD12441-02	82,142
WANER, JOSEPH L.	CELL-MEDIATED LYSIS OF CYTOMEGALOVIRUS INFECTED CELLS	1R01 AI17998-01	59,233
WATKINS, FRAN S.	ORAL/HEAD AND NECK CLINICAL CANCER EDUCATION PROGRAM	5R25 CA24677-02	54,567
ZEINER, ARTHUR R.	BEHAVIORAL CONTROL OF ESSENTIAL HYPERTENSION	3R01 HL19844-03S1	3,854
ORGANIZATION TOTAL	35 2,289,504		
STILLWATER			
OKLAHOMA STATE UNIVERSITY STILLWATER ZIP CODE 74074			
BERLIN, KENNETH D.	PHOSPHORUS ANALOGS OF POTENTIAL CARCINOSTATS	5R01 CA22770-03	53,195
BLANKEMEYER, JAMES T.	PHYSIOLOGY OF INTERCELLULAR COUPLING IN MIDGUT	5R01 AM21890-03	32,141
CARRAWAY, KERMIT L.	SIALOGLYCOPROTEINS OF A METASTATIC MAMMARY TUMOR	1R01 CA25173-01A1	53,628
CARRAWAY, KERMIT L.	ECTO 5'-NUCLEOTIDASE AS A CELL SURFACE REPORTER	1R01 CA26085-01A1	53,827
CARRAWAY, KERMIT L.	MEMBRANE-CYTOSKELETON INTERACTIONS	5R01 GM25818-02	72,791
DURHAM, NORMAN N.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07077-14	22,998
GARNER, DUANE L.	PZ-PEPTIDASES OF MAMMALIAN SPERMATOZOA AND TESTES	5R01 HD12477-02	58,465
GHOLSON, ROBERT K.	ILLEGITIMATE RECOMBINATION BY DRUG RESISTANT ELEMENTS	5R01 GM25356-03	34,223
MELCHER, ULRICH K.	STRUCTURE OF MEMBRANE IMMUNOGLOBULINS	5R01 AI15931-02	31,530
NELSON, ELTON C.	METABOLISM OF THE VITAMINS A	5R01 AM09191-14	57,818
OWNBY, CHARLOTTE L.	SNAKEBITE MYONECROSIS: TREATMENT WITH ANTI-MYOTOXIN	5R01 AI16623-02	42,843
ROCKLEY, MARK G.	A PHOTODYNAMIC CHARACTERIZATION OF FLUORESCENT PROBES	5R01 GM25353-02	33,889
RUSOFF, ANNE C.	PATHS OF INDIVIDUAL AXONS IN THE VISUAL SYSTEM	7R01 EY03666-01	38,026
SAUER, JOHN R.	SALIVARY SECRETION IN A BLOOD-SUCKING ARTHROPOD	5R01 AI13535-02	49,317
SPIVEY, HOWARD O.	PROPERTIES OF CONCENTRATED ENZYME SOLUTIONS	5R01 GM16916-07	45,455
ORGANIZATION TOTAL	15 680,146		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OKLAHOMA—Continued			
TAHLEQUAH			
NORTHEASTERN OKLAHOMA STATE UNIVERSITY ZIP CODE 74464			
VAN DENBOS, GARY.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08123-07	191,094
ORGANIZATION TOTAL	1	191,094	
TULSA			
ORAL ROBERTS UNIVERSITY ZIP CODE 74102			
ARMSTRONG, ROBERT B.....	LOCOMOTION: IDLING METABOLISM AND GAIT DYNAMICS.....	5R01 AM25472-03	66,150
CORDER, CLINTON N.....	KIDNEY ATPASE: ACTIVITY CONVERSION.....	7R01 AM27272-01	42,692
CORDER, CLINTON N.....	KIDNEY ATPASE: ACTIVITY CONVERSION.....	5R01 AM27272-02	64,867
HARDER, HAROLD C.....	TEMPLATE INACTIVATION BY PLATINUM COMPOUNDS.....	5R01 CA25736-02	78,321
ORGANIZATION TOTAL	4	252,030	
STATE TOTAL	92	5,911,558	
OREGON			
BEAVERTON			
OREGON GRADUATE CENTER FOR STUDY AND RESEARCH ZIP CODE 97005			
BAROFSKY, DOUGLAS F.....	CHEMICAL DYNAMICS OF FDMs OF HYPOTHALAMIC PEPTIDES.....	5R01 AM20937-03	67,578
DAVES, G DOYLE, JR.....	STRUCTURE ELUCIDATION OF HUMAN TRANSFER FACTOR.....	5R01 AI14699-03	79,138
DAVES, G DOYLE, JR.....	PALLADIUM CATALYZED SYNTHESIS OF C-NUCLEOSIDES.....	1R01 GM26906-01A1	79,905
DAVES, G DOYLE, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07184-02	30,140
HAUSER, FRANK M.....	POLYNUCLEAR ANTICANCER ANTIBIOTICS: SELECTED SYNTHESIS.....	5R01 CA18141-05	57,907
HAUSER, FRANK M.....	STEREOSPECIFIC SYNTHESIS OF SELECTED AMINO SUGARS.....	5R01 GM26574-02	31,544
HURST, JAMES K.....	MOLECULAR BASIS FOR MICROBICIDAL ACTION IN LEUKOCYTES.....	5R01 AI15834-02	71,904
HURST, JAMES K.....	MECHANISMS OF BIOLOGICAL REDOX REACTIONS OF COPPER.....	5R01 GM20943-06	38,309
LOEHR, THOMAS M.....	LASER RAMAN SPECTROSCOPY OF METALLOPROTEINS.....	5R01 GM18865-09	80,872
ORGANIZATION TOTAL	9	537,297	
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY ZIP CODE 97331			
ANDERSON, SONIA R.....	FLUORESCENCE STUDIES OF ENZYME STRUCTURE AND FUNCTION.....	5R01 AM13912-08	54,470
BEAUDREAU, GEORGE S.....	NUCLEOPOLYHEDROSIS VIRUSES OF ORGYIA PSEUDOTSUGATA.....	5R01 ES02129-02	68,567
BUHLER, DONALD R.....	METABOLISM AND TOXICITY OF PYRROLIZIDINE ALKALOIDS.....	5R01 CA22524-04	84,570
BUHLER, DONALD R.....	METABOLISM OF HEXACHLOROBENZENE—TOXICITY AND PORPHYRIA.....	5R01 ES01556-03	41,150
CERKLEWSKI, FLORIAN L.....	INFLUENCE OF TRACE METALS ON DENTAL HEALTH.....	1R23 DE05628-01	21,134
CHIOU, CARY T.....	ENVIRONMENT HEALTH ASPECTS: CHEMICAL TRANSPORT/FATE.....	1R01 ES02400-01	41,537
DANIELS, MALCOLM.....	GEV HEAVY-ION AND 200 KV X-RAY EXCITATION OF DNA.....	5R01 CA20218-03	55,082
ELDRIDGE, BRUCE F.....	WINTER BIOLOGY OF CULEX TARSAIS.....	1R01 AI16346-01	36,285
FERRO, ADOLPH J.....	REGULATION OF CELL GROWTH BY 5'-METHYLTHIOADENOSINE.....	5R01 CA25756-03	39,887
FERRO, ADOLPH J.....	S-ADENOSYLMETHIONINE ROLE IN MITOSIS REGULATION.....	5R01 GM26194-03	64,251
FREED, VIRGIL H.....	TOXICOLOGY OF ENVIRONMENTAL CHEMICALS.....	2P01 ES00040-16	389,157
FREED, VIRGIL H.....	ENVIRONMENTAL HEALTH SCIENCES CENTER.....	5P30 ES00210-13	1,116,159
FULLERTON, DWIGHT S.....	C(17)-SIDE GROUP GEOMETRY AND CARDENOLIDE ACTIVITY.....	5R01 HL21457-03	79,609
ISENBERG, IRVIN.....	INTERACTIONS OF CHROMOSOMAL PROTEINS.....	5R01 CA10872-13	110,272
ISENBERG, IRVIN.....	STUDY OF HMG AND A24 PROTEINS.....	5R01 GM25794-02	43,460
JOHNSON, WALTER C, JR.....	THE CONFORMATION AND FUNCTION OF NUCLEIC ACIDS.....	5R01 GM21479-06	65,306
KERKVLJET, NANCY I.....	ENVIRONMENTAL CONTAMINANTS: EFFECT ON TUMOR IMMUNITY.....	5R01 ES01612-03	45,462
KING, CHARLES E.....	GENETICS AND PHYSIOLOGY OF SENESECE IN ROTIFERS.....	5R01 AG02065-02	67,370
LAIS, LYMAN T.....	REGULATION OF NOREPINEPHRINE RELEASE IN HYPERTENSION.....	5R23 HL24448-02	37,583
LEONG, JO ANN C.....	PLACENTAL DNA POLYMERASE IN HUMAN DEVELOPMENT.....	1R01 HD13740-01	77,285
MATHEWS, CHRISTOPHER K.....	ENZYMOLGY OF NORMAL AND VIRUS-INFECTED BACTERIA.....	5R01 AI15145-04	80,675
MATHEWS, CHRISTOPHER K.....	DNA PRECURSOR DYNAMICS IN ANIMAL CELLS.....	2R01 CA24323-03	49,653

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
MATHEWS, CHRISTOPHER K.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07079-15	126,750
MATSUMOTO, MASAKAZU.....	AGING AND ANTIBODY RESPONSE IN RESPIRATORY SECRETION.....	5R01 AG01381-02	38,219
MILLER, TERRY L.....	PREDIOXINS IN PCP—BIOCHEMICAL EFFECTS AND TOXICITY.....	5R01 ES01968-02	86,497
MILLS, DALLICE I.....	GENE EXPRESSION DURING MEIOSIS.....	5R01 GM24040-04	63,447
MOORE, FRANK L.....	REGULATION OF MALE RESPONSIVENESS.....	1R01 HD13508-01	33,013
MORRIS, JOHN E.....	BLASTOCYST AND UTERINE EPITHELIAL CELL INTERACTIONS.....	1R01 HD14071-01	89,695
NIXON, JOSEPH E.....	METABOLISM AND CO-CARCINOGENICITY OF CYCLOPROPENES.....	5R01 ES00550-09	74,853
OH, SUK Y.....	EFFECT OF DIET ON HIGH DENSITY AND OTHER LIPOPROTEIN.....	1R01 HL26934-01	89,373
PARKS, LEO W.....	ANALYSIS OF THE STEROL COMPONENTS OF YEAST.....	2R01 AM05190-19	62,950
PEARSON, GEORGE D.....	REPLICATION MAP OF AN ONCOGENIC VIRUS.....	5R01 CA17699-06	99,033
PIERCE, DONALD A.....	STATISTICAL METHODOLOGY FOR RESPONSE-TIME DATA.....	1R01 CA27532-01	35,454
REED, DONALD J.....	2-HALOETHYLNITROSOUREAS AND DNA PHOSPHOTRIESTERS.....	5R01 CA25561-02	63,719
REED, DONALD J.....	CHEMICAL TOXICITY AND GLUTATHIONE REGULATION.....	5R01 ES01978-03	69,341
ROBERTS, PAUL A.....	GENETIC CONTROL OF SENESCENCE IN DROSOPHILA.....	5R01 AG02078-02	46,907
ROGERS, CHRISTINA M.....	DEVELOPMENT OF A EUKARYOTIC CLONING VEHICLE.....	5R23 CA27421-02	32,750
SCANLAN, RICHARD A.....	N-NITROSAMINES IN FOODS.....	5R01 CA25002-10	99,626
SCHAUP, HENRY W.....	RIBOSOME BIOGENESIS AND FUNCTION.....	5R01 GM25701-03	45,387
SCHIMMERLIK, MICHAEL I.....	CHARACTERIZATION OF HEART ATRIAL MUSCARINIC RECEPTOR.....	1R01 HL23632-01A2	58,079
SELIVONCHIK, DANIEL P.....	MEMBRANE INTEGRITY AND CYCLOPROPENOID FATTY ACIDS.....	5R23 ES01702-03	34,653
SINNHUBER, RUSSELL O.....	PROTEIN EFFECTS OF AFLATOXIN CARCINOGENESIS IN TROUT.....	2R01 CA20990-03	61,508
SINNHUBER, RUSSELL O.....	METABOLISM AND CARCINOGENICITY OF AFLATOXINS.....	5R01 ES00541-10	74,937
SMALL, ENOCH W.....	STRUCTURAL TRANSITIONS OF NUCLEOSOMES.....	5R01 GM25663-03	51,042
SPIKER, STEVEN L.....	THE ROLE OF PROTEINS IN CHROMATIN STRUCTURE.....	5R01 GM25699-03	48,926
SUMMERTON, JAMES E.....	METHOD FOR SEQUENCE-SPECIFIC BLOCKAGE OF NUCLEIC ACID.....	5R01 GM25513-02	43,011
TERRIERE, LEON C.....	DETOXICATION MECHANISMS IN INSECTS.....	5R01 ES00362-22	80,540
TINSLEY, IAN J.....	TOXICOLOGY OF BROMINATED FATTY ACIDS.....	5R01 ES01377-04	58,581
UEMURA, ETSURO.....	AGING PRIMATES NEUROPATHOLOGICAL STUDIES.....	5R23 AG02109-02	26,829
VAN HOLDE, KENSAL E.....	SUBUNIT STRUCTURE OF CHROMATINS.....	5R01 GM22916-05	65,948
WEBER, LAVERN J.....	NIEHS MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	5P30 ES01926-03	153,676
WEDMAN, E EDWARD.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09120-03	100,000
WHANGER, PHILIP D.....	EFFECT OF DIETARY FACTORS ON METALLOTHIONEIN LEVELS.....	5R01 AM19285-05	80,635
WHANGER, PHILIP D.....	PRIMATES—SELENIUM DEFICIENCY AND AVAILABILITY.....	2R01 AM21037-03	53,772
WHANGER, PHILIP D.....	FLUORIDE-CADMIUM INTERACTION IN DENTAL CARIES.....	5R01 DE04615-03	21,844
WHANGER, PHILIP D.....	METABOLIC RELATIONSHIPS OF SELENIUM IN MYOPATHIES.....	3R01 NS07413-11S1	6,500
WHANGER, PHILIP D.....	METABOLIC RELATIONSHIPS OF SELENIUM IN MYOPATHIES.....	5R01 NS07413-12	50,562
WHITE, JAMES D.....	SYNTHESIS OF MACROLIDE ANTIBIOTICS.....	5R01 AI10954-07	99,351
ORGANIZATION TOTAL	58 4,996,332		
EUGENE			
EVALUATION RESEARCH GROUP ZIP CODE 97401			
JONES, RICHARD R.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05839-01	41,489
ORGANIZATION TOTAL	1 41,489		
OREGON RESEARCH INSTITUTE ZIP CODE 97403			
BIGLAN, ANTHONY.....	TEEN SOCIAL BEHAVIOR AND THE PREVENTION OF SMOKING.....	5R01 HD13409-02	157,927
ORGANIZATION TOTAL	1 157,927		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON ZIP CODE 97403			
BAJER, ANDREW S.....	MITOSIS EXPERIMENTAL STUDIES.....	5R01 GM26121-02	92,511
BERNHARD, SIDNEY A.....	KINETIC ANALYSIS OF ENZYME CATALYSIS.....	5R01 GM10451-16	49,454
BERNHARD, SIDNEY A.....	MOLECULAR INTERACTIONS IN SYNAPTIC TRANSMISSION.....	5R01 NS12240-06	65,484
BLOCH, WILL.....	USE OF AN ALKYLATING AGENT TO STUDY ENZYME MECHANISM.....	5R01 GM27713-02	66,971
CAPALDI, RODERICK A.....	ORGANIZATION OF SUCCINIC OXIDASE IN HEART.....	5R01 HL22050-03	89,307
CAPALDI, RODERICK A.....	STUDIES OF ATP SYNTHETASE FROM HEART MITOCHONDRIA.....	5R01 HL24526-02	44,919
DAHLOFST, FREDERICK W.....	ENERGETICS AND DYNAMICS OF LIPID PROTEIN INTERACTIONS.....	5R01 GM24792-03	78,370
FERNALD, RUSSELL D.....	NEURAL BASIS OF VISUAL PATTERN RECOGNITION IN FISH.....	5R01 EY02284-03	94,824
FINKE, RICHARD G.....	MECHANISTIC METALLOBIOCHEMISTRY OF COENZYME B12.....	5R01 AM26214-02	46,173
GORDON-LICKEY, BARBARA.....	DEVELOPMENTAL ABNORMALITIES OF SUPERIOR COLLICULUS.....	5R01 EY00125-11	86,298
GRANT, PHILIP.....	OPTIC FIBER PATTERNS: ONTOGENY OF NEURONAL CONNECTIONS.....	5R01 EY02642-02	72,635

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
GRIFFITH, O HAYES	PHOTOELECTRON MICROSCOPY OF MAMMALIAN MEMBRANES	5R01 CA11695-11	178,190
GRIFFITH, O HAYES	SPIN LABELING AND MEMBRANE STRUCTURE	5R01 GM25698-14	128,009
HERBERT, EDWARD N	REGULATION OF PRODUCTION OF ACTH, B-ENDORPHIN & B-MSH	2R01 AM16879-07	114,964
HERSKOWITZ, IRA	PHAGE-HOST INTERACTIONS AND CONTROL OF PHAGE GROWTH	5R01 AI11344-08	74,119
HERSKOWITZ, IRA	GENETIC CONTROL OF MATING IN YEAST	5R01 AI13462-05	111,134
HUDSON, BRUCE S	ELECTRONIC STRUCTURE OF THE VISUAL POLYENES	5R01 EY03182-02	43,706
HUDSON, BRUCE S	RESONANCE ENHANCED SPECTROSCOPY	2R01 GM26981-02	45,392
HUDSON, BRUCE S	HIGH REPETITION RATE PICOSECOND LASER FACILITY	5P41 GM27411-02	21,060
KEANA, JOHN F	NEW SPIN LABELS FOR STUDYING BIOLOGICAL MEMBRANES	5R01 GM24951-06	67,862
KEANA, JOHN F	NEW PROBES AND REAGENTS FOR BIOLOGICAL STUDIES	1R01 GM27137-01	75,411
KIMBLE, DANIEL P	ANOMALOUS SYMPATHETIC INNERVATION: BEHAVIORAL EFFECTS	1R01 NS15718-01	43,099
KIMMEL, CHARLES B	MAUTHNER CELL SYNAPTOGENESIS AND DENDRITIC DEVELOPMENT	5R01 NS15001-02	76,104
LEWINSOHN, PETER M	DEPRESSION, INFORMATION PROCESSING AND AGE	5R21 AG01449-02	83,179
MARROCCO, RICHARD T	PHYSIOLOGY OF VISUAL AFFERENT PATHWAYS	5R01 EY01286-05	85,971
MATTHEWS, BRIAN W	X-RAY STRUCTURAL STUDIES OF PROTEINS	5R01 GM20066-08	96,469
MATTHEWS, BRIAN W	STRUCTURE, FUNCTION AND STABILITY OF T4 PHAGE LYSOZYME	5R01 GM21967-06	100,713
MENAKER, MICHAEL	CIRCADIAN DETERMINANTS OF MAMMALIAN REPRODUCTION	1R01 HD13162-01	93,307
NOVICK, AARON	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07080-15	135,749
NOVITSKI, EDWARD	THE NATURE OF RADIATION INDUCED GENETIC DAMAGE	5R01 ES01536-04	65,831
NOVITSKI, EDWARD	THE SYNTHESIS AND ANALYSIS OF CHROMOSOMES	2R01 GM18678-10	72,944
PETICOLAS, WARNER L	LASER RAMAN SCATTERING FROM BIOLOGICAL MACROMOLECULES	5R01 GM15547-14	86,919
POSTLETHWAIT, JOHN H	GENE AND HORMONE CONTROL OF DROSOPHILA EGG PROTEINS	2R01 GM21548-06	94,277
RAYFIELD, GEORGE W	MEMBRANE BIOPHYSICS	5R01 GM26669-02	28,113
SCHCELLMAN, JOHN A	INTERACTIONS OF NUCLEOTIDES AND PROTEINS	5R01 GM20195-23	99,910
SCHCELLMAN, JOHN A	CIRCULAR DICHROISM STUDIES	5P41 GM27440-02	1,404
SMITH, GERALD R	MOLECULAR ANALYSIS OF HOTSPOTS OF GENETICS RECOMBINATION	1R01 GM26798-01	105,559
SPRAGUE, KAREN U	MOLECULAR BIOLOGY OF B. MORI FIBROIN AND TRNA GENES	5R01 GM25388-03	64,192
STAHL, FRANKLIN W	RECOMBINATIONAL INTERMEDIATES IN PHAGE LAMBDA	5R01 GM20373-07	66,848
STREISINGER, GEORGE	GENETIC STUDIES WITH ZEBRA FISH (BRACHYDANIO RERIO)	3R01 GM22731-04S1	8,700
STREISINGER, GEORGE	GENETIC STUDIES WITH ZEBRA FISH (BRACHYDANIO RERIO)	5R01 GM22731-05	155,373
VON HIPPEL, PETER H	STRUCTURE AND RELATIONS OF PROTEINS AND NUCLEIC ACIDS	5R01 GM15792-14	160,338
WESTON, JAMES A	EXTRACELLULAR MATRIX AND MORPHOGENESIS IN MUTANT MICE	2R01 DE04316-04A1	141,612
ORGANIZATION TOTAL	43	3,513,404	
PORTLAND			
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER ZIP CODE 97210			
BARMACK, NEAL H	CENTRAL AND PERIPHERAL CONTROL OF EYE POSITION	5R01 EY00848-09	91,920
GROVE, DAVID N	THE CHRONICALLY ILL CHILD AND HIS IMPACT ON THE FAMILY	5R01 HD11133-03	82,561
KAPLAN, MICHAEL W	OPTICAL STUDIES OF PHOTORECEPTOR FUNCTION	5R01 EY01779-05	78,221
KLEIN, MICHAEL L	MACULAR PHOTOCOAGULATION STUDY	5R10 EY02558-02	25,795
NASHNER, LEWIS M	CONTROL OF HUMAN POSTURE STUDIES	5R01 NS12661-05	60,948
RIVAS, MARIAN L	HEREDITARY ASPECTS OF THE EPILEPSIES	5R01 NS15820-02	107,728
ROBERTS, WILLIAM J	SYMPATHETIC EFFERENT MODULATION OF PAIN	5R01 NS13447-03	30,795
RUSHMER, DONALD S	CEREBELLAR PHYSIOLOGY	5R01 NS02289-19	110,628
RUSHMER, DONALD S	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05593-13	42,526
ORGANIZATION TOTAL	9	631,122	
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 97215			
GREENLICK, MERWYN R	SYSTOLIC HYPERTENSION IN THE ELDERLY	1R01 HL23916-01A1	208,941
ORGANIZATION TOTAL	1	208,941	
MEDICAL RESEARCH FOUNDATION OF OREGON ZIP CODE 97225			
BEATTY, CLARISSA H	CYCLIC NUCLEOTIDE METABOLISM OF AGED RHESUS MUSCLE	5R01 AG01505-02	64,947
BEATTY, CLARISSA H	EFFECTS OF PROSTAGLANDINS ON MYOMETRIAL METABOLISM	5R01 HD06069-09	45,738
FAHRENBACH, WOLF H	STRUCTURE OF NEURONAL CIRCUITRY IN SENSORY GANGLIA	5R01 EY00392-13	28,381
HOWARD, CHARLES F, JR	AGE-DEPENDENT CHANGES IN GLUCOSE TOLERANCE IN MONKEYS	1R01 AG02281-01	62,418
HOWARD, CHARLES F, JR	ISLET AMYLOID AND DIABETES IN AGING MONKEYS AND MAN	5R01 AM21982-03	54,029
HU, FUNAN	STROMAL PIGMENT CELLS OF THE UVEA IN CULTURE	2R01 EY02086-04	76,649
LASTER, LEONARD	SUPPORT FOR REGIONAL PRIMATE RESEARCH CENTER	5P51 RR00163-21	2,950,586

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
MALINOW, MANUEL R.....	CHOLESTEROL BINDING SAPONINS AND ATHEROSCLEROSIS.....	5R01 HL16587-06	177,347
MALLEY, ARTHUR.....	ANTIGEN FRAGMENT SUPPRESSION OF THE IGE RESPONSE.....	5R01 AI13875-03	53,116
MC NULTY, WILBUR P.....	TOXICITY OF PURE PCBs FOR RHESUS MONKEYS.....	5R01 ES01522-03	120,948
MONTAGNA, WILLIAM.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05694-11	109,628
NORMAN, REID L.....	PITUITARY ROLE IN ESTROGEN EVOKED GONADOTROPIN RELEASE.....	5R01 HD07499-04	43,980
NOVY, MILES J.....	ENDOCRINE AND VASCULAR RELATIONSHIPS IN PARTURITION.....	5R01 HD06159-08	169,589
PHOENIX, CHARLES H.....	SEXUAL BEHAVIOR AND HORMONES IN AGING MALES.....	5R01 AG01608-02	78,974
PORTMAN, OSCAR W.....	EXPERIMENTAL VASCULAR SCLEROSIS.....	5R01 HL09744-16	140,778
RESKO, JOHN A.....	STEROID HORMONES AND FETAL DEVELOPMENT.....	5R01 HD07658-06	55,503
SPIES, HAROLD G.....	NEURAL INFLUENCE ON PROLACTIN SECRETION.....	5R01 HD07602-08	58,883
SPIES, HAROLD G.....	EVENTS THAT CONTROL FERTILITY IN PRIMATES.....	5P50 HD11982-02	640,807
WUEPPER, KIRK D.....	ANNUAL SYMPOSIA ON BIOLOGY OF THE SKIN.....	5R13 AM09431-15	13,000
ORGANIZATION TOTAL	19 4,945,301		
OREGON STATE HIGHER EDUCATION SYSTEM—PORTLAND STATE UNIVERSITY ZIP CODE 97207			
CAIN, LEONARD D.....	ETHNICITY AND AGING: CREATIVE ADAPTATION.....	1R21 AG01463-01A1	80,354
SMEJTEK, PAVEL.....	PESTICIDES AND TRANSPORT ACROSS BILAYER LIPID MEMBRANES.....	3R01 ES00937-06S1	10,964
TAYLOR, W HERMAN.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09099-02	89,062
ORGANIZATION TOTAL	3 180,380		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201			
ARTHUR, RANSOM J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05412-19	180,401
BIGLEY, ROBERT H.....	ASCORBATE TRANSPORT AND REDUCTION IN DIABETIC TISSUES.....	1R01 AM27483-01	59,721
BISSONNETTE, JOHN M.....	CONTROL OF FETAL BREATHING MOVEMENTS.....	2R01 HD11251-04	68,925
BISSONNETTE, JOHN M.....	PLACENTAL GLUCOSE TRANSPORT.....	5R01 HD12033-03	65,310
BRUMMETT, ROBERT E.....	STUDY OF OTOTOXIC DRUG INTERACTIONS.....	2R01 NS12808-04A1	103,085
BUIST, A SONIA.....	NATURAL HISTORY OF CHRONIC AIRFLOW OBSTRUCTION.....	1R01 HL24918-01	98,846
CAMPBELL, ROBERT A.....	POLYAMINE RADIOIMMUNOASSAY STUDIES IN CANCER.....	5R01 CA16328-05	142,651
CARMODY, TIMOTHY P.....	CORONARY RISK, PSYCHOLOGY AND DIETARY ADHERENCE.....	5R23 HL24233-02	42,027
CONNOR, WILLIAM E.....	THE METABOLISM OF STEROLS FROM SHELLFISH AND ALGAE.....	5R01 AM21478-03	56,124
CONNOR, WILLIAM E.....	THE ALTERNATIVE DIET FOR CORONARY DISEASE PREVENTION.....	5R01 HL20910-04	394,908
CONNOR, WILLIAM E.....	DIETARY OMEGA-3 FATTY ACIDS—LIPOPROTEINS & PLATELETS.....	1R01 HL25687-01	98,083
CRITCHLOW, B VAUGHN.....	NEURAL REGULATION OF ANTERIOR PITUITARY.....	5R01 AM16794-09	68,860
DOWNES, HALL.....	FATE AND EFFECTS OF LOCAL ANESTHETIC AEROSOLS.....	5R01 GM24524-02	52,214
FABER, J JOB.....	PATHOPHYSIOLOGY OF HYDROPS FETALIS.....	5R01 HD12017-03	59,141
FELLMAN, J H.....	Taurine Metabolism in Heart and Brain.....	5R01 NS01572-23	88,294
FLETCHER, WILLIAM S.....	SOUTHWEST ONCOLOGY GROUP.....	2R10 CA21116-03	96,290
GREER, MONTE A.....	NEUROENDOCRINE AND THYROID PHYSIOLOGY.....	5R01 AM01447-25	174,993
GROVER, M ROBERTS, JR.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00334-14	867,991
HALLICK, LESLEY M.....	REPLICATION AND REPAIR OF VIRAL DNA AND RNA COMPLEXES.....	5R01 CA24799-02	62,353
HAMMERSTAD, JOHN P.....	PATHOPHYSIOLOGY AND TREATMENT OF TARDIVE DYSKINESIA.....	5R01 NS14689-03	64,982
HANIFIN, JON M.....	RECEPTOR PHARMACOLOGY IN ATOPIC DERMATITIS.....	5R01 AI15557-02	50,902
HARE, JAMES F.....	MITOCHONDRIA PROTEIN DEGRADATION IN DIABETIC RATS.....	5R01 AM25703-02	26,638
HIRSHMAN, CAROL A.....	NEW MODEL OF ACUTE & CHRONIC REACTIVE AIR OBSTRUCTION.....	1R01 HL25831-01	113,672
HOHIMER, ALAN R.....	MATERNAL HEMODYNAMICS: PREGNANCY—STEROID HORMONES.....	1R23 HL25731-01	40,078
IGLEWSKI, BARBARA H.....	THE ROLE OF PSEUDOMONAS AERUGINOSA EXOTOXINS.....	5R01 AI14671-03	50,543
ILLINGWORTH, D ROGER.....	LIPID METABOLISM IN MAN: THE EFFECTS OF DIETARY FATS.....	5R01 HL22906-02	84,489
JONES, RICHARD T.....	HEMOGLOBIN: STRUCTURE, FUNCTION AND GENETIC CONTROL.....	5R01 AM17850-07	95,112
JONES, RICHARD T.....	FUNCTIONAL STUDIES OF ABNORMAL HEMOGLOBIN.....	2R01 HL20142-04	45,223
KABAT, DAVID.....	LEUKEMOGENESIS BY FRIEND SPLEEN FOCUS FORMING VIRUS.....	5R01 CA25810-02	58,595
KANE, EILEEN S.....	CENTRAL AUDITORY SYSTEM CONNECTIONS IN MAMMALS.....	5R01 NS16978-02	64,186
KLOSTER, FRANK E.....	RANDOMIZED STUDY OF CORONARY BYPASS SURGERY.....	5R01 HL21293-04	77,518
KOLER, ROBERT D.....	GAS TRANSPORT IN THE FETAL AND POSTNATAL CIRCULATION.....	5R01 HD10595-04	56,593
KRIPPBAEHN, WILLIAM W.....	EFFECT OF FUNCTION ON GRAFTS AND IMPLANTS OF COLLAGEN.....	5R01 HL14126-19	73,956
LAYMAN, DON L.....	ANTIATHEROGENIC EFFECTS OF DIMETHYL SULFOXIDE.....	2R01 HL21303-04	91,015
LAYMAN, DON L.....	MACRO- AND MICROANGIOPATHY IN DIABETES MELLITUS.....	5R01 HL24216-02	52,383
LEES, MARTIN H.....	CARDIOPULMONARY FUNCTION OF METHADONE EXPOSED INFANTS.....	5R01 HD11702-03	47,227
LESLIE, GERRIE A.....	REGULATOR LYMPHOCYTES OF DYSGAMMAGLOBULINEMIC CHICKS.....	5R01 CA23708-03	51,036
LESLIE, GERRIE A.....	MATERNAL IDIOTYPY: EFFECTS ON PROGENY IMMUNE POTENTIAL.....	5R01 HD12381-02	44,064
LITT, MICHAEL.....	REGULATION OF TRANSFER RNA LEVELS IN MAMMALIAN CELLS.....	1R01 CA27562-01	50,984
LOVRIEN, EVERETT W.....	GENETIC LINKAGE ANALYSIS IN SELECTED FAMILIES.....	5R01 HD08237-07	60,800

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
OREGON—Continued			
MAGENIS, R ELLEN	SATELLITE DNA MAPPING WITH CHROMOSOME HETEROMORPHISMS	5R01 GM26285-02	35,768
MAGENIS, R ELLEN	HUMAN CHROMOSOME MAPPING AND MISBEHAVIOR	5R01 HD07997-06	46,320
MAHLER, DAVID B.	CLINICAL BEHAVIOR OF DENTAL RESTORATIVE MATERIALS	5R01 DE02320-15	70,713
MAHLER, DAVID B.	MARGINAL FRACTURE OF DENTAL AMALGAM	5R01 DE02936-12	50,973
MASON, HOWARD S.	MECHANISMS OF BIOLOGICAL ACTIVATION OF OXYGEN	2R01 AM07180-18	148,317
METCALFE, JAMES	RESPIRATION DURING DEVELOPMENT	5P01 HD10034-05	542,133
MORSE, STEPHEN A.	PHYSIOLOGY AND METABOLISM OF NEISSERIA GONORRHOAE II	5R01 AI13571-05	73,973
NEERHOUT, ROBERT C.	CHILDREN'S CANCER STUDY GROUP	5R10 CA26044-02	98,683
PANTELY, GEORGE A.	OXYGEN DELIVERY AND METABOLISM IN MYOCARDIAL ISCHEMIA	5R23 HL24562-02	41,052
PEARSE, HARPER D.	MANAGEMENT OF PATIENTS WITH BLADDER CANCER	2R26 CA25918-02	89,959
PEARSON, ANTHONY A.	THE DEVELOPMENT OF THE EYE AND ITS ADNEXA	5R01 EY02275-03	4,645
PIROFSKY, BERNARD	GENETIC RBC DISEASE: CORRECTION BY TRANSPLANTATION	5R01 HL24185-02	54,933
RAMPONE, ALFRED J.	INTESTINAL ABSORPTION OF LIPIDS	5R01 AM21056-03	34,130
REYNOLDS, JOHN W.	ADRENOCORTICAL FUNCTION IN ABNORMAL NEWBORN INFANTS	5R01 HD12027-02	44,859
RICHARDS, THOMAS C.	CHANGES IN MOUSE COLON DURING CHEMICAL CARCINOGENESIS	5R26 CA21480-03	33,243
RIKER, WILLIAM K.	ANTHRAQUINONE CATHARTICS: PHARMACOLOGY AND TOXICOLOGY	5R01 AM19092-02	76,967
RITTENBERG, MARVIN B.	FUNCTIONAL DIFFERENTIATION IN B LYMPHOCYTES	5R01 AI14985-03	93,547
SAVARA, BHIM S.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05336-19	17,264
SEAMAN, GEOFFREY V.	AGING ERYTHROCYTES: BIORECOGNITION AND ELIMINATION	5R01 HL18284-06	67,065
SEAMAN, GEOFFREY V.	CELL PARTITIONING WITH TWO PHASE AQUEOUS POLYMERS	3R01 HL24374-01S1	7,760
SEAMAN, GEOFFREY V.	CELL PARTITIONING WITH TWO PHASE AQUEOUS POLYMERS	5R01 HL24374-02	73,232
SHEARER, THOMAS R.	SELENIUM METABOLIC EFFECTS AND DENTAL CARIES	5R01 DE03536-08	34,706
SHEARER, THOMAS R.	FLUORIDE-CADMIUM INTERACTION IN DENTAL CARIES	5R01 DE04616-03	42,563
SIEGEL, BENJAMIN V.	AUTOIMMUNITY AND NEOPLASIA IN NEW ZEALAND BLACK MICE	5R01 CA18149-05	94,074
TRIMBLE, JOSEPH E.	MINORITY ELDERLY ADAPTATION TO LIFE-THREATENING EVENTS	5R01 AG01908-02	94,068
VAN BUSKIRK, E MICHAEL	THE VERTEBRATE EYE: STUDIES OF AQUEOUS OUTFLOW	5R01 EY03279-02	40,733
VANDENBARK, ARTHUR A.	REGULATION OF CELL GROWTH BY 5'-METHYLTHIOADENOSINE	5R01 CA24151-02	46,910
WEIMAR, VIRGINIA L.	REACTION OF CORNEAL CELLS TO INJURY	5R01 EY00238-18	134,753
WEITLAUF, HARRY M.	METABOLIC CHANGES IN PREIMPLANTATION EMBRYOS OF MICE	5R01 HD08496-07	50,092
WELEBER, RICHARD G.	GYRATE ATROPHY OF THE CHOROID AND RETINA	5R01 EY02527-03	70,453
WOODWARD, WILLIAM R.	MAMMALIAN VISUAL SYSTEM: NEUROTRANSMITTER SCREENING	5R01 EY02456-03	66,029
WUEPPER, KIRK D.	EPIDERMAL TRANSGLUTAMINASE: ROLE IN KERATINIZATION	5R01 AM17687-06	48,438
WUEPPER, KIRK D.	ROLE OF IMMUNE COMPLEXES IN ALLERGIC SKIN DISEASES	5R01 AM25183-02	81,341
ORGANIZATION TOTAL	73	6,589,909	
PROVIDENCE MEDICAL CENTER ZIP CODE 97213			
SEAMAN, GEOFFREY V.	EVALUATION OF DIAGNOSTIC CLINICAL HEMORRHEOLOGY	5R01 HL19255-05	54,790
ORGANIZATION TOTAL	1	54,790	
REED COLLEGE ZIP CODE 97202			
ARCH, STEPHEN W.	REGULATORY PHYSIOLOGY AND BIOCHEMISTRY IN NERVE CELLS	5R01 NS11149-06	68,894
ARCH, STEPHEN W.	THE ROLE OF AFFERENCE IN NEURONAL DEGENERATION	1R01 NS15867-01	38,660
BURT, CHARLES T.	SIGNIFICANCE OF PHOSPHODIESTERS TO MUSCULAR SYSTEMS	7R01 AM27566-01	41,452
GWILLIAM, GILBERT F.	LOCAL CIRCUIT INTERNEURONS AND MOTONEURON ACTIVATION	1R01 NS15774-01	51,645
KLEINHOLZ, LEWIS H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07168-02	14,349
RUBEN, LAURENS N.	THE EVOLUTION AND DEVELOPMENT OF IMMUNE RESPONSES	5R01 AI12846-06	67,859
RUSSELL, PETER J.	REGULATION OF EUKARYOTIC RIBOSOME BIOSYNTHESIS	5R01 GM26082-02	45,732
ORGANIZATION TOTAL	7	328,591	
STATE TOTAL	225	22,185,483	
PENNSYLVANIA			
BETHLEHEM			
LEHIGH UNIVERSITY ZIP CODE 18015			
SCHAFER, STEPHEN W.	ROLE OF TAURINE IN HEART FAILURE	5R01 HL18554-05	47,281
SCHRAY, KEITH J.	ENZYME-IMMUNOASSAY CONJUGATE SYNTHESIS	5R01 GM25355-03	65,237
ORGANIZATION TOTAL	2	112,518	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
BRYN MAWR			
BRYN MAWR COLLEGE	ZIP CODE 19010		
HOFFMAN, HOWARD S.....	PSYCHOPHYSICS OF THE STARTLE REACTION.....	5R01 HD10511-07	86,222
KULIKOFF, ALLAN L.....	MIGRATION AND POPULATION GROWTH IN THE SOUTH.....	1R01 HD14989-01	10,370
POWERS, ALICE S.....	VISUAL SYSTEM STRUCTURE AND FUNCTION.....	3R01 EY01657-03S2	3,684
POWERS, ALICE S.....	FUNCTION OF THE NONMAMMALIAN VISUAL SYSTEM.....	9R01 NS16688-04	33,560
TREISTMAN, STEVEN N.....	CYCLIC NUCLEOTIDE MODULATION OF NEURONAL ACTIVITY.....	3R01 NS15195-01S1	24,415
ORGANIZATION TOTAL	5 158,251		
DANVILLE			
INSTITUTE FOR MEDICAL EDUCATION AND RESEARCH	ZIP CODE 17821		
BREEN, PHILIP C.....	SURGICAL ADJUVANT PROJECT FOR BREAST AND BOWEL CANCERS.....	1R10 CA26718-01	24,973
ORGANIZATION TOTAL	1 24,973		
HAVERFORD			
HAVERFORD COLLEGE	ZIP CODE 19041		
LERMAN, CHARLES L.....	ACTIVE SITE OF DELTA-AMINOLEVULINIC ACID DEHYDRATASE.....	5R01 ES01572-03	35,222
LOEWY, ARIEL G.....	DISTRIBUTION OF THE ISOPEPTIDE BOND IN CELLULAR PROTEINS.....	5R01 HL04385-19	74,750
SANTER, MELVIN.....	COMPARATIVE SEQUENCE STUDIES ON RIBOSOMAL RNA.....	5R01 GM11738-14	67,821
ORGANIZATION TOTAL	3 177,793		
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER	ZIP CODE 17033		
BAIRD, IRWIN L.....	ANATOMICAL STUDIES OF THE INTERNAL EAR.....	5R01 NS07860-14	67,891
BHAVANANDAN, VEERASINGHAM.....	COMPLEX SACCHARIDES OF NORMAL AND CANCER CELL NUCLEI.....	3R01 CA17686-04S1	9,630
BULLOCK, LESLIE P.....	ANDROGEN ACTION: REGULATION AND MECHANISM.....	1R01 HD13661-01	85,600
CONNOR, JOHN D.....	PERINATAL HYPOXIA AND DEFICITS IN CELL COMMUNICATION.....	5R01 NS15663-02	52,472
DAVIDSON, EUGENE A.....	BIOCHEMISTRY OF MUCOPOLYSACCHARIDES.....	5R01 CA15483-13	184,889
DRAGO, JOSEPH R.....	PROSTATE ADENOCARCINOMA MODEL: NB RATS.....	2R26 CA27380-03	79,833
FLAIM, STEPHEN F.....	CIRCULATORY EFFECTS OF VASODILATORS IN HEART DISEASE.....	1R23 HL25186-01A1	37,330
GOODMAN, STEVEN R.....	PROTEIN INTERACTIONS IN HUMAN ERYTHROCYTE MEMBRANES.....	1R01 HL26059-01	79,051
HAMMOND, JAMES M.....	PROLACTIN AND PROLACTIN RECEPTORS IN OVARIAN FUNCTION.....	5R01 HD10122-05	84,718
HARRISON, TIMOTHY S.....	CARDIOVASCULAR DETERMINANTS OF CATECHOLAMINE RELEASE.....	2R01 HL18995-06	119,460
HASS, LOUIS F.....	THE CONTROL OF SICKLE CELL CRISIS.....	3R01 HL16647-06S1	29,316
HAWKINS, RICHARD A.....	REGIONAL BRAIN METABOLISM IN HEPATIC COMA.....	1R01 NS16389-01	74,137
HERNANDEZ, MILTON J.....	NEONATAL ASPHYXIA EFFECTS ON CEREBRAL CIRCULATION.....	1R01 NS15791-01	67,755
HILL, CHARLES W.....	GENETICS AND BIOCHEMISTRY OF MISSENSE SUPPRESSION.....	2R01 GM16329-13	148,742
HOPPER, ANITA K.....	YEAST MUTANTS IN tRNA-TRANSCRIPTION AND MATURATION.....	5R01 GM27930-02	75,033
HOPPER, JAMES E.....	MOLECULAR BASIS OF INTERCHROMOSOMAL GENE REGULATION.....	5R01 GM27925-02	113,356
HOPPER, JAMES E.....	INTER-GENOMIC FUNCTIONAL RELATIONSHIPS IN YEAST.....	7R01 GM28367-01	26,678
HOWETT, MARY K.....	IN VIVO COCARCINOGENESIS OF CHEMICALS AND VIRUSES.....	5R01 CA25305-02	53,991
HUGHES, HOWARD C.....	ELIMINATION OF REOPERATIVE CARDIAC PACEMAKER SURGERY.....	5R01 HL13988-09	76,559
HYMAN, RICHARD W.....	MALIGNANCY AND DNA HOMOLOGY AMONG THE HERPES VIRUSES.....	5R01 CA16498-06	57,466
ISOM, HARRIET C.....	REGULATION OF DIFFERENTIATION IN HEPATOCYTES IN VITRO.....	2R01 CA23931-03	96,788
JACOB, SAMSON T.....	POLY(A) POLYMERASES FROM LIVER AND HEPATOMAS.....	5R01 CA25078-03	94,219
JEFFERSON, LEONARD S, JR.....	REGULATION OF LIVER GROWTH AND FUNCTION.....	5R01 AM13499-12	92,495
JEFFERSON, LEONARD S, JR.....	REGULATION OF SKELETAL MUSCLE METABOLISM.....	5R01 AM15658-10	82,175
KREIDER, JOHN W.....	SIGNIFICANCE OF TUMOR LEUCOCYTIC INFILTRATES.....	5R01 CA22869-02	100,357
LADDA, ROGER L.....	GROWTH FACTORS: CONTROL OF ANIMAL CELL PROLIFERATION.....	5R01 AG00421-05	61,228
LANG, C MAX.....	LABORATORY ANIMAL DIAGNOSTIC RESOURCE.....	3P40 RR00469-11S1	8,597
LANG, C MAX.....	LABORATORY ANIMAL DIAGNOSTIC RESOURCE.....	5P40 RR00469-12	126,820
LANOUE, KATHRYN F.....	BIOCHEMICAL STUDIES OF THERMOGENESIS.....	1R01 AM26309-01	54,464
LEURE-DU PREE, ALPHONSE E.....	RETINAL ZINC: CELLULAR LOCATION AND VISUAL FUNCTION.....	5R01 EY01438-05	54,855
LIEDTKE, A JAMES.....	ALTERATIONS OF METABOLISM IN ISCHEMIC MYOCARDIUM.....	2R01 HL21209-04	96,787
LLOYD, THOMAS A.....	TYROSINE HYDROXYLASE: MECHANISMS OF REGULATION.....	5R01 GM23134-05	78,375
MORGAN, HOWARD E.....	REGULATION OF PROTEIN DEGRADATION IN HEART.....	2R01 HL18258-06	84,478

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
MORGAN, HOWARD E.....	REGULATION OF PROTEIN TURNOVER IN DIABETIC HEART.....	5R01 HL20388-05	90,915
MORTEL, RODRIGUE.....	GYNECOLOGIC ONCOLOGY GROUP.....	2R10 CA16386-05	114,992
MORTIMORE, GLENN E.....	MECHANISM AND REGULATION OF PROTEIN TURNOVER IN LIVER.....	5R01 AM21624-03	134,378
MUNGER, BRYCE L.....	LARYNGEAL SENSORY RECEPTOR MECHANISMS AND SIDS.....	5R01 HD11216-03	81,910
NAEYE, RICHARD L.....	ANTENATAL INFLUENCES ON NEUROBIOLOGIC ABNORMALITIES.....	1R01 NS16403-01	49,680
NAHRWOLD, DAVID L.....	SURGICAL PANCREATIC DISEASE: EXOCRINE INHIBITION.....	5R01 AM22188-02	65,556
NAHRWOLD, DAVID L.....	STUDY OF ENTERO-OXYNTIN IN NEW SURGICAL MODEL.....	5R01 AM23085-02	81,389
NEELY, JAMES R.....	REGULATION OF MYOCARDIAL FATTY ACID METABOLISM.....	5R01 HL13028-11	71,880
NEELY, JAMES R.....	REGULATION OF METABOLISM IN OXYGEN DEFICIENT HEARTS.....	2R01 HL18206-06	89,874
NEELY, JAMES R.....	EFFECTS OF DIABETES ON CARDIAC FUNCTION AND METABOLISM.....	5R01 HL20484-05	52,772
NELBIS, STEPHEN H.....	MICROVASCULAR PRESSURES IN THE INTACT BEATING HEART.....	5R01 HL22917-03	51,274
NELSON, NICHOLAS M.....	PULMONARY SCOR: PATHOPHYSIOLOGY, MANAGEMENT OF IRDS.....	5P50 HL19190-04	550,015
PAGE, ROBERT B.....	BLOOD FLOW IN THE NEUROHYPOPHYSEAL CAPILLARY BED.....	1R01 NS15926-01	62,433
PEGG, ANTHONY E.....	PERSISTENCE OF ALKYLATED DNA IN CARCINOGENESIS.....	5R01 HL22917-03	85,937
PEGG, ANTHONY E.....	MAMMALIAN POLYAMINE METABOLISM.....	5R01 CA18138-05	57,600
PEGG, ANTHONY E.....	INVESTIGATIONS OF MAMMALIAN AMINOPROPYLTRANSFERASES.....	5R01 GM26290-02	48,952
PIERCE, WILLIAM S.....	LEFT VENTRICULAR BYPASS FOR MYOCARDIAL INFARCTION.....	5R01 HL13426-11	177,138
PIERCE, WILLIAM S.....	DEVELOPMENT AND EVALUATION OF AN ARTIFICIAL HEART.....	2R01 HL20356-04	278,777
PRYSTOWSKY, HARRY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05680-12	189,787
PUBOLS, BENJAMIN H, JR.....	NEURAL PATHWAYS INVOLVED IN TACTILE DISCRIMINATION.....	5R01 NS13418-03	77,105
RANNELS, D EUGENE, JR.....	REGULATION OF PROTEIN TURNOVER IN LUNG TISSUE.....	2R01 HL20344-04	58,485
RAPP, FRED.....	THE CHARACTERIZATION OF MEASLES VIRUS LATENCY.....	5R01 AI12203-06	76,289
RAPP, FRED.....	ETIOLOGY OF PROSTATE TUMORS.....	3R26 CA16365-06S1	21,791
RAPP, FRED.....	ETIOLOGY OF UROGENITAL TUMORS.....	2R26 CA16365-07A1	65,140
RAPP, FRED.....	SUPPORT FOR SPECIALIZED CANCER RESEARCH CENTER.....	5P30 CA18450-05	167,474
RAPP, FRED.....	HERPESVIRUSES AND NEOPLASIA.....	1P01 CA27503-01	566,866
RICHTER, JAMES J.....	VOLATILE ANESTHETICS AND MEMBRANE-PROTEIN INTERACTION.....	1R23 GM27094-01	38,101
ROSE, KATHLEEN M.....	REGULATION OF RNA POLYMERASE I GENE EXPRESSION.....	5R01 GM26740-02	36,088
ROSE, RICHARD C.....	ABSORPTION OF WATER-SOLUBLE VITAMINS BY INTESTINE.....	5R01 AM19119-05	77,838
SCHENGRUND, CARA L.....	BIOLOGICAL FUNCTIONS OF PLASMA MEMBRANE SIALIDASE.....	5R01 CA14319-07	80,218
SCHOOLWERTH, ANTON C.....	MITOCHONDRIAL TRANSPORT AND RENAL AMMONIAGENESIS.....	2R01 AM19714-04	91,685
SHIMAN, ROSS.....	REGULATION OF TYROSINE SYNTHESIS IN HEPATOMA CELLS.....	5R01 CA14881-08	86,049
SUMMY-LONG, JOAN Y.....	OPIOID PEPTIDE INTERACTIONS WITH ANGIOTENSIN.....	1R23 HL25726-01	35,730
TAYLOR, JOHN M.....	METABOLISM OF LIVER MRNA IN DIABETES.....	5R01 AM22013-03	41,965
TAYLOR, JOHN M.....	CONTROL OF ALBUMIN SYNTHESIS IN LIVER AND HEPATOMAS.....	5R01 CA16746-06	73,860
TENSER, RICHARD B.....	LATENT VIRUS INFECTIONS OF THE NERVOUS SYSTEM.....	5R01 NS14568-03	52,693
TEVETHIA, MARY J.....	MUTAGENESIS OF SPECIFIC REGIONS OF THE SV40 GENOME.....	5R01 CA24694-03	54,167
TEVETHIA, SATVIR S.....	BIOLOGY OF SV40 SPECIFIC TRANSPLANTATION ANTIGEN.....	3R01 CA25000-02S1	5,160
TEVETHIA, SATVIR S.....	BIOLOGY OF SV40 SPECIFIC TRANSPLANTATION ANTIGEN.....	5R01 CA25000-03	153,170
TOWFIGHI, JAVAD.....	SUDDEN INFANT DEATH SYNDROME BRAIN ABNORMALITIES.....	1R01 HD14344-01	71,394
VANNUCCI, ROBERT C.....	PATHOGENESIS OF PERINATAL HYPOLYCEMIC BRAIN DAMAGE.....	5R01 HD09109-06	68,003
VESELL, ELLIOT S.....	GENETICALLY CONTROLLED VARIATIONS IN DRUG DISPOSITION.....	5R01 GM26027-02	71,508
WASSNER, STEVEN J.....	VITAMIN D DEFICIENCY AND MUSCLE PROTEIN TURNOVER.....	5R01 AM24061-02	50,817
WEISZ, JUDITH.....	ANDROGENS, BRAIN DIFFERENTIATION AND FUNCTION.....	5R01 HD09542-08	120,391
WEISZ, JUDITH.....	CATECHOL-ESTROGENS, CNS FUNCTION & REPRODUCTION.....	5R01 HD09734-05	90,742
WHITFIELD, CAROL F.....	CONTROL OF SUGAR ENTRY IN NORMAL AND DIABETIC HEART.....	5R23 HL21842-03	37,006
WHITMAN, VICTOR.....	CARDIAC ADAPTATION TO AGING AND STRESS.....	5R23 HL21393-03	36,772
ZAGON, IAN S.....	STUDIES IN NEURO-ONCOGENESIS AND NEUROGENESIS.....	5R01 CA22815-03	55,115
ZELIS, ROBERT F.....	QUANTITATIVE ANALYSIS OF THE HUMAN VENOUS SYSTEM.....	5R01 HL23836-02	54,707
ORGANIZATION TOTAL	82 7,407,133		

LANCASTER

FRANKLIN AND MARSHALL COLLEGE ZIP CODE 17604

FEIT, IRA N.....	CYCLOC AMP AND CELL DIFFERENTIATION IN DICTYOSTELIUM.....	5R01 GM26912-02	31,298
ORGANIZATION TOTAL	1 31,298		

LANCASTER CLEFT PALATE CLINIC ZIP CODE 17602

KROGMAN, WILTON M.....	SERIAL CRANIOFACIAL GROWTH IN CLEFTING BIRTH-15 YEARS.....	1R01 DE04781-01A2	74,003
STARR, PHILIP.....	BEHAVIORAL STAGES FOR CLEFT PALATE PATIENTS.....	5R01 DE04779-03	63,320
ORGANIZATION TOTAL	2 137,323		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
LEWISBURG			
BUCKNELL UNIVERSITY	ZIP CODE 17837		
HARCLERODE, JACK E.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07193-01	17,420
HILLIKER, SANDRA R.....	PHYSICAL AND FUNCTIONAL ANALYSIS OF PHAGES P22 AND L.....	5R01 GM26238-02	43,166
VEENING, HANS.....	CHEMICAL STUDIES OF FLUIDS FROM HEMODIALYSIS PATIENTS.....	5R01 AM25785-02	31,796
ORGANIZATION TOTAL	3 92,382		
LINCOLN UNIVERSITY			
LINCOLN UNIVERSITY	ZIP CODE 19352		
JOHNSON, WILLIAM T.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08002-10	144,188
ORGANIZATION TOTAL	1 144,188		
PHILADELPHIA			
ACADEMY OF NATURAL SCIENCES	ZIP CODE 19103		
DAVIS, GEORGE M.....	ANALYSIS OF MOLLUSCAN FAUNAS AND ASIAN SCHISTOSOMIASIS.....	2R22 AI11373-07	46,973
ORGANIZATION TOTAL	1 46,973		
ALBERT EINSTEIN MEDICAL CENTER	ZIP CODE 19141		
MANN, STEVEN G.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA22557-02	52,996
ORGANIZATION TOTAL	1 52,996		
AMERICAN COLLEGE OF RADIOLOGY--RADIATION ONCOLOGY STUDY CENTER	ZIP CODE 19107		
KRAMER, SIMON.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA21661-05	789,483
KRAMER, SIMON.....	PARTICLE PROGRAM--CLINICAL TRIALS.....	5R10 CA23113-03	296,825
ORGANIZATION TOTAL	2 1,086,308		
CHILDREN'S HOSPITAL OF PHILADELPHIA	ZIP CODE 19104		
ASAKURA, TOSHIO.....	MECHANISM OF OXYGEN SUPPLY TO TISSUE.....	5R01 HL18226-06	84,931
ASAKURA, TOSHIO.....	STUDIES IN SICKLE CELL DISEASE.....	5R01 HL20750-03	87,434
BAKER, LESTER.....	HYPOGLYCEMIA IN SMALL FOR GESTATIONAL AGE NEWBORNS.....	5R01 AM13518-18	110,943
CORTNER, JEAN A.....	GENETIC VARIATION OF HUMAN LIPASES--ATHEROSCLEROSIS.....	5R01 HL18723-05	105,280
CORTNER, JEAN A.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00240-16	561,686
CREASEY, WILLIAM A.....	MECHANISM OF ACTION OF NEW ANTICANCER AGENTS.....	5R01 CA23147-03	77,376
D'ANGIO, GIULIO J.....	PEDIATRIC CANCER RESEARCH CENTER.....	3P01 CA14489-06S2	767,741
EVANS, AUDREY E.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA11796-11	287,077
EVANS, AUDREY E.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19372-05	123,288
FLEISHER, GARY R.....	EPSTEIN-BARR VIRUS INFECTIONS IN PREGNANCY.....	1R01 HD14566-01	73,720
GLICK, MARY C.....	ABNORMAL FUCOSE METABOLISM IN CYSTIC FIBROSIS.....	5R01 AM16859-05	101,676
GOLDMAN, ALLEN S.....	CRANIOFACIAL ANOMALIES AND PROTEIN RECEPTORS.....	2R01 DE04622-04	162,396
GOLDMAN, ALLEN S.....	OROFACIAL ANOMALIES IN PHENYTOIN TERATOGENESIS.....	5R01 DE05041-02	138,452
HUMMELER, KLAUS.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05506-18	132,887
JEAN, JONG-HO.....	MECHANISM OF ABORTIVE INFECTION BY CMV.....	5R01 AI15570-02	43,945
JOHNSTON, FRANCIS E.....	CORRELATES OF ADIPOSE CELL GROWTH IN INFANCY.....	5R01 HD12480-02	51,701
LANGE, BEVERLY J.....	CANCER THERAPY: EMERGENCE OF 6-TG RESISTANT LYMPHOCYTES.....	5R01 CA26907-02	51,762
LENNETTE, EVELYNE T.....	STUDIES OF EPSTEIN-BARR VIRUS DETERMINED ANTIGENS.....	5R01 CA24779-02	143,883
NORMAN, MICHAEL E.....	VITAMIN D THERAPY OF RENAL OSTEODYSSTROPHY IN CHILDREN.....	1R01 AM19278-01A3	125,386
PLOTKIN, STANLEY A.....	PREVENTION OF CMV INFECTIONS IN TRANSPLANT RECIPIENTS.....	2R01 AI14927-03	128,319
POTSIC, WILLIAM P.....	MIDDLE EAR MUCUS: RHEOLOGICAL AND CLINICAL FACTORS.....	3R01 NS14459-01A1S1	5,459
POTSIC, WILLIAM P.....	MIDDLE EAR MUCUS: RHEOLOGICAL AND CLINICAL FACTORS.....	5R01 NS14459-02	94,874
RASHKIND, WILLIAM J.....	NONSURGICAL TREATMENT OF CONGENITAL HEART DISEASE.....	5R01 HL12307-10	120,145
SCHWARTZ, ELIAS.....	HEME AND GLOBIN SYNTHESIS IN INFANTS AND CHILDREN.....	5R01 AM16691-09	114,374
SEGAL, STANTON.....	GENETIC METABOLIC DISEASES OF INFANCY AND CHILDHOOD.....	5R01 AM10894-15	376,833
SEGAL, STANTON.....	CELLULAR MECHANISMS IN MENTAL RETARDATION.....	2P01 HD08536-06A1	616,063
STATES, BEATRICE M.....	METABOLIC BASIS OF CYSTINE STORAGE DISEASE.....	5R01 AM13900-11	112,309
TENORE, ALFRED.....	THYROID HORMONES AND BREAST MILK.....	5R01 HD12531-02	72,026
TZORTZATOU, GEORGIA G.....	BIOCHEMICAL MECHANISM OF STEROID-INDUCED CLEFTING.....	1R23 DE05592-01	37,778
WATKINS, JOHN B.....	BILE ACID METABOLISM IN INFANCY AND CHILDHOOD.....	5R01 HD13913-02	79,422

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
WATKINS, JOHN B.....	BILE ACIDS AND THE DEVELOPMENT OF INTESTINAL FUNCTION.....	5R01 HD13932-02	54,625
YAFFE, SUMNER J.....	REGULATION OF DRUG METABOLISM DURING DEVELOPMENT.....	5R01 HD10063-05	78,251
ORGANIZATION TOTAL	32 5,122,042		
DREXEL UNIVERSITY ZIP CODE 19104			
GRIFFITH, BELVER C.....	INFORMATION AND KNOWLEDGE IN BIOMEDICAL RESEARCH.....	5R01 LM00911-08	72,499
JARON, DOV.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07129-11	24,359
MODE, CHARLES J.....	COMPUTER MACROSIMULATION IN FAMILY PLANNING EVALUATION.....	5R01 HD09571-06	78,983
NES, WILLIAM R.....	INFLUENCE OF STRUCTURE ON ISOPENTENOID METABOLISM.....	5R01 AM12172-13	130,149
WADE, PETER A.....	SYNTHESIS OF ISOXAZOLINES WITH ANTITUMOR ACTIVITY.....	1R01 CA26943-01	58,192
ORGANIZATION TOTAL	5 364,182		
FOX CHASE CANCER CENTER ZIP CODE 19111			
CREECH, RICHARD H.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA27525-02	321,563
ENGSTROM, PAUL F.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA23229-04	131,234
ZWEIDLER, ALFRED.....	HISTONES IN CELL DIFFERENTIATION AND CARCINOGENESIS.....	2R01 CA15135-07	109,472
ORGANIZATION TOTAL	3 562,269		
FRANKLIN INSTITUTE OF THE STATE OF PENNSYLVANIA ZIP CODE 19103			
HARRIS, JACK N.....	ISLET HORMONE SECRETION IN UNIQUE A,B&D CELL CULTURES.....	5R23 AM26065-02	78,954
KRONICK, PAUL L.....	ISOLATING CELLS BY DIFFERENTIAL MAGNETOPHORESIS.....	5R01 GM26308-02	91,205
SHANK, RICHARD P.....	METABOLISM AND REGULATION OF AMINO ACID TRANSMITTERS.....	5R01 NS16004-02	153,548
SMITH, DON W.....	IN VITRO FIBER FORMATION AND CROSSLINKING OF ELASTIN.....	1R01 HL24377-01	158,029
ORGANIZATION TOTAL	4 481,736		
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102			
ARCHER, F JOY.....	AGING OF NORMAL AND DIABETIC FIBROBLASTS IN VITRO.....	5R23 AG00810-02	47,103
BRADY, LUTHER W.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA12252-09	110,759
BRADY, LUTHER W.....	GYNCOLOGIC ONCOLOGY GROUP.....	2R10 CA12478-10	163,813
BRADY, LUTHER W.....	RADIATION THERAPY CLINICAL AND RESEARCH CENTER.....	5P01 CA14043-06	425,256
BRADY, LUTHER W.....	COMBINED MODALITY TREATMENT OF CANCER PATIENTS.....	1R13 CA28934-01	34,900
BRODSKY, ISADORE.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA13611-08	126,083
CROWELL, RICHARD L.....	VIRAL INTERFERENCE IN CARRIER CULTURES.....	5R01 AI03771-20	65,797
DAMJANOV, IVAN.....	TERATOCARCINOMA AND ONCO-EMBRYONIC PHENOTYPE.....	2R01 CA23097-03	74,028
DE TERRA, NOEL.....	CONTROL OF NUCLEAR POSITIONING IN THE CILIATE STENTOR.....	5R01 GM24567-03	72,647
DI PALMA, JOSEPH R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05413-19	131,351
GILLESPIE, DAVID H.....	STRUCTURE AND FUNCTION OF REPEATED DNA IN PRIMATES.....	1R01 GM27270-01	116,655
GILLESPIE, DAVID H.....	REPEATED DNA EXPRESSION IN DEVELOPMENT AND CANCER.....	1R01 HD13860-01	76,130
HEINDEL, NED D.....	MELANOMA DELINEATING RADIOPHARMACEUTICALS.....	5R01 CA22578-03	89,090
KAHN, SIGMUND B.....	ONCOLOGY EDUCATION EVALUATION AND DEVELOPMENT.....	5R25 CA17963-06	87,664
KALIA, MADHU.....	PULMONARY VAGAL AFFERENTS & BRAIN STEM PROJECTIONS.....	1R01 HL23961-01A1	86,242
KATZ, SHEILA M.....	NATURAL HISTORY OF THE ORGANISM OF LEGIONNAIRES' DISEASE.....	5R01 AI15593-02	82,375
KOFFLER, DAVID.....	TISSUE INJURY MECHANISMS IN SYSTEMIC LUPUS ERYTHEMATOSUS.....	2R01 AM21715-04	119,645
KOFFLER, DAVID.....	IMMUNOPATHOGENESIS OF CNS DISEASE IN SLE.....	5R01 AM21789-03	86,394
LAVINE, ROBERT L.....	DIABETOGENIC EFFECT OF L-ASPARAGINASE.....	5R01 AM21202-03	86,814
MAGUIRE, HENRY C, JR.....	REGULATION OF THE IMMUNE RESPONSE TO CONTACT ALLERGENS.....	5R01 AI13337-04	83,505
MARTINEZ-HERNANDEZ, ANTONIO.....	BASEMENT MEMBRANE STRUCTURE, FUNCTION, PATHOLOGY.....	5R01 AM25254-02	74,000
MOORE, DAN H.....	ETIOLOGICAL STUDIES OF MAMMARY CARCINOMA.....	3R01 CA22413-03S1	20,216
OHNISHI, TSUYOSHI.....	ISOLATION OF CA-BINDING PROTEINS FROM ERYTHROCYTES.....	2R01 HL23200-03	55,277
PRICE, HENRY L.....	EFFECT OF ANESTHETICS ON MYOCARDIAL FUNCTION.....	5R01 HL15799-06	66,084
ROSE, LESLIE I.....	METABOLIC STUDIES OF HUMAN UTERINE NEOPLASMS.....	5R01 CA18737-06	81,843
ROTTENBERG, HAGAI.....	MEMBRANE REGULATION OF MITOCHONDRIAL METABOLISM.....	1R01 GM28173-01	91,929
RUBIN, EMANUEL.....	EFFECTS OF ALCOHOL ON SKELETAL AND CARDIAC MUSCLE.....	1R01 HL26903-01	118,473
SCHAEFFER, STEPHEN W.....	THE EFFECT OF TOLBUTAMIDE ON THE ISCHEMIC MYOCARDIUM.....	5R01 HL24399-02	52,880
SCHELL, RONALD F.....	SPECIFIC IMMUNE REACTIVITY TO TYREPONEMAL INFECTION.....	7R01 AI17999-01	110,050
STANTON, LEONARD.....	TEST PHANTOMS FOR OPTIMIZING MAMMOGRAPHIC TECHNIQUE.....	5R01 CA26327-02	41,112
VAIDYA, AKHIL B.....	ETIOLOGICAL STUDIES OF MAMMARY CARCINOMA.....	2R01 CA22413-04	49,881
VANDERLINDE, RAYMOND E.....	SERUM AND URINE LEVELS OF CHROMIUM IN DIABETES.....	2R01 AM20830-03	42,103
WEIDANZ, WILLIAM P.....	MECHANISMS OF 'NONSTERILIZING IMMUNITY' IN MALARIA.....	5R01 AI12710-05	88,500
WEIDANZ, WILLIAM P.....	MALARIA INDUCED IMMUNODEPRESSION.....	5R01 AI16153-02	43,827
ORGANIZATION TOTAL	34 3,102,426		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111			
ASTRIN, SUSAN M	CONTROL OF EXPRESSION OF ENDOGENOUS VIRAL GENES	1R01 CA27797-01	91,302
BAYER, MANFRED E	BACTERIAL SURFACE AND ITS MULTIFUNCTIONAL DOMAINS	2R01 AI10414-07	97,257
BERMAN, HELEN	MODEL COMPOUNDS FOR NUCLEIC ACID INTERACTIONS	5R01 GM21589-06	58,553
BLUMBERG, BARUCH S	CANCER CLINICAL RESEARCH AT THE FOX CHASE CENTER	5P01 CA06551-17	926,596
BOSMA, MELVIN J	REGULATION OF IMMUNOGLOBULIN PRODUCTION	5R01 AI13323-05	131,178
BOSMA, MELVIN J	HIDDEN IMMUNOGLOBULIN ALLOTYPES IN MICE	3R01 CA04946-19S1	24,359
CASTOR, LA ROY N	PROTEIN SYNTHESIS AND CONTROL OF THE CELL CYCLE	5R01 CA24961-02	65,416
COHEN, LEONARD H	DEVELOPMENTAL CHANGES IN CHROMOSOMAL PROTEINS	5R01 GM24019-04	71,129
COHEN, LEONARD H	ROLES OF PROTEINS IN CHROMOSOME ORGANIZATION	5R01 GM26459-02	76,706
DUNCAN, BRUCE K	ENZYMES AND MUTANTS OF DNA METABOLISM	1R01 GM27813-01	51,057
GLUSKER, JENNY P	APPLICATION OF CRYSTALLOGRAPHIC TECHNIQUES	5R01 CA10925-31	204,859
GUPTA, RAJ K	SPECTRAL STUDIES OF HEME- AND METAL PROTEINS	5R01 AM19454-05	66,096
HAMPTON, ALEXANDER	CHEMISTRY AND ENZYMOLOGY OF ANTICANCER PURINE ANALOGS	2R01 CA11196-12	146,164
KNUDSON, ALFRED G, JR	COMPREHENSIVE CANCER CENTER PROGRAM AT FOX CHASE	3P30 CA06927-17S1	99,262
KNUDSON, ALFRED G, JR	COMPREHENSIVE CANCER CENTER PROGRAM AT FOX CHASE	5P30 CA06927-18	4,571,223
KNUDSON, ALFRED G, JR	BIOMATHEMATICAL APPROACHES TO CANCER	5R01 CA22780-03	274,095
KNUDSON, ALFRED G, JR	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05539-18	147,023
LONDON, W THOMAS	HEPATITIS B INFECTION AND REACTIONS TO HOMOGRAFTS	5R01 AM21958-02	122,334
MARCUS, ABRAHAM	INITIATION AND PEPTIDE SYNTHESIS IN VITRO	5R01 GM15122-13	129,842
MASTRANGELO, MICHAEL J	AN INTEGRATED CLINICAL PROGRAM FOR MELANOMA	5R01 CA13456-08	142,786
MILDVAN, ALBERT S	NMR STUDIES OF ENZYME-METAL-SUBSTRATE INTERACTIONS	5R01 AM13351-13	99,684
MINTZ, BEATRICE	GENE CONTROL OF MAMMALIAN DEVELOPMENT AND DISEASE	5R01 HD01646-21	246,188
MOOLGAVKAR, SURESH H	TEMPORAL EVOLUTION OF CANCER	1R01 CA25588-01A1	41,964
MOSIER, DONALD E	INDUCTION AND REGULATION OF B LYMPHOCYTE ACTIVATION	5R01 AI15879-02	97,133
MOSIER, DONALD E	T LYMPHOCYTE REGULATION OF IDIOTYPE EXPRESSION	5R01 AI16120-02	105,820
NEMER, MARTIN J	GENE EXPRESSION IN EMBRYOGENESIS	5R01 HD04367-19	117,423
RIBLET, ROY	GENETIC ANALYSIS OF THE IMMUNE RESPONSE	2R01 AI13797-04	93,145
ROSE, IRWIN A	REGULATION OF CARBOHYDRATE METABOLISM	5R01 AM17320-17	68,995
ROSE, IRWIN A	CONTROL OF HEXOKINASE LOSS IN DIABETES	5R01 AM21811-03	56,895
ROSE, IRWIN A	MECHANISMS OF PROTON AND PHOSPHORYL TRANSFER	5R01 GM20940-17	89,961
ROSE, ZELDA B	ENZYMES OF 2,3-DIPHOSPHOGLYCERATE METABOLISM	2R01 GM19875-09	87,313
ROSS, MORRIS H	REGULATION OF TUMOR SUSCEPTIBILITY	5R01 CA16442-06	165,923
SMITH, JACKSON B	SYNGENEIC MIXED LYMPHOCYTE INTERACTIONS IN MICE	5R01 AI15876-02	81,189
SOROF, SAM	MACROMOLECULES IN CHEMICAL CARCINOGENESIS	5R01 CA05945-17	141,051
SOROF, SAM	MAMMARY CARCINOGENESIS AND PROTEINS IN ORGAN CULTURE	3R01 CA21522-03S1	10,204
SUMMERS, JESSE W	GENOME STRUCTURE AND REPLICATION OF HEPATITIS B VIRUS	5R01 AI15166-03	58,513
TARTOF, KENNETH D	STRUCTURE AND FUNCTION OF GENES	2R01 GM19194-09	166,363
TAYLOR, JOHN M	THE IN VIVO TRANSCRIPTION OF RNA TUMOR VIRUS GENOMES	5R01 CA22651-03	39,081
TILGHMAN, SHIRLEY M	REGULATION OF ALPHA-FETOPROTEIN GENE EXPRESSION	5R01 CA28050-02	62,550
WEIGERT, MARTIN G	GENETIC CONTROL OF ANTIBODY STRUCTURE	5R01 GM20964-07	150,124
ORGANIZATION TOTAL	40 9,476,756		
INSTITUTE FOR THE STUDY OF HUMAN ISSUES ZIP CODE 19104			
FOWLER, LORETTA K	CULTURAL AND HISTORICAL CONTEXTS OF PLAINS INDIAN AGING	1R01 AG02280-01	56,317
SHARMAN, ANNE	DIET, DOMESTIC RELATIONSHIPS AND SOCIAL POSITION	1R01 AM25236-01A1	43,140
ORGANIZATION TOTAL	2 99,457		
LANKENAU HOSPITAL ZIP CODE 19151			
GABUZDA, THOMAS G	REGULATION IN DEVELOPING ERYTHROID CELLS	3R01 HL16654-07S2	10,181
HOLMES, WILLIAM L	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05585-14	25,800
HOLROYDE, CHRISTOPHER P	METABOLIC STUDY OF ADULT AND PEDIATRIC CANCER PATIENTS	5R01 CA20960-04	165,574
REICHARD, GEORGE A, JR	METABOLIC SUBSTRATE UTILIZATION IN MAN	5R01 AM13527-10	133,260
ORGANIZATION TOTAL	4 334,815		
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129			
BERMAN, NANCY E	EXPERIMENTAL ANALYSIS OF STRABISMUS	5R01 EY02088-03	83,409
BOZZOLA, JOHN J	A RIBOSOMAL VACCINE AGAINST DENTAL CARIES	5R23 DE05039-03	32,314
CUNNINGHAM, TIMOTHY J	SURVIVAL AND DEATH OF NEURONS	1R01 NS16487-01	94,017
DI BERARDINO, MARIE A	NORMAL DIFFERENTIATION AND CARCINOGENESIS	5R01 GM23635-03	106,258

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
ELFVIN, MYRA J.....	ANALYSIS OF PARAMYOSIN-CONTAINING INVERTEBRATE MUSCLES.....	5R01 GM21956-05	80,030
GLICK, JANE M.....	LIPOPROTEIN LIPASE IN CULTURED ADIPOSE CELLS.....	1R23 HL25938-01	45,481
KELLIHER, GERALD J.....	THE ROLE OF PROSTAGLANDIN IN CORONARY OCCLUSION.....	5R01 HL23962-02	82,261
LEIGHTON, JOSEPH.....	BLADDER CANCER—MENISCUS GRADIENT AND MATRIX CULTURE.....	5R26 CA14137-08	83,653
MARSH, JULIAN B.....	CELLULAR AND MOLECULAR BIOLOGY OF LIPOPROTEIN METABOLISM.....	5P01 HL22633-03	717,227
MURASKO, DONNA M.....	INTERFERON CHARACTERIZATION BY MONOCLONAL ANTIBODIES.....	1R01 AI16840-01	85,804
MURASKO, DONNA M.....	STIMULATORY EFFECT OF IMMUNIZATION ON TUMORIGENESIS.....	5R01 CA23353-03	59,659
MURPHY, E HAZEL.....	DEVELOPMENT AND FUNCTION OF THE VISUAL SYSTEM.....	5R01 EY02488-03	170,135
MURRAY, MARION.....	GENERATION AND REGENERATION OF AXONS.....	1R01 NS16556-01	125,135
OGBURN, CLIFTON A.....	CHARACTERIZATION OF INTERFERON MOLECULAR SPECIES.....	5R01 AI14459-02	97,010
PRENDERGAST, JOCELYN.....	RECOVERY AND SPROUTING AFTER NEONATAL OR ADULT LESIONS.....	1R01 NS15893-01	63,769
PUBOLS, LILLIAN M.....	PHYSIOLOGICAL CORRELATES OF COLLATERAL SPROUTING.....	1R01 NS16634-01	54,039
PUGLIA, CHARLES D.....	TOLERANCE TO HYPEROXIA VIA ENDOGENOUS ANTIOXIDANTS.....	5R01 HL24454-02	40,100
ROSS, ALTA C.....	LIPID ESTERIFICATION IN LIVER AND MAMMARY GLAND.....	1R23 HL25744-01	49,911
ROSS, LEONARD L.....	DEVELOPMENT AND REGENERATION OF THE NERVOUS SYSTEM.....	3P01 NS13768-03S1	36,072
RUBIN, WALTER.....	AMINE METABOLISM IN GASTRIC ENDOCRINE AND MAST CELLS.....	5R01 AM25495-02	123,172
SMITH, JANET D.....	CMV REPLICATION IN HYBRID CELLS.....	5R01 AI12832-05	59,068
SMOLEN, ARNOLD J.....	SYNAPTIC PLASTICITY IN THE SYMPATHETIC NERVOUS SYSTEM.....	1R01 NS15952-01	64,850
SUTNICK, ALTON I.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05418-19	118,748
TESSLER, ALAN R.....	AXONAL SPROUTING & FUNCTIONAL RECOVERY IN SPINAL CORD.....	5R01 NS14477-03	75,957
TULENKO, THOMAS N.....	DRUG SENSITIVITY OF THE HUMAN PLACENTAL VASCULATURE.....	5R23 HL24512-02	58,320
WEISS, BENJAMIN.....	REGULATION OF BRAIN AMINERGIC RECEPTORS IN AGING.....	1R01 NS16242-01	111,407
ORGANIZATION TOTAL	26 2,717,806		
MONELL CHEMICAL SENSES CENTER ZIP CODE 19104			
BRAND, JOSEPH G.....	PERIPHERAL MECHANISMS IN TASTE RECEPTION.....	5R01 NS15565-02	71,865
CAGAN, ROBERT H.....	MECHANISMS OF TASTE FUNCTION.....	5R01 NS15740-03	61,834
CHRISTENSEN, CAROL M.....	ROLE OF SALIVA IN HUMAN TASTE PERCEPTION.....	5R01 DE05545-02	40,335
FREGLEY, MELVIN J.....	CONFERENCE-SODIUM IN CARDIOVASCULAR HYPERTENSION.....	1R13 HL25062-01A1	14,228
KARE, MORLEY R.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05825-01	14,449
LABOWS, JOHN N, JR.....	INVESTIGATION OF HUMAN AXILLARY AND SCALP ODORS.....	2R01 AM26195-03	66,950
SENSEMAN, DAVID M.....	NEUROEFFECTOR TRANSMISSION IN A SIMPLE SALIVARY GLAND.....	5R01 DE05271-02	28,420
SENSEMAN, DAVID M.....	SENSORY CONTROL OF OCCLUSION: MODEL SYSTEMS APPROACH.....	5R23 DE05536-02	24,593
TEETER, JOHN H.....	SYNAPTIC ORGANIZATION OF THE TASTE BUD.....	1R01 NS15804-01	24,751
YAMAZAKI, KUNIO.....	IMMUNOGENETICS OF SELF-IDENTIFICATION.....	7R01 CA29979-01	89,788
ORGANIZATION TOTAL	10 437,213		
PENNSYLVANIA COLLEGE OF OPTOMETRY ZIP CODE 19141			
SIEGFRIED, JOHN B.....	OSCILLATORY POTENTIALS IN THE VISUAL SYSTEM.....	1R01 EY03467-01	47,381
SIEGFRIED, JOHN B.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09197-01	121,884
ORGANIZATION TOTAL	2 169,265		
PENNSYLVANIA COLLEGE OF PODIATRIC MEDICINE ZIP CODE 19107			
GIBLEY, CHARLES W, JR.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	1S08 RR09159-01A1	135,845
ORGANIZATION TOTAL	1 135,845		
PENNSYLVANIA HOSPITAL ZIP CODE 19107			
BONGIOVANNI, ALFRED M.....	HORMONAL FUNCTION IN GROWTH AND DEVELOPMENT IN CHILDHOOD.....	5R01 HD14174-02	83,524
BOWEN, FRANK W.....	PREMATURITY, VITAMIN E & RETROLENTAL FIBROPLASIA.....	5R01 EY01723-03	522,744
DUROCHER, JOHN R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05590-16	61,578
LENER, HARVEY J.....	EASTERN COOPERATIVE ONCOLOGY GROUP.....	5R10 CA13613-08	79,328
LENER, HARVEY J.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA20187-04	61,297
LING, GILBERT N.....	WATER IN CANCER AND IN NORMAL TISSUES.....	2R01 CA16301-06	105,656
LING, GILBERT N.....	CELL WATER, IONS AND CONTROL MECHANISMS.....	5R01 GM11422-16	124,619
WALLACH, EDWARD E.....	INVESTIGATIONS OF THE MECHANICAL ASPECTS OF OVULATION.....	5R01 HD05948-07	89,379
ORGANIZATION TOTAL	8 1,128,125		
PENNSYLVANIA STATE DEPARTMENT OF PUBLIC WELFARE—EASTERN PENNSYLVANIA PSYCHIATRIC INSTITUTE ZIP CODE 19129			
BUKOVSKY, JOSEF.....	ANALYSIS OF EIM AND RECONSTITUTION OF EXCITABLE MEMBRANE.....	5R01 GM25100-02	36,504
ORGANIZATION TOTAL	1 36,504		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
PHILADELPHIA CHILD GUIDANCE CLINIC ZIP CODE 19104			
JEMAIL, JAY A.....	ADOLESCENT PREGNANCY & CHILDBEARING IN FAMILY CONTEXT.....	1R01 HD13643-01	254,337
ROSMAN, BERNICE L.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05835-01	20,902
ORGANIZATION TOTAL	2 275,239		
PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 19131			
D'ANTONIO, LAWRENCE E.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09088-02	70,668
MISANTONE, LOUIS J.....	MECHANISMS OF RECOVERY OF BEHAVIORAL FUNCTION.....	5R01 NS16101-02	39,397
ORGANIZATION TOTAL	2 110,065		
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE ZIP CODE 19104			
HEYNER, SUSAN.....	ANTIGENIC STATUS OF THE MURINE PREIMPLANTATION EMBRYO.....	5R01 HD11566-03	49,911
LAGE, GARY L.....	ALTERATION OF DIGITALIS AND ALDOSTERONE DISPOSITION.....	5R01 HL25112-02	41,571
ORGANIZATION TOTAL	2 91,482		
PHILADELPHIA GERIATRIC CENTER ZIP CODE 19141			
ALTSCHULER, HENRY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05611-12	17,810
ORGANIZATION TOTAL	1 17,810		
PRESBYTERIAN-UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER ZIP CODE 19104			
AGUIRRE, GUSTAVO D.....	PIGMENT EPITHELIAL HYPERTROPHY.....	1R01 EY03400-01	28,261
BURGESS, BENJAMIN F, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05610-13	18,503
LATIES, ALAN M.....	AUTONOMIC INNERVATION OF THE EYE.....	5R01 EY01194-08	135,590
REICHLER, FREDERICK A.....	CHOLESTEROL-LOWERING MECHANISM DUE TO ILEAL BYPASS.....	7R01 AM27716-01	57,158
RIVA, CHARLES E.....	FLOW AND DIFFUSION OF FLUORESCIN IN THE OCULAR FUNDUS.....	3R01 EY03242-01S2	3,238
SINCLAIR, STEPHEN H.....	FLOW AND DIFFUSION OF FLUORESCIN IN THE OCULAR FUNDUS.....	2R01 EY03242-02	99,011
STONE, RICHARD A.....	BLUE FIELD ENTOPIC TEST AND MACULAR CIRCULATION.....	1R01 EY03388-01	63,380
STONE, RICHARD A.....	ANION TRANSPORT IN THE IRIS AND CILIARY BODY.....	3R01 EY02942-01S1	1,000
STONE, RICHARD A.....	ANION TRANSPORT IN THE IRIS AND CILIARY BODY.....	5R01 EY02942-02	71,154
ORGANIZATION TOTAL	9 477,295		
SIMON GREENBERG FOUNDATION ZIP CODE 19101			
KLIGMAN, ALBERT M.....	A PROGRAM STUDY OF THE BIOLOGY OF AGING SKIN.....	5P01 AG00788-02	125,310
ORGANIZATION TOTAL	1 125,310		
ST. CHRISTOPHER'S HOSPITAL FOR CHILDREN ZIP CODE 19133			
GRUSKIN, ALAN B.....	CHILDHOOD HYPERTENSION: RENIN, URATE, EPIDEMIOLOGY.....	5R01 HL23511-02	58,720
LISCHNER, HAROLD W.....	LYMPHOCYTE ACTIVATION BY IMMUNE COMPLEXES.....	1R01 AI15799-01A1	63,223
PUNNETT, HOPE H.....	CARRIER DETECTION IN CYSTIC FIBROSIS.....	1R01 AM26606-01	60,940
PUNNETT, HOPE H.....	GENETIC CONSTITUTIONS AND CANCER PREDISPOSITION.....	5R01 CA19834-04	78,399
SMITH, DAVID S.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00075-17	562,926
ORGANIZATION TOTAL	5 824,208		
TEMPLE UNIVERSITY ZIP CODE 19122			
ADELMAN, RICHARD C.....	BIOCHEMICAL REGULATION OF AGING PROCESSES.....	2P01 AG00368-10	281,167
BACHELER, LEE T.....	ORGANIZATION OF INTEGRATED TUMOR VIRUS GENOMES.....	7R01 CA29519-01	62,479
BARAN, GEORGE R.....	OXIDATION BEHAVIOR OF Ni-BASE CROWN AND BRIDGE ALLOYS.....	1R23 DE05519-01	34,200
BASERGA, RENATO L.....	STUDY OF FACTORS CONTROLLING CELLULAR PROLIFERATION.....	5R01 CA08373-16	121,129
BASERGA, RENATO L.....	A CORRELATED STUDY ON THE BIOLOGY OF NEOPLASIA.....	2P01 CA12923-09	199,265
BASERGA, RENATO L.....	SYNCHRONIZATION OF CELLS IN VIVO.....	5R26 CA14907-07	105,666
BASERGA, RENATO L.....	CHROMOSOMAL PROTEINS IN CELL PROLIFERATION.....	5R01 GM22359-05	64,628
BINKLEY, SUE A.....	PINEAL GLAND FUNCTION IN CIRCADIAN RHYTHMS.....	1R01 NS16048-01	64,145
BODEN, GUENTHER.....	SECRETIN: IN HEALTH, DISEASE, & MOLECULAR HETEROGENEITY.....	3R01 AM19397-03S1	6,473
BOVE, ALFRED A.....	CARDIAC FUNCTION IN HYPERTROPHY.....	5R01 HL19425-05	140,363
BRENNER, MICHAEL.....	STUDIES OF ADENYLATE AND GUANYLATE CYCLASES.....	7R01 GM29237-01	63,887
BUCKLEY, HELEN R.....	CANDIDA ALBICANS ANTIGENS AND ANTIBODIES.....	2R01 AI14695-03A1	57,855
BUCKLEY, HELEN R.....	IMMUNOLOGY AND PHYSIOLOGY OF NONPATHOGENIC C ALBICANS.....	5R01 AI15818-02	45,806
CAMPO, ROBERT D.....	STUDIES ON ENDOCHONDRAL GROWTH.....	2R01 AM16270-05	85,309
CAREY, RITA A.....	MYOSIN LIGHT CHAIN PHOSPHORYLATION IN HEART FAILURE.....	5R23 HL23979-02	33,172
CHANG, FONG N.....	BACTERIAL RIBOSOME BIOSYNTHESIS AND RNA MINOR BASES.....	5R01 GM19302-09	57,022

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
COLMAN, ROBERT W.	SPECIALIZED CENTER FOR THROMBOSIS RESEARCH	5P50 HL14217-10	1,529,683
COLMAN, ROBERT W.	BIOCHEMISTRY AND PATHOPHYSIOLOGY OF PLASMA KALLIKREIN	5R01 HL24365-02	158,578
CONGER, ALAN D.	RADIO-AND CHEMOTHERAPEUTIC EFFECTS ON BIOSYSTEMS	5R01 CA24658-02	72,010
DANEO-MOORE, LOLITA	COMPOSITION OF S. MUTANS IN DIFFERENT GROWTH ENVIRONMENT	5R01 DE05180-02	52,837
DUKER, NAHUM J.	PATHOLOGY OF REPAIR OF CARCINOGENIC DNA DAMAGE	5R01 CA24103-03	58,403
EISENSTEIN, TOBY K.	SALMONELLA IMMUNITY IN LPS-NONRESPONDER MICE	5R01 AI15613-02	55,344
EISENSTEIN, TOBY K.	HOST DEFENSES TO LEGIONELLA PNEUMOPHILA	1R01 AI16804-01	68,612
FARBER, JOHN L.	PATHOGENESIS OF LIVER CELL NECROSIS	5R01 AM19154-05	98,725
FARBER, JOHN L.	CHROMATIN IN NORMAL AND PATHOLOGICAL LIVER CELLS	3R01 CA12073-08S1	33,655
FARBER, JOHN L.	ISCHEMIC CELL INJURY IN HEART AND LIVER	1R01 HL25517-01	66,113
FREEDMAN, WILLIAM	BIOMECHANICAL AND EMG CORRELATES OF STEP DOWN IN MAN	5R01 NS14133-02	41,359
FREEMAN, ALAN R.	ROLE OF SODIUM POTASSIUM PUMP IN HEART FAILURE	5R01 HL22673-02	72,394
HANJANI, PARVIZ	FULL MEMBER INSTITUTION—GYNECOLOGIC ONCOLOGY GROUP	1R10 CA27816-01	48,774
HARD, GORDON C.	EXPERIMENTAL PATHOLOGY OF RENAL CARCINOGENESIS	5R01 CA24216-02	111,427
HARPER, ROBERT A.	EPIDERMAL GROWTH FACTOR IN HUMAN SKIN AND DISEASE	1R01 GM29257-01	115,326
HARRINGTON, GEORGE W.	ELECTROANALYTICAL STUDIES OF N-NITROSAMINES	2R01 CA18618-06	64,054
HARVEY, WILLIAM R.	PHYSIOLOGY OF INSECT DIAPAUSE AND DEVELOPMENT	5R01 AI09503-11	88,088
HAVAS, HELGA F.	MECHANISM OF IMMUNOSUPPRESSION BY PLASMACYTOMAS	5R01 CA14300-05	63,986
HECKMAN, JAMES L.	CARDIAC VALVE FUNCTION IN HEART FAILURE	5R01 HL22919-02	70,408
HENDERSON, EARL E.	CHARACTERIZATION OF UNIQUE LYMPHOBLASTOID CELL LINES	5R01 CA23999-02	45,392
HENIKOFF, LEO M.	GENERAL CLINICAL RESEARCH CENTER	5M01 PR00349-14	655,726
HENIKOFF, LEO M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05417-19	203,787
HIGGINS, MICHAEL L.	CELL DIVISION AND SURFACE GROWTH IN A 'MODEL' SYSTEM	5R01 AI10971-09	59,347
HILLMAN, NINA W.	THE EFFECT OF RNA AND DNA ON CEPHALIC TERATA	5R01 HD00827-17	117,857
HILLMAN, NINA W.	STUDIES OF MOUSE SPERMATOGENESIS AND FERTILIZATION	2R01 HD09753-04	66,627
HILLMAN, RALPH	GENETIC TRANSLATION AS A CELLULAR CONTROL MECHANISM	5R01 GM18080-08	58,290
HILLMAN, RALPH	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07115-13	46,712
HOLMSEN, HOLM A.	GUANINE NUCLEOTIDE METABOLISM OF HUMAN PLATELETS	5R01 HL23816-02	21,518
HOOPER, JOHN K.	CONTROL OF PILIATION IN BACTERIA	5R01 AI15106-03	42,096
JACKSON, ERIC	SYSTEMATIC DESENSITIZATION OF DENTAL FEARS	5R01 DE05546-02	78,101
KANE, AGNES M.	PATHOGENESIS OF MINERAL DUST TOXICITY	5R23 ES02251-02	27,897
KARNAKY, KARL J, JR.	A NEW MODEL SYSTEM TO STUDY CHLORIDE TRANSPORT	5R01 GM24766-03	38,679
KIM, SANGDUK	ENZYMATIC MODIFICATION OF CARBOXYL RESIDUES IN PROTEIN	5R01 GM20594-08	67,807
KIRBY, EDWARD P.	STRUCTURE AND FUNCTION OF BOVINE FACTOR VIII	5R01 HL15474-08	41,464
KROW, GRANT R.	STEREOSELECTIVE FUNCTIONALIZATION HETEROCYCLES	1R01 CA24596-01A2	37,527
KUNDEL, HAROLD L.	DIAGNOSTIC ACCURACY AND X-RAY IMAGE PROPERTIES	5R01 CA24625-02	180,281
LAMPERTI, ALBERT A.	NEUROENDOCRINE ASPECTS OF ARCULATE NUCLEUS LESIONS	7R01 HD15247-01	41,893
LARGEN, MICHAEL T.	CYCIC NUCLEOTIDE FUNCTION IN LYMPHOCYTE PROLIFERATION	5R01 AI16168-02	66,429
LITWACK, GERALD	STEROID RECEPTOR AND DNA BINDING PROTEINS IN AGING	5R01 AG00939-02	39,157
LITWACK, GERALD	METABOLISM OF CORTISOL IN LIVER	5R01 AM13531-11	88,065
LOTLIKAR, PRABHAKAR D.	MECHANISM OF CHEMICAL CARCINOGENESIS	5R01 CA10604-13	63,931
MAGEE, PETER N.	CORE PROGRAM ON CARCINOGENESIS	2P30 CA12227-10	1,321,658
MAGEE, PETER N.	FORMATION AND METABOLISM OF N-NITROSO COMPOUNDS	5R01 CA23451-03	123,802
MARINO, THOMAS A.	DEVELOPMENT OF THE CARDIAC AV JUNCTIONAL TISSUES	7R01 HL26893-01	30,523
MILLER, ARTHUR S.	CLINICAL CANCER—DENTAL	5R25 CA19456-05	38,312
NICOLINI, CLAUDIO A.	CORRELATIONS OF NEW AND OLD CELL KINETIC PARAMETERS	3R01 CA20034-03S1	21,750
NIEWIAROWSKI, STEFAN	INTERACTION OF CELLS WITH POLYMERIZING FIBRIN	5R01 HL15226-08	50,686
OLDS-CLARKE, PATRICIA J.	STUDIES OF SPERM FUNCTION IN MAMMALIAN FERTILIZATION	7R01 HD15045-01	42,853
ORDAHL, CHARLES P.	TRANSCRIPTION OF MUSCLE-SPECIFIC GENES IN MYOGENESIS	5R01 GM25400-03	43,075
OWEN, OLIVER E.	HUMAN METABOLISM IN DIABETIC KETOACIDOSIS	5R01 AM25386-02	66,595
PAIK, WOON K.	BIOLOGICAL METHYLATION OF CYTOCHROME C IN NEUROSPORA	5R01 AM09602-11	79,811
PAIK, WOON K.	PROTEIN METHYLATION IN NEOPLASTIC TISSUES	5R01 CA12226-10	63,820
PIERINGER, RONALD A.	BACTERIAL LIPID METABOLISM	2R01 AI05730-16	76,776
PIERINGER, RONALD A.	THE ROLE OF BACTERIAL METABOLITES IN ORAL DISEASES	5R01 DE04957-02	58,821
PIERINGER, RONALD A.	BIOCHEMICAL ASPECTS OF MYELINATION	5R01 NS10221-05	44,387
PLAUT, GERHARD W.	REGULATION OF PATHWAYS OF INTERMEDIARY METABOLISM	5R01 AM15404-10	110,495
REICHEL, FREDERICK A.	CHOLESTEROL-LOWERING MECHANISM DUE TO ILEAL BYPASS	5R01 AM20704-02	24,255
REITH, EDWARD J.	ULTRASTRUCTURE OF TOOTH DEVELOPMENT	5R01 DE05769-02	34,539
SAFFRAN, ELEANOR M.	READING MECHANISMS IN PHONEMIC DYSLIXICS AND NORMALS	3R01 NS17326-01S1	137
SAVAGE, CARL R.	EPIDERMAL GROWTH FACTOR: ACTIONS ON LIVER AND PANCREAS	5R01 AM21545-02	48,419
SCHICK, PAUL K.	THE STRUCTURE AND FUNCTION OF PLATELET MEMBRANES	5R01 HL25455-02	82,245

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
SCHOTT, HANS	EFFECT OF ELECTROLYTES ON NONIONIC SURFACTANTS	1R01 GM27802-01	32,915
SCHRAMM, VERN L	REGULATION AND MECHANISM OF PEP CARBOXYKINASE	5R01 AM25551-02	34,496
SCHRAMM, VERN L	REGULATION OF ADENINE NUCLEOTIDE POOLS	5R01 GM21083-05	52,573
SCHWARTZ, ARTHUR G	ACTIONS OF CHEMICAL CARCINOGENS ON CULTURED CELLS	5R01 CA14661-08	79,515
SHAFFER, THOMAS H	PULMONARY PHYSIOLOGY IN LIQUID VENTILATION	5R01 HL22843-03	57,471
SHEFFIELD, JOEL B	RETINAL HISTOGENESIS STUDIES	5R01 EY02625-03	53,343
SHOCKMAN, GERALD D	BIOSYNTHESIS OF BACTERIAL CELL WALLS AND MEMBRANES	5R01 AI05044-17	65,077
SHOCKMAN, GERALD D	INHIBITION OF HUMAN CARIOGENIC STREPTOCOCCI	2R01 DE03487-09	95,680
SINHA, ASRU K	REGULATION OF PLATELET FUNCTION BY PLASMA PROTEINS	5R01 HL24674-02	39,733
SIROVER, MICHAEL A	METAL CARCINOGENESIS—DNA MODIFICATION/HUMAN LYMPHOCYTES	5R23 ES01735-03	39,314
SMALLEY, RICHARD V	SOUTHEASTERN CANCER STUDY GROUP	2R10 CA07961-16	222,081
SMITH, COLLEEN M	REGULATION OF TOTAL COA LEVELS IN HEART AND LIVER	5R01 AM18045-07	83,660
SODICOFF, MARVIN	X-RAY THERAPEUTIC INDEX FOR SALIVARY GLANDS	2R01 DE03666-06A1	48,456
SUHADOLNIK, ROBERT J	CELLULAR ROLE OF NAD, NAD ANALOGS, QTRNA & BIOSYNTHESIS	5R01 GM26134-07	96,386
THOMPSON, ROBERT C	PROOFREADING OF THE CODON-ANTICODON INTERACTION	5R01 GM24983-02	53,383
TUMA, RONALD F	A MICROCIRCULATORY STUDY OF DEGRADABLE MICROSPHERES	1R01 CA25316-01A1	54,515
TUSZYNSKI, GEORGE P	BIOCHEMISTRY OF CYTOSKELETAL PROTEINS	5R01 CA27458-02	73,158
VAN SCOTT, EUGENE J	CELL CONTROL IN INTEGUMENTAL CANCER	5P01 CA11536-11	544,879
WANG, CHENG-TEH	BIOSYNTHESIS OF HUMAN PLATELET GLYCOSPHINGOLIPIDS	1R23 HL25954-01	40,501
WEINHOUSE, SIDNEY	METABOLISM OF NORMAL AND NEOPLASTIC TISSUE	5R01 CA10916-19	137,257
WOODRUFF, DIANA S	AGING, BEHAVIOR, AND EEG RELATIONSHIPS	5R23 AG01069-03	38,525
ZISKIN, MARVIN C	LOW INTENSITY ULTRASONIC EFFECTS IN MAMMALIAN TISSUE	5R01 GM25477-02	53,559
ORGANIZATION TOTAL	99 10,740,361		
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107			
BESARAB, ANATOLE	REGULATION OF PARATHYROID HORMONE ACTION IN KIDNEY	5R01 AM19559-03	80,042
BESARAB, ANATOLE	EFFECTS OF PARTICULATES ON RENAL FUNCTION AND STRUCTURE	5R01 AM25159-02	95,825
BRENT, ROBERT L	PROBLEMS IN RADIATION EMBRYOLOGY	9R01 CA29628-04	145,722
BRENT, ROBERT L	CHORIOPLACENTAL AND YOLK SAC FUNCTION AND DYSFUNCTION	1R01 HD13411-01	130,792
BRODOVSKY, HARVEY S	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA14215-08	115,277
CALKINS, CATHERINE E	ACTIVATION AND ONTOGENY OF B CELL FEEDBACK REGULATION	5R01 AI15789-02	59,421
DE HORATIUS, RAPHAEL J	LYMPHOCYTOTOXIC ANTIBODY AND IMMUNE REGULATION IN SLE	5R23 AI14574-03	50,760
EPPLE, AUGUST W	HORMONES AND THE PROGRAMMED DEATH IN PETROMYZON MARINUS	5R01 AG01148-03	80,078
EPPLE, AUGUST W	SECOND INTERNATIONAL SYMPOSIUM ON AVIAN ENDOCRINOLOGY	1R13 AM27592-01	12,125
ERSLEV, ALLAN J	FEEDBACK BETWEEN RED CELL PRODUCTION & OXYGEN TRANSPORT	5R01 HL04612-22	146,935
FLYNN, JOHN T	RELATIONSHIPS BETWEEN PROSTANOIDS AND CELLULAR INJURY	1R01 GM28023-01	53,630
GEE, MARLYS H	MECHANISM OF CLEARANCE OF LUNG EDEMA FLUID	5R01 HL22911-03	35,586
GRAZIANI, LEONARD J	HYDROCEPHALUS AND BRAIN GROWTH IN PREMATURE INFANTS	5R01 HD12497-02	87,942
HEIMER, RALPH	ANTIGENS IN IMMUNE COMPLEXES IN RHEUMATIC DISEASES	1R01 AM26409-01A1	88,779
JOHNSON, E MARSHALL	FETAL LUNG DEVELOPMENT: SUSCEPTIBILITY TO TERATOGENESIS	5R01 HD12773-02	106,159
KALF, GEORGE F	CONTROL OF POLYPLOIDY IN THE DEVELOPING TROPHOBLAST	5R01 HD11399-02	110,912
KELLOW, WILLIAM F	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05414-19	189,207
KOCHHAR, DEVENDRA M	MECHANISMS UNDERLYING EXPERIMENTAL TERATOGENESIS	5R01 HD10935-03	117,568
KOSZALKA, THOMAS R	STERIODOGENESIS IN THE YOLK SAC PLACENTA	5R01 HD11086-02	76,561
KRAMER, SIMON	RESEARCH AND CLINICAL RADIATION THERAPY CENTER	5P01 CA11602-11	925,597
LEWIS, GEORGE C, JR	GYNECOLOGIC ONCOLOGY GROUP HEADQUARTERS	3R10 CA19189-05S1	16,749
LIBERTI, PAUL A	PHYSICO-CHEMICAL STUDIES OF CLQ AND OF ITS INTERACTIONS	5R01 AI12365-06	96,525
MARCO, LUIS A	PHARMACOLOGICAL PROPERTIES OF INTRINSIC CAUDATE NEURONS	3R01 NS16682-01S1	6,199
MARCO, LUIS A	PHARMACOLOGICAL PROPERTIES OF INTRINSIC CAUDATE NEURONS	5R01 NS16682-02	37,562
MARTINEZ, JOSE	STRUCTURAL AND BIOLOGICAL PROPERTIES OF FIBRINOGEN	2R01 HL20092-04	74,007
MAURER, PAUL H	IMMUNOLOGICAL STUDIES WITH SYNTHETIC POLYPEPTIDES	5R01 AI07825-14	187,899
MC GEADY, STEPHEN J	THE SUPPRESSOR OF T CELL IN HUMAN ALLERGY	5R23 AI14204-03	50,745
MOHIUDDIN, MOHAMMED	RADIATION THERAPY ONCOLOGY GROUP	5R10 CA20235-05	153,079
MURPHY, SCOTT	PLATELET STORAGE FOR TRANSFUSION	2R01 HL20818-04	137,656
OWEN, CHARLES S	PROPERTIES OF LYMPHOCYTE SUBPOPULATIONS	1R01 AI17143-01	61,613
OWEN, CHARLES S	MITOCHONDRIAL MEMBRANE PROTEINS AND GLYCOPROTEINS	5R01 GM27806-02	17,629
PANOS, CHARLES	HEMOLYTIC STREPTOCOCCI L FORMS OF ALPHA & BETA GROUPS	5R01 AI11161-09	94,207
PEUSNER, KENNA D	A STUDY OF THE ROLE OF AGING ON DIFFERENTIATION	5R01 NS15633-02	59,408
ROVETTO, MICHAEL J	MYOCARDIAL FUNCTION AND METABOLISM FOLLOWING ISCHEMIA	5R01 HL17895-06	17,068
SCHNEIDERMAN, MARTIN H	CELL SURVIVAL INTERACTION OF COMBINED MODALITIES	3R01 CA20337-02S1	14,045
SCHNEIDERMAN, MARTIN H	CELL SURVIVAL INTERACTION OF COMBINED MODALITIES	5R01 CA20337-03	143,410

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
SHABER, GARY S.	LOW DOSE BREAST ELECTRON RADIOGRAPHY (IONOGRAPHY)	5R01 CA19787-05	106,879
SHAPIRO, SANDOR S.	CONTROL MECHANISMS IN HEMOSTASIS	5R01 HL09163-15	161,792
SHERWIN, JOSEPH R.	REGULATION OF THYROID CELL ACTIVITY	5R01 AM20061-02	47,016
SIEGMAN, MARION J.	CONTRACTION OF PULMONARY VASCULAR SMOOTH MUSCLE	5R01 HL23205-03	53,303
SILVER, MELVIN J.	PLATELET AND BLOOD VESSEL PROSTAGLANDINS	2R01 HL14890-09	229,297
SIMENHOFF, MICHAEL L.	IN VIVO NITROSAMINES AND CANCER IN RENAL FAILURE	3R01 CA26571-01S1	6,450
SMITH, J. BRYAN	ISOLATION AND MECHANISM OF ACTION OF THROMBOXANE A ₂	3R01 HL21239-03S1	3,161
SNYDER, ROBERT	BENZENE TOXICITY AND METABOLISM	2R01 ES00322-14	138,496
STRELETZ, LEOPOLD J.	NEONATAL BILIRUBINEMIA AND BRAINSTEM AUDITORY FUNCTION	3R01 NS15254-01S1	3,944
STRELETZ, LEOPOLD J.	NEONATAL BILIRUBINEMIA AND BRAINSTEM AUDITORY FUNCTION	5R01 NS15254-02	65,438
TRAVIS, SUSAN F.	RED CELL METABOLIC ALTERATIONS IN POSTNATAL LIFE	5R01 HD10213-03	59,012
WHELOCK, E. FREDERICK	SUPPRESSION OF ESTABLISHED LEUKEMIA VIRUS INFECTIONS	5R01 CA12461-08	145,336
WHELOCK, E. FREDERICK	STUDIES OF TUMOR DORMANCY AND EMERGENCE	3R01 CA18995-04S1	58,692
WHELOCK, E. FREDERICK	ROLE OF ENDOGENOUS VIRUSES IN TUMOR DORMANT STATES	5R01 CA24115-02	100,874
ZEIGER, ALLEN R.	PEPTIDOGLYCAN-LIKE MODEL SUBSTRATES AND IMMUNOGENS	5R01 AI13525-02	63,653
ZITRON, IAN M.	REGULATION OF MURINE B CELLS THROUGH SURFACE IG	1R01 AI17989-01	99,062
ORGANIZATION TOTAL	52	5,219,124	
UNIVERSITY CITY SCIENCE CENTER ZIP CODE 19104			
ALPER, ROBERT	CORNEAL STRUCTURAL GLYCOPROTEINS	1R01 EY03506-01	102,331
KEFALIDES, NICHOLAS A.	CHEMISTRY AND METABOLISM OF CONNECTIVE TISSUES	5P01 AM20553-04	867,248
KEFALIDES, NICHOLAS A.	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05823-01	37,691
MACARAK, EDWARD J.	RESPONSE OF PULMONARY ENDOTHELIUM TO INJURY	5R01 HL24914-02	162,618
ORGANIZATION TOTAL	4	1,169,888	
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19104			
ADAMS, SHERRILL L.	ANALYSIS OF HUMAN COLLAGEN GENE EXPRESSION	1R01 GM28840-01	92,107
ADLER, NORMAN T.	BIOPSYCHOLOGY OF REPRODUCTION	5R01 HD04522-09	133,361
AGUIRRE, GUSTAVO D.	CONE DEGENERATION—STRUCTURAL AND FUNCTIONAL STUDIES	5R01 EY01244-08	122,917
AGUS, ZALMAN S.	ELECTROLYTE DISTURBANCES IN CARDIORENAL DISEASE	5R01 HL00340-31	144,201
ALWINE, JAMES C.	REGULATION OF DNA TUMOR VIRUS GENE EXPRESSION	1R01 CA28379-01	133,543
AMSEL, JONATHAN	DEVELOPMENT OF GLOSSARY OF EPIDEMIOLOGIC TERMS	1R01 LM03531-01	44,310
ARAI, KAZUHIKO	MECHANISMS OF TUMOR REGRESSION BY HAPTEN TREATMENT	5R01 CA25945-02	108,232
ARMSTRONG, CLAY M.	PERMEABILITY MECHANISMS IN EXCITABLE MEMBRANES	5R01 NS12547-05	90,466
ASBURY, ARTHUR K.	STUDIES OF NEUROMUSCULAR DISEASES	5P01 NS08075-11	704,077
AVADHANI, NARAYAN G.	MOLECULAR MECHANISMS OF CHEMICAL CARCINOGENESIS	5R01 CA22762-03	74,521
AVADHANI, NARAYAN G.	PURIFICATION & CHARACTERIZATION OF MITOCHONDRIAL MRNA	5R01 GM25073-03	83,858
BAGSHAW, ROGER J.	CARDIOPULMONARY CONTROL MECHANISMS	5R01 GM26627-02	111,107
BAHN, ANITA K.	CANCER PATIENT DATA CONTROL EXPLORATORY STUDIES	2R10 CA21183-04	122,837
BAHN, ANITA K.	CASE-CONTROL STUDY OF MALIGNANT MELANOMA	5R01 CA23544-02	67,645
BAILE, CLIFTON A.	CHOLECYSTOKININ AND FEEDING IN ZUCKER OBESE RATS	3R01 AM21413-02S1	4,435
BARKER, CLYDE F.	SPONTANEOUS DIABETES—PATHOGENESIS AND TREATMENT	5R01 AM26007-02	105,740
BARTKOWSKI, RICHARD R.	EFFECTS OF ANESTHETICS ON MODEL MEMBRANE SYSTEMS	5R01 GM26696-02	53,794
BAUM, STANLEY	ANGIOGRAPHIC DIAGNOSIS AND CONTROL OF GI BLEEDING	5R01 AM20604-02	91,245
BELLO, LEONARD J.	CONTROL OF CELL DIVISION IN NORMAL VS MALIGNANT CELLS	5R01 CA17650-03	103,911
BENNETT, JOEL S.	CHARACTERIZATION OF PLATELET-FIBRINOGEN INTERACTIONS	5R01 HL23809-02	69,046
BENSON, CHARLES E.	PATHOGENIC PROPERTIES OF SALMONELLA	5R01 AI15848-02	63,655
BLACK, JONATHAN	THE MECHANICAL PROPERTIES OF ISOLATED, VIABLE OSTEOONS	5R01 AM19933-04	118,059
BLACK, JONATHAN	INTERMEDIATE ORGANOMETALLIC CORROSION PRODUCTS	5R01 AM25752-02	75,928
BLASIE, J. KENT	STRUCTURE & FUNCTION OF MEMBRANES INVOLVED IN VISION	5R01 EY00673-09	81,840
BOETTIGER, DAVID E.	GENETIC ANALYSIS OF RNA TUMOR VIRUSES	5R01 CA16502-06	86,206
BOSK, CHARLES L.	THE SOCIAL PSYCHOLOGY OF GENETIC COUNSELING	5R01 HD12243-03	41,533
BRACKETT, BENJAMIN G.	ASSESSMENT OF GAMETE FERTILIZING ABILITY IN VITRO	5R01 HD09406-05	90,039
BRACKETT, BENJAMIN G.	MOLECULAR CONTROL OF SPERM MATURATION	5R01 HD11229-03	88,370
BRIGHT, HAROLD J.	MECHANISM OF ENZYME ACTION	5R01 GM11040-16	138,892
BRIGHTON, CARL T.	STIMULATION OF EXTREMITY GROWTH BY ELECTRICAL FIELDS	2R01 AM13812-11	162,631
BRIGHTON, CARL T.	ARTICULAR CARTILAGE PRESERVATION AND TRANSPLANTATION	2R01 AM15091-10	155,133
BRIGHTON, CARL T.	ACCELERATION OF FRACTURE HEALING BY ELECTRICAL FIELDS	5R01 AM18033-07	170,623
BRINSTER, RALPH L.	PROTEIN DEGRADATION IN THE MOUSE OVUM	5R01 HD12384-02	80,486
BROOKS, FRANK P.	NEUROGENIC CONTROL OF GASTRODUODENAL FUNCTION	5R01 AM14563-09	78,333
BURCH, JOHN W.	ASPIRIN SENSITIVITY OF HUMAN PLATELETS	5R01 HL23810-02	60,419

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
CASSILETH, PETER A.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18106-06	159,869
CAVA, MICHAEL P.	STRUCTURALLY MODIFIED ANTICANCER ANTHRACYCLINES	5R01 CA24199-03	41,283
CEBRA, JOHN J.	CELLULAR & HUMORAL BASES OF MUCOSAL IMMUNE RESPONSES	7R01 AI17997-01	187,622
CHACKO, SAMUEL K.	REGULATION OF CONTRACTION IN VASCULAR SMOOTH MUSCLE	5R01 HL22264-03	63,259
CHACKO, SAMUEL K.	PULMONARY ARTERY PROPERTIES AND HYPERTENSION	5R01 HL23779-02	92,587
CHANCE, BRITTON	REDOX STATES OF NORMAL/PATHOLOGICAL CORNEAL CONDITIONS	5R01 EY02421-03	69,130
CHANCE, BRITTON	MECHANISM OF ELECTRON TRANSFER REACTIONS IN MITOCHONDRIA	5R01 GM27308-02	137,926
CHANCE, BRITTON	NIGMS SHARED INSTRUMENTATION GRANT	5P41 GM27476-02	24,750
CHANCE, BRITTON	OXYGEN, ENERGY AND CONTRACTILITY IN CARDIAC TISSUE	3P01 HL18708-04S2	47,926
CHANCE, BRITTON	OXYGEN, ENERGY AND CONTRACTILITY IN CARDIAC TISSUE	5P01 HL18708-05	689,646
CHANCE, BRITTON	HETEROGENEITY OF CORTICAL OXYGEN METABOLISM	5R01 NS15340-02	88,759
CINES, DOUGLAS B.	PLATELET ANTIGEN-ANTIBODY INTERACTIONS	5R01 HL23750-02	81,215
CIVAN, MORTIMER M.	MICROELECTRODE STUDY OF TRANSPORT ROLES OF CELL NA,K	5R01 AM20632-03	116,479
CLARK, JAMES M.	MODIFICATION OF SUSCEPTIBILITY TO OXYGEN POISONING	5R01 HL22259-03	71,901
CLARK, WALLACE H, JR.	BIOLOGY OF HUMAN CUTANEOUS MALIGNANT MELANOMA	3R01 CA25298-02S1	43,378
CLEEMANN, LARS	IONIC CONTROL OF CARDIAC EXCITATION AND CONTRACTION	5R01 HL24667-02	48,093
COHEN, D WALTER	GENERAL CLINICAL RESEARCH CENTER—DENTAL MEDICINE	5M01 RR01224-02	288,037
COHEN, D WALTER	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05337-19	102,695
COHEN, SIDNEY	COLONIC MYOELECTRIC ACTIVITY	2R01 AM19379-04	189,930
COHN, MILDRED	NMR AND EPR STUDIES OF ENZYME-NUCLEOTIDE INTERACTIONS	5R01 GM12446-17	162,928
COHN, MILDRED	NMR STUDIES OF ENZYME-NUCLEOTIDE INTERACTIONS	5P41 GM27342-02	11,344
COOPER, DAVID Y.	AEROBIC HYDROXYLASES IN STEROID AND DRUG METABOLISM	5R01 AM04484-20	119,576
COOPER, RICHARD A.	DISORDERS OF THE RED CELL MEMBRANE IN DISEASES OF MAN	5R01 AM15441-09	106,907
COOPER, RICHARD A.	CANCER CENTER SUPPORT GRANT	5P30 CA16520-05	838,948
COOPERMAN, BARRY S.	TRACYCLINES: MECHANISMS OF ACTION AND RESISTANCE	5R01 AI14717-03	157,160
COOPERMAN, BARRY S.	ANTIBIOTIC PROBES OF RIBOSOMAL STRUCTURE AND FUNCTION	1R01 AI16806-01	99,850
COOPERMAN, BARRY S.	MECHANISM OF ACTION OF INORGANIC PYROPHOSPHATASE	2R01 AM13212-12	86,806
COWING, CAROL O.	ROLE OF THE ACCESSORY CELLS IN IMMUNE RESPONSES	5R01 AM16044-02	130,220
COX, ROBERT H.	ARTERIAL BARORECEPTORS IN CARDIOVASCULAR CONTROL	5R01 HL19256-05	80,424
COX, ROBERT H.	HYPERTENSION: CONTRIBUTION OF ARTERIAL WALL CHANGES	5R01 HL23348-02	50,933
CRISTOFALO, VINCENT J.	MULTIDISCIPLINARY RESEARCH IN GERONTOLOGY	1R21 AG01460-01A1	49,805
DANIELE, RONALD P.	FIBROGENESIS/IMMUNE FUNCTION—EXPER PULMONARY SILICOSIS	5R01 HL23877-02	148,989
DAS, MANJUSRI	RECEPTOR ACTIVATION IN INSULIN ACTION	5R01 AM25724-02	19,963
DAS, MANJUSRI	INDUCTION OF MITOGENESIS BY EPIDERMAL GROWTH FACTOR	5R01 AM25819-02	56,785
DAVIDOVITCH, ZEEV	TOOTH ERUPTION/MOVEMENT/RESORPTION BIOCHEMICAL ASPECTS	5R01 DE03619-08	132,714
DEUTSCH, CAROL J.	CELLULAR PHYSIOLOGY OF THE LYMPHOCYTE	1R01 AM27595-01	57,691
DONOGHUE, SUSAN	VITAMIN A METABOLISM IN PREGNANCY AND PERINATAL LIFE	2R01 HD11273-04	50,179
DONOHUE, JERRY	STRUCTURAL STUDIES: HYDROGEN BONDS AND CONFORMATIONS	5R01 GM20611-04	34,810
DUTTON, PETER L.	ELECTRON AND PROTON TRANSLOCATION IN ENERGY CONVERSION	5R01 GM27309-02	147,274
EARLEY, LAURENCE	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00040-20	726,419
EASTERLIN, RICHARD A.	SOCIOECONOMIC STUDIES OF FERTILITY	5R01 HD05427-09	165,252
EDMUNDS, L HENRY, JR	PLATELET FUNCTION DURING EXTRACORPOREAL PERFUSION	5R01 HL19055-05	208,841
ENGLANDER, S WALTER	PHYSICAL STUDIES OF BIOLOGICAL MACROMOLECULES	2R01 AM11295-15	132,699
ENGLANDER, S WALTER	ELASTIN STRUCTURE; DNA BREATHING; HBS GELATION	5R01 HL21757-03	33,142
EPSTEIN, ALAN N.	THE NEUROLOGICAL BASES OF FEEDING AND DRINKING	5R01 NS03469-20	95,372
ERULKAR, SOLOMON D.	PHARMACOLOGICAL STUDIES ON CENTRAL SYNAPTIC TRANSMISSION	5R01 NS12211-06	78,293
EWENS, WARREN J.	STOCHASTIC PROCESSES IN GENETIC POPULATIONS	2R01 GM21135-07	21,123
FARNBACH, GEORGE C.	IMMUNOLOGY AND ELECTROPHYSIOLOGY OF POLYMYOSITIS	5R01 AM25440-02	96,379
FARRELL, JAY P.	IMMUNOLOGICAL ASPECTS OF VISCERAL LEISHMANIASIS	5R01 AI12663-06	81,952
FERGUSON, JAMES J, JR.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05415-19	193,787
FERRER, JORGE F.	COMPARATIVE LEUKEMIA STUDIES UNIT	5P01 CA14193-08	651,944
FISCHER, GRACE M.	EFFECT OF SEX HORMONES ON VASCULAR CONNECTIVE TISSUE	5R01 HL17721-06	77,749
FISHMAN, ALFRED P.	REGULATION OF VENTILATION AND PULMONARY CIRCULATION	5P01 HL08805-17	1,134,845
FISHMAN, ALFRED P.	IMMUNOLOGY AND INTERSTITIAL FIBROSIS OF THE LUNG	5P50 HL15061-09	606,796
FORMAN, HENRY J.	RADICALS AND ENZYMES IN PULMONARY OXYGEN TOXICITY	5R01 HL23790-02	79,444
FORSTER, ROBERT E.	CELLULAR AND MOLECULAR ASPECTS OF RESPIRATORY PHYSIOLOGY	5P01 HL19737-04	867,890
FOSTER, KENNETH R.	MICROWAVE DIELECTRIC PROPERTIES OF TUMOR TISSUE	5R01 CA26046-02	46,774
FRANKEL, FRED R.	MAMMARY CANCER AND THE NUCLEAR ESTRADIOL RECEPTOR	5R01 CA17301-06	119,236
FURTH, JOHN J.	RNA METABOLISM IN MAMMALIAN CELLS	5R01 GM10390-17	102,791
GALLISTEL, CHARLES R.	NEUROBIOLOGICAL STUDIES WITH 2-DG AUTORADIOGRAPHY	5R01 NS14935-02	180,943
GARCIA, CELSO-RAMON	BEHAVIOR AND PHYSIOLOGY FACTORS IN INFERTILITY THERAPY	5R01 HD11456-03	104,363

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
GARFINKEL, DAVID	COMPUTER MODELING METHODS FOR METABOLIC SYSTEMS	2R01 GM16501-11A1	93,927
GARFINKEL, DAVID	COMPUTER SIMULATION IN CARDIOLOGY	5R01 HL15622-07	172,129
GASSER, DAVID L.	GENETIC CONTROL OF THE IMMUNE RESPONSE	5R01 CA15146-08	144,246
GASSER, DAVID L.	GENETIC BASIS OF DRUG-INDUCED CLEFT PALATE	5R01 DE05008-02	56,862
GERSTEIN, GEORGE L.	STUDIES OF INTERACTION BETWEEN NEURONS	5R01 NS05606-15	79,917
GIL, JUAN	PINOCYTOTIC VESICLES & PULMONARY EDEMA	5R01 HL22463-04	32,498
GLICK, JOHN H.	EASTERN COOPERATIVE ONCOLOGY GROUP	5R10 CA15488-08	263,919
GLICKMAN, LAWRENCE T.	TOXOCARA INFECTION AND OCULAR DISEASE	7R01 EY03762-01	84,072
GOLDFINE, HOWARD	STRUCTURE AND FUNCTION OF BACTERIAL LIPIDS	5R01 AI08903-13	104,506
GOLDMAN, YALE E.	KINETICS OF THE MUSCLE CONTRACTILE APPARATUS	1R01 AM26846-01	112,354
GONATAS, NICHOLAS K.	CELLULAR ASPECTS OF NEUROLOGIC DISORDERS	5R01 NS05572-16	359,674
GOODGAL, SOL H.	GENETIC TRANSFER IN MAMMALIAN SOMATIC CELLS	5R01 GM24263-03	65,815
GOODGAL, SOL H.	TRANSFORMATION IN HAEMOPHILUS	2R01 GM24915-19	132,106
GOODMAN, DAVID B.	CELLULAR BASIS OF ALDOSTERONE ACTION	7R01 AM28183-01	26,400
GOODMAN, ROBERT L.	RADIATION THERAPY ONCOLOGY GROUP	5R10 CA13457-08	132,697
GOTS, JOSEPH S.	BIOSYNTHESIS AND INTERCONVERSION OF PURINES	5R01 CA02790-25	82,274
GREENBERG, JOEL H.	REGIONAL HYPOXIC RESPONSE OF ADULT AND NEWBORN	5R01 NS14418-02	71,017
GREENBERG, JOEL H.	REGIONAL CEREBRAL METABOLISM AND BLOOD FLOW IN SLEEP	5R01 NS14783-02	57,300
GRILL, HARVEY J.	NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR	2R01 AM21397-04	72,592
GUILD, GREGORY M.	EUKARYOTIC GENES: STRUCTURE, FUNCTION, AND REGULATION	1R01 GM28228-01	117,138
HADDAD, JOHN G, JR.	TRANSPORT OF QUANTITATION OF VITAMIN D STEROLS	7R01 AM20588-01	100,221
HARKEN, ALDEN H.	INTRAOPERATIVE CARDIAC OXYGEN SUPPLY-DEMAND	5R01 HL22315-03	115,219
HARRIS, HARRY	INHERITED HUMAN ENZYME DIVERSITY	9R01 GM27018-04	133,561
HARRIS, HARRY	BIOCHEMICAL GENETICS OF CULTURED HUMAN CELLS	5R01 HD00588-18	52,719
HARRIS, HARRY	THE GENETICS OF GALACTOSE ENZYME DETERMINANTS IN MAN	5R01 HD04861-11	150,902
HASKINS, MARK E.	MUCOPOLYSACCHARIDOSES I AND VI	5R01 AM25759-02	104,639
HAUGAARD, NIELS	DIABETES, INSULIN AND URACIL NUCLEOTIDE METABOLISM	5R01 AM21423-03	80,415
HERRMANN, NIRA	STATISTICAL PROBLEMS IN EARLY DECISION	1R23 ES02131-01A1	45,499
HERSBERG, THEODORE	URBAN MORTALITY DETERMINANTS—LATE 19TH CEN. PHILA.	5R01 HD12413-02	121,977
HESS, MARILYN E.	DRUG EFFECTS ON CARDIAC RECEPTORS AND HEART FUNCTION	5R01 HL16436-06	50,770
HOCHSTRASSER, ROBIN M.	PHOTOPROCESSES IN THE ORGANIC SOLID STATE	5R01 GM12592-16	89,337
HOEK, JOANNES B.	CELLULAR HETEROGENEITY AND HORMONAL REGULATION IN LIVER	5R01 AM22141-03	65,531
HOGUE-ANGELETTI, RUTH A.	PROTEINS OF CATECHOLAMINE STORAGE VESICLES	5R01 NS13201-05	110,662
HOLIAN, ADRIJ	INITIATION OF O ₂ PRODUCTION IN ALVEOLAR MACROPHAGES	1R23 HL26266-01	46,340
HOLST, HAZEL I.	MICROWAVE THAWING OF FROZEN TISSUE	5R01 AM17865-05	57,015
HOLTZER, HOWARD	CONVERSION OF EMBRYONIC CELLS INTO TRANSFORMED CELLS	2R01 CA18194-06	136,878
HOROWITZ, LEONARD N.	HUMAN VENTRICULAR ACTIVATION: PATTERNS AND MECHANISMS	5R23 HL21292-03	48,946
HORWITZ, ALAN F.	DETERMINANTS OF MYOGENIC MEMBRANE PHENOMENA	5R01 GM23244-05	85,371
HURTIG, HOWARD	HEMOSTATIC RISK FACTORS—STROKE/TRANS CEREBRAL ISCHEMIA	5R01 NS14359-03	72,474
INOUE, SHINYA	STUDIES OF SUBMICROSCOPIC STRUCTURE OF LIVING CELLS	5R01 GM23475-15	245,212
IYENGAR, MELKOTE R.	MYOSIN AS A MULTIZYME COMPLEX	5R01 HL22538-03	86,005
JARETT, LEONARD	HORMONAL REGULATION OF FAT CELL METABOLISM	7R01 AM28144-01	164,975
JIMENEZ, SERGIO A.	BIOCHEMICAL AND VASCULAR ALTERATIONS IN SCLERODERMA	5R01 AM19616-03	97,203
JONES, STEPHEN C.	LOCAL CEREBRAL BLOOD FLOW AND METABOLISM IN SEIZURES	5R01 NS14973-02	39,451
JOSEPHSON, MARK E.	ELECTROPHYSIOLOGIC BASIS OF ARRHYTHMIA SURGERY	5R01 HL24278-02	154,056
KAJI, AKIRA	REPLICATION OF RNA TUMOR VIRUS	2R01 CA19497-04A1	83,223
KAJI, AKIRA	BIOCHEMICAL CONTROL OF MACROMOLECULAR SYNTHESIS	5R01 GM12053-16	64,597
KALLEN, ROLAND G.	BIOCHEMICAL CATALYSIS MECHANISMS—C-C & C-N BONDS	2R01 GM13777-13	136,020
KALLENBACH, NEVILLE R.	SPECIFICITY IN FRAMESHIFT MUTAGENESIS	5R01 CA24101-02	103,974
KARUSH, FRED	INTERACTIONS OF IMMUNOGLOBULINS	2R01 AI09492-20	112,901
KAUFFMAN, STUART A.	SEQUENTIAL DEVELOPMENTAL COMMITMENTS IN DROSOPHILA	5R01 GM22341-05	103,569
KEFALIDES, NICHOLAS A.	PLATELET VESSEL WALL INTERACTIONS IN THROMBOGENESIS	5P01 HL18827-04	650,574
KENNETT, ROGER H.	HYBRIDOMAS: PRODUCTION AND GENETIC APPLICATIONS	5R01 CA24263-03	47,015
KENNETT, ROGER H.	HUMAN GENETICS CENTER SUPPORT	5P50 GM20138-07	887,760
KIM, SEUNG U.	EXPERIMENTAL NEUROPATHOLOGY IN TISSUE CULTURE	5R01 NS10648-07	74,721
KLEINZELLER, ARNOST	ACTIVE SUGAR TRANSPORT IN RENAL CELLS	5R01 AM12619-12	110,482
KOELLE, GEORGE B.	NEUROHUMORAL TRANSMITTERS AND RELATED DRUGS	5R01 NS00282-28	110,657
KOHN, MICHAEL C.	SENSITIVITY ANALYSIS OF METABOLIC MODELS	5R01 AM25840-02	40,163
KOROSTOFF, EDWARD	ELECTRIC CURRENT, BONE REMODELING AND TOOTH MOVEMENT	1R01 DE05412-01	114,508
KREULEN, THOMAS H.	MYOCARDIAL HYPERTROPHY, ELASTICITY, AND FAILURE IN MAN	5R01 HL24062-02	55,082
KRON, REUBEN E.	EFFECTS OF HBO IN ACUTE CEREBRAL ISCHEMIA	5R01 NS14288-02	194,245

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
KUNDEL, HAROLD L.	VISUAL SEARCH AND FILM READER ERROR IN RADIOLOGY	1R01 GM29010-01	139,711
LALLY, EDWARD T.	THE LOCAL IMMUNE RESPONSE IN PERIODONTAL DISEASE	1R01 DE05414-01	52,652
LAMBERTSEN, CHRISTIAN J.	RESPONSES INDUCED BY RESPIRATORY ENVIRONMENTS	2P01 HL08899-16	793,612
LAMPSON, LOIS A.	POLYMORPHIC NEURONAL SURFACE PROTEINS	1R01 NS16552-01	77,276
LANGENBERG, DONALD N.	BIOMEDICAL RESEARCH SUPPORT	2S07 R07083-15	173,600
LANGFITT, THOMAS W.	HEAD INJURY CLINICAL RESEARCH CENTER	3P01 NS08803-10S1	154,502
LANGFITT, THOMAS W.	HEAD INJURY CLINICAL RESEARCH CENTER	5P01 NS08803-11	801,089
LASH, JAMES W.	ANALYSIS OF CHONDROGENESIS	3R01 HD00380-22S1	60,222
LATIES, ALAN M.	THE EYE IN EXPERIMENTAL DIABETES: RETINAL CHANGES	1R01 EY03444-01	154,688
LEBOY, PHOEBE S.	TRNA METHYLATION IN MAMMALIAN CELLS	5R01 CA23363-03	80,769
LEBOY, PHOEBE S.	TRNA METHYLATION IN NORMAL AND NEOPLASTIC RAT TISSUES	1R01 CA28395-01	116,913
LEDLIE, JOHN F.	CONTROL OF PERIPHERAL EXPIRATORY ACTIVITY	1R23 HL26145-01	46,654
LEIGH, JOHN S, JR.	IRON-SULFUR PROTEINS IN ORIENTED MULTILAYERS	5R01 GM25052-03	86,958
LEVENSON, GORDON E.	IN VITRO MODEL FOR STUDY OF FLUORIDE ON TOOTH GERMS	5R01 DE04686-03	54,379
LEVIN, ROBERT M.	AUTONOMIC CONTROL OF LOWER URINARY TRACT FUNCTION	1R01 AM26508-01	109,953
LEYDEN, JAMES J.	THE FOLLICULAR CAST: A NEW SYSTEM FOR STUDYING ACNE	1R01 AM27213-01	72,371
LIEBMAN, PAUL A.	MICROPHOTOMETRIC STUDIES ON RETINAL RODS AND CONES	2R01 EY00012-17	224,349
LIEBMAN, PAUL A.	VISION RESEARCH CENTER (CORE)	2P30 EY01583-06	193,835
LISGARTEN, MAX A.	STUDIES OF THE PERIODONTAL FLORA	5R01 DE04759-03	187,761
LITT, MITCHELL	RHEOLOGY AND KINETICS OF HEMOGLOBIN S GELATION	5R01 HL23267-02	48,608
LU, PONZY	NMR STUDY OF A REGULATORY PROTEIN	5R01 GM22623-05	60,838
MAGNO, MICHAEL	SYSTEMATIC STUDY OF THE BRONCHIAL CIRCULATION	5R01 HL22928-03	60,603
MARSHAK, ROBERT R.	BIOMEDICAL RESEARCH SUPPORT	2S07 R05464-18	121,347
MARSHALL, BRYAN E.	THE ROLE OF ALBUMIN IN LUNG WATER ACCUMULATION	5R01 HL16916-06	127,010
MASTROIANNI, LUIGI, JR.	A COORDINATED PROGRAM IN REPRODUCTIVE BIOLOGY	5P01 HD06274-09	435,076
MATSHINSKY, FRANZ M.	SUPPORT FOR DIABETES CENTER	5P30 AM19525-04	380,284
MATSHINSKY, FRANZ M.	THE BIOCHEMISTRY OF EXTRAPANCREATIC GLUCORECEPTOR CELLS	5R01 AM22119-04	91,378
MATSHINSKY, FRANZ M.	METABOLISM OF ISLETS OF LANGERHANS AND HORMONE RELEASE	5R01 AM22122-03	110,106
MATSHINSKY, FRANZ M.	BIOCHEMISTRY OF PROMINENT AUDITORY STRUCTURES	5R01 NS14843-03	84,349
MC DEVITT, DAVID S.	CRYSTALLINS IN NORMAL AND REGENERATED NEWT EYE LENSES	5R01 EY02534-03	60,611
MC DONALD, GEORGE G.	MIDDLE ATLANTIC NMR FACILITY	2P41 R000542-10	169,881
MELBIN, JULIUS	THE CARDIOPULMONARY JUNCTION	5R01 HL22223-03	87,752
MISELIS, RICHARD R.	BEHAVIORAL NEURAL SUBSTRATE MEDIATING WATER BALANCE	1R01 GM27739-01	61,955
MOORE, E NEIL	ELECTROPHYSIOLOGY OF FIBRILLATION AND DEFIBRILLATION	5R01 HL16076-08	151,808
MOORE, E NEIL	ELECTROPHYSIOLOGY OF LETHAL ARRHYTHMIAS	5R01 HL23071-03	92,819
MORAD, MARTIN	ELECTROPHYSIOLOGY OF PRENATAL TO ADULT MAMMAL HEARTS	5R01 HL16152-08	147,004
MORAD, MARTIN	ELECTRO-OPTICAL DYES AS PROBES OF HEART EXCITABILITY	5R01 HL17702-06	117,472
MORRISON, ADRIAN R, JR.	BRAINSTEM REGULATION OF BEHAVIOR DURING SLEEP	5R01 NS13110-03	52,867
MOULTON, DAVID G.	OLFACTORY PHYSIOLOGY	5R01 NS10617-04	31,002
MUELLER, PAUL	RECONSTITUTION AND ANALYSIS OF MEMBRANE TRANSPORT	5R01 GM25256-04	86,810
MURRAY, THOMAS G.	EPIDEMIOLOGICAL STUDY OF ANALGESIC USE AND RENAL DISEASE	3R01 AM20920-02S1	12,271
MURRAY, THOMAS G.	EPIDEMIOLOGICAL STUDY OF ANALGESIC USE AND RENAL DISEASE	2R01 AM20920-03	109,606
NACHMIAS, VIVIANNE T.	CYTOPLASMIC STREAMING AND CONTRACTILE PROTEINS	2R01 AM17492-07	57,372
NASS, MARGIT M.	MITOCHONDRIAL GENETIC SYSTEM IN NORMAL & CANCER CELLS	5R01 CA13814-08	100,518
NATHANSON, NEAL	IMMUNOPATHOGENESIS OF VISNA	5R01 NS16010-03	166,426
NEUFELD, GORDON R.	PULMONARY EDEMA VS RECRUITMENT IN RESPIRATORY FAILURE	5R01 HL23730-02	85,779
NICOLAOU, KYRIACOS C.	TOTAL SYNTHESIS OF LEUCONOLIDE A3	5R01 GM26879-02	71,846
NOORDERGRAAF, ABRAHAM	PHYSIOLOGICAL MECHANICS OF THE HEART AND THE ARTERIES	5R01 HL10330-13	93,363
NOWELL, PETER C.	LEUKOCYTE REGULATORY MECHANISMS	5R01 CA12779-08	70,765
NOWOTNY, ALOIS H.	RELATION OF STRUCTURE TO FUNCTION IN ENDOTOXINS	5R01 CA24628-02	125,103
OPELLA, STANLEY J.	NMR STUDIES OF BIOLOGICAL SUPRAMOLECULAR STRUCTURES	2R01 GM24266-04	121,961
ORKAND, RICHARD K.	LONG-TERM INTERACTIONS OF NEURONS AND GLIA	5R01 NS12253-07	89,881
ORKWISZEWSKI, KATHRYN G.	GENETIC REGULATION OF MAMMALIAN GALACTOSE METABOLISM	5R01 AM27609-02	12,031
PACK, ALLAN I.	VAGAL AFFERENTS EFFECT OF NEURAL OUTPUT AND VENTILATION	5R01 HL24542-02	62,954
PATTERSON, DONALD F.	ETIOLOGY AND DEVELOPMENT OF CONGENITAL HEART DISEASE	5R01 HL18848-05	221,453
PERLOFF, LEONARD J.	STUDIES OF THE WHOLE PANCREAS ALLOGRAFT	1R01 AM26457-01	63,713
PHILLIPS, S MICHAEL	IN VITRO S. MANSONI VITELLOGENESIS-GRANULOMA FORMATION	5R22 AI15193-02	96,720
PLISKIN, MICHAEL E.	CLINICAL CANCER EDUCATION GRANT	1R25 CA28297-01	17,371
PLISKIN, MICHAEL E.	ENHANCEMENT OF ORAL CANCER AFTER ALLOGRAFTING	5R23 DE05117-02	37,291
PREMACK, DAVID	THE NATURE OF INTELLECTUAL DEFICITS IN RETARDATION	5P01 HD10965-03	155,139
PRESTON, SAMUEL H.	MORTALITY LEVELS AND DIFFERENTIALS IN THE U.S., 1900	1R01 HD14359-01	84,366

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
PUGH, EDWARD N. JR.	ANALYSIS OF THE MECHANISMS OF PHOTORECEPTOR KINETICS	5R01 EY02660-03	28,214
QUINN, JOHN A.	TRANSPORT OF ARTERIAL BLOOD GASES THROUGH SKIN	2R01 HL22327-03	88,824
REED, GEORGE H.	NMR OF DIGESTIVE AND METABOLIC ENZYME COMPLEXES	5R01 AM17517-07	88,526
REIVICH, MARTIN	CEREBRAL BLOOD FLOW AND METABOLISM IN STROKE AND SHOCK	5P50 NS10939-08	1,042,493
REIVICH, MARTIN	LOCAL CEREBRAL GLUCOSE METABOLISM IN MAN	5P01 NS14867-02	530,068
RICKELS, KARL M.	A STUDY OF UNWANTED PREGNANCY IN ADOLESCENTS	1R01 HD13630-01	110,259
ITTER, MARK A.	PHOTO-INDUCED CELL KILLING, MUTATION, AND DNA REPAIR	5R01 CA24657-02	76,156
ROBERTS, BRYAN W.	IRON CARBONYL REAGENTS IN NATURAL PRODUCTS SYNTHESIS	5R01 GM25222-02	63,004
ROSAN, BURTON	MICROBIOLOGIC STUDIES OF THE HUMAN ORAL STREPTOCOCCI	2R01 DE03180-10	116,702
ROSENBLUM, JOEL	BIOCHEMICAL STEPS AND CONTROL OF COLLAGEN SYNTHESIS	5R01 AM20863-04	86,261
ROSENBLUM, JOEL	CENTER FOR ORAL HEALTH RESEARCH	5P50 DE02623-13	1,450,000
ROSENQUIST, ALAN C.	EXTRAGENICULATE VISUAL PATHWAYS IN ANIMALS	5R01 EY02654-03	104,871
ROSENWAIKE, IRA	ACCURACY OF DEATH CERTIFICATE AGES FOR THE EXTREME AGED	5R01 AG01550-02	56,339
ROSSMAN, MILTON D.	IMMUNE EVENTS IN SARCOIDOSIS	5R23 HL24500-02	49,665
ROTH, STEPHEN A.	MORPHOGENESIS IN EMBRYONIC AND PATHOLOGICAL SYSTEMS	7R01 HD15044-01	100,642
ROZIN, P.	THE DEVELOPMENT OF THE CHILD'S CONCEPTION OF FOOD	5R01 HD12674-02	32,167
RUBINSTEIN, NEAL A.	CONTROL OF MYOSIN TYPES IN INDIVIDUAL MUSCLE FIBERS	5R01 NS14332-03	56,055
RUTMAN, ROBERT J.	MECHANISM OF ACTION OF L-PHENYLALANINE MUSTARD	5R01 CA25251-02	86,865
SANGER, JOSEPH W.	ANALYSIS OF CELL DIVISION AND CELL MOTILITY	5R01 GM25653-03	102,850
SCARPA, ANTONIO	INSULIN RELEASE AND TRANSPORT OF ZINC AND CALCIUM	1R01 AM27546-01	39,514
SCARPA, ANTONIO	SEROTONIN AND ION TRANSPORT IN GRANULES AND PLATELETS	5R01 HL24010-02	63,563
SCHERER, PETER W.	OPTIMIZATION OF HYGROSCOPIC AEROSOL DELIVERY	2R01 HL20105-04A1	44,059
SCHLAEPFER, WILLIAM W.	MECHANISMS OF PERIPHERAL NERVE DYSFUNCTION	3R01 NS15722-02S1	75,661
SCHLAEPFER, WILLIAM W.	MECHANISMS OF PERIPHERAL NERVE DYSFUNCTION	2R01 NS15723-03	188,783
SCHMIDT, MARIE L.	CLB-A MORPHOLOGICAL CORRELATE OF VISUAL FUNCTION	7R01 EY03693-01	17,459
SCHREIBER, ALAN D.	MACROPHAGE RECOGNITION AND TUMOR CELL INTERACTIONS	2R01 CA15236-07	146,640
SCHWARTZ, MYRNA F.	SEMANTIC MEMORY LOSS IN DEMENTIA	5R01 AG02231-02	78,856
SELZER, MICHAEL E.	EPILEPSY RELEVANT DRUGS AND CENTRAL SYNAPSES	5R01 NS14257-04	97,990
SELZER, MICHAEL E.	REGENERATION IN SPINAL CORD	5R01 NS14837-02	45,713
SHAPIRO, BERNARD H.	DEVELOPMENTAL ORGANIZERS OF DRUG METABOLISM	5R01 GM26222-02	68,547
SHIPLEY, ELIZABETH	THE DEVELOPMENT OF HIERARCHICAL CATEGORY STRUCTURE	5R01 HD12821-02	44,477
SHPORER, MORDECHAI	NUCLEAR QUADRUPOLE RESONANCE OF INTRACELLULAR IONS	5R01 GM23389-03	112,022
SILBERBERG, DONALD H.	ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS	5P50 NS11037-08	900,278
SILVERS, WILLIS K.	BEHAVIOR OF WEAK TRANSPLANTATION ANTIGENS	5R01 CA18640-11	107,673
SIMSON, MICHAEL B.	ELECTROPHYSIOLOGY OF A WELL DEFINED ISCHEMIC AREA	5R23 HL24253-02	48,428
SINGER, IRWIN	RENAL WATER AND ION TRANSPORT: ROLE OF PROTEINS	5R01 AM21454-03	85,619
SLOVITER, HENRY A.	OXYGEN TRANSPORT BY SOLUTIONS OF BRIDGED HEMOGLOBINS	1R01 HL25693-01	65,612
SMITH, AMOS B. III	SYNTHESIS OF CYCLOPENTENOID ANTITUMOR AGENTS	5R01 CA19033-05	86,077
SMITH, AMOS B. III	SYNTHESIS OF JATROPHONE AND RELATED ANTITUMOR AGENTS	5R01 CA22807-03	58,537
SMITH, AMOS B. III	NATURAL PRODUCT SYNTHESIS VIA UNSATURATED DIAZOKETONES	5R01 GM24680-02	48,772
SNAPE, WILLIAM J. JR.	NEUROHORMONAL REGULATION OF COLONIC SMOOTH MUSCLE	5R01 AM25396-02	62,011
SNOW, JAMES B. JR.	CLINICAL SMELL & TASTE RESEARCH CENTER	1P01 NS16365-01	526,310
SNYDER, PETER J.	GONADOTROPIN SECRETION IN THE MALE	1R01 HD13869-01	81,776
SOLOWAY, ROGER D.	PIGMENT GALLSTONES: COMPOSITION AND FORMATION	5R01 AM16549-06	105,263
SOMLYO, ANDREW P.	STUDY OF MUSCLES RELATED TO HEART DISEASE	3P01 HL15835-07S1	291,450
SOMLYO, ANDREW P.	STUDY OF MUSCLES RELATED TO HEART DISEASE	5P01 HL15835-08	2,079,194
SPEAR, JOSEPH F.	ELECTROPHYSIOLOGY OF CARDIAC AUTOMATICITY	5R01 HL19045-05	73,320
SPEAR, JOSEPH F.	ION EFFECTS ON CARDIAC AUTOMATICITY AND CONDUCTION	1R01 HL25213-01	4,668
SPELKE, ELIZABETH S.	STUDIES OF PERCEPTUAL KNOWLEDGE IN INFANCY	5R01 HD13248-02	61,923
SPIELMAN, RICHARD	GENETICS OF SUSCEPTIBILITY TO DIABETES MELLITUS	5R01 AM25556-02	80,971
SPRAGUE, JAMES M.	BRAIN MECHANISMS OF VISUAL LEARNING AND TRANSFER	5R01 EY00577-15	124,105
SPRENT, JONATHAN	H-2 CONTROL OF T-HELPER CELL FUNCTION IN VIVO	5R01 AI15393-02	140,743
STAMBAUGH, RICHARD L.	THE ROLE OF ACROSIN AND MICROTUBULES IN FERTILIZATION	5R01 HD11600-03	76,982
STEIN, THOMAS P.	NITROGEN POOLS AND TURNOVER IN SURGICAL PATIENTS	2R01 AM16658-07	112,709
STEIN, THOMAS P.	SURGERY AND ADJUVANT CANCER THERAPY	5R01 CA18575-05	90,906
STERLING, PETER	MICROCIRCUITRY OF THE VISUAL SYSTEM	5R01 EY00828-09	141,282
STOLLEY, PAUL D.	EPIDEMIOLOGY OF UROLITHIASIS	5R01 AM23094-02	73,941
STRAUSS, JEROME F. III	THE ROLE OF BLOOD LIPOPROTEINS IN OVARIAN FUNCTION	5R01 HD12314-02	96,213
STUNKARD, ALBERT J.	THE HERITABILITY OF OBESITY AND THINNESS	1R01 AM26607-01	52,520
TAICHMAN, NORTON S.	LEUKOCYTES IN THE PATHOGENESIS OF PERIODONTAL DISEASE	5R01 DE03995-06	190,562
THORNTON, EDWARD R.	GLYCOPHINGOLIPID CHEMISTRY AND MEMBRANE STRUCTURE	5R01 GM22647-05	100,158

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
TILNEY, LEWIS G.....	PATTERN GENERATION AND MOTILITY OF ACTIN FILAMENTS.....	1R01 HD14474-01	151,893
TRENTHAM, DAVID R.....	DYNAMIC PROCESSES OF MUSCLE CONTRACTION.....	5R01 AM23030-02	161,206
TSOU, KWAN C.....	NEW FLUORESCENT MARKERS FOR CANCER DIAGNOSIS.....	3R01 CA19552-03S1	3,921
TSOU, KWAN C.....	DEVELOPMENT OF SERUM NUCLEASE ISOZYME TEST FOR CANCER.....	1R01 CA25376-01A1	131,236
TSOU, KWAN C.....	BIOPHYSICAL PROBES FOR AUTOMATED CYTOLOGY.....	1R01 CA28770-01	108,243
VAN DE WALLE, ETIENNE.....	POPULATION STUDIES CENTER (CORE).....	5P30 HD10379-04	69,079
VOET, DONALD H.....	THE X-RAY STRUCTURE OF YEAST PYROPHOSPHATASE.....	5R01 GM20568-04	76,237
WALLACE, HERBERT W.....	POLYHEMOGLOBIN MEMBRANES FOR ARTIFICIAL RED CELLS.....	1R01 HL25970-01	124,946
WEBER, ANNEMARIE A.....	FORCE AND SPEED IN SKELETAL AND CARDIAC MUSCLE.....	2R01 HL15692-09	125,561
WEBER, WILFRIED T.....	LYMPHOCYTE FUNCTIONAL CAPACITIES.....	2R01 AM11693-13	77,172
WEINBERG, ERIC S.....	HISTONE GENES AND THEIR TRANSCRIPTION.....	3R01 GM27322-01S1	68,657
WEINBERG, ERIC S.....	HISTONE GENES AND THEIR TRANSCRIPTION.....	5R01 GM27322-02	123,173
WEINER, DAVID J.....	IMMUNITY OF RATS AND GERBILS TO LITOMOSOIDES CARINII.....	5R22 AI13767-03	47,701
WEISS, LEON P.....	ELECTRON MICROSCOPY OF THE RETICULOENDOTHELIAL SYSTEM.....	5R01 AM19920-05	166,613
WEISS, LEON P.....	HEMATOPOESIS—MORPHOLOGIC AND FUNCTIONAL CORRELATES.....	1R13 AM27561-01	2,500
WELSH, FRANK A.....	BIOCHEMICAL EVOLUTION OF ISCHEMIC BRAIN DAMAGE.....	1R01 NS16426-01	93,482
WILLIAMSON, JOHN R.....	CONTROL OF METABOLISM IN NORMAL AND DISEASED STATES.....	5R01 AM15120-10	124,742
WILLIAMSON, JOHN R.....	CARDIAC METABOLISM IN HEART FAILURE.....	5R01 HL14461-10	142,632
WILSON, DARCY B.....	LYMPHOCYTES & HISTOCOMPATIBILITY ANTIGENS.....	5R01 AI10961-09	203,341
WILSON, DARCY B.....	IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES.....	3P01 CA15822-06S1	653,781
WILSON, DAVID F.....	OXIDATIVE PHOSPHORYLATION IN BIOLOGICAL MEMBRANES.....	5P01 GM12202-17	472,445
WILSON, DAVID F.....	REGULATION AND O ₂ DEPENDENCE OF CELLULAR METABOLISM.....	2R01 GM21524-06	95,868
WILSON, DAVID F.....	BRAIN ENERGY AND NEUROTRANSMITTER METABOLISM.....	5R01 NS14505-03	89,706
WINEGRAD, ALBERT I.....	STUDIES RELATED TO THE COMPLICATIONS OF DIABETES.....	5R01 AM04722-20	257,325
WINEGRAD, SAUL.....	CELLULAR BASIS OF CARDIAC CONTRACTILITY.....	3R01 HL16010-17S1	33,419
WIRGIN, SIMEON.....	PURIFICATION & BETA-RECEPTOR EFFECTS ON MEMBRANE COMT.....	7R01 HL27360-01	100,636
YONETANI, TAKASHI.....	STRUCTURE AND FUNCTION OF RESPIRATORY HEMOPROTEINS.....	2R01 HL14508-12	156,714
YUHAS, JOHN M.....	RADIOPROTECTANTS AND RADIOSENSITIZERS IN RADIOTHERAPY.....	1R01 CA29845-01	90,866
ZEIDMAN, IRVING.....	INVASION AND METASTASIS.....	5R01 CA26867-02	40,399
ZURER, ROBERT B.....	PROSTAGLANDINS CYCLIC NUCLEOTIDES AND INFLAMMATION.....	1R01 AM28560-01	219,874
ZWEIMAN, BURTON.....	INFLAMMATORY RESPONSES IN ALLERGIC REACTIONS AND ASTHMA.....	2R01 AI14332-04	167,743
ORGANIZATION TOTAL	310 46,112,599		
WILLS EYE HOSPITAL AND RESEARCH INSTITUTE ZIP CODE 19107			
NAGY, ROSE M.....	HETEROGENEITY OF LYMPHOCYTES IN HERPES OCULAR DISEASE.....	5R01 EY02594-03	74,386
SAVINO, PETER J.....	HOST IMMUNOLOGIC RESPONSE IN GRAVES' OPHTHALMOPATHY.....	5R01 EY02631-03	49,307
SERY, THEODORE W.....	RESPONSE OF CORNEAL STROMA TO INJECTION OF PROTEINS.....	2R01 EY00195-22A2	51,000
SERY, THEODORE W.....	EXPERIMENTAL HERPES VIRUS CORNEAL INFECTIONS.....	3R01 EY01454-05S1	7,540
SERY, THEODORE W.....	IN VITRO AND IN VIVO STUDIES OF RETINOBLASTOMA.....	5R01 EY02131-03	75,939
SERY, THEODORE W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05510-17	28,503
ORGANIZATION TOTAL	6 286,675		
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104			
ABRAMCZUK, JAN.....	HEAVY METALS IN EARLY MAMMALIAN EMBRYOGENESIS.....	5R01 ES01866-03	90,799
BECHTOL, KATHLEEN B.....	IMMUNOCHEMICAL APPROACH TO SPERMATOGENESIS.....	5R01 GM23892-03	41,646
BECHTOL, KATHLEEN B.....	BRAIN-SPECIFIC ANTIGENS/GENETICS & BIOCHEMISTRY.....	5R01 NS15427-02	85,213
BUCK, CLAYTON A.....	MEMBRANE CHANGES CAUSED BY TUMOR VIRUS TRANSFORMATION.....	5R01 CA19144-06	116,637
BUCK, CLAYTON A.....	ADHESIVE INTERACTIONS IN MAMMARY TUMOR EPITHELIAL CELLS.....	1R01 CA27909-01	82,851
CRISTOFALO, VINCENT J.....	CELLULAR SENEESCENCE AND CONTROL OF CELL PROLIFERATION.....	2P01 AG00378-09	487,737
CROCE, CARLO M.....	MAPPING OF TUMOR VIRUS GENOMES IN TRANSFORMED CELLS.....	5R01 CA16685-06	220,688
CROCE, CARLO M.....	BIOLOGY OF HUMAN FIBROSARCOMA.....	3R01 CA20741-03S1	15,986
CROCE, CARLO M.....	IMMUNORESPONSE TO HUMAN SURFACE ANTIGENS.....	5R01 CA23568-03	61,540
CROCE, CARLO M.....	CELL DIFFERENTIATION AND CANCER.....	1P01 CA25875-01	310,395
CROCE, CARLO M.....	GENE EXPRESSION DURING MAMMALIAN DEVELOPMENT.....	1R01 CA27712-01	113,235
CROCE, CARLO M.....	ENZYME MARKERS IN THE MAPPING OF HUMAN GENES.....	5R01 GM20700-06	88,070
CURTIS, PETER J.....	REGULATION OF HISTONE BIOSYNTHESIS IN HETEROPOLOID CELLS.....	5R01 CA17856-05	107,213
DIAMOND, LEILA.....	THE EFFECT OF CHEMICAL CARCINOGENS ON CELLS IN VITRO.....	3R01 CA08936-12S1	40,401
DIAMOND, LEILA.....	ENVIRONMENTAL FACTORS IN THE INDUCTION OF CANCER.....	5P01 CA21778-03	342,440
DIAMOND, LEILA.....	TUMOR PROMOTOR AND CELL DIFFERENTIATION.....	5R01 CA23413-03	46,200
DOHERTY, PETER C.....	CELL-MEDIATED IMMUNITY IN INFLUENZA.....	5R01 AI14162-04	123,901
DOHERTY, PETER C.....	CELL-SURFACE MONITORING BY RECIRCULATING LYMPHOCYTES.....	5R01 AI15412-02	174,814

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
FRASER, NIGEL	TRANSCRIPTIONAL TERMINATION USING ADENOVIRUS TYPE 2	1R01 AI16815-01	93,346
GERHARD, WALTER	ANTIGENICITY OF INFLUENZA VIRUS HEMAGGLUTININ	2R01 AI13989-04	107,207
KNOWLES, BARBARA B	ANTIGENICITY AND TUMORIGENICITY OF SOMATIC CELL HYBRIDS	5R01 CA18470-05	162,774
KOPROWSKI, HILARY	STUDY OF RABIES AND RABIES VIRUS ANTIGENS	5R22 AI09706-10	365,224
KOPROWSKI, HILARY	CONSOLIDATED BASIC CANCER RESEARCH PROGRAM	5P30 CA10815-13	1,770,842
KOPROWSKI, HILARY	GENETICS AND VIROLOGY OF CANCER	5P01 CA21124-04	725,443
KOPROWSKI, HILARY	HUMAN MELANOMA AND TUMOR SPECIFIC MONOCLONAL ANTIBODIES	1P01 CA25874-01	523,520
KOPROWSKI, HILARY	ETIOLOGY AND PATHOGENESIS OF MULTIPLE SCLEROSIS	5P50 NS11036-08	899,030
KOPROWSKI, HILARY	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05540-18	193,787
KRITCHEVSKY, DAVID	LIPID METABOLISM	5R01 HL05209-20	111,850
KRITCHEVSKY, DAVID	ACID AND ALKALINE LIPASES IN AORTAS OF VARIOUS SPECIES	5R01 HL23625-02	51,836
LEVINE, ELLIOT M	CELLULAR GROWTH AND SENESCENCE IN ENDOTHELIAL CELLS	5R01 AG00839-03	104,675
LEVINE, ELLIOT M	CELLULAR BIOLOGY OF IN VIVO AND IN VITRO AGING	5R01 AG01826-02	97,434
MAUL, GERO G	QUANTITATIVE STUDY OF NUCLEAR & ANNULATE LAMELLAE PORES	2R01 GM21615-05A1	94,379
O'BRIEN, THOMAS G	POLYAMINES AND CHEMICAL CARCINOGENESIS IN VITRO	5R23 ES01664-03	65,128
PINCUS, THEODORE P	RHEUMATOID ARTHRITIS MICROBIOLOGICAL STUDIES	1R01 AM25954-01A1	29,860
PINCUS, THEODORE P	NATURAL HOST CONTROL MECHANISMS IN LEUKEMIA	5R01 CA24744-02	115,385
ROYERA, GIOVANNI	EXPRESSION OF GLOBIN GENES—ERYTHROLEUKEMIA CELLS	5R01 CA24273-02	72,382
SOLTER, DAVOR	ROLE OF CELL SURFACE ANTIGENS IN MAMMALIAN DEVELOPMENT	5R01 HD12487-02	64,349
STAMATO, THOMAS D	ISOLATING CARCINOGEN SENSITIVE MAMMALIAN CELL MUTANTS	5R01 ES02274-02	74,108
STAMATO, THOMAS D	MUTAGEN INDUCTION OF SECTORED COLONIES IN CHO CELLS	1R01 ES02470-01	101,934
TRINCHIERI, GIORGIO	CELL-MEDIATED CYTOTOXICITY IN HUMANS	2R01 CA20833-04	191,529
TSUCHIDA, NOBUO	HOST/VIRUS INTERACTION IN KI-MSV GENOME EXPRESSION	5R01 CA22701-03	80,505
WARREN, LEONARD	THE SURFACE MEMBRANES OF NORMAL AND CANCER CELLS	5R01 CA19130-04	120,772
WEINMANN, ROBERTO	CONTROL OF ADENOVIRUS TRANSCRIPTION	5R01 AI13231-05	80,196
WETTSTEIN, PETER J	FUNCTIONAL INTERACTIONS OF I AND H-2K/D IR GENES	5R01 AI16052-02	115,175
WETTSTEIN, PETER J	CELLULAR ANTIGENS OF NORMAL AND MALIGNANT RAT TISSUES	5R01 CA10097-13	208,884
WHITTAKER, J RICHARD	MELANOTIC EXPRESSION IN CARCINOGEN-INDUCED MELANOMAS	5R01 CA23394-03	114,603
WHITTAKER, J RICHARD	EGG CYTOPLASMIC INFORMATION IN CELL DIFFERENTIATION	5R01 HD09201-06	131,639
ORGANIZATION TOTAL	47	9,417,562	
ZOOLOGICAL SOCIETY OF PHILADELPHIA ZIP CODE 19104			
SNYDER, ROBERT L	HEPATITIS VIRUS AND LIVER TUMORS IN WOODCHUCKS	5R01 AI16260-02	85,095
ORGANIZATION TOTAL	1	85,095	
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION—ALLEGHENY-SINGER RESEARCH CORPORATION ZIP CODE 15212			
BRAUNSCHWEIGER, PAUL G	CORTICOSTEROIDS—CYTOKINETIC AND BIOCHEMICAL STUDIES	5R01 CA26020-02	62,234
BRILLER, STANLEY A	SYNTACTIC PATTERN ANALYSIS OF 24-HOUR HOLTER RECORDS	1R01 HL26066-01	58,487
BURHOLT, DENNIS R	DIETARY ASPECTS OF INTESTINAL RESPONSE TO THERAPY	1R01 CA28817-01	53,687
CONCANNON, JOSEPH P	RADIATION THERAPY ONCOLOGY GROUP	5R10 CA25007-04	80,016
KOROS, AURELIA M	IMMUNOREGULATION OF HUMAN TUMOR GROWTH IN NUDE MICE	1R01 CA26201-01A1	67,545
OKUNIEWICZ, JAMES P	VIRAL LEUKEMIA THERAPY BY RESISTANT TISSUE TRANSPLANT	5R01 CA22512-03	52,358
OKUNIEWICZ, JAMES P	STUDY OF CHEMO/RADIATION APPROACH TO MARROW ABLATION	1R01 CA26838-01A1	76,247
PROCTOR, JULIAN W	BIOASSAY FOR ANTITUMOR EFFECTS OF R.E. STIMULANTS	5R01 CA24936-02	55,160
PUGH, REGINALD P	SOUTHWEST ONCOLOGY GROUP, ALLEGHENY GENERAL HOSPITAL	1R10 CA26766-01	94,744
SCHENKEN, LARRY L	COMBINED MODE (ECMRC) STUDIES IN VIVO: TUMOR/NORMAL	5R01 CA25008-05	216,467
SCHIFFER, LEWIS M	CELL KINETICS FOR TIMING POSTSURGICAL CHEMOTHERAPY	1R01 CA27233-01	55,467
SCHIFFER, LEWIS M	HUMAN COLORECTAL TUMOR KINETICS	1R26 CA28135-01	34,924
SCHIFFER, LEWIS M	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05801-04	44,346
ORGANIZATION TOTAL	13	951,682	
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
BAHILL, A TERRY	CLINICAL RECORDING OF SACCADDES	5R23 EY02382-03	11,886
BOTHNER-BY, AKSEL A	DYNAMIC NUCLEAR OVERHAUSER EFFECTS IN BIOMOLECULES	5R01 AM16532-08	117,134
FRIEDMAN, MARK B	DEVELOPMENT OF CONTROL OF WALKING IN CHILDREN	5R01 HD11869-03	51,846
GOLDMAN, ROBERT D	CELL AGING: CONTRACTILE PROTEIN STRUCTURE AND FUNCTION	5R01 AG00890-03	104,845
GOLDMAN, ROBERT D	NORMAL AND TUMOR-VIRUS TRANSFORMED CELL BEHAVIOR	5R01 CA17210-06	105,865
HACKNEY, DAVID D	MECHANISM AND REGULATION OF CONTRACTILE PROTEINS	5R01 AM25980-02	51,463

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
HITCHCOCK, SARAH E.....	MOLECULAR BIOLOGY OF REGULATION OF CONTRACTION.....	9R01 GM28830-04	74,033
HO, CHIEN.....	NMR STUDIES OF BIOLOGICAL MEMBRANES.....	5R01 GM26874-02	117,171
HO, CHIEN.....	PHYSICAL-CHEMICAL STUDY OF HEMOGLOBIN AND ERYTHROCYTE.....	5R01 HL24525-02	220,368
JONES, ELIZABETH W.....	GENETIC REGULATION OF PROTEASES IN YEAST.....	5R01 AM18090-07	115,070
KELLEY, WILLIAM S.....	GENETIC AND STRUCTURAL STUDIES OF DNA POLYMERASE I.....	5R01 GM24688-03	65,493
LEINHARDT, SAMUEL.....	IMPACT OF INTERVENTIONS ON SOCIAL NETWORKS.....	5R01 HD12506-02	163,026
LLINAS, MIGUEL.....	HETERONUCLEAR NMR INVESTIGATIONS OF SIDEROPHORES.....	5R01 GM25213-02	62,610
LLINAS, MIGUEL.....	WIDE-BORE, 200 MHZ FT-NMR SPECTROMETER.....	5P41 GM27390-02	21,750
LONGINI, RICHARD L.....	AN OPTIMAL FETAL HEART MONITOR.....	5R01 HL20632-04	136,157
MC CURRY, PATRICK M, JR.....	SYNTHESIS OF THE ANTI-CANCER AGENT 593A & HOMOLOGUES.....	5R01 CA24057-03	61,517
MINKLEY, EDWIN G, JR.....	CONJUGAL TRANSFER OF PLASMIDS.....	1R01 GM28925-01	98,219
NAGLE, JOHN F.....	BIOMEMBRANE TRANSITIONS: DENSITY MEASUREMENTS.....	5R01 GM21128-06	21,201
O'DONNELL, JANIS M.....	GENE REGULATION IN DROSOPHILA: A NEW MODEL SYSTEM.....	5R01 GM26757-02	60,160
SCHATZ, EDWARD R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07081-15	115,536
STERN, RICHARD M.....	AUDITORY LATERALIZATION IN NOISE.....	5R01 NS14908-02	38,892
WADDELL, WALTER H.....	SUPEROXIDE RADICALS AND BIOCHEMICAL HYDROXYLATIONS.....	1R01 NS15850-01	40,044
WILLIAMS, JAMES F.....	GENETIC ANALYSIS OF ADENOVIRUSES.....	5R01 CA21375-03	79,435
WOOLFORD, JOHN L, JR.....	YEAST RIBOSOMAL PROTEIN GENES: STRUCTURE AND FUNCTION.....	1R01 GM28301-01	94,092
WORTHINGTON, C R.....	MOLECULAR STRUCTURE OF NERVE AND PHOTORECEPTORS.....	5R01 NS09329-11	93,289
ORGANIZATION TOTAL	25 2,121,102		
CHILDREN'S HOSPITAL OF PITTSBURGH ZIP CODE 15213			
ALBO, VINCENT C.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA07439-17	134,546
BLUESTONE, CHARLES D.....	OTITIS MEDIA RESEARCH CENTER.....	1P01 NS16337-01	1,148,881
DRASH, ALLAN L.....	JUVENILE DIABETES MELLITUS: EPIDEMIOLOGY & ETIOLOGY.....	5R01 AM24021-03	297,144
MICHAELS, RICHARD H.....	VIRAL POTENTIATION OF BACTERIAL INFECTION.....	5R01 AI15988-02	58,100
OLIVER, THOMAS K, JR.....	GENERAL CLINICAL RESEARCH CENTER.....	2M01 RR00084-18	393,210
OLIVER, THOMAS K, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05507-18	55,194
PARADISE, JACK L.....	INDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY.....	5R01 HD07403-07	249,946
ORGANIZATION TOTAL	7 2,337,021		
DUQUESNE UNIVERSITY ZIP CODE 15219			
CASTRIC, PETER A.....	PURIFICATION AND CHARACTERIZATION OF UREA AMIDOLYASE.....	5R01 GM20419-04	40,189
PISKIEWICZ, DENNIS.....	STRUCTURE OF ACONITASE, A HIGH POTENTIAL FE-S PROTEIN.....	5R01 GM26893-02	81,301
ORGANIZATION TOTAL	2 121,490		
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
BLACK, F OWEN.....	CONTROL OF HUMAN POSTURAL SWAY TRAJECTORIES.....	2R01 NS13286-04	95,531
BLACK, F OWEN.....	STUDY OF THE AUDITORY AND VESTIBULAR SYSTEMS.....	1R13 NS15960-01	5,000
BROWN, STUART I.....	COLLAGENOLYTIC SYSTEMS IN NORMAL AND DISEASED CORNEAS.....	5R01 EY01490-06	62,534
BROWN, STUART I.....	STUDY AND TREATMENT OF IMMUNE OCULAR DISEASES.....	5P50 EY01991-04	122,343
BROWN, STUART I.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05779-05	56,553
CHURCH, ROBERT L.....	GENETICS AND BIOCHEMISTRY OF THE LENS IN CELL CULTURE.....	5R01 EY02896-02	38,923
KAO, WINSTON W.....	BIOSYNTHESIS OF COLLAGEN IN EMBRYONIC CHICK CORNEA.....	5R01 EY02869-02	75,333
MONDINO, BARTLY J.....	THE ROLE OF COMPLEMENT IN EXTERNAL DISEASES OF THE EYE.....	5R01 EY02304-03	40,250
MONDINO, BARTLY J.....	LYMPHOCYTES IN IMMUNOLOGIC DISEASES OF THE EYE.....	5R01 EY02894-02	72,679
O'LEARY, DENNIS P.....	STUDY OF VESTIBULAR RECEPTOR AFFERENT RESPONSES.....	5R01 NS12494-05	75,581
SANDO, ISAMU.....	HISTOPATHOLOGY OF TEMPORAL BONES.....	5R01 NS13787-04	71,098
SUNDAR RAJ, CHOLAPPADI V.....	THE CORNEAL EPITHELIAL BASEMENT MEMBRANE.....	1R01 EY03262-01	88,948
SUNDAR RAJ, NIRMALA.....	CHARACTERIZATION OF CORNEAL CELL-SURFACE ANTIGENS.....	1R01 EY03263-01	89,670
ORGANIZATION TOTAL	13 894,443		
MAGEE-WOMEN'S HOSPITAL ZIP CODE 15213			
RYAN, KATHLEEN D.....	MECHANISMS GOVERNING ONSET OF OVARIAN FUNCTION.....	1R01 HD14489-01	42,134
ZELEZNIK, ANTHONY J.....	CONTROL OF FOLLICULOGENESIS IN THE RHEBUS MONKEY.....	5R01 HD12014-03	36,763
ZELEZNIK, ANTHONY J.....	CELLULAR ASPECTS OF GRANULOSA CELL DIFFERENTIATION.....	5R01 HD13235-02	56,161
ORGANIZATION TOTAL	3 135,058		
MONTEFIORE HOSPITAL ZIP CODE 15213			
ADIBI, SIAMAK A.....	BRANCHED AMINO ACID METABOLISM IN ALTERED NUTRITION.....	3R01 AM15855-06S2	12,747
ADIBI, SIAMAK A.....	BRANCHED AMINO ACID METABOLISM IN ALTERED NUTRITION.....	2R01 AM15855-07A1	117,680

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
ADIBI, SIAMAK A.....	INTESTINAL TRANSPORT AND METABOLISM OF PEPTIDES.....	5R01 AM15861-09	95,010
FROMM, HANS.....	BILE ACID METABOLISM IN GALLSTONE DISEASE.....	2R01 AM19689-04	51,859
KLAIN, MIROSLAV.....	HIGH FREQUENCY JET VENTILATION.....	5R01 HL23366-02	33,616
MENDELOW, HARVEY.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RRO5592-10	39,583
NORDEN, CARL W.....	HEMOPHILUS INFLUENZAE TYPE B INFECTIONS.....	5R01 AI11932-06	44,917
SHADDUCK, RICHARD K.....	REGULATION OF GRANULOPOIESIS.....	5R01 CA15237-06	79,181
TROEN, PHILIP.....	STUDIES OF HUMAN MALE INFERTILITY.....	5R01 HD11468-03	102,228
WINKELSTEIN, ALAN.....	IMMUNOSUPPRESSANTS AND LYMPHOCYTE FUNCTION.....	5R01 CA24429-06	90,152
WOLFSON, SIDNEY K, JR.....	BIOAUTOFUEL CELL: IMPLANTABLE DIRECT ENERGY CONVERTER.....	5R01 GM19419-08	86,916
ORGANIZATION TOTAL	11 753,889		
MPC CORPORATION ZIP CODE 15213			
BOTHNER-BY, AKSEL A.....	NMR FACILITY FOR BIOMEDICAL STUDIES.....	5P41 RR00292-15	178,778
ORGANIZATION TOTAL	1 178,778		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 15240			
DE RUBERTIS, FREDERICK R.....	CONTROL AND ACTIONS OF RENAL CYCLIC GMP.....	5R01 AM20187-03	24,710
DE RUBERTIS, FREDERICK R.....	CYCLIC NUCLEOTIDES IN COLONIC CARCINOGENESIS.....	5R26 CA16908-06	46,513
ORGANIZATION TOTAL	2 71,223		
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
ABOLA, JAIME E.....	X-RAY STRUCTURAL ANALYSIS OF TRANSFERRIN.....	5R01 GM23195-05	73,898
ALVIN, JOHN D.....	DISPOSITION OF PRIMIDONE DURING CHRONIC THERAPY.....	5R01 NS13437-03	34,974
AMICO, JANET A.....	ROLE OF OXYTOCIN IN HYPERTENSION.....	1R01 HL25851-01	52,524
ARMSTRONG, JOHN A.....	HERPES REACTIVATIONS AFTER CRANIAL NERVE SURGERY.....	5R01 AI15299-03	59,041
BASFORD, ROBERT E.....	REGULATION OF GLYCOLYSIS IN BRAIN.....	5R01 NS11773-05	47,701
BENTLEY, RONALD.....	BIOSYNTHESIS OF VITAMIN K.....	5R01 GM20053-16	93,817
BOGGS, DANE R.....	KINETICS AND CONTROL OF NEUTROPHILIC GRANULOCYTES.....	5R01 AM14352-12	129,449
BOGGS, DANE R.....	HEMATOPOIETIC CHIMERISM.....	5R01 HL19333-05	128,984
BROWN, THOMAS D.....	CONTACT STRESS DISTRIBUTIONS IN THE HIP AND KNEE.....	5R01 AM26010-02	50,788
BUCKINGHAM, ROBERT B.....	COLLAGEN SYNTHESIS BY THE DEREGULATED PSS FIBROBLAST.....	5R01 AM19662-03	79,913
BYRNE, JOHN H.....	ANALYSIS OF THE NEURAL CONTROL OF BEHAVIOR.....	5R01 NS13511-05	42,606
CAMPBELL, IAIN M.....	RADIOGAS CHROMATOGRAPH/QUADRUPOLE MASS SPECTROMETRY.....	5R01 GM25592-02	124,099
CAUNA, NIKOLAJS.....	FINE STRUCTURE AND CHEMISTRY OF NERVE ENDINGS.....	5R01 NS04147-17	45,010
CHAPMAN, TOBY M.....	GRAFT POLYMERS AS SUPPORTS FOR NUCLEIC ACID SYNTHESIS.....	1R01 GM26870-01A1	62,735
CHERVENICK, PAUL A.....	PROLIFERATION AND DIFFERENTIATION OF HEMATOPOIETIC CELLS.....	5R01 CA14278-07	88,286
CHIU, TEH-HSING.....	CELL ENVELOPE SYNTHESIS AND CONTROL OF ORAL MICROBES.....	5R01 DE05018-03	26,701
CHUNG, ALBERT E.....	MOUSE TERATOMA AND DERIVED CELLS STUDIES.....	5R01 CA21246-03	76,650
CHUNG, ALBERT E.....	STRUCTURE AND BIOSYNTHESIS OF AN EXTRACELLULAR MEMBRANE.....	5R01 GM25690-02	56,240
COFFEE, CAROLE J.....	STRUCTURE AND FUNCTION OF MUSCLE REGULATORY PROTEINS.....	5R01 AM16728-08	110,734
COHEN, THEODORE.....	NEW METHODS FOR SYNTHESIS AND MODIFICATION OF RINGS.....	5R01 GM22760-05	95,266
COOPER, TERRANCE G.....	SYNTHESIS AND ASSEMBLY OF ENZYMES IN EUKARYOTES.....	2R01 GM19386-09	142,319
COOPER, TERRANCE G.....	SYNTHESIS AND ASSEMBLY OF EUKARYOTIC MEMBRANES.....	5R01 GM24383-02	58,282
COREY, SHARON E.....	CENTRAL & PERIPHERAL EFFECT OF VINBLASTINE & VINCISTINE.....	5R01 NS15421-02	29,425
CRAMER, DONALD V.....	MAJOR HISTOCOMPATIBILITY COMPLEX IN THE WILD RAT.....	5R01 CA25038-02	103,969
CRAVEN, BRYAN M.....	CHARGE DENSITY IN BARBITURATE CRYSTAL STRUCTURES.....	5R01 GM22548-19	48,741
CRAVEN, BRYAN M.....	CRYSTAL STRUCTURES OF LIPIDS: CHOLESTEROL.....	3R01 HL20350-03S1	13,493
CRAVEN, PATRICIA A.....	HEME-DEPENDENT ACTIVATION OF GUANYLATE CYCLASE.....	1R01 GM28368-01	63,100
CURTHOYS, NORMAN P.....	CHARACTERIZATION OF RAT KIDNEY GLUTAMINASE ISOENZYMES.....	5R01 AM16651-08	64,201
CURTHOYS, NORMAN P.....	RENAL METABOLISM OF GLUTATHIONE AND MERCAPTURIC ACIDS.....	1R01 AM26012-01	51,361
DAYTON, PETER G.....	CARDIOVASCULAR DYNAMICS AND ANESTHETIC DISPOSITION.....	5R01 GM27340-02	104,275
DIXIT, BALWANT N.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RRO5455-17	22,950
DOWD, PAUL.....	SYNTHESIS OF VITAMIN B12 MODELS.....	5R01 GM19906-04	59,354
EDMONDS, MARY P.....	BIOGENESIS OF MESSENGER RNA IN ANIMAL CELLS.....	5R01 CA18065-05	129,652
EDMONDS, MARY P.....	BIOGENESIS OF MESSENGER RNA.....	2R01 CA18065-06	113,001
EPSTEIN, LEONARD H.....	HOME-BASED BEHAVIORAL PROGRAM FOR OBESE CHILDREN.....	5R01 HD12520-02	94,694
FEINGOLD, DAVID S.....	MECHANISM OF CAPSULE SYNTHESIS BY PSEUDOMONAS AERUGINOSA.....	1R01 AI16993-01	50,554
FEINGOLD, DAVID S.....	STUDIES OF UDP GLUCOSE DEHYDROGENASE.....	5R01 AM15332-08	69,171
FISHER, BERNARD.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP) HEADQUARTERS.....	2R10 CA12027-09	591,431
FISHER, BERNARD.....	PRIMARY BREAST CANCER THERAPY GROUP (NSABP).....	2R10 CA12028-09	103,586
FISHER, BERNARD.....	SURGICAL MANAGEMENT OF THE REGIONAL LYMPH NODE.....	3R01 CA12102-09S1	34,232

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
FISHER, BERNARD	EFFECT OF REMOVAL OF PRIMARY TUMOR	5R01 CA14972-07	94,562
FISHER, BERNARD	THERAPY EFFECTS ON TUMOR KINETICS & IMMUNE PARAMETERS	5R01 CA26004-02	88,633
FORREST, EDWARD J.	INTERDISCIPLINARY STUDIES: CLEFTS AND OTHER ANOMALIES	5P01 DE01697-18	204,234
FORREST, EDWARD J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05338-19	19,480
FUCHS, FRANKLIN	ANALYSIS OF CELLULAR CALCIUM COMPARTMENTS IN MUSCLE	5R01 AM10551-15	38,391
GAY, VERNON L.	NEGATIVE FEEDBACK OF STEROIDS ON LH AND FSH IN RATS	5R01 HD11102-03	46,230
GILL, THOMAS J. III	CHEMICAL GENETIC AND CELLULAR ASPECTS OF IMMUNOGENICITY	5R01 CA18659-09	100,606
GILL, THOMAS J. III	MATERNAL-FETAL INTERACTIONS AND THE IMMUNE RESPONSE	2R01 HD08662-06A1	127,163
GILL, THOMAS J. III	IMMUNOLOGICAL ASPECTS OF PREGNANCY IN HUMANS	2R01 HD09880-04A1	121,317
GLEW, ROBERT H.	GAUCHER'S DISEASE—ENZYMOLGY AND APPROACH TO THERAPY	5R01 AM17465-07	69,811
GLEW, ROBERT H.	ALPHA-1-ANTITRYPSIN: STRUCTURE AND BIOSYNTHESIS	1R01 AM26916-01	78,100
GRIFFIN, HERSCHEL E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05451-19	56,489
GRUNDY, BETTY L.	EFFECTS OF ANESTHETICS ON CORTICAL EVOKED POTENTIALS	5R23 GM27942-02	43,956
HALL, RICHARD W. JR.	IMPLEMENTATION OF VISUAL INFORMATION PROCESSING	5R23 EY02457-03	14,800
HENDRIX, ROGER W.	ASSEMBLY AND STRUCTURE OF BACTERIOPHAGE LAMBDA HEADS	5R01 AI12227-06	73,132
HO, MONTO	LATENCY AND REACTION OF CYTOMEGALOVIRUS INFECTION	5R01 AI11798-08	98,042
HOFFEE, PATRICIA A.	DR-5-P ALDOLASE: REGULATION AND MECHANISM OF ACTION	5R01 AM12152-13	64,246
HOFFEE, PATRICIA A.	REGULATION OF PENTOSE METABOLISM IN LIVER CELLS	5R01 AM21758-03	82,301
HOFMANN, KLAUS H.	HORMONAL CONTROL OF THE ADRENOCORTICAL CELL	5R01 AM01128-25	223,826
HOFMANN, KLAUS H.	A NOVEL APPROACH TO INSULIN-RECEPTOR AFFINITY COLUMNS	5R01 AM21292-03	35,243
HOTCHKISS, JULANE	PUBERTAL CHANGES IN ESTRADIOL METABOLISM IN PRIMATES	1R01 HD14166-01	71,798
HUNG, TING-CHENG	STUDY OF LEUKOCYTE DEGRADATION CHARACTERISTICS	1R01 HL25814-01	43,026
JANNETTA, PETER J.	EXPERIMENTAL MODEL OF NEUROGENIC HYPERTENSION	5R01 HL24097-02	100,937
JEFFREY, GEORGE A.	STRUCTURAL STUDIES OF CARBOHYDRATES	5R01 GM24526-03	93,411
JOYCE, ROBERT A.	LITHIUM EFFECTS ON HEMOPOIETIC STEM CELLS	1R01 CA28179-01	73,729
KAPLAN, SANDRA S.	PLATELET LEUKOCYTE INTERACTIONS IN HOST DEFENSE	5R01 AI14218-03	66,871
KAROL, MERYL H.	RESPIRATORY ANAPHYLAXIS TO INDUSTRIAL CHEMICALS	2R01 ES01532-04	75,072
KATYAL, SIKANDAR I.	RESPIRATORY DISTRESS SYNDROME: AN EXPERIMENTAL MODEL	5R01 HL17199-03	79,134
KELLY, MARTIN J.	THE REGULATION OF NEURONAL EXCITABILITY BY ESTROGENS	1R01 NS16419-01	113,692
KNOBIL, ERNST	REPRODUCTIVE PHYSIOLOGY IN THE MACAQUE	2R01 HD03968-20	120,242
KNOBIL, ERNST	CENTER FOR RESEARCH IN PRIMATE REPRODUCTION	5P50 HD08610-07	837,854
KOVACS, MARIA	DEPRESSION IN NEWLY DIAGNOSED JUVENILE DIABETICS	5R01 AM25568-02	125,858
KOZAK, MARILYN S.	ANALYSIS OF REOVIRUS MRNA RIBOSOME BINDING SITES	3R01 AI16634-01S1	28,795
KOZAK, MARILYN S.	ANALYSIS OF REOVIRUS MRNA RIBOSOME BINDING SITES	5R01 AI16634-02	61,978
KOZIKOWSKI, ALAN P.	SYNTHESIS OF THE ANTIBIOTIC PSEUDOMONIC ACID A	5R01 AI16138-02	36,771
KOZIKOWSKI, ALAN P.	SYNTHESIS OF MODIFIED C-NUCLEOSIDES	5R01 CA22612-03	53,110
KOZIKOWSKI, ALAN P.	SYNTHESIS OF THERAPEUTICALLY IMPORTANT ALKALOIDS	2R01 HL20579-04	79,180
KULLER, LEWIS H.	RELATIONSHIP BETWEEN CHOLECYSTECTOMY AND ASCENDING COLON	5R01 CA24739-03	45,513
KULLER, LEWIS H.	SYSTOLIC HYPERTENSION IN THE ELDERLY	1R01 HL23924-01A1	263,610
LAUFFER, MAX A.	INTERACTIONS OF TOBACCO MOSAIC VIRUS AND ITS COMPONENTS	2R01 GM21619-06	94,328
LEON, DONALD F.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00056-19	792,040
LEON, DONALD F.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05416-19	195,787
LEVY, GERALD S.	STUDIES OF MYOCARDIAL ADENYL CYCLASE	2R01 HL25405-02	170,878
LEWIS, JESSICA H.	BLOOD COAGULATION AND HEMORRHAGIC DISEASE	5R01 HL02254-25	84,317
LIEBERMAN, IRVING	MECHANISMS OF CONTROL OF MAMMALIAN CELL MULTIPLICATION	5R01 CA06663-19	104,130
LOMBARDI, BENITO	ACUTE HEMORRHAGIC PANCREATITIS WITH FAT NECROSIS	5R01 AM18664-05	90,644
LOMBARDI, BENITO	PROTEINASE INHIBITORS AND PATHOGENESIS OF PANCREATITIS	2R01 AM20706-03	61,419
LOMBARDI, BENITO	CHOLINE DEFICIENCY, OVAL CELLS AND HEPATOCARCINOGENESIS	5R01 CA23449-03	86,767
MATTHEWS, KAREN A.	ANTECEDENTS OF THE TYPE A BEHAVIOR PATTERN	1R01 HL25767-01	59,082
MC CLURE, RICHARD J.	CRYSTAL STRUCTURAL STUDIES OF SERUM ALBUMIN	5R01 GM21164-07	66,259
MC MANUS, IVY R.	PROTEIN METHYLATION REACTIONS IN SKELETAL MUSCLE	5R01 AM21599-02	63,781
MEARS, DANA C.	WEAR PARTICLE ANALYSIS IN HUMAN ARTIFICIAL JOINTS	5R01 AM20697-03	58,242
MERLIE, JOHN P.	THE MOLECULAR AND CELL BIOLOGY OF THE ACH-RECEPTOR	5R01 NS14640-03	38,409
MILLER, RANDOLPH A.	NEW COMPUTER-BASED PATIENT CASE SIMULATOR	1R23 LM03589-01	45,206
MOOSSY, JOHN	TWELFTH PRINCETON CONFERENCE ON CEREBROVASCULAR DISEASE	3R13 NS15406-01S1	38,446
MOOSSY, JOHN	TWELFTH PRINCETON CONFERENCE ON CEREBROVASCULAR DISEASE	5R13 NS15406-02	5,754
MOOSSY, JOHN	TWELFTH PRINCETON CONFERENCE ON CEREBROVASCULAR DISEASE	1R13 NS15612-01	24,200
NAKADA, DAISUKE	CONTROL OF PLASMID REPLICATION	1R01 GM28137-01	72,419
NAKADA, DAISUKE	T7 PHAGE GENE 2 AND THE HOST RNA POLYMERASE	1R01 GM28169-01	82,110
ONTELL, MARCIA B.	MUSCLE SATELLITE CELL REACTION TO DISEASE AND TRAUMA	5R01 NS13688-05	64,832
OVE, PETER	CONTROL OF DNA REPLICATION IN NORMAL AND TUMOR CELLS	3R01 CA11637-09S1	15,456

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
PASCULLE, A WILLIAM	PATHOBIOLOGY OF THE PITTSBURGH PNEUMONIA AGENT	1R01 AI17047-01	115,045
PHILLIPS, BRUCE A	ROLE OF VIRAL AND CELL FUNCTIONS IN VIRUS REPLICATION	5R01 AI08358-13	71,807
PLANT, TONY M	THE ONTOGENY OF GONADOTROPIN SECRETION IN THE MONKEY	1R01 HD13254-01A1	71,258
POLVERINI, PETER J	MECHANISMS INVOLVED IN TUMOR NEOVASCULARIZATION	3R23 CA24104-02S1	2,615
POPLE, HARRY E	INTERNIST: A COMPUTER-BASED DIAGNOSTIC CONSULTANT	1R01 LM03710-01	205,318
POPLE, HARRY E	CLINICAL DECISION SYSTEMS RESEARCH RESOURCE	2R24 RR01101-04	553,490
PULSINELLI, PHILLIP D	STRUCTURAL BASIS OF REGULATORY FUNCTION IN HEMOGLOBIN	5R01 AM18065-05	35,015
RABIN, BRUCE S	IMMUNOLOGIC STUDY OF EXPERIMENTAL ULCERATIVE COLITIS	5R01 AM18321-06	72,956
REBEK, JULIUS, JR	A NEW TEST FOR REACTIVE INTERMEDIATES	5R01 GM23709-04	67,696
REBEK, JULIUS, JR	ENZYME CATALYSIS & REACTION MECHANISMS	5R01 GM25912-02	74,178
REBEK, JULIUS, JR	NEW EPOXIDATION REAGENTS	1R01 GM27932-01	62,479
RINALDO, CHARLES R, JR	CELL MEDIATED IMMUNITY DURING CYTOMEGALOVIRUS INFECTION	5R01 AI16212-02	61,368
ROBINSON, ALAN G	THE PHYSIOLOGY OF NEUROPHYSIN SECRETION	5R01 AM16166-07	74,808
ROSENBERG, JEROME L	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07084-15	137,217
ROSENBURG, JOHN M	STRUCTURE AND FUNCTION OF ECORI ENDONUCLEASE	5R01 GM25671-03	56,218
ROWLAND, NEIL E	COUPLING OF FOOD INTAKE TO ENERGY EXPENDITURE	1R01 AM26231-01	33,298
RUSSELL, RICHARD L	GENETIC, BIOCHEMICAL AND DIETARY PROBES OF AGING	5R01 AG01154-03	53,419
RUSSELL, RICHARD L	GENETIC VARIANTS OF SYNAPTIC PROTEINS	5R01 NS13749-04	74,707
SAFAR, PETER	CLINICAL STUDY OF BRAIN RESUSCITATION	5R01 NS15295-02	237,391
SALVIN, SAMUEL B	IMMUNITY TO OPPORTUNISTIC FUNGUS INFECTIONS	5R01 AI16046-02	93,086
SALVIN, SAMUEL B	DIABETES: CELL-MEDIATED IMMUNITY AND INFECTION	5R01 AM27727-01	75,764
SANDLER, RIVKA B	LIFE STYLES AND BONE DENSITIES OF THE AGED	5R01 AM21190-02	122,029
SASSOUNI, VIKEN	INFLUENCE OF ALLERGIC RHINITIS ON FACIAL TYPE	5R01 DE04948-03	33,199
SAX, MARTIN	CRYSTAL STRUCTURE OF M-COMPONENTS	5R01 AM18827-05	126,686
SCHACHTER, JOSEPH	EPIDEMIOLOGY OF BLOOD PRESSURE IN CHILDREN	2R01 HL19864-04A1	168,784
SHAPIRO, ALVIN P	BEHAVIORAL CONSEQUENCES OF HYPERTENSION	5R01 HL20724-03	95,724
SHINOZUKA, HISASHI	CELLULAR FUNCTION ANALYSIS OF PANCREATIC CARCINOGENESIS	5R26 CA20116-05	52,628
SHINOZUKA, HISASHI	DIET MODIFICATION & PROMOTION OF LIVER CARCINOGENESIS	5R01 CA26556-02	91,587
SINGH, GURMUKH	IMMUNODIAGNOSIS OF MESOTHELIOMA	5R01 CA27081-02	42,350
SMITH, M SUSAN	CONTROL OF GONADOTROPIN SECRETION DURING LACTATION	7R01 HD14643-01	36,267
SMITH, M SUSAN	CONTROL OF GONADOTROPIN SECRETION DURING LACTATION	5R01 HD14643-02	58,569
STEVENS, CHARLES L	THE INITIAL STAGES OF PROTEIN SELF-ASSOCIATION	5R01 GM22558-05	66,678
STOUT, CHARLES D	CRYSTAL STRUCTURES OF AZOTOBACTER PROTEINS	5R01 GM17724-03	72,851
SUSSMAN, RAQUEL	REPRESSORS CONTROLLING RADIATION-INDUCIBLE SYSTEMS	2R01 AI13415-03	80,018
VAUGHAN, MAURICE H, JR	METABOLISM OF ANIMAL CELL RIBOSOMES	2R01 CA10922-10A1	84,179
VEGA, ARTHUR	NEUROPSYCHOLOGICAL CORRELATES OF JUVENILE DIABETES	1R01 AM26069-01	55,703
VERBIN, ROBERT S	CLINICAL CANCER EDUCATION GRANT	5R25 CA22547-03	29,594
VIRJI, MOHAMED A	ISLET PLASMINOGEN ACTIVATOR AND INSULIN BIOSYNTHESIS	1R23 AM27306-01	43,106
WALSH, CHARLES J	GENE REGULATION DURING DIFFERENTIATION OF NAEGLERIA	2R01 GM23516-04	105,363
WANG, BI-CHENG	STUDY OF NEUROPHYSIN-HORMONE SYSTEMS: X-RAY DIFFRACTION	5R01 AM25447-02	49,485
WEBER, STEPHEN G	CATALYTIC PHOTOELECTROCHEMICAL IMMUNOASSAY	1R01 GM28112-01	57,880
WHITESIDE, THERESA L	STUDIES OF THE PATHOGENESIS OF SCLERODERMA	1R01 AM24019-01A1	69,131
WIDNELL, CHRISTOPHER C	MEMBRANE FUNCTION IN AGING AND DEVELOPMENT	5R01 AG00439-09	90,006
WIDNELL, CHRISTOPHER C	NEW INITIATIVE IN THE BIOLOGY OF AGING	5R21 AG01453-02	88,791
WIDNELL, CHRISTOPHER C	PLASMA MEMBRANE STRUCTURE, FUNCTION AND BIOGENESIS	5R01 GM17724-10	102,747
WINGARD, LEMUEL B, JR	ENZYMATIC GLUCOSE SENSOR: IN VITRO FUNDAMENTALS	1R01 AM26370-01	91,762
WONG, LAN K	A COMPARATIVE METABOLISM STUDY OF PAH ANALOGUES	5R23 CA27928-02	37,000
YOUNGNER, JULIUS S	STUDIES OF CELLULAR RESISTANCE TO VIRUS INFECTIONS	5R01 AI06264-17	178,616
ZIGMOND, MICHAEL J	RECOVERY OF FUNCTION IN AMINERGIC NEURONAL SYSTEMS	9R01 NS16359-10	82,360
ORGANIZATION TOTAL	150	14,235,442	

SWARTHMORE

SWARTHMORE COLLEGE ZIP CODE 19081

GILBERT, SCOTT F	IMMUNOLOGICAL PROBES OF DEVELOPMENTAL PROCESSES	1R01 HD15032-01	26,272
ORGANIZATION TOTAL	1	26,272	

UNIVERSITY PARK

PENNSYLVANIA STATE UNIVERSITY AT UNIVERSITY PARK ZIP CODE 16802

ALLCOCK, HARRY R	POLY (ORGANOPHOSPHAZENES) FOR BIOMEDICAL USES	5R01 HL11418-11	54,472
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Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
ARONSON, NATHAN N. JR.	NORMAL AND PATHOLOGICAL LYSOSOMAL METABOLISM	5R01 AM15465-09	85,973
BENKOVIC, STEPHEN J.	PHOSPHATE ACTIVATION MECHANISMS	5R01 GM13306-15	111,048
BENKOVIC, STEPHEN J.	THE TRANSFORMYLASE ENZYMES	5R01 GM24129-04	92,535
BERNLOHR, ROBERT W.	ROLE OF CYCLIC GMP IN GROWTH REGULATION	1R01 AI16388-01	62,020
BUSKIRK, ELSWORTH R.	OBESITY AND PHYSIOLOGICAL RESPONSE TO ENVIRONMENT	5R01 AM08311-16	154,654
CAVANAGH, PETER R.	PRESSURE DISTRIBUTION UNDER THE HUMAN FOOT	1R01 AM26410-01	70,845
CORNWELL, PAUL R.	NEONATAL BRAIN DAMAGE AND VISION	5R01 NS10819-03	38,472
DEERING, REGINALD A.	DNA REPAIR IN SLIME MOLD	2R01 GM16620-11	157,459
DENO, NORMAN C.	25-HYDROXYCHOLESTEROL FROM CHOLESTEROL AND SITOSTEROL	5R01 GM25801-02	28,240
ECKHARDT, ROBERT B.	ALTITUDE ADAPTATION IN CENTRAL PERU: ANALYTIC PHASE	1R01 HL25400-01	16,107
GAY, CAROL V.	ULTRASTRUCTURAL STUDIES OF MINERALIZED TISSUES	2R01 AM20374-04	57,983
GREGG, CHRISTINE M.	LOCAL REGULATION OF VASOPRESSIN RELEASE	1R01 NS17300-01	53,151
HAMILTON, GORDON A.	A MECHANISTIC STUDY OF SOME O2 OXIDOREDUCTASES	5R01 AM13448-12	106,236
HAMILTON, GORDON A.	SOME OXIDASE CATALYZED REACTIONS INVOLVING GLYOXYLATE	1R01 GM27083-01	49,027
HAMMERSTEDT, ROY H.	THE ROLE OF THE EPIDIDYMIIS IN SPERMATOZOIA MATURATION	5R01 HD05859-09	75,974
HAMMERSTEDT, ROY H.	CHARACTERIZATION OF SPERM MEMBRANES	5R01 HD13099-02	73,228
HIBBARD, EMERSON	VISUAL RESTORATION	5R01 EY01071-08	61,951
HOLLIS, THEODORE M.	SHEAR TO AORTIC HISTAMINE SYNTHESIS AND PERMEABILITY	3R01 HL19830-03S1	2,805
HORROCKS, WILLIAM D. JR.	NEW LANTHANIDE PROBES OF PROTEIN STRUCTURE	2R01 GM23599-04	75,404
HULTSCH, DAVID F.	COMPREHENSION AND MEMORY FOR TEXT IN ADULTHOOD AND AGING	5R01 AG00910-02	86,808
HYMER, WESLEY C.	PROLACTIN CELL FUNCTION IN BREAST CANCER	5R01 CA23248-03	100,654
JOHNSON, KENNETH A.	KINETIC ANALYSIS OF THE DYNEIN ATPASE MECHANISM	5R01 GM26726-02	53,369
LANG, I. GEORGE	MOSSBAUER STUDIES OF RESPIRATORY HEMOPROTEINS	2R01 HL16860-07	113,567
LEIBOWITZ, HERSCHEL W.	ANALYTIC STUDIES OF VISUAL PERCEPTION	5R01 EY03276-17	57,463
LUDWIG, ERNEST H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07082-15	144,554
MACKEEN, PATRICIA C.	EXERCISE INTERVENTION IN OLDER MEN: 10-YEAR FOLLOW-UP	5R01 HL23385-02	44,540
MASTRO, ANDREA M.	EFFECTS OF PHORBOL ESTERS ON LYMPHOCYTE STIMULATION	3R01 CA24385-02S1	10,795
MASTRO, ANDREA M.	PHOSPHORYLATION OF CELL SURFACES	5R01 GM22953-05	70,978
MATTHEWS, CHARLES R.	REVERSIBLE UNFOLDING OF NATIVE AND MUTANT PROTEINS	5R01 GM23303-05	67,056
MATTHEWS, CHARLES R.	CHEMICAL TRAPPING OF INTERMEDIATES IN PROTEIN FOLDING	5R01 GM24570-03	37,261
MC CARL, RICHARD L.	EFFECT OF AGING ON BEATING HEART CELLS IN CULTURE	3R01 HL10018-12S1	4,448
MC DONEL, JAMES L.	MECHANISM OF ACTION OF C. PERRINGENS ENTEROTOXIN	2R01 AI14161-04	80,446
OLOFSON, ROY A.	NEW, PHARMACEUTICALLY USEFUL SYNTHETIC METHODS	5R01 GM13980-14	48,885
PERSON, STANLEY	THE MECHANISM OF VIRUS-INDUCED CELL FUSION	2R01 AI11513-07	118,093
PHILLIPS, ALLEN T.	COVALENT MODIFICATIONS REGULATING ENZYME FUNCTION	5R01 AM13198-12	87,193
PORTER, RONALD D.	EFFECTS OF DNA SUBSTRATES ON RECOMBINATION IN E. COLI	5R01 GM26422-02	56,394
RHEUBEN, MARY B.	SYNAPSE FUNCTION DURING GROWTH AND DEGENERATION	2R01 NS13700-04	9,370
SCHLEGEL, ROBERT A.	CONTROL OF PROLIFERATION IN HUMAN DIPLOID FIBROBLASTS	5R01 GM25650-03	46,672
SCHLEGEL, ROBERT A.	HISTONE H5 AND CHROMATIN STRUCTURE	1R01 GM27591-01	49,005
SCHRAER, HARALD	CELLULAR AND MOLECULAR ASPECTS OF MINERALIZATION	5R01 DE04345-05	84,518
SHAMMA, MAURICE	ISOLATION AND SYNTHESIS OF ANTICANCER DRUGS	5R01 CA11450-10	68,045
SHAMMA, MAURICE	THE DEVELOPMENT OF ANTICONVULSANT COMPOUNDS	5R01 NS15437-02	33,198
SHUNG, K. KIRK	INSTRUMENTATION FOR SICKLE CELL ANALYSIS	1R01 HL26871-01	49,430
SNIPES, WALLACE C.	THE DAMAGE AND REPAIR OF CELLULAR MEMBRANES	1R01 GM28215-01	55,286
TAYLOR, WILLIAM D.	CARCINOGENESIS & CELL EXTRACTS REACTION WITH RF-DNA	5R01 CA18970-05	79,489
TERSIAK, DANIEL R.	GUANIDINE RESISTANT DI PARTICLES OF POLIOVIRUS	1R01 AI16932-01	67,183
TODD, PAUL W.	ELECTROPHORETIC SEPARATION OF GAMMA-IRRADIATED CELLS	5R01 CA24090-02	57,294
TODD, PAUL W.	BIOPHYSICAL PROBES FOR MALIGNANT CELLS	1R01 CA28724-01	74,128
TURPEN, JAMES B.	DEVELOPMENTAL ANALYSIS OF HEMATOPOIESIS	2R01 HD11179-04	52,645
ULTMAN, JAMES S.	BOLUS-RESPONSE MEASUREMENT OF LUNG FUNCTION	5R01 HL20347-04	61,199
VILLAFRANCA, JOSEPH J.	REGULATION OF CARBAMYL PHOSPHATE BIOSYNTHESIS	5R01 AM21785-03	42,755
VILLAFRANCA, JOSEPH J.	STRUCTURE AND CONTROL OF GLUTAMINE SYNTHETASES	2R01 GM23529-04	83,566
VILLAFRANCA, JOSEPH J.	STRUCTURE-FUNCTION RELATIONSHIP IN ALLOSTERIC ENZYMES	5P41 GM27525-02	16,523
WANGSNESS, P. J.	IMPORTANCE OF SERUM ANABOLIC FACTORS IN GROWTH	5R01 HD11121-03	61,259
WEDLER, FREDERICK C.	CATALYTIC AND REGULATORY MECHANISMS OF KEY ENZYMES	2R01 GM26582-03	68,026
WEINREB, STEVEN M.	CHEMICAL STUDIES ON POTENTIAL ANTITUMOR AGENTS	2R01 CA25145-03	82,550
WEINREB, STEVEN M.	SYNTHESIS OF THE CYTOCHALASINS	5R01 GM26138-03	67,501
WILLIS, SHERRY L.	COGNITIVE DEVELOPMENT AND MODIFIABILITY IN ADULTHOOD	5R01 AG00403-05	104,036
ORGANIZATION TOTAL	59 3,923,766		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
PENNSYLVANIA—Continued			
VILLANOVA			
VILLANOVA UNIVERSITY	ZIP CODE 19085		
WARD, INGEBORG L.....	EFFECTS OF PREPUBERTAL STRESS ON ADULT SEXUAL BEHAVIOR.....	5R01 HD04688-10	56,443
ORGANIZATION TOTAL	1	56,443	
STATE TOTAL	1,105	134,399,899	
RHODE ISLAND			
KINGSTON			
GORDON RESEARCH CONFERENCES	ZIP CODE 02881		
BAINTON, DOROTHY F.....	GORDON CONFERENCE ON LYSOSOMES.....	1R13 GM27981-01	8,000
BECKER, FREDERICK F.....	GORDON RESEARCH CONFERENCE ON CANCER, 1980.....	1R13 CA28908-01	12,000
BRAIN, JOSEPH D.....	CONFERENCE ON NON-VENTILATORY FUNCTIONS OF THE LUNGS.....	1R13 HL25554-01	8,775
CRUICKSHANK, ALEXANDER M.....	GORDON RESEARCH CONFERENCE ON THE BIOLOGY OF AGING.....	2R13 AG01360-02	17,437
HOROWICZ, PAUL.....	GORDON CONFERENCE ON CONTROL OF MUSCLE CONTRACTION.....	1R13 NS16234-01	12,240
MOW, VAN C.....	GORDON CONFERENCE: BIOENGINEERING & ORTHOPEDIC SCIENCES.....	1R13 AM27125-01	3,500
PARKS, ROBERT E. JR.....	CHEMOTHERAPY OF CLINICAL & EXPERIMENTAL CANCER.....	2R13 CA26648-02	13,466
POTTER, NORMAN N.....	1980 GORDON RESEARCH CONFERENCE ON FOOD AND NUTRITION.....	1R13 AG02119-01	2,000
STRAUSS, BERNARD S.....	GORDON CONFERENCE ON MUTAGENESIS AND CARCINOGENESIS.....	1R13 CA28113-01	3,000
ORGANIZATION TOTAL	9	80,418	
UNIVERSITY OF RHODE ISLAND	ZIP CODE 02881		
ABUSHANAB, ELIE.....	CHIRAL SYNTHESIS OF ADENOSINE DEAMINASE INHIBITORS.....	5R01 CA24885-02	67,190
BELL, ROBERT G.....	MECHANISM OF ACTION OF VITAMIN K AND ANTICOAGULANTS.....	5R01 HL14847-09	44,731
BROWN, PHYLLIS R.....	HPLC STUDY OF SERUM NUCLEOSIDES AND BASES.....	5R01 CA17603-06	50,093
COHEN, PAUL S.....	MOLECULAR BASIS OF E COLI COLONIZATION.....	1R01 AI16370-01	62,440
DAIN, JOEL A.....	THE ENZYMIC METABOLISM OF GANGLIOSIDE DURING DEVELOPMENT.....	5R01 NS05104-15	36,010
DE FEO, JOHN J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05777-03	19,794
GOLDSMITH, MARIAN R.....	ORGANIZATION AND EXPRESSION OF A MULTIGENE FAMILY.....	7R01 GM29252-01	68,903
GOODMAN, LEON.....	DISACCHARIDE ANALOGS AS ENZYME INDUCERS.....	5R01 AM20219-02	53,839
GREENE, DOUGLAS S.....	PHARMACOLOGY OF LEUCOVORIN IN CANCER CHEMOTHERAPY.....	5R01 CA25312-02	30,019
LAUX, DAVID C.....	LECTIN-DEPENDENT CELL-MEDIATED CYTOTOXICITY.....	5R01 CA24335-02	35,362
SHIMIZU, YUZURU.....	BIOSYNTHESIS OF MARINE NATURAL PRODUCTS.....	5R01 GM24425-02	65,404
SHIMIZU, YUZURU.....	DELETERIOUS MICROALGAL TOXINS.....	9R01 GM28754-07	81,661
STEPANISHEN, PETER R.....	WIDE BANDWIDTH DIAGNOSTIC ULTRASONIC SYSTEMS.....	5R01 GM23104-04	42,810
TREMBLAY, GEORGE C.....	AMMONIA DETOXIFICATION IN THE FATTY LIVER.....	5R01 AM26166-02	49,217
TURCOTTE, JOSEPH G.....	SYNTHESIS OF ANTITUMOR LIPONUCLEOTIDES.....	5R01 CA15898-06	57,284
TURCOTTE, JOSEPH G.....	DEVELOPMENT OF ANTIHYPERTENSIVE RENIN INHIBITORS.....	2R01 HL13587-07	103,406
WOOD, NORRIS P.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07086-04	18,217
ORGANIZATION TOTAL	17	886,380	
PAWTUCKET			
MEMORIAL HOSPITAL	ZIP CODE 02860		
CARLETON, RICHARD A.....	PAWTUCKET HEART HEALTH PROGRAM.....	1R01 HL23629-01A1	869,891
HOPPIN, FREDERIC G. JR.....	MECHANISMS OF LUNG RECOIL.....	1R01 HL26863-01	89,315
STEINER, MANFRED.....	PLATELET MICROTUBULES.....	2R01 HL19323-05	54,387
STEINER, MANFRED.....	STUDIES OF THE EFFECT OF VITAMIN E ON PLATELETS.....	5R01 HL22951-03	42,596
ORGANIZATION TOTAL	4	1,056,189	
PROVIDENCE			
BROWN UNIVERSITY	ZIP CODE 02912		
BLUMSTEIN, SHEILA E.....	ACOUSTIC AND PERCEPTUAL INVARIANCE IN SPEECH.....	5R01 NS15123-02	59,183
CANE, DAVID E.....	BIOSYNTHESIS OF ANTIBIOTIC NATURAL PRODUCTS.....	2R01 GM22172-06	102,560

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
RHODE ISLAND—Continued			
CHA, SUNGMAN	TIGHT-BINDING INHIBITORS OF ENZYMES	5R01 CA24982-02	54,899
CHAPMAN, KENT M.	SENSORY TRANSDUCTION IN CARDIAC MECHANORECEPTORS	3R01 HL19995-03S1	13,157
CLAPP, CHARLES H.	MECHANISM AND INHIBITION OF ALIPHATIC HYDROXYLASES	1R01 GM28347-01	69,627
COLEMAN, JOHN R.	CONTROL OF PHENOTYPIC EXPRESSION IN SKELETAL MUSCLE	5R01 GM24499-02	41,897
CSERR, HELEN F.	THE FUNCTIONAL SIGNIFICANCE OF CEREBROSPINAL FLUID	5R01 NS11050-08	97,859
CZECH, MICHAEL P.	INSULIN ACTION ON THE FAT CELL SURFACE MEMBRANE	5R01 AM17893-07	125,130
CZECH, MICHAEL P.	PROPERTIES OF THE HIGH-AFFINITY INSULIN RECEPTOR	1R01 AM27027-01	67,741
DAHLBERG, ALBERT E.	POLYSOMES & SUBUNITS: STRUCTURE-FUNCTION RELATIONSHIPS	3R01 GM19756-08S1	8,916
DAHLBERG, ALBERT E.	POLYSOMES & SUBUNITS: STRUCTURE-FUNCTION RELATIONSHIPS	2R01 GM19756-09	130,069
DANIELS, JERRY D.	BINOCULAR VISION: INTERACTIONS ON AREA 18 NEURONS	5R01 EY02244-03	50,944
DETTMAN, GERALDINE L.	TUMOR IMAGING USING 99mTc AND 111 IN-LABELED LEUKOCYTES	7R01 CA28641-01	53,626
EBNER, FORD F.	STRUCTURE AND FUNCTION OF SOMATIC SENSORY-MOTOR CORTEX	5R01 NS13031-05	72,874
EIMAS, PETER D.	DEVELOPMENTAL STUDIES OF SPEECH PERCEPTION	5R01 HD05331-11	81,872
FAIN, JOHN N.	HORMONAL CONTROL OF LIPID METABOLISM	5R01 AM10149-15	118,120
FAIN, JOHN N.	INSULIN AND CATECHOLAMINE IN CARBOHYDRATE METABOLISM	5R01 AM21470-03	101,285
FAUSTO, NELSON	GENE EXPRESSION IN REGENERATING AND NEOPLASTIC LIVERS	2R01 CA23226-10	162,698
GALLETTI, PIERRE M.	DIABETES PREGNANCY: EFFECTS ON MOTHER & HER OFFSPRING	5P50 HD11343-03	608,242
GALLETTI, PIERRE M.	SYNTHESIS OF ARTIFICIAL LUNG AND KIDNEY SYSTEMS	5R01 HL11945-12	177,261
GALLETTI, PIERRE M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05664-13	110,816
GERBI, SUSAN A.	FINE STRUCTURE OF RIBOSOMAL RNA	5R01 GM20261-07	92,393
GERBI, SUSAN A.	STRUCTURE OF POLYTENE CHROMOSOMES	5R01 GM26070-02	101,706
GLICKSTEIN, MITCHELL	VISUAL INPUT TO THE CEREBELLUM	5R01 EY03114-02	86,406
GOLDSTEIN, LEON	RENAL AMMONIA METABOLISM	5R01 AM12443-12	75,263
GOSS, RICHARD J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07085-15	88,900
JACKSON, BENJAMIN T.	ROLE OF CATECHOLAMINES IN FETAL HOMEOSTASIS	7R01 HD15449-01	120,901
JOHNSON, GARY L.	REGULATORY PROTEINS OF ADENYLATE CYCLASE	5R01 GM26776-02	71,781
KIDWELL, MARGARET G.	GENETIC ASPECTS OF HYBRID DYSGENESIS IN DROSOPHILA	5R01 GM25399-02	62,776
LANDY, ARTHUR	MECHANISMS OF SITE-SPECIFIC RECOMBINATION	2R01 AI13544-04	130,859
LANDY, ARTHUR	CONTROL OF SYNTHESIS AND FUNCTION OF NUCLEIC ACID	9R01 GM27861-12	115,716
LEITH, JOHN T.	HEAT AND RADIATION EFFECTS ON NORMAL AND TUMOR CELLS	5R01 CA25687-03	66,399
LENT, CHARLES M.	MONOAMINE NEURONS IN THE CENTRAL NERVOUS SYSTEM	2R01 NS14482-02	43,072
LIEBERMAN, PHILIP	DEVELOPMENTAL STUDIES OF SPEECH PRODUCTION	5R01 HD09197-06	78,468
LUSK, JOAN E.	MEMBRANE PERMEABILITY OF COLICIN-TREATED CELLS	5R01 GM20171-08	65,294
MARSHALL, JEAN M.	PROPERTIES OF SMOOTH MUSCLE	5R01 HD06963-15	93,528
MC ILWAIN, JAMES T.	CORTICAL CONTROL OF SUPERIOR COLLICULUS	5R01 EY02505-08	32,610
MILLER, KENNETH R.	THE STRUCTURE OF THE PHOTOSYNTHETIC MEMBRANE	3R01 GM28799-01S1	62,210
MORTON, THOMAS H.	INACTIVATION OF SCHIFF BASE-FORMING PROTEINS	7R01 NS17109-01	56,934
PARKER, KATHLYN A.	SYNTHESIS OF HIGHLY OXYGENATED COMPOUNDS	3R01 CA16524-06S1	9,199
PARKER, KATHLYN A.	SYNTHESIS OF NAPHTHYRIDINOMYCIN	1R01 CA27118-01	64,717
PARKS, ROBERT E. JR.	COENZYMES CONTAINING PURINE AND PYRIMIDINE ANALOGS	5R01 CA07340-17	156,671
RICHARDSON, PETER D.	PLATELET ADHESION AND AGGREGATION IN A FLOW CHAMBER	5R01 HL22338-03	70,133
ROTMAN, M. BORIS	BIOCHEMICAL COMPONENTS OF A TRANSPORT SYSTEM	5R01 AM11194-13	73,969
ROTMAN, M. BORIS	RECESSIVE GENES CONTROLLING IMMUNOCOMPETENCE	5R01 CA24440-06	90,193
SCHRIER, ALLAN M.	SUPPORT FOR LABORATORY PRIMATE NEWSLETTER	5P40 RR00419-13	25,714
SHANK, PETER R.	STRUCTURE AND INTEGRATION OF AVIAN SARCOMA VIRUS DNA	5R01 CA24829-02	78,722
SHEPP, BRYAN E.	DEVELOPMENTAL STUDIES OF PERCEPTUAL ORGANIZATION	5R01 HD13406-02	74,056
SPEARE, ALDEN JR.	LONGITUDINAL STUDY OF MIGRATION AND HOUSEHOLD CHANGE	5R01 HD12329-02	62,843
WOOTEN, BILLY R.	RETINAL MOSAICISM IN FEMALES CARRYING COLOR BLINDNESS	5R01 EY01512-06	34,941
ZIMMER, BASIL G.	IMPACT OF POPULATION REDISTRIBUTION ON DAILY TRAVEL	1R01 HD13803-01	194,495
ORGANIZATION TOTAL	51 4,689,645		
BUTLER HOSPITAL ZIP CODE 02906			
HAIER, RICHARD	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05817-01	38,938
ORGANIZATION TOTAL	1 38,938		
MIRIAM HOSPITAL ZIP CODE 02906			
ABRAHAM, JOHN	ADENOSINE NUCLEOTIDES AND MYOCARDIAL PRESERVATION	1R01 HL25504-01	91,663
HOPKINS, ROBERT W.	STUDIES OF CLINICAL AND EXPERIMENTAL SHOCK	3R01 GM19930-07S1	10,278
HOPKINS, ROBERT W.	STUDIES OF CLINICAL AND EXPERIMENTAL SHOCK	5R01 GM19930-08	89,325
MORRIS, DAVID J.	THE METABOLISM AND ENDOCRINE ACTION OF ALDOSTERONE	2R01 AM19179-04A1	116,279
MORRIS, DAVID J.	REGULATION OF METABOLISM AND ACTION OF ALDOSTERONE	3R01 AM21404-01A1S1	13,224

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
RHODE ISLAND—Continued			
MORRIS, DAVID J.....	REGULATION OF METABOLISM AND ACTION OF ALDOSTERONE.....	5R01 AM21404-02	114,458
SHULMAN, RICHARD S.....	LIPIDS AND LIPOPROTEINS IN MYOCARDIAL INFARCTION.....	1R01 HL23789-01A1	188,059
ZACKS, SUMNER I.....	EFFECT OF AGING ON REGENERATION OF SKELETAL MUSCLE.....	5R01 AG00961-03	58,662
ZACKS, SUMNER I.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05818-01	13,567
ORGANIZATION TOTAL	9 695,515		
RHODE ISLAND COLLEGE ZIP CODE 02908			
GONSALVES, NEIL I.....	EYE AND LENS DEVELOPMENT IN THE ANOPHTHALMIC MOUSE.....	5R01 EY02336-03	38,651
ORGANIZATION TOTAL	1 38,651		
RHODE ISLAND DEPARTMENT OF HEALTH ZIP CODE 02908			
FAICH, GERALD A.....	EPIDEMIOLOGY & CONTROL OF HOSPITAL ACQUIRED INFECTIONS.....	1R01 AI16642-01	176,290
ORGANIZATION TOTAL	1 176,290		
RHODE ISLAND HOSPITAL ZIP CODE 02902			
BEHAR, JOSE.....	SPHINCTER OF ODDI.....	1R01 AM27389-01	70,951
GLICKSMAN, ARVIN S.....	CANCER AND LEUKEMIA GROUP B RADIOTHERAPY COMMITTEE.....	5R10 CA21058-04	234,649
HAMOLSKY, MILTON W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05644-08	48,577
LEONE, LOUIS A.....	CANCER AND ACUTE LEUKEMIA GROUP B.....	5R10 CA08025-16	161,909
PUESCHEL, SIEGFRIED M.....	STUDY OF MATERNAL PHENYLKETONURIA.....	5R01 HD10420-03	71,528
ORGANIZATION TOTAL	5 587,614		
ROGER WILLIAMS GENERAL HOSPITAL ZIP CODE 02908			
CALABRESI, PAUL.....	SUPPORT FOR CLINICAL CANCER RESEARCH CENTER (CCSG) CORE.....	5P30 CA13943-08	684,927
CALABRESI, PAUL.....	CLINICAL & PHARMACOLOGICAL ANTINEOPLASMS STUDY.....	5P01 CA20892-05	480,278
CALABRESI, PAUL.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05765-06	46,030
CHU, MING Y.....	CHEMOTHERAPY RESPONSE OF HUMAN SOLID TUMOR XENOGRAFTS.....	5R01 CA25631-02	64,932
DEXTER, DANIEL L.....	DIFFERENTIATION-INDUCTION IN HUMAN COLON CANCER CELLS.....	5R26 CA23225-03	66,003
PASSERO, MICHAEL A.....	LUNG PROTEIN GLYCOSYLATION AND ALVEOLAR DISEASES.....	5R01 HL22752-02	30,249
SPREMULLI, ELLEN N.....	CHEMOTHERAPY OF A HETEROGENEOUS HUMAN COLON XENOGRAFT.....	1R01 CA26218-01A1	50,329
SUSSET, JACQUES G.....	VISCO-ELASTIC PROPERTIES OF DETRUSOR AND VESICAL NECK.....	5R01 AM26893-02	30,803
ORGANIZATION TOTAL	8 1,453,551		
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 02908			
MANIS, JAMES.....	ENVIRONMENTAL POLLUTANTS—THE INTESTINE AND NUTRITION.....	1R01 ES02622-01	44,941
ORGANIZATION TOTAL	1 44,941		
STATE TOTAL	107 9,748,132		
SOUTH CAROLINA			
AIKEN			
U.S. DEPARTMENT OF ENERGY—SAVANNAH RIVER OPERATIONS OFFICE ZIP CODE 29801			
FLIERMANS, CARL B.....	ECOLOGICAL NICHE OF LDB IN AQUATIC HABITATS.....	1R01 AI17673-01	69,578
ORGANIZATION TOTAL	1 69,578		
CHARLESTON			
MEDICAL UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29403			
AINSWORTH, STERLING K.....	STRUCTURAL BASIS OF NEPHRON FILTRATION.....	3R01 HL16490-05S1	6,325
BAGGETT, BILLY.....	ANDROGEN ACTION IN CULTURED CHICK COMB FIBROBLASTS.....	5R01 HD12181-03	37,375
BANK, HARVEY L.....	CRYOBIOLOGY OF ISOLATED ISLETS OF LANGERHANS.....	5R01 AM18115-06	66,223
BLAKE, LYNN H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05420-19	149,420
BROSTOFF, STEVEN W.....	THE ROLE OF MYELIN PROTEINS IN EXPERIMENTAL NEURITIS.....	2R01 NS11867-07	82,483
BUSE, MARIA G.....	FACTORS THAT MODIFY INSULIN ACTION.....	5R01 AM02001-23	93,470
CHAO, LEE.....	RNA POLYMERASE MEDIATED MUTAGENESIS.....	5R01 GM26689-02	35,381
CHIEN, JAW-LONG.....	GLYCOSPHINGOLIPIDS OF MUSCLE CELL MEMBRANES.....	1R01 NS16120-01	57,600
COOK, JAMES A.....	ROLE OF THROMBOXANE AND PROSTAGLANDINS IN SHOCK.....	1R01 GM27673-01	50,540

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA—Continued			
FISH, WAYNE W.....	MECHANISM OF IRON STORAGE AND MOBILIZATION BY FERRITIN.....	5R01 HL19491-05	38,752
FUDENBERG, H HUGH.....	GENETIC MECHANISMS IN IMMUNOLOGIC DEFICIENCY STATES.....	5R01 CA25746-05	112,535
FUDENBERG, H HUGH.....	GENETIC CHILDHOOD DISEASES AND AGING.....	5P01 HD09938-06	355,609
GAFFNEY, THOMAS E.....	INTERDISCIPLINARY PROGRAM IN PHARMACOLOGY/TOXICOLOGY.....	5P50 GM20387-08	585,066
GAFFNEY, THOMAS E.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR01070-04	561,062
GALBRAITH, ROBERT M.....	IMMUNOCHEMICAL STUDIES OF H-Y ANTIGEN.....	5R01 AI15371-02	48,287
GOUST, JEAN M.....	DEFECTIVE IMMUNOREGULATION IN MULTIPLE SCLEROSIS.....	1R01 NS16269-01	67,386
GRAVES, JAMES S.....	REGULATION OF NA/K TRANSPORT IN CULTURED SOMATIC CELLS.....	5R01 GM24708-03	27,540
HEMPLING, HAROLD G.....	MEGAKARYOPOIESIS IN TISSUE CULTURE.....	1R01 HL25885-01	23,373
HOGAN, EDWARD L.....	MOLECULAR PATHOBIOLOGY OF MURINE LEUCODYSTROPHY.....	2R01 NS12044-05A1	76,428
HOHN, ARNO R.....	HYPERTENSIVE PROGENY—LONGITUDINAL STUDIES.....	2R01 HL19870-05	117,827
HYNES, JOHN B.....	SYNTHESIS OF NEW ANALOGS TARGETED FOR COLON CANCER.....	5R26 CA25014-03	30,440
JOLLOW, DAVID J.....	STUDIES ON ACETAMINOPHEN-INDUCED LIVER NECROSIS.....	5R01 GM25781-02	105,949
KARAM, JIM D.....	GENETIC CONTROL OF PHAGE T4 DNA REPLICATION.....	5R01 GM18842-08	88,363
KNAPP, DANIEL R.....	GC-MS CLINICAL RESEARCH RESOURCE.....	1R24 RR01239-01	68,596
LAND, PETER W.....	GANGLION CELLS IN RAT RETINA.....	1R01 EY03447-01	52,452
LAZARCHICK, JOHN.....	INTERACTION OF FACTOR VIII AND HUMAN ANTIBODIES.....	1R01 HL26044-01	58,341
LE ROY, E CARWILE.....	STRUCTURE AND IMMUNOLOGY OF BASEMENT MEMBRANE.....	5R01 AM21554-02	85,698
LEDFORD, BARRY E.....	SERUM PROTEIN SYNTHESIS BY MOUSE HEPATOMA CELLS.....	3R01 CA17037-06S1	3,832
LEVINE, JON H.....	POLYAMINE METABOLISM IN DIABETES.....	5R01 AM21224-03	52,303
LINDENMAYER, GEORGE E.....	CALCIUM INTERACTIONS WITH MYOCARDIAL SARCOLEMMA.....	5R01 HL23802-02	74,624
LUND, JENNIFER S.....	STRUCTURAL BASIS FOR PROCESSING VISUAL INFORMATION.....	5R01 EY03321-02	117,774
LUND, RAYMOND D.....	TRANSPLANTATION STUDIES OF THE RAT VISUAL SYSTEM.....	2R01 EY03326-02	74,966
LUND, RAYMOND D.....	DEVELOPMENT AND PLASTICITY OF VISUAL CONNECTIONS.....	5R01 EY03414-02	90,493
MARGOLIUS, HARRY S.....	KALLIKREIN-KININ SYSTEM IN HYPERTENSION.....	5R01 HL17705-06	70,759
MARKS, RICHARD D, JR.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA23794-02	40,806
MC DONALD, J KEN.....	LYSOSOMAL PROTEASES OF ORAL CONNECTIVE TISSUES.....	5R01 DE04772-03	35,320
MC LOON, STEVEN C.....	NEURONAL PATTERNS IN THE DEVELOPING VISUAL SYSTEM.....	1R23 EY03314-01	12,100
METCALF, JOHN F.....	EFFECT OF CARBON DIOXIDE ON LOCAL GAS EXCHANGE.....	5R23 HL22932-03	39,098
MIDDAUGH, SUSAN J.....	ELECTROMYOGRAPHIC FEEDBACK IN MOTOR LEARNING.....	5R01 NS15249-02	38,127
MILLS, JOHN H.....	AUDITORY EFFECTS OF LONG EXPOSURE TO LOW LEVELS OF NOISE.....	5R01 ES01301-06	86,263
MORGAN, SAMUEL K.....	SOUTHWEST ONCOLOGY GROUP.....	2R10 CA16388-04A1	44,561
OGAWA, MAKIO.....	HUMAN AND MURINE HEMOPOIESIS IN CULTURE.....	5R01 AM22170-02	22,349
OGAWA, MAKIO.....	CELL CULTURE STUDIES OF HEMOGLOBINOPATHIES.....	2R01 HL20913-04	85,238
ONDO, JEROME G.....	AMINO ACID NEUROTRANSMITTERS AND REPRODUCTION.....	5R01 HD10132-05	39,992
PADDOCK, GARY V.....	GLOBIN MRNA: DETERMINATION OF REGULATING SEQUENCES.....	5R01 GM24783-03	42,274
PEROT, PHANOR L, JR.....	FUNDAMENTAL STUDIES IN SPINAL CORD INJURY.....	2P50 NS11066-07	411,465
PITTMAN, FRED E.....	STUDIES OF TISSUE TOXICITY OF ENTAMOEBIA HISTOLYTICA.....	5R01 AI12649-04	104,695
PRIEST, DAVID G.....	5-FLUOROURACIL TARGET IN EUKARYOTIC CELLS.....	2R01 CA22754-04	44,737
SCHWABE, CHRISTIAN.....	THE STRUCTURE AND FUNCTION OF RELAXIN.....	5R01 HD10540-04	33,829
SPECTOR, MYRON.....	POROUS HIGH DENSITY POLYETHYLENE TOOTH ROOTS.....	5R01 DE04414-05	80,433
SPICER, SAMUEL S.....	CELL ULTRASTRUCTURE AND FUNCTION.....	2R01 AM10956-14	95,161
SPICER, SAMUEL S.....	MORPHOCHEMICAL STUDIES, LIGHT & ELECTRON MICROSCOPY.....	3R01 AM11028-13S1	9,170
STRELKAUSKAS, ANTHONY J.....	HUMAN T CELL SUBSETS—ISOLATION WITH AUTOANTIBODY.....	5R01 AI16651-02	64,030
SWANSON, ARNOLD A.....	PROTEOLYSIS IN NORMAL AND SENILE CATARACT LENSES.....	2R01 EY00429-12	52,345
THOMAS, THOMAS N.....	NEUROBIOLOGY OF RETINAL SEROTONIN.....	1R01 EY03098-01A1	54,470
WHEELER, DARRELL D.....	AGING AND MEMBRANE TRANSPORT IN THE NERVOUS SYSTEM.....	5R01 NS12292-05	44,594
YAMAMURA, YASUHIRO.....	ROLES OF ARMED MONOCYTES IN CONTROL OF METASTASIS.....	5R01 CA28482-02	58,508
YOUNG, FRANKLIN A, JR.....	ARTIFICIAL TOOTH ROOTS.....	5R01 DE03497-08	72,090
YOUNG, FRANKLIN A, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05767-06	32,243
ORGANIZATION TOTAL	59 5,211,170		
ST. FRANCIS XAVIER HOSPITAL ZIP CODE 29401			
HAGERTY, ROBERT F.....	PIN-RETAINED PROSTHESIS WITH SURGERY IN CLEFT PALATE.....	5R01 DE04517-02	56,375
ORGANIZATION TOTAL	1 56,375		
CLEMSON			
CLEMSON UNIVERSITY ZIP CODE 29631			
ABRAMOVITCH, RUDOLPH A.....	BIOLOGICALLY ACTIVE COMPOUNDS FROM N-OXIDES AND YLIDES.....	5R01 GM25242-03	79,168

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA—Continued			
ABRAMOVITCH, RUDOLPH A.....	NOVEL SULTAMS AND LACTAMS AS POTENTIAL ANTICONVULSANTS.....	5R01 NS15605-02	42,661
HENNINGSON, ROBERT W.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07180-03	35,668
LARCOM, LYNDON L.....	BIOLOGICAL EFFECTS OF DNA-PROTEIN CROSSLINKS.....	2R01 CA21479-04	72,519
PARK, JOON B.....	IMPLANT FIXATION IN BONE BY ELECTRICAL STIMULATION.....	5R01 AM19828-04	50,597
POWELL, GARY L.....	ENZYME STRUCTURE OF ACYL-CoA BINDING SITES.....	5R01 GM22788-05	67,200
SIAS, FRED R, JR.....	EFFECT OF AGING ON HOMEOSTATIC CONTROL MECHANISMS.....	5R01 AG01794-02	51,774
VON RECUM, ANDREAS F.....	PMMA PRECOATED INTRAMEDULLARY IMPLANTS.....	5R01 AM25867-02	54,119
VON RECUM, ANDREAS F.....	HEALING OF INTESTINAL MUCOSA TO A PENETRATING CONDUIT.....	5R01 HL23646-02	51,439
VON RECUM, ANDREAS F.....	COLLAGEN—TREATED PERCUTANEOUS IMPLANTS.....	5R01 HL25438-02	75,923
YARDLEY, DARRELL G.....	THE AMYLASE SYSTEM OF DROSOPHILA PSEUDOOBSCURA.....	1R01 GM27915-01	55,659
ZIMMERMAN, JAMES K.....	SELF-ASSOCIATIONS IN COMPLEMENT AND PYRUVATE KINASE.....	5R01 GM26239-02	38,159
ORGANIZATION TOTAL	12	674,886	
COLUMBIA			
BENEDICT COLLEGE ZIP CODE 29204			
FINLAY, MARY F.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08117-07	259,551
ORGANIZATION TOTAL	1	259,551	
U.S. VETERANS ADMINISTRATION MEDICAL CENTER ZIP CODE 29201			
NANKIN, HOWARD R.....	TESTICULAR FUNCTION IN AGING MEN.....	5R01 AG01217-02	67,938
ORGANIZATION TOTAL	1	67,938	
UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA ZIP CODE 29208			
ABEL, FRANCIS L.....	ACTION OF DRUGS ON CORONARY VASCULAR RESISTANCE.....	1R01 HL23700-01A1	69,269
ABEL, FRANCIS L.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09093-02	87,650
BAYNES, JOHN W.....	ROLE OF CARBOHYDRATE IN GLYCOPROTEIN METABOLISM.....	2R01 AM19971-04	105,250
BECK, RONALD R.....	EXPERIMENTAL DIABETES IN PREGNANCY.....	5R01 HD12253-03	23,661
BORG, THOMAS K.....	DEVELOPMENT OF CARDIAC CONNECTIVE TISSUE.....	1R01 HL24935-01	55,655
BRYSON, THOMAS A.....	SYNTHESIS, ACTIVITY AND REACTIVITY OF 9-BORASTEROIDS.....	5R01 AM18802-05	49,803
BRYSON, THOMAS A.....	CYTOTOXIC SESQUITERPENE SYNTHESIS.....	5R01 GM26820-02	29,012
BURKE, STEVEN D.....	SYNTHESIS OF APHIDICOLIN, STEMODINOL, AND KHUSIMONE.....	5R01 AI16002-02	53,115
BURKE, STEVEN D.....	ANTIBIOTIC, PROSTANOID, AND STEROID TOTAL SYNTHESIS.....	1R01 GM28321-01	64,039
CAULFIELD, JAMES B.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05815-01	31,944
DAWSON, JOHN H.....	SPECTROSCOPY AND MECHANISMS OF HEME IRON OXYGENASE.....	5R01 GM26730-02	45,446
DUNLAP, R BRUCE.....	THE MECHANISM OF ACTION OF THYMIDYLATE SYNTHETASE.....	5R01 CA12642-09	58,537
ELLIS, PAUL D.....	NMR INVESTIGATIONS OF THYMIDYLATE SYNTHETASE.....	5R01 CA15645-05	69,550
ELLIS, PAUL D.....	113CD AND 77SE NMR OF SYSTEMS OF BIOLOGICAL INTEREST.....	5R01 GM26295-02	61,595
FELDER, MICHAEL R.....	REGULATION OF ENZYME LEVELS IN MOUSE HEPATOMA.....	5R01 CA16184-06	54,740
FISHER, RONALD R.....	MITOCHONDRIAL PYRIDINE DINUCLEOTIDE TRANSHYDROGENASE.....	5R01 GM22070-06	58,856
FURCHTGOTT, ERNEST.....	SPECIAL INITIATIVES GRANT FOR GERONTOLOGICAL RESEARCH.....	5R21 AG01571-02	67,288
GROSS, STEPHEN R.....	BIOCHEMISTRY OF INHERITED VARIATIONS IN DRUG RESPONSE.....	5R01 GM26153-03	45,873
JOHNSON, LEWIS D.....	STUDY OF BASEMENT MEMBRANE GLYCOPROTEIN AND COLLAGEN.....	5R01 CA27467-02	40,691
KISTLER, W STEPHEN.....	ROLE OF SPECIFIC PROTEINS IN MAMMALIAN SPERMATOGENESIS.....	2R01 HD10793-04	105,817
KISTLER, W STEPHEN.....	REGULATION OF SPECIFIC GENE PRODUCTS BY ANDROGENS.....	5R01 HD13472-02	53,576
LAWTHER, ROBERT P.....	REGULATION OF THE ILVGEDA OPERON BY ATTENUATION.....	1R01 GM28021-01	64,409
LILL, PATSY H.....	CARCINOGEN INDUCED FACILITATION OF TUMOR GROWTH.....	5R01 CA25361-02	35,876
LUFTIG, RONALD B.....	ASSEMBLY OF MURINE LEUKEMIA VIRUSES.....	5R01 CA28077-02	81,032
LUFTIG, RONALD B.....	VIRAL INTERACTION OF MICROTUBULES IN CULTURED CELLS.....	5R01 CA28078-02	156,844
MACON, A R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07160-05	65,912
MARSHALL, JAMES A.....	SYNTHESIS OF TUMOR INHIBITORY COMPOUNDS.....	7R01 CA29559-01	53,537
MAYER, EUGENE P.....	BACTERIAL ADHERENCE AS A PROBE FOR LYMPHOCYTE SUBSETS.....	7R01 AI17689-01	49,040
MISHRA, NAWIN C.....	CHARACTERIZATION OF MAMMALIAN DNA POLYMERASE MUTANTS.....	1R01 GM29216-01	65,864
MORGAN, STEPHEN L.....	PYROLYSIS GC-MS OF BIOMEDICALLY IMPORTANT COMPOUNDS.....	1R01 GM27135-01	109,846
SHADE, ROBERT E.....	RENAL EXCRETORY AND ENDOCRINE RESPONSE TO VASOPRESSIN.....	1R01 HL25998-01	40,413
STALLCUP, MICHAEL R.....	STEROID HORMONE ACTION: MOLECULAR AND GENETIC STUDIES.....	1R01 GM28298-01	77,519
THOMPSON, E AUBREY, JR.....	HORMONAL CONTROL OF CELL PROLIFERATION.....	5R01 CA22394-03	43,869
THOMPSON, E AUBREY, JR.....	HORMONE EFFECTS ON PROLIFERATION OF MALIGNANT THYMOCYTES.....	5R01 CA24347-02	44,003
THORPE, SUZANNE R.....	SITES AND MECHANISMS OF PLASMA PROTEIN CATABOLISM.....	5R01 AM25373-02	53,341
WATSON, PHILIP D.....	CAPILLARY PERMEABILITY AND THE INTERSTITIAL MATRIX.....	5R01 HL24314-02	35,655

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
SOUTH CAROLINA—Continued			
WUTHIER, ROY E.....	ROLE OF MATRIX VESICLES IN CALCIFICATION.....	5R01 AM18983-05	124,047
YOCH, DUANE C.....	REGULATION OF NITROGENASE ACTIVITY.....	3R01 AI16040-01S1	383
YOCH, DUANE C.....	REGULATION OF NITROGENASE ACTIVITY.....	5R01 AI16040-02	51,658
ORGANIZATION TOTAL	39	2,384,615	
DENMARK			
VOORHEES COLLEGE ZIP CODE 29042			
GILL, TARLOK S.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08141-03	118,952
ORGANIZATION TOTAL	1	118,952	
ORANGEBURG			
SOUTH CAROLINA STATE COLLEGE ZIP CODE 29117			
DATTA-GUPTA, NIRMALENDU.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08060-10	119,809
ORGANIZATION TOTAL	1	119,809	
STATE TOTAL	116	8,962,874	
SOUTH DAKOTA			
VERMILLION			
UNIVERSITY OF SOUTH DAKOTA ZIP CODE 57069			
HOLLERMAN, CHARLES E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05421-17	16,278
MARSHALL, FINLEY D, JR.....	HOMOCARNOSINE METABOLISM IN BRAIN.....	5R01 NS06137-12	46,419
PEANASKY, ROBERT J.....	PURIFICATION OF PROTEINS WITH BIOLOGICAL ACTIVITY.....	5R01 AI10992-10	70,134
SMALL, GARY D.....	DNA METABOLISM IN EUKARYOTES.....	5R01 GM21095-06	42,324
WELTY, JOSEPH D, JR.....	AMINO ACIDS OF CONTRACTILE PROTEINS OF FAILING HEARTS.....	5R01 HL09234-15	34,638
WINDER, WILLIAM W.....	CONTROL OF LIVER GLYCOGENOLYSIS DURING EXERCISE.....	5R01 AM27107-02	30,965
ORGANIZATION TOTAL	6	240,758	
STATE TOTAL	6	240,758	
TENNESSEE			
COOKEVILLE			
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—TENNESSEE TECHNOLOGICAL UNIVERSITY ZIP CODE 38501			
ALBERS-JACKSON, BARBARA.....	LIPID METABOLISM OF NORMAL, AGING & CATARACTOUS LENS.....	1R01 EY03190-01	59,124
ORGANIZATION TOTAL	1	59,124	
JOHNSON CITY			
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—EAST TENNESSEE STATE UNIVERSITY ZIP CODE 37601			
CAMPBELL, WILLIAM F.....	TERMINAL TRANSFERASE: A PROGNOSTIC MARKER IN LEUKEMIA.....	1R01 CA28819-01	50,582
CHI, DAVID S.....	CYTOTOXIC AND SUPPRESSOR CELLS IN THE CHICKEN.....	1R23 CA30160-01	44,394
HARDER, DAVID R.....	ELECTROPHYSIOLOGY OF CEREBRAL VASCULAR SMOOTH MUSCLE.....	5R01 HL24007-02	27,212
INMAN, FRANKLIN P.....	BIOMEDICAL RESEARCH DEVELOPMENT GRANT.....	5S08 RR09171-02	57,772
KOSTRZEWA, RICHARD M.....	GROWTH AND DEVELOPMENT OF MONOAMINERGIC NEURONS.....	5R01 NS14797-04	53,188
ORGANIZATION TOTAL	5	233,148	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
KNOXVILLE			
KNOXVILLE COLLEGE	ZIP CODE 37921		
JAMES, JESSE.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08055-09	110,066
ORGANIZATION TOTAL	1 110,066		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE	ZIP CODE 37916		
ABEL, JOHN H. JR.....	COMPARTMENTALIZATION OF LUTEAL CELL FUNCTION.....	1R01 HD13525-01	75,219
ASHLEY, TERRY F.....	INVESTIGATION OF CHROMOSOMAL ORGANIZATION IN NUCLEI.....	1R01 GM28579-01	81,105
BECKER, JEFFREY M.....	PEPTIDE TRANSPORT IN MICRO-ORGANISMS.....	5R01 GM22087-06	63,857
BECKER, JEFFREY M.....	A MODERN QUANTITATIVE FLUORESCENT MICROSCOPY SYSTEM.....	5P41 GM27545-02	19,737
BRIAN, DAVID A.....	CORONAVIRUS STRUCTURE AND REPLICATION.....	2R01 AI14367-04	79,848
BROWN, ARTHUR.....	TOGAVIRUSES: CROSS PROTECTION STUDIES.....	5R22 AI14362-03	78,645
CHEN, JAMES P.....	RADIOIMMUNOASSAY OF HYPER AND HYPOCOAGULABLE STATES.....	5R01 HL20014-04	44,511
CHERTOK, ROBERT J.....	DIET AND AGE EFFECTS ON THE MIXED-FUNCTION OXIDASES.....	5R01 AG01660-02	73,940
CHILINA, ALLEN R.....	CARCINOGEN INDUCED ALTERATIONS IN GENE EXPRESSION.....	5R23 ES02215-02	38,031
CHURCHICH, JORGE E.....	BRAIN PYRIDOXAL KINASE AND P-PYRIDOXINE OXIDASE.....	1R01 GM27639-01	50,438
CLAPP, NEAL K.....	EFFECTS OF DIETARY BRAN ON COLON CANCER IN MICE.....	5R26 CA25509-02	47,475
COURTNEY, RICHARD J.....	STUDIES OF PURIFIED HERPES SIMPLEX VIRUS GLYCOPROTEINS.....	3R01 CA24564-02S1	12,809
COURTNEY, RICHARD J.....	STUDIES OF PURIFIED HERPES SIMPLEX VIRUS GLYCOPROTEINS.....	2R01 CA24564-03	60,986
COURTNEY, RICHARD J.....	HERPES SIMPLEX V-INJECTED PROTEINS & TRANSFORMED CELLS.....	1R01 CA27870-01	58,111
FARKAS, WALTER R.....	ACCUMULATION OF GUANINE DUE TO HEAVY METALS.....	2R01 ES01323-04	65,574
FARKAS, WALTER R.....	GUANYLATION OF TRNA.....	5R01 GM20546-05	60,017
FARKAS, WALTER R.....	ROLE OF DIET IN TRANSFER RNA METABOLISM.....	1R01 HD14062-01	66,014
FUHR, JOSEPH E.....	SICKLE CELL ANEMIA AND HEMOGLOBIN SYNTHESIS.....	5R01 HL23736-06	51,694
FUSON, ERNEST W.....	MODULATION OF LYMPHOCYTE CYTOLYSIS OF TUMOR CELLS.....	5R01 CA26257-02	47,554
HUANG, LEAF.....	TARGETING OF LIPOSOMES TO TUMOR CELLS.....	5R01 CA24553-02	74,509
JONES, JIMMY B.....	HEMATOPOIETIC STUDIES OF CYCLIC HEMATOPOIESIS.....	3R01 HL15647-07S1	13,396
JUNGREIS, ARTHUR M.....	PHYSIOLOGY OF MOLTING FLUID ELABORATION IN INSECTS.....	5R01 AI12779-03	64,965
KABALKA, GEORGE W.....	RAPID INCORPORATION OF RADIONUCLIDES FOR MEDICAL USE.....	5R01 GM25817-02	52,715
KENNEDY, JOHN R.....	CYSTIC FIBROSIS SERUM FACTOR AND CILIARY DYSKINESIA.....	1R01 AM28187-01	57,105
KRAUSS, STEPHEN.....	SOUTHEASTERN CANCER STUDY GROUP.....	2R10 CA13237-09	104,066
LANGE, ROBERT D.....	ERYTHROPOIETIN: IMMUNOASSAY AND CHARACTERIZATION.....	5R01 HL10567-14	92,173
LANGE, ROBERT D.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05541-15	51,650
LAWLER, JAMES E.....	CARDIAC CORRELATES OF BEHAVIORAL STRESS IN ANIMALS.....	5R01 HL19680-03	50,473
LOZZIO, BISMARCK B.....	HEREDITARILY ATHYMIC-ASPLENIC MICE: TUMOR GROWTH.....	5R01 CA18185-05	80,403
MACCABE, JEFFREY A.....	MECHANISMS IN EMBRYONIC LIMB MORPHOGENESIS.....	5R01 HD07282-07	38,256
MC DONALD, TED P.....	THROMBOPOIETIN: IMMUNOASSAY AND CHARACTERIZATION.....	5R01 HL14637-07	67,381
MILLER, ROBERT V.....	EXTRACHROMOSOMAL DNA ESTABLISHMENT IN PSEUDOMONAS.....	5R01 AI12759-02	51,186
MORIARTY, THOMAS F.....	DIRECT TECHNIQUE FOR LEFT VENTRICULAR VOLUME VS TIME.....	5R01 HL22312-02	39,662
NABELEK, ANNA K.....	PHONEME CONFUSIONS/REVERBERATION/AGE/HEARING LOSS.....	5R01 NS12035-06	89,234
NABELEK, IGOR V.....	HEARING AID DISTORTION BY AMPLITUDE COMPRESSION.....	5R01 NS12946-03	62,518
OLINS, DONALD E.....	PHYSICAL PROPERTIES OF ISOLATED NUCLEI AND CHROMOSOMES.....	5R01 GM19334-09	88,746
ROTH, L EVANS.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07088-13	87,918
ROUSE, BARRY T.....	IMMUNITY MECHANISMS IN HERPES VIRUSES INFECTIONS.....	5R01 AI14981-03	82,974
SLAGA, THOMAS J.....	POLYCYCLIC HYDROCARBON METABOLISM AND BINDING IN SKIN.....	5R01 CA20076-05	89,400
SOLOMON, ALAN.....	PROTEINS IN MULTIPLE MYELOMA & RELATED BLOOD DISEASES.....	5R01 CA10056-15	135,407
VAN HOOK, WILLIAM A.....	GAS-SOLUTION CALORIMETRY-SOLVENT ISOTOPE EFFECTS.....	5R01 GM19991-08	50,432
WICKS, WESLEY D.....	REGULATION OF HEPATOMA ENZYME SYNTHESIS BY CYCLIC AMP.....	7R01 AM28545-01	72,965
WICKS, WESLEY D.....	CYCLIC AMP ANALOGS AS GROWTH REGULATORS IN TUMOR CELLS.....	7R01 CA29560-01	88,193
WUST, CARL J.....	MYELOGENOUS LEUKEMIA—ASSOCIATED ANTIGENS.....	5R01 CA17533-05	83,710
ORGANIZATION TOTAL	44 2,845,182		
MEMPHIS			
LEMOYNE-OWEN COLLEGE	ZIP CODE 38126		
CHETTY, KOTHAPA N.....	MINORITY BIOMEDICAL SUPPORT.....	1S06 RR08179-01	152,726
ORGANIZATION TOTAL	1 152,726		
ST. JUDE CHILDREN'S RESEARCH HOSPITAL	ZIP CODE 38101		
ADLER, FRANK L.....	INDUCTION OF TOLERANCE AND SUPPRESSOR CELLS IN VITRO.....	5R01 CA23709-04	125,041

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
ADLER, LOUISE T.....	IMMUNOGLOBULIN ALLOTYPES: SUPPRESSION AND RELEASE.....	5R01 AI13159-06	66,762
BEAN, WILLIAM J, JR.....	MECHANISMS OF GENETIC CHANGE IN INFLUENZA VIRUS.....	1R01 AI16841-01	59,517
BRENT, THOMAS P.....	ENZYMES AND REACTIONS FOR REPAIR OF DNA IN HUMAN CELLS.....	2R01 CA14799-06	93,724
CHEUNG, WAI Y.....	REGULATORY ASPECTS OF CYCLIC AMP METABOLISM IN CNS.....	5R01 NS08059-12	115,478
COSTLOW, MARK E.....	HORMONE RECEPTOR REGULATION IN MAMMARY TISSUE.....	5R01 CA23956-02	66,201
DOCKTER, MICHAEL E.....	TOPOGRAPHICAL MAPPING OF CYTOCHROME C OXIDASE.....	5R01 AM21974-02	47,671
EVANS, WILLIAM E.....	ADRIAMYCIN PHARMACOKINETICS IN CHILDREN.....	5R23 CA24176-02	34,250
FISHMAN, MARVIN.....	THE ROLE OF MACROPHAGE SUBCLASSES IN TUMOR IMMUNITY.....	5R01 CA18672-05	55,914
FISHMAN, MARVIN.....	CHARACTERIZATION AND FUNCTIONAL STUDIES OF 'A' CELLS.....	1R01 CA26996-01	35,400
GOORHA, RAKESH M.....	DNA REPLICATION OF FROG VIRUS 3.....	2R01 GM23638-04	108,908
GRANOFF, ALLAN.....	STUDIES OF LUCKE TUMOR ASSOCIATED VIRUSES.....	5R01 CA07055-18	214,450
GUNTHER, GARY R.....	CHARACTERIZATION OF A PANCREATIC ACINAR CARCINOMA.....	5R26 CA26561-02	45,546
KINGSBURY, DAVID W.....	MULTIPLICATION OF PARAMYXOVIRUSES.....	2R01 AI05343-17	165,766
MAUER, ALVIN M.....	CANCER CENTER SUPPORT (CORE) GRANT.....	5P30 CA21765-03	1,195,635
MAUER, ALVIN M.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA23944-03	107,301
MAUER, ALVIN M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05584-16	126,508
MORRISON, MARTIN.....	STUDY OF HUMAN ERYTHROCYTE MEMBRANE PROTEIN 3 VARIANT.....	5R01 AI16211-02	72,706
MORRISON, MARTIN.....	STRUCTURE AND FUNCTION OF RED CELL MEMBRANES.....	5R01 AM18106-05	68,081
PHILLIPS, DAVID R.....	PLATELET MEMBRANE PROTEINS IN AGGREGATION.....	5R01 HL15616-06	50,005
PHILLIPS, DAVID R.....	MOLECULAR CHARACTERIZATION OF GLANZMANN'S THROMBASTHENIA.....	5R01 HL21487-03	41,595
PORTNER, ALLEN.....	BIOSYNTHESIS OF PARAMYXOVIRUSES.....	5R01 AI11949-06	88,317
ROBERTS, BUFORD D.....	BASIS FOR SYNERGISM TO ONCOLYTIC DRUG-COMBINATIONS.....	5R01 CA23337-02	69,217
ROCK, CHARLES O.....	REGULATION OF MEMBRANE PHOSPHOLIPID STRUCTURE.....	1R01 GM28035-01	73,409
SIMONE, JOSEPH V.....	LEUKEMIA PROGRAM PROJECT.....	3P01 CA20180-03S1	1,776,071
SIMONE, JOSEPH V.....	STUDIES OF CHILDHOOD SOLID TUMORS.....	5P01 CA23099-03	848,064
TER-BA, ALLAN M.....	LOCALIZATION AND MECHANISM OF RETROVIRUS INTEGRATION.....	1R01 CA28221-01	83,141
THOMAS, EDWIN L.....	PEROXIDASE IN SALIVA AND PREVENTION OF ORAL DISEASE.....	5R01 DE04235-05	54,610
WALKER, WILLIAM S.....	MACROPHAGE FUNCTIONS IN TUMORIGENESIS.....	5R01 CA16652-06	69,921
WEBSTER, ROBERT G.....	ORIGIN OF PANDEMIC INFLUENZA VIRUSES.....	2R01 AI08831-12	111,101
WELCH, ARNOLD D.....	CHEMOTHERAPY IN MICE OF HUMAN CARCINOMAS OF THE COLON.....	5R26 CA21677-04	222,396
YEH, YU-YAN.....	KETONES FOR BRAIN LIPIDS IN DEVELOPING RATS.....	5R01 HD08568-06	54,663
ORGANIZATION TOTAL	32	6,347,369	
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—MEMPHIS STATE UNIVERSITY			
		ZIP CODE 38152	
BRADY, DONALD R.....	SOURCE OF REDUCING EQUIVALENTS FOR OXIDATION OF STEROLS.....	1R01 GM28345-01	36,782
GARTNER, THEODORE K.....	CONTROL AND MECHANISM OF PLATELET AGGREGATION.....	5R01 HL23010-03	47,401
STUDEBAKER, GERALD A.....	PAIRED COMPARISON HEARING AID CHARACTERISTIC SELECTION.....	5R01 NS15996-02	164,331
ORGANIZATION TOTAL	3	248,514	
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES			
		ZIP CODE 38163	
ANDERSEN, RICHARD N.....	MECHANISM(S) OF ACTH ACTION ON TESTOSTERONE DYNAMICS.....	5R01 AM19423-03	57,787
AUTIAN, JOHN.....	ACUTE TOXICITY EVALUATION OF BIOMATERIALS.....	5R01 HL24040-02	100,482
BAER, PHILIP G.....	HYPERTENSION: PROSTAGLANDINS AND RENAL FUNCTION.....	5R01 HL23548-02	111,379
BEACHEY, EDWIN H.....	LIGAND-RECEPTOR INTERACTION IN BACTERIAL ADHERENCE.....	5R01 AI13550-05	69,871
BEALER, STEVEN L.....	CENTRAL CONTROL OF SODIUM AND CARDIOVASCULAR HOMEOSTASIS.....	1R01 HL25877-01	43,263
BLATTIS, CLARK M.....	BRAIN AREAS MEDIATING AUTONOMIC AND BEHAVIORAL FEVERS.....	5R01 NS14929-02	50,291
CALDWELL, ROBERT W.....	THE IMPORTANCE OF AMINOSUGARS IN DIGITALIS ACTIVITY.....	3R01 HL17796-05S1	15,294
COX, RAY.....	DNA REPAIR AND CHEMICAL CARCINOGENESIS.....	2R01 CA15189-07A1	42,975
CROWLEY, WILLIAM R.....	BRAIN MONOAMINES AND LUTEINIZING HORMONE SECRETION.....	1R01 HD13703-01	67,353
DABBOUS, MUSTAFA K.....	THE COLLAGENOLYTIC SYSTEM OF INVASIVE TUMORS.....	5R01 CA25617-02	70,193
DABBOUS, MUSTAFA K.....	GINGIVAL MATRIX PROTEINS AND PERIODONTAL DISEASE.....	5R01 DE04125-05	50,248
DESIDERIO, DOMINIC M.....	MASS SPECTROMETRY SEQUENCING OF HYPOTHALAMIC PEPTIDES.....	5R01 GM26666-02	60,595
DIXIT, SARYU N.....	CHEMISTRY OF GLOMERULAR BASEMENT MEMBRANE COLLAGENS.....	2R01 AM20385-04	69,788
FISHER, JOSEPH N, JR.....	DIABETIC KETOACIDOSIS: ALTERATIONS IN MINERAL METABOLISM.....	5R01 AM21099-03	48,098
GROSVENOR, CLARK E.....	NEURAL AND HORMONAL REGULATION OF LACTATION.....	5R01 HD04358-21	64,651
HASTY, DAVID L.....	TISSUE INTERACTIONS DURING ODONTOGENESIS.....	5R23 DE05062-02	30,011
HERROD, HENRY G.....	FACTORS IN HUMAN LYMPHOCYTE COLONY FORMATION.....	1R23 AI17020-01	40,366
HUNT, JAMES C.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00211-16	553,091
HUNT, JAMES C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05423-19	164,609
IRVING, CHARLES C.....	BIOCHEMICAL MECHANISMS IN EXPERIMENTAL BLADDER CANCER.....	2R26 CA17655-07	90,534
IRVING, CHARLES C.....	CONJUGATION REACTIONS IN ARYLAMINE CARCINOGENESIS.....	5R01 CA26165-02	67,917

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
JERNIGAN, HOWARD M	NITROGEN METABOLISM IN THE CRYSTALLINE LENS	5R01 EY02665-02	51,289
KANE, JAMES F	REGULATION OF NITROGEN METABOLISM	1R01 AM26963-01	76,591
KANG, ANDREW H	CHEMISTRY AND BIOLOGY OF NORMAL AND ABNORMAL COLLAGENS	5R01 AM16506-08	62,559
KANG, ANDREW H	COLLAGEN-PLATELET INTERACTION AND HUMAN AORTA COLLAGEN	2R01 HL20114-04	69,464
KANG, ELLEN S	REYER'S SYNDROME: STUDIES OF MEMBRANE FUNCTION	5R01 HD11657-04	78,691
KANG, ELLEN S	IN VIVO AND IN VITRO DIAGNOSIS OF HYPERPHENYLALANINEMIA	1R01 NS16383-01	37,390
KATZE, JON R	TRNA Q BASE BIOSYNTHESIS, EFFECT ON CELLULAR EXPRESSION	2R01 CA20919-04A1	80,884
KITABCHI, ABBAS E	VITAMIN E DEFICIENCY AND FUNCTIONAL STATES OF MEMBRANES	5R01 AM19717-03	66,256
KUO, CHAO-YING	TUMOR CELLS ESCAPE FROM IMMUNE EFFECTOR MECHANISMS	7R01 CA29885-01	40,912
LEFFLER, CHARLES W	CONTROL OF CIRCULATION	5R01 HL22639-02	55,575
MALIK, KAFAIT U	ANGIOTENSIN, PROSTAGLANDINS, ADRENERGIC INTERACTIONS	5R01 HL19134-06	119,190
MC CARTY, GIRD A, JR	CLINICAL CANCER EDUCATION PROGRAM (DENTAL)	5R25 CA19532-05	64,372
MC LAUGHLIN, BARBARA J	PHOTORECEPTOR SYNAPTOGENESIS IN THE RETINA	5R01 EY02708-02	51,987
MC LAUGHLIN, BARBARA J	INHERITED RETINAL DEGENERATION	5R01 EY02853-02	70,134
MIRVIS, DAVID M	ELECTROPHYSIOLOGIC CORRELATES OF MYOCARDIAL ISCHEMIA	3R01 HL20597-03S1	3,757
MIZE, RICHARD R	NEURAL CIRCUITRY IN THE SUPERIOR COLLICULUS	5R01 EY02973-02	52,234
MUIRHEAD, ERNEST E	THE ANTIHYPERTENSIVE FUNCTION OF THE RENAL MEDULLA	5R01 HL19287-05	142,168
NASILETTI, ALBERTO	VASOACTIVE HORMONES AND BLOOD PRESSURE REGULATION	5R01 HL18579-05	116,530
NEELY, CHARLES L, JR	COMMUNITY CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P30 CA16518-06	335,185
NISHIMURA, HIROKO	COMPARATIVE STUDIES OF RENAL HANDLING OF ELECTROLYTES	5R01 AM17824-06	53,904
NISHIMURA, HIROKO	THE EVOLUTION OF HUMORAL CONTROL OF BLOOD PRESSURE	5R01 HL22674-02	100,338
PALMIERI, GENARO M	HYDROXYPROLINE IN BONE METASTASIS FROM BREAST CANCER	5R01 CA20939-04	53,992
POSTLETHWAITE, ARNOLD E	FIBROBLAST ACTIVATION	5R01 AM26034-02	73,115
PREWITT, RUSSELL L, JR	HEMODYNAMIC INTERACTIONS OF VASOACTIVE CHEMICALS	5R01 HL18489-05	35,821
PREWITT, RUSSELL L, JR	MICROVASCULAR ADAPTATIONS IN HYPERTENSION	5R01 HL23480-02	33,104
QUINTANA, RONALD P	SURFACE-ACTIVE ANTITHROMBOTIC AGENTS FOR PROSTHESES	5R01 HL22236-02	59,599
QUINTANA, RONALD P	MOIETIES AFFECTING PLATELET-BIOMATERIAL INTERACTIONS	1R01 HL25884-01	72,768
RICARDO, MANUEL J, JR	IMMUNE RESPONSE TO SYNGENEIC LEUKEMIC B CELL ANTIGENS	1R01 CA28253-01	70,841
ROBERTSON, JAMES T	SUPPORT FOR CEREBROVASCULAR RESEARCH CENTER	3P50 NS06826-11S1	58,695
SABESIN, SEYMOUR M	PATHOLOGIC EFFECTS ON CELLS OF MODIFIED LIPOPROTEINS	5R01 HL23945-08	127,817
SCHIEL, KONRAD W	MECHANISM OF CORONARY VASCULAR ADAPTATION	5R01 HL24323-02	82,730
SCHNEIDER, EDWARD G	INTRARENAL REGULATION OF SODIUM REABSORPTION	5R01 HL16658-07	73,241
SHARE, LEONARD	CONTROL OF ADH SECRETION AND METABOLISM	5R01 HL12990-11	75,000
SHARE, LEONARD	ROLE OF ADH IN EXPERIMENTAL RENAL HYPERTENSION	5R01 HL19209-05	86,024
SHARMA, RAMESHWAR K	BIOCHEMICAL CONTROL IN ADRENOCORTICAL CARCINOMA CELLS	5R01 CA16091-06	104,773
SOLOWAY, MARK S	EVALUATION & MANAGEMENT OF PATIENTS WITH BLADDER CANCER	2R26 CA15934-07	134,808
SOLOWAY, MARK S	EXPERIMENTAL CHEMOTHERAPY OF MURINE BLADDER CANCER	5R26 CA18643-06	119,497
SOLOWAY, MARK S	CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER	5R26 CA20618-05	121,564
STILES, ROBERT N	NEUROMUSCULAR-LOAD OSCILLATIONS	5R01 NS14730-03	26,277
STOLLERMAN, GENE H	STREPTOCOCCAL IMMUNITY, RHEUMATIC FEVER AND NEPHRITIS	5R01 AI10085-17	173,721
SULLIVAN, JAY M	HEMODYNAMIC EFFECTS OF DIETARY SODIUM IN MAN	5R01 HL21523-03	68,369
WHETSELL, WILLIAM O, JR	NERVOUS SYSTEM PORPHYRINS AND LEAD AND PCB EFFECTS	5R01 ES02421-02	69,458
WOOD, JOHN G	LOCATION AND FUNCTION OF CARBOHYDRATES IN THE BRAIN	5R01 NS12590-05	67,602
ORGANIZATION TOTAL	64	5,387,022	
NASHVILLE			
FISK UNIVERSITY ZIP CODE 37203			
HULL, GEORGE	MINORITY BIOMEDICAL SUPPORT	2S06 RR08062-10	247,796
ORGANIZATION TOTAL	1	247,796	
MEHARRY MEDICAL COLLEGE ZIP CODE 37208			
ARINZE, IFEANYI J	DEVELOPMENT OF CARBOHYDRATE & LIPID METABOLISM IN LIVER	5R01 HD08792-06	46,374
BROWNE, EDWARD W, JR	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA19425-05	106,287
HARRIS, BARRY	NUCLEOLYTIC MATURATION OF VIRAL RNA IN HUMAN KB CELLS	1R01 AI17449-01	68,320
HODO, HENRY G, III	RNA POLYMERASE 2—STRUCTURE & CHEMICAL MODIFICATION	1R01 GM27785-01	56,534
JACKSON, JULIUS H	CONTROL OF RELATED DISPERSED GENES AND GENE PRODUCTS	5R01 GM25605-03	24,292
JONES, FRED	MINORITY BIOMEDICAL SUPPORT	2S06 RR08037-10	761,683
LOWE, JAMES U	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05422-19	65,733
NAVALKAR, RAMCHANDRA G	IMMUNOLOGIC STUDIES ON LEPROSY	5R22 AI08647-13	40,261

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
RICHARDSON, ELISHA R.....	GROWTH AND DEVELOPMENT OF THE HUMAN HEAD.....	5R01 DE02862-15	121,156
RUSSELL, JAMES D.....	EPIGENETIC VARIATION IN COLLAGEN SYNTHESIS WITH AGING.....	5R01 AG02046-02	57,975
RUSSELL, JAMES D.....	KELOIDS: AN IN VITRO MODEL OF TUMOR GROWTH REGULATION.....	5R01 CA17229-05	85,227
ORGANIZATION TOTAL	11 1,433,842		
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—TENNESSEE STATE UNIVERSITY ZIP CODE 37203			
RISBY, EDWARD L.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08092-07	321,230
ORGANIZATION TOTAL	1 321,230		
VANDERBILT UNIVERSITY ZIP CODE 37240			
ANDREWS, JOHN S.....	LENS CELL MEMBRANE SYNTHESIS AND CATARACTOGENESIS.....	2R01 EY01852-04	72,608
ASCOLI, MARIO.....	GONADOTROPIN ACTIONS IN LEYDIG TUMOR CELLS.....	2R01 CA23603-03	68,979
BAUMEISTER, ALFRED A.....	RESEARCH PROGRAM ON RETARDED INTELLECTUAL DEVELOPMENT.....	7P01 HD15051-01	566,251
BIRD, ROBERT E.....	CONTROL OF PLASMID DNA REPLICATION IN E COLI.....	5R01 GM25526-03	57,061
BONDS, ALFRED B.....	SPATIAL ADAPTATION OF NEURONS IN THE STRIATE CORTEX.....	7R01 EY03778-01	52,623
BORUM, PEGGY R.....	CARNITINE METABOLISM DURING DEVELOPMENT.....	5R01 HD11820-02	48,457
BOUCEK, ROBERT J, JR.....	THE REGULATION OF CARDIAC HYPERTROPHY.....	3R23 HL21234-03S1	5,970
BOURNE, JOHN R.....	COMPUTER ANALYSIS OF ELECTROENCEPHALOGRAMS.....	5R01 GM26886-02	85,839
BRIGGS, ROBERT C.....	NUCLEAR ANTIGENS AS MARKERS IN HEMATOPOIESIS.....	1R01 CA26948-01	67,646
BRIGHAM, KENNETH L.....	SCOR: PULMONARY EDEMA—ETIOLOGY, PATHOGENESIS.....	5P50 HL19153-04	532,398
BROQUIST, HARRY P.....	DIETARY LYSINE AND CARNITINE FORMATION.....	5R01 AM16019-09	109,490
BROQUIST, HARRY P.....	LYSINE METABOLISM IN FUNGI.....	5R01 GM24831-11	66,555
BURKA, LEO T.....	SWEET POTATO TOXINS.....	5R01 ES01752-02	38,758
BURR, IAN M.....	REGULATION OF GLUCAGON SECRETION.....	5R01 AM25900-02	62,806
BUSH, MILTON T.....	METABOLIC INTERACTION OF DRUGS.....	5R01 NS03534-19	69,651
CAMPBELL, ERNEST Q.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07201-01	100,241
CARPENTER, GRAHAM F.....	RECEPTORS FOR EPIDERMAL GROWTH FACTOR IN TUMOR CELLS.....	5R23 CA24071-03	31,605
CARTER, CLINT E.....	ISOLATION AND PURIFICATION OF S MANSONI EGGS.....	2R22 AI12996-04A1	61,034
CASAGRANDE, VIVIAN A.....	EFFECTS OF VISUAL DEPRIVATION IN PRIMATES.....	5R01 EY01778-05	100,761
CHAN, TIMOTHY M.....	GLUCOCORTICOID PERMISSIVE ACTION ON LIVER METABOLISM.....	2R01 AM20306-04	74,432
CHAN, TIMOTHY M.....	SKELETAL MUSCLE METABOLISM IN OBESE-DIABETIC MICE.....	3R01 AM21130-03S1	19,120
CHERRINGTON, ALAN D.....	GLUCONEOGENESIS AND GLYCOGENOLYSIS: ROLE AND REGULATION.....	5R01 AM18243-06	112,030
CHYTIL, FRANK.....	NUTRITIONAL ASPECTS OF PURINE METABOLISM.....	5R01 HD05384-09	67,661
CHYTIL, FRANK.....	VITAMIN A IN GROWTH AND DEVELOPMENT.....	5R01 HD09195-06	100,528
CHYTIL, FRANK.....	LUNG HORMONAL AND CHROMOSOMAL REGULATION.....	5R01 HL15341-08	61,948
COHEN, STANLEY.....	EPIDERMAL GROWTH FACTOR.....	5R01 HD00700-17	141,007
COLLEY, DANIEL G.....	IMMUNOLOGIC RESPONSES TO SCHISTOSOMA MANSONI.....	5R22 AI11289-08	73,590
COLOWICK, SIDNEY P.....	ENZYMATIC OXIDATION AND PHOSPHORYLATION.....	5R01 GM20656-22	132,292
CONIGLIO, JOHN G.....	LIPID CHEMISTRY AND METABOLISM IN REPRODUCTIVE TISSUE.....	5R01 HD07694-08	56,566
CORBIN, JACKIE D.....	REGULATION OF METABOLISM BY PROTEIN KINASES.....	2R01 AM15988-09	42,045
CROFFORD, OSCAR B.....	DIABETES RESEARCH AND TRAINING CENTER.....	5P60 AM20593-03	732,331
DANZO, BENJAMIN J.....	ENDOCRINE REGULATION OF EPIDIDYMAL FUNCTION.....	3R01 HD08295-04S1	52,617
DAVIES, JACK.....	PRENATAL ESTROGEN AND SEXUAL DEVELOPMENT IN THE MALE.....	5R01 HD11607-03	65,732
DE MARCHI, JEANETTE M.....	INDUCTION BY CYTOMEGALOVIRUS OF CELL DNA SYNTHESIS.....	5R01 CA20806-03	72,476
DES PREZ, ROGER M.....	PLATELET INJURY IN INFECTIOUS AND ALLERGIC DISEASES.....	5R01 HL08399-17	65,932
DETTBARN, WOLF D.....	INSECTICIDE TOXICITY AT MAMMALIAN NEUROMUSCULAR JUNCTION.....	1R01 ES02028-01A1	119,421
DETTBARN, WOLF D.....	MYOPATHY: EFFECT OF CHOLINESTERASE INHIBITION.....	5R01 NS12438-05	89,091
DI SABATO, GIOVANNI.....	LYMPHOCYTE FACTORS IN NORMAL AND LEUKEMIC MICE.....	1R01 CA30172-01	52,235
DUPONT, WILLIAM D.....	AN EPIDEMIOLOGIC STUDY OF BREAST CANCER RISK FACTORS.....	1R01 CA28223-01	62,668
FLEISCHER, BECCA C.....	STRUCTURE AND FUNCTION OF GOLGI APPARATUS OF KIDNEY.....	5R01 AM17223-07	122,481
FLEISCHER, SIDNEY.....	MEMBRANES AND ORGANELLES—STRUCTURE AND FUNCTION.....	2R01 AM14632-17	242,493
FLEISCHER, SIDNEY.....	EPR STUDIES OF MOLECULAR MOTION IN MEMBRANE SYSTEMS.....	5R01 AM21987-02	72,242
FORBES, JAMES T.....	IMMUNOLOGIC INHIBITION OF TUMOR GROWTH.....	5R01 CA23477-02	46,139
FOX, ROBERT.....	THE SUPPRESSION MECHANISM IN BINOCULAR RIVALRY.....	5R01 EY00590-17	46,354
FRANCIS, SHARRON H.....	NOVEL CYCLIC GMP BINDING PROTEIN.....	1R01 AM27084-01	62,937
FREDERIKSEN, DIXIE W.....	ATHEROSCLEROSIS AND THE ARTERIAL CONTRACTILE PROTEINS.....	3R01 HL18516-04S1	2,055
FREDERIKSEN, DIXIE W.....	CONTRACTILE PROTEINS OF MATURE AND DEVELOPING BRAIN.....	5R01 NS15077-02	49,622
FREEMAN, JOHN A.....	SYNAPTIC ORGANIZATION OF THE OPTIC TECTUM.....	5R01 EY01117-08	146,505
FRIEDMAN, DANIEL L.....	ADULT LIVER CELL CULTURES AND HORMONAL STIMULATION.....	5R01 AM20419-02	46,217
GARBERS, DAVID L.....	GUANYLATE CYCLASE: LARGE SCALE PURIFICATION.....	5R01 GM24290-03	71,899
GARBERS, DAVID L.....	REGULATION OF SPERM CYCLIC NUCLEOTIDE METABOLISM.....	5R01 HD10254-05	87,703

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
GOVE, WALTER R	POPULATION DENSITY AND HUMAN BEHAVIOR IN CHICAGO	5R01 HD06911-05	52,438
GRAHAM, THOMAS P, JR	VIDEORENTGENOGRAPHY IN CONGENITAL HEART DISEASE	5R01 HL21985-03	111,541
GRECO, F ANTHONY	SMALL CELL LUNG CANCER (SCC) AND PEPTIDE HORMONES	1R01 CA27333-01	77,066
GREENE, HARRY L	DEVELOPMENT OF CLINICAL NUTRITION RESEARCH UNIT	5P30 AM26657-02	398,909
GUENGERICH, F PETER	ENZYMIC ACTIVATION OF ENVIRONMENTAL TOXINS	2R01 ES01590-04	105,393
GUENGERICH, F PETER	BIOACTIVATION AND COVALENT BINDING OF TOXIC HALOALKENES	5R01 ES02205-02	58,958
HAMMON, JOHN W, JR	ALBUMIN IN ALTERED PULMONARY VASCULAR PERMEABILITY	5R01 HL24641-02	53,838
HANKINS, WILLIAM D	A FRIEND VIRUS TRANSFORMATION SYSTEM IN VITRO	5R01 CA26306-02	52,861
HARBISON, RAYMOND D	ENVIRONMENTAL TOXICANT EFFECTS ON PERINATAL DEVELOPMENT	5R01 ES00782-08	67,462
HARDMAN, JOEL G	CONTROL OF CYCLIC GMP METABOLISM	2R01 GM16811-11	122,213
HARRIS, THOMAS M	TETRACYCLINES AND RELATED PHENOLIC NATURAL PRODUCTS	5R01 GM12848-16	78,084
HARRIS, THOMAS M	VANCOMYCIN, RISTOCETIN AND RELATED ANTIBIOTICS	2R01 GM23593-04	74,348
HARRIS, THOMAS R	CORONARY CAPILLARY EXCHANGE: THE EFFECTS OF ISCHEMIA	2R01 HL19370-04A1	103,584
HARRISON, ROBERT W, III	IMMUNOLOGIC QUANTITATION OF GLUCOCORTICOID RECEPTORS	5R01 AM26723-02	49,473
HARRISON, ROBERT W, III	PHYSIOLOGY OF PITUITARY CELL GLUCOCORTICOID BINDING	2R01 CA19907-04	73,923
HARRISON, ROBERT W, III	HUMAN PLACENTAL-GLUCOCORTICOID INTERACTIONS	1R01 HD13477-01	55,568
HASH, JOHN H	CHARACTERIZATION OF STAPHYLOCOCCAL CAPSULAR ANTIGENS	5R01 AI15531-02	59,372
HASH, JOHN H	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00095-20	1,502,270
HASH, JOHN H	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05424-19	189,787
HAWIGER, JACK J	ENDOTHELIAL INJURY IN CARDIOVASCULAR INFECTIONS	1R01 HL25107-01A1	64,828
HAWIGER, JACK J	PATHOBIOLOGY OF THROMBOEMBOLIC DISEASES	7R01 HL25935-01	107,696
HAYWOOD, H CARL	MENTAL RETARDATION & HUMAN DEVELOPMENT RESEARCH CENTER	7P30 HD15052-01	520,544
HELLERQVIST, CARL G	ANALYSIS OF EUCARYOTIC CELL SURFACES	5R01 CA16865-06	63,890
HNILICA, LUBOMIR S	PROTEINS OF THE CELL NUCLEUS	5R01 CA18389-06	111,490
HNILICA, LUBOMIR S	EXPERIMENTAL HEPATOCARCINOGENESIS	5R01 CA26412-02	115,491
HNILICA, LUBOMIR S	NUCLEAR ANTIGENS IN HUMAN COLORECTAL CANCER	5R26 CA27338-02	57,191
HOFFMAN, LOREN H	UTERINE AND PLACENTAL CONTROL OF LUTEAL FUNCTION	5R01 HD05942-09	66,108
HOLADAY, DUNCAN A	METABOLISM OF VOLATILE FLUORINATED ANESTHETICS	7R01 GM29250-01	74,428
INAGAMI, TADASHI	SPECIALIZED CENTER OF RESEARCH IN HYPERTENSION	5P50 HL14192-10	1,327,094
INAGAMI, TADASHI	RENIN AND PRECURSORS: STRUCTURE AND FUNCTION	5R01 HL22288-03	52,332
INAGAMI, TADASHI	RENIN IN THE BRAIN	5R01 HL24112-02	103,481
JOHNSON, L ENSIGN	CONTROL STRUCTURE IN PHYSIOLOGICAL KINETICS	2R01 GM24060-03	20,822
JOHNSON, ROGER A	REGULATION OF ADENYLATE CYCLASE & CAMP METABOLISM	5R01 AM18185-06	87,630
JONES, MARK M	POSSIBLE NEW ANTIDOTES FOR MERCURY POISONING	5R01 ES01018-06	96,600
KAAS, JON H	VISUAL ASSOCIATION CORTEX IN PRIMATES	3R01 EY02686-05S1	8,295
KAAS, JON H	VISUAL ASSOCIATION CORTEX	5R01 EY02686-06	75,382
KAAS, JON H	FUNCTIONAL ORGANIZATION OF THE SOMATOSENSORY SYSTEM	1R01 NS16446-01	86,447
KAPLAN, ALBERT S	METABOLISM OF CELLS INFECTED WITH NUCLEAR DNA VIRUSES	5R01 AI10947-09	284,115
KHATRA, BALWANT S	GLYCOGEN SYNTHASE PHOSPHATASE IN DIABETES	1R23 AM26334-01	53,738
KING, LLOYD E, JR	EPIDERMAL GROWTH FACTOR AND MEMBRANE PHOSPHORYLATION	1R01 AM26518-01	62,744
KONO, TETSURO	ACTION OF INSULIN ON ITS RECEPTOR AND PHOSPHODIESTERASE	5R01 AM06725-19	95,393
KONO, TETSURO	ACTION OF INSULIN ON SUGAR TRANSPORT	5R01 AM19925-04	54,492
KRANTZ, SANFORD B	ERYTHROPOIETIN AND THE REGULATION OF ERYTHROPOIESIS	2R01 AM15555-09	111,219
KRONENBERG, MARVIN W	IMAGING & ECG IN ACUTE & CHRONIC ISCHEMIC HEART DISEASE	5R23 HL22004-03	46,155
LANDON, ERWIN J	FACTORS COUPLING STIMULUS TO RESPONSE IN HYPERTENSION	5R01 HL25358-02	76,509
LAWTON, ALEXANDER R, III	DIFFERENTIATION OF B LYMPHOCYTES	7R01 AI17996-01	117,652
LIMBIRD, LEE E	MOLECULAR BASIS OF ADRENERGIC AND CHOLINERGIC EFFECTS	1R01 HL25182-01	90,373
MC GEE, ZELL A	PATHOGENIC MECHANISMS IN GONOCOCCAL INFECTIONS	5R01 AI13488-05	128,642
MC KANNA, JAMES A	OPHTHALMIC PARAMETERS IN THE DEVELOPMENT OF MYOPIA	5R01 EY02221-03	62,061
MC KANNA, JAMES A	E.M. STUDIES OF CELLS AND EPIDERMAL GROWTH FACTOR	1R01 GM27153-01A1	116,118
MENG, H C	ESSENTIAL FATTY ACID DEFICIENCY IN MAN AND ANIMAL	5R01 AM18281-05	194,865
MITCHELL, WILLIAM M	HUMAN PROCOLLAGEN STRUCTURE AND FUNCTION	5R01 AM18222-06	77,795
MOSIG, GISELA	DNA REPLICATION AND RECOMBINATION IN BACTERIOPHAGE	5R01 GM13221-16	135,307
MOYER, RICHARD W	GENE REGULATION OF MAMMALIAN DNA VIRUSES	1R01 AI15722-01A1	50,944
MOYER, SUE A	REPLICATION AND INTERFERENCE OF RNA VIRUSES	5R01 AI14594-03	99,537
NEAL, ROBERT A	ENZYMIC MECHANISMS OF INSECTICIDE METABOLISM	5R01 ES00075-16	62,372
NEAL, ROBERT A	CENTER IN ENVIRONMENTAL TOXICOLOGY	5P30 ES00267-13	542,973
NEAL, ROBERT A	MECHANISM(S) OF TOXICITY OF THE CHLORINATED P-DIOXINS	2R01 ES01552-04	40,795
O'DAY, DENIS M	STUDIES IN EXPERIMENTAL FUNGAL INFECTIONS OF THE EYE	5R01 EY01621-05	111,376
OATES, JOHN A	RESEARCH CENTER FOR PHARMACOLOGY AND DRUG TOXICOLOGY	5P50 GM15431-13	1,311,844
OGLETREE, MARTIN L	PULMONARY VASCULAR ACTIONS OF THROMBOXANE A2	1R23 HL26198-01	41,660

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
OLDHAM, ROBERT K.....	SOUTHEASTERN CANCER STUDY GROUP.....	2R10 CA23909-02A1	214,484
OLSON, GARY E.....	DEVELOPMENTAL BIOLOGY OF MAMMALIAN SPERMATOZOA.....	5R01 HD11816-03	59,127
ONG, DAVID E.....	CANCER AND VITAMIN A.....	2R01 CA20850-04	95,260
ORGBIN-CRIST, MARIE-CLAIRE.....	MALE REPRODUCTIVE PHYSIOLOGY.....	3R01 HD03820-11S1	33,446
ORGBIN-CRIST, MARIE-CLAIRE.....	MALE REPRODUCTIVE PHYSIOLOGY.....	2R01 HD03820-12	141,216
ORGBIN-CRIST, MARIE-CLAIRE.....	CENTER FOR POPULATION AND REPRODUCTIVE BIOLOGY RESEARCH.....	5P30 HD05797-09	216,515
ORTH, DAVID N.....	NEW HUMAN GROWTH-STIMULATING HORMONE: EGF/UROGASTRONE.....	5R01 AM19739-04	72,630
ORTH, DAVID N.....	TUMOR CELL SYNTHESIS & SECRETION OF PEPTIDE HORMONES.....	5R01 CA11685-11	133,802
ORTH, DAVID N.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19429-05	188,088
PARK, JANE H.....	3-PHOSPHOGLYCERALDEHYDE DEHYDROGENASE.....	3R01 GM07884-18S1	14,020
PARK, JANE H.....	GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE.....	2R01 GM07884-19	91,034
PILKIS, SIMON J.....	HORMONAL CONTROL OF HEPATIC GLUCONEOGENESIS.....	5R01 AM18270-06	154,152
PINCUS, THEODORE P.....	GENETIC RESTRICTION OF ENDOGENOUS RETROVIRUSES.....	7R01 CA30145-01	75,291
POST, ROBERT L.....	THE ION-PUMP IN THE ERYTHROCYTE.....	5R01 HL01974-26	171,520
POWERS, J BRADLEY.....	NEUROENDOCRINE CONTROL OF MALE REPRODUCTIVE BEHAVIOR.....	1R01 HD14535-01	83,607
POWERS, MAUREEN K.....	NEURAL BASIS OF VISUAL THRESHOLD.....	1R01 EY03352-01	50,284
PUETT, J DAVID.....	STRUCTURE AND METABOLISM OF PITUITARY HORMONES.....	2R01 AM15838-09	177,859
RABIN, DAVID.....	GLUCOSE REGULATION OF ORAL PROTEIN DISPOSITION.....	5R01 AM22195-03	93,505
REED, PETER W.....	REGULATION OF POLYMORPHONUCLEAR LEUKOCYTE FUNCTION.....	5R01 GM24690-03	61,035
REGEN, DAVID M.....	GLUCOSE-TRANSPORT REGULATION IN THYMOCYTES.....	2R01 AM18733-05	76,684
REGEN, DAVID M.....	MECHANISM AND REGULATION OF MONOCARBOXYLATE TRANSPORT.....	1R01 NS16728-01	63,446
ROBINSON, JOHN P.....	THE AMINO ACID SEQUENCE OF TETANUS TOXIN.....	5R01 AI12750-05	105,849
ROSELLI, ROBERT J.....	TRANSVASCULAR FLUID AND PROTEIN EXCHANGE IN THE LUNG.....	5R23 HL22933-03	43,976
SASTRY, B V.....	AGING, MEMBRANE FLUIDITY AND DRUG ACTION.....	5R01 AG02077-02	90,723
SASTRY, B V.....	CHOLINERGIC SYSTEM, SPERM MOTILITY AND MALE FERTILITY.....	2R01 HD10607-04	107,449
SODERLING, THOMAS R.....	REGULATION OF GLYCOGEN SYNTHASE KINASES & PHOSPHATASES.....	5R01 AM17808-06	71,369
STAHLMAN, MILDRED T.....	APNEA AND S.I.D.S. FROM THE LARYNGEAL CHEMOREFLEX.....	3R01 HD10454-03S1	16,155
STAHLMAN, MILDRED T.....	NEWBORN LUNG CENTER FOR HYALINE MEMBRANE DISEASE.....	5P50 HL14214-09	688,953
STAHLMAN, MILDRED T.....	PULMONARY VASCULAR RESPONSE TO GROUP B STREPTOCOCCI.....	5R01 HL22520-03	123,745
STAROS, JAMES V.....	PEPTIDE RECEPTORS IN BIOLOGICAL MEMBRANES.....	1R01 AM25489-01	86,029
STEIN, RICHARD S.....	LITHIUM INDUCED GRANULOCYTOSIS IN CANCER PATIENTS.....	5R01 CA23971-03	36,877
SWIFT, LARRY L.....	LIVER AND INTESTINAL GOLGI LIPOPROTEINS.....	5R01 HL23525-02	47,154
TOUSTER, OSCAR.....	BIOCHEMICAL STUDIES ON LYSOSOMES AND RELATED ENZYMES.....	2R01 GM26430-16A1	121,000
WAGNER, CONRAD.....	TISSUE STORES OF FOLATE: DIETARY CONTROL AND ASSAY.....	5R01 AM15289-06	52,719
WATSON, J THROCK.....	NIH-GMS-SHARED GC/MS-COMPUTER INSTRUMENTATION.....	5P41 GM27557-02	24,026
WELLS, JACK N.....	TISSUE SPECIFIC INHIBITORS OF PHOSPHODIESTERASE.....	5R01 GM21220-05	52,771
WELLS, JACK N.....	PHOSPHODIESTERASE INHIBITION AND MUSCLE CONTRACTION.....	5R01 HL19325-05	72,009
WILKINSON, GRANT R.....	EFFECTS OF THE AGING PROCESS ON DRUG RESPONSIVENESS.....	5R01 AG01395-02	137,708
WILLIAMS, ROBLEY C, JR.....	ASSEMBLY AND DISASSEMBLY OF CYTOPLASMIC MICROTUBULES.....	5R01 GM25638-03	80,403
WILLIAMS, ROBLEY C, JR.....	SHARED ELECTRON MICROSCOPE.....	5P41 GM27447-02	4,800
WILSON, BENJAMIN J.....	NATURALLY OCCURRING FOOD TOXICANTS.....	5R01 ES00569-15	59,420
WILSON, FREDERICK A.....	MECHANISMS FOR INTESTINAL BILE ACID TRANSPORT.....	5R01 AM21696-03	71,703
ORGANIZATION TOTAL	154	20,046,461	

OAK RIDGE

OAK RIDGE ASSOCIATED UNIVERSITIES ZIP CODE 37830

ARNESON, RICHARD M.....	ANTIOXIDANTS IN MOUSE NEUROBLASTOMA.....	5R01 CA27465-02	58,599
GENGOZIAN, NAZARETH.....	'AUTOIMMUNE' THROMBOCYTOPENIA.....	5R01 HL16757-06	111,132
LITTLEFIELD, I GAYLE.....	EVALUATION OF INDUCED CYTOGENETIC LESIONS IN OOCYTES.....	5R01 HD11709-03	131,683
LUSHBAUGH, CLARENCE C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05746-08	28,094
RICHTER, CONRAD B.....	MARMOSSET BREEDING FACILITY.....	5P40 RR01125-03	1,331
SNYDER, FRED L.....	ETHER LIPIDS IN CANCER-ENZYME MECHANISMS.....	2R01 CA11949-11	80,308
ORGANIZATION TOTAL	6	411,147	

U.S. DEPARTMENT OF ENERGY—OAK RIDGE OPERATIONS OFFICE ZIP CODE 37830

KENNEY, FRANCIS T.....	ENZYMIC DIFFERENTIATION IN MAMMALIAN LIVER.....	1R01 HD14173-01	97,581
MASKER, WARREN E.....	THE FIDELITY OF IN VITRO DNA REPAIR AND REPLICATION.....	1R01 GM28113-01	70,493
ORGANIZATION TOTAL	2	168,074	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TENNESSEE—Continued			
UNION CARBIDE CORPORATION—OAK RIDGE NATIONAL LABORATORY ZIP CODE 37830			
KENNEY, FRANCIS T.....	TURNOVER OF PROTEINS AND MRNAS IN MAMMALIAN CELLS.....	5R01 GM25210-03	61,741
ULLRICH, ROBERT L.....	CARCINOGENIC INTERACTIONS OF RADIATION AND CHEMICALS.....	1R01 CA27531-01	127,659
ORGANIZATION TOTAL	2 189,400		
STATE TOTAL	328 38,201,101		
TEXAS			
ARLINGTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT ARLINGTON ZIP CODE 76019			
BELLION, EDWARD.....	BIOSYNTHESIS OF VITAMIN B1 (THIAMINE).....	5R01 GM24804-03	41,960
SCHACHAR, RONALD A.....	RAMAN SPECTROSCOPY OF THE LENS OF THE EYE.....	5R01 EY03410-02	54,047
STEWART, GEORGE L.....	PARASITE ALTERATION OF HOST CARBOHYDRATE METABOLISM.....	5R01 AI15704-02	23,933
ORGANIZATION TOTAL	3 119,940		
AUSTIN			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN ZIP CODE 78712			
BAKER, LEE E.....	QUANTIFICATION OF INTRATHORACIC FLUID BY IMPEDANCE.....	5R01 HL19678-03	29,998
BANKS, MARTIN S.....	THE DEVELOPMENT OF FORM PERCEPTION IN INFANCY.....	5R01 HD12572-02	44,068
BAULD, NATHAN L.....	SYNTHESIS USING B-CARBONYLLEONLATE TRIANIONS.....	5R01 GM25905-02	38,936
BEAN, FRANK D.....	GENERATION AND FERTILITY AMONG MEXICAN AMERICANS.....	1R01 HD14329-01	20,163
BERRY, L JOE.....	HOW ENDOTOXIN MEDIATORS AFFECT METABOLIC REGULATION.....	2R01 AI10087-11	67,611
BERRY, L JOE.....	IMMUNITY TO CHOLERA AND OTHER ENTEROTOXIC DISEASES.....	5R22 AI10466-09	53,845
BOSE, HENRY R, JR.....	IMMUNOSUPPRESSION DURING ACUTE AVIAN LEUKEMIA.....	5R01 CA26169-02	68,107
BOSE, HENRY R, JR.....	VIRUS SEQUENCES IN REV-TRANSFORMED CELLS.....	1R01 CA27003-01	88,234
BRITTON, LARRY N.....	BIOCHEMICAL BASIS OF AERO-INTOLERANCE IN ANAEROBES.....	5R01 AI15995-02	42,002
BRONSON, FRANKLIN H.....	PHEROMONES AND REPRODUCTION IN MICE.....	5R01 HD13155-02	64,501
BROWN, DENNIS T.....	TOGAVIRUS GROWTH IN VERTEBRATE AND INVERTEBRATE CELLS.....	5R22 AI14710-03	80,530
BROWN, JAMES R.....	PRIMARY AND TERTIARY STRUCTURE OF PROTEINS.....	5R01 HD02899-13	45,580
BROWNING, HARLEY L.....	WORK AND COMMUNITY ABSORPTION OF MEXICAN ILLEGALS.....	1R01 HD14330-01	65,638
COHEN, LESLIE B.....	INFORMATION PROCESSING IN THE HUMAN INFANT.....	7R01 HD15035-01	67,713
COLE, GARRY T.....	STUDY OF GASTROINTESTINAL AND SYSTEMIC CANDIDIASIS.....	5R01 AI15583-02	111,642
DAVIS, PATRICK J.....	CHEMICAL AND MICROBIAL MODIFICATIONS OF COLCHICINE.....	5R23 CA24171-03	32,662
DESJARDINS, CLAUDE.....	REPRODUCTIVE AGING IN MALE MICE.....	5R01 AG00958-03	195,637
DESJARDINS, CLAUDE.....	HORMONAL REGULATION OF MALE REPRODUCTION.....	5R01 HD13470-02	95,939
DIEHL, RANDY L.....	THE PRODUCTION AND PERCEPTION OF VOWELS.....	1R01 NS16412-01	90,550
DILLER, KENNETH R.....	PHARMACOLOGICAL TREATMENT OF EDEMA IN BURN INJURY.....	5R01 GM22693-05	58,236
FOX, J LAWRENCE.....	ENZYME STRUCTURE.....	5R01 GM21688-05	209,824
FREEMAN, GARY L.....	THE ROLE OF EGG ORGANIZATION DURING EARLY DEVELOPMENT.....	5R01 GM20024-07	45,243
GALLE, OMER R.....	POPULATION RESEARCH CENTER.....	5P30 HD06160-10	167,530
GEISLER, WILSON S.....	VISUAL ADAPTATION IN CONE AND ROD SYSTEMS.....	5R01 EY02688-02	36,511
GIBSON, DAVID T.....	MICROBIAL DEGRADATION OF CARCINOGENIC HYDROCARBONS.....	5R01 CA19078-05	99,839
GIBSON, DAVID T.....	ENZYMATIC OXYGEN FIXATION INTO AROMATIC HYDROCARBONS.....	5R01 ES00537-10	73,422
GOTTLIEB, PAUL D.....	GENETIC MARKERS, LEUKEMOGENESIS AND THYMIC FUNCTION.....	7R01 CA30147-01	55,015
HACKERT, MARVIN L.....	STRUCTURE AND FUNCTION OF SUPRA-MOLECULAR ASSEMBLAGES.....	5R01 GM23306-05	43,587
HAKES, DAVID T.....	THE EMERGENCE OF LINGUISTIC INTUITIONS IN CHILDREN.....	5R01 HD10969-03	46,342
HAMILTON, TERRELL H.....	RECEPTORS AND CHROMOSOMAL PROTEINS IN ESTROGEN ACTION.....	5R01 HD12967-02	110,165
HARDESTY, BOYD A.....	TRANSLATION CONTROL IN RETICULOCYTES AND LEUKEMIC CELLS.....	5R01 CA16608-06	125,743
HATCH, THOMAS P.....	ATTACHMENT, PENETRATION, AND GROWTH OF CHLAMYDIAE.....	5R01 AI13417-05	56,412
HIRAIZUMI, YUICHIRO.....	GENETICS OF REPRODUCTIVE LONGEVITY IN DROSOPHILA.....	5R01 AG01934-02	62,279
HIRAIZUMI, YUICHIRO.....	MALE RECOMBINATION—MUTATOR SYSTEM IN DROSOPHILA.....	5R01 GM19770-08	91,794
JACOBSON, ANTONE G.....	NEURAL TUBE AND SOMITE MORPHOGENESIS IN EMBRYOS.....	1R01 NS16072-01	64,642
JEFFERY, WILLIAM R.....	STRUCTURE AND FUNCTION OF MESSENGER RIBONUCLEOPROTEIN.....	5R01 GM25119-04	85,221
JEFFERY, WILLIAM R.....	MATERNAL MRNA LOCALIZATIONS IN A DETERMINATE EGG.....	1R01 HD13970-01	53,615
KALTHOFF, KLAUS O.....	ANALYSIS OF A MORPHOGENETIC DETERMINANT IN AN EMBRYO.....	5R01 AI15046-03	67,648

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
KING, ALLAN G.	LABOR MARKET EFFECTS OF UNDOCUMENTED ALIEN WORKERS	1R01 HD12795-01A1	37,577
LARIMER, JAMES L.	NEURAL BASIS OF BEHAVIOR	5R01 NS05423-16	56,515
LEE, CHONG S.	STUDIES OF DNA, CHROMATIN AND CHROMOSOMES OF DROSOPHILA	5R01 GM24495-02	57,815
MABRY, TOM J.	THE FUNCTION AND SYSTEMATIC ROLE OF NATURAL PRODUCTS	2R01 HD04488-16	53,184
MACNEILAGE, PETER F.	CONTROL OF MOVEMENT IN SPEECH APRAXIA	5R01 NS15336-02	102,086
MAGUIRE, MARJORIE P.	CHROMOSOME STRUCTURES AND MEIOTIC MECHANISMS	5R01 GM19582-08	16,337
MANDY, WILLIAM J.	ANTIGLOBULIN ANTIBODIES	5R01 AI07184-15	95,432
MARTIN, STEPHEN F.	TOTAL SYNTHESIS OF THE ANTICANCER AGENT PRETAEZETINE	5R01 CA21860-02	53,231
MARTIN, STEPHEN F.	A NOVEL SYNTHETIC APPROACH TO THE ERYTHRINA ALKALOIDS	5R01 GM25439-02	29,248
MC FADDEN, DENNIS	PSYCHOPHYSICS OF BINAURAL HEARING	5R01 NS08754-11	81,045
MC FADDEN, DENNIS	AUDITORY ADAPTATION FOR SUPRATHRESHOLD	1R01 NS15895-01	74,642
MEIER, STEPHEN P.	MATRIX-CELL INTERACTION IN CRANIOFACIAL DEVELOPMENT	2R01 DE05616-02	48,781
MOLINEUX, IAN J.	STUDIES OF DNA-BINDING PROTEINS AND T7 DNA SYNTHESIS	5R01 GM26183-02	63,975
MONTI, STEPHEN A.	SYNTHESIS OF POLYCYCLIC ANTITUMOR AGENTS	1R01 CA26985-01	44,562
PAYNE, SHELLEY M.	IRON TRANSPORT AND VIRULENCE IN SHIGELLA	1R01 AI16935-01	56,717
POLLAK, GEORGE D.	PROCESSING OF VOCAL COMMUNICATION SOUNDS	2R01 NS13276-04	70,845
POWERS, EDWARD L.	PHYSICO-CHEMICAL STUDIES OF RADIATION EFFECTS IN CELLS	5R01 GM13557-14	78,936
POWERS, EDWARD L.	CENTER FOR FAST KINETICS RESEARCH	2P41 RR00886-06	329,099
RAVEL, JOANNE M.	FACTORS CONTROLLING PROTEIN BIOSYNTHESIS	5R01 GM18775-09	57,591
REED, LESTER J.	BIOCHEMISTRY OF ALPHA-KETO ACID DEHYDROGENASE COMPLEXES	2R01 GM06590-22	150,017
RIGGS, AUSTEN F. II	STRUCTURAL BIOCHEMISTRY OF HEMOGLOBINS AND HEMOCYANINS	5R01 GM21314-05	70,527
ROBERTUS, JON D.	STRUCTURE AND ACTION OF THE ANTIVIRAL PROTEIN PAP	5R01 AI13584-05	58,789
ROBERTUS, JON D.	STRUCTURAL ANALYSIS OF THE ANTI-TUMOR PROTEIN RICIN	5R01 CA24059-02	32,419
RODGERS, MICHAEL A.	SINGLET OXYGEN IN BIOLOGICAL ENVIRONMENTS	5R01 GM24235-02	56,841
SANDERS, BOB G.	EMBRYONIC & VIRALLY INDUCED TUMOR-CELL MEMBRANE ANTIGENS	5R01 CA12851-09	39,098
SANDERS, BOB G.	IMMUNODEFICIENCY STUDIES IN MUSCULAR DYSTROPHY	5R01 NS14252-03	47,275
SMITH, ROBERT V.	METABOLISM OF APOMORPHINE AND ITS ANALOGS	5R01 NS12259-06	62,037
SNELL, ESMOND E.	NUTRITION AND METABOLISM OF MICROORGANISMS	5R01 AI13940-05	43,279
SNELL, ESMOND E.	CATALYTIC FUNCTIONS AND METABOLISM OF VITAMIN B6	5R01 AM19898-05	85,340
SPIRDUOS, WANEEN W.	LONGITUDINAL EFFECTS OF EXERCISE ON REACTIVE CAPACITY	1R01 AG02071-01A1	52,992
SUTTON, H. ELDON	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07091-15	173,457
TABITA, FRED R.	FUNCTION AND ASSEMBLY OF CO2 ASSIMILATORY ENZYMES	5R01 GM24497-03	46,987
WADE, CHARLES G.	NMR RELAXATION OF LIQUID CRYSTAL SYSTEMS	5R01 HL12528-12	47,164
WALKER, JAMES R.	REGULATION OF BACTERIAL CELL DIVISION	5R01 AI08286-12	9,443
WALLER, ELAINE S.	PHARMACOKINETICS AND PHARMACODYNAMICS OF GOLD IN MAN	1R01 AM26524-01	44,686
WANG, KUAN	BIOCHEMISTRY OF NEW MYOFIBRILLAR PROTEINS	2R01 AM20270-04	58,948
WHITESSELL, JAMES K.	THE TOTAL SYNTHESIS OF SARRACENIN	3R01 CA21852-03S1	3,732
WISSLER, EUGENE H.	THERMAL AND NONTHERMAL EFFECTS OF MICROWAVE RADIATION	1R01 GM27844-01	41,423
WOODRUFF, WILLIAM H.	COPPER BINDING IN PROTEINS: RESONANCE RAMAN STUDY	5R01 AM21333-03	42,185
ORGANIZATION TOTAL	77	5,430,681	

COLLEGE STATION

TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS A & M UNIVERSITY ZIP CODE 77843

ADAMS, EMORY T. JR.	BILE SALT SYSTEMS—INTERACTIONS AND CATALYSIS	3R01 GM23877-03S1	7,157
BARNES, GEORGE E.	SYNTHESIS & TESTING OF BLOOD PRESSURE CONTROL DRUGS	1R01 HL24315-01A1	76,621
BATES, GEORGE W.	IRON TRANSPORT AND UTILIZATION IN THE RETICULOCYTE	5R01 AM17790-06	27,328
BERGBREITER, DAVID E.	ELECTROPHILIC ASYMMETRIC SYNTHESSES	5R01 GM26268-02	51,615
CHUNG, SUNG-KEE	PROBES OF NAD-DEPENDENT DEHYDROGENASE REACTION	1R01 GM25288-01A1	29,604
COTTON, F. ALBERT	STRUCTURE/FUNCTION STUDIES ON PROTEINS AND ENZYMES	2R01 GM19455-09	80,787
CRIPPEN, GORDON M.	DISTANCE GEOMETRY QSAR CALCULATIONS	1R01 AM28140-01	40,056
FIFE, WILLIAM P.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07090-15	82,166
GRANGER, HARRIS J.	PATHOPHYSIOLOGY OF EDEMA	5R01 HL21498-04	43,102
GRANGER, HARRIS J.	PATHOBIOLOGY OF HYPERTENSIVE MICROVESSELS	5R01 HL25387-02	121,179
GREENBAUM, IRA F.	CHROMOSOMAL REARRANGEMENT INCORPORATION IN MAMMALS	1R01 GM27014-01	98,350
GUNN, J. MARTYN	REGULATION OF INTRACELLULAR PROTEOLYSIS BY INSULIN	5R01 AM19891-03	56,628
GUNN, J. MARTYN	PROTEASE INHIBITORS AND MUSCLE PROTEIN DEGRADATION	1R01 AM26132-01A1	62,457
HARDING, KENN E.	SPIROCYCLIC SYSTEM SYNTHESIS—PI CATIONIC CYCLIZATION	5R01 GM26265-02	45,207
HARRIS, EDWARD D.	BIOCHEMICAL ESSENTIALITY OF COPPER IN NUTRITION	1R01 AM26604-01	76,476
HESTER, R. KELLY	CALCIUM BINDING VARIATIONS IN VASCULAR REACTIVITY	1R23 HL26121-01	37,535

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
HOGG, JOHN L.....	PROTON INVENTORIES AND TRANSITION STATE STRUCTURE.....	5R01 GM25433-02	25,021
IHLER, GARRET M.....	MAPPING GENES BY BINDING RIBOSOMES TO DNA.....	5R01 GM24432-04	59,666
IHLER, GARRET M.....	MECHANISM OF DNA REPLICATION OF PHAGE LAMBDA.....	1R01 GM27727-01	50,510
IPPEN-IHLER, KARIN.....	THE GENETICS OF PLASMID TRANSFER AND REPLICATION.....	5R01 AI14426-04	56,151
JOHNSON, JAMES R.....	REGULATION OF METHIONINE BIOSYNTHESIS IN E. COLI K12.....	1R01 GM28214-01	74,128
JONES, CARL E.....	INTERVENTIONS TO IMPROVE CARDIAC FUNCTION IN ISCHEMIA.....	3R01 HL20286-03S1	1,538
JONES, CARL E.....	ANTI-INFARCTION EFFECTS IN THE DENERVATED HEART.....	5R01 HL22243-02	43,045
KEELEY, LARRY L.....	NEUROHORMONAL REGULATION OF CYTOCHROME SYNTHESIS.....	5R01 AI15190-03	67,051
KEMP, WALTER M.....	ANTIGEN SHARING BETWEEN SCHISTOSOMES AND SNAILS.....	2R22 AI14525-03	44,582
LEE, SIU-LEUNG.....	ANTITUMOR ALKALOIDS BIOSYNTHESIS & BIOGENETIC SYNTHESIS.....	5R01 CA22436-04	120,405
LUEKING, DONALD R.....	THE REGULATION OF PROCARYOTIC PHOSPHOLIPID SYNTHESIS.....	1R01 GM28036-01	47,050
MACFARLANE, RONALD D.....	BIOMEDICAL USE OF PLASMA DESORPTION MASS SPECTROMETRY.....	5R01 GM26096-03	100,494
MARTELL, ARTHUR E.....	REACTIONS OF METAL CHELATES OF VITAMIN B6.....	5R01 AM11694-15	49,856
MC MURRAY, DAVID N.....	PROTEIN AND ZINC DEFICIENCY AND VACCINE EFFICACY.....	5R01 AI15495-02	48,865
MEYER, EDGAR F, JR.....	STRUCTURAL INVESTIGATION OF THE BILE PIGMENTS.....	2R01 AM20051-03	40,938
MEYER, EDGAR F, JR.....	COMPUTER AIDED STUDY OF DRUG-RECEPTOR INTERACTIONS.....	5R01 GM25469-02	52,512
MILLER, GERALD E.....	IN VIVO MEASUREMENT OF WALL SHEAR STRESS IN THE AORTA.....	5R01 HL23388-02	34,344
O'BRIEN, BARBARA C.....	REGULATION OF LIPOGENESIS BY POLYUNSATURATED DIET FAT.....	3R01 AM20477-02S1	3,295
PACE, CARLOS N.....	MECHANISM OF DEGRADATION OF ARGINASE IN RAT LIVER.....	5R01 AM19112-03	36,803
RENSHAW, HARLAND W.....	INTRANEUTROPHILIC MICROBIOCIDAL DEFECTS.....	2R01 AI15952-02	67,905
SANDER, EUGENE G.....	BIOCHEMICAL MECHANISMS OF PYRIMIDINE ALKYLATION.....	7R01 CA29568-01	54,259
SCOTT, A IAN.....	BROAD-SPECTRUM AND ANTITUMOR ANTIBIOTICS-BIOSYNTHESIS.....	5R01 AI14481-03	83,899
SEED, JOHN R.....	AROMATIC AMINO ACID CATABOLISM DURING TRYPA NOSOMIASIS.....	1R01 AI17185-01	74,310
SHAIKH, ABUBAKAR A.....	STEROID-INDUCED REGULATION OF OVULATION.....	7R01 HD15300-01	120,324
SIS, RAYMOND F.....	A MARMOSET COLONY FOR BIOMEDICAL RESEARCH.....	2P40 RR01060-04	142,337
SMITH, ELVIN E.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR05814-01	24,782
SUMMERS, MAX D.....	BACULOVIRUS GENOME STRUCTURE AND GENE EXPRESSION.....	2R01 AI14755-03A1	104,888
VONDER HAAR, RAYMOND A.....	FRAMESHIFT MUTANTS AND SUPPRESSORS IN MAMMALIAN CELLS.....	1R01 GM27115-01	35,800
WOOD, RANDALL.....	TUMOR LIPIDS: METABOLISM AND STRUCTURAL STUDIES.....	5R01 CA20136-04	66,158
YOUNG, RYLAND F.....	TRANSPOSABLE ANTIBIOTIC RESISTANCE IN BACTERIA.....	1R01 AI16726-01	60,737
YOUNG, RYLAND F.....	CONTROL OF VIRUS-INDUCED CELL LYSIS.....	1R01 GM27099-01	46,705
ZINGARO, RALPH A.....	BIOMOLECULES CONTAINING THE SASR2 OR SEASR2 GROUP.....	3R01 CA16912-05S1	2,371
ZINGARO, RALPH A.....	CHARACTERIZATION OF ORGANOSELENIUM COMPOUNDS IN NATURE.....	5R01 ES02051-02	62,445
ORGANIZATION TOTAL	49 2,839,442		
DALLAS			
BAYLOR COLLEGE OF DENTISTRY ZIP CODE 75246			
DILL, RUSSELL E.....	DRUG EFFECTS ON NUCLEUS ACCUMBENS.....	5R01 NS15020-02	47,741
FRAZIER, LOY W, JR.....	PLASMA FACTOR(S) WHICH STIMULATE H+ & NH4+ EXCRETION.....	5R01 AM18689-06	30,311
TAYLOR, ALAN N.....	CALCIUM BINDING PROTEINS AND CALCIUM HOMEOSTASIS.....	5R01 AM25147-02	31,898
ORGANIZATION TOTAL	3 109,950		
BISHOP COLLEGE ZIP CODE 75241			
COBO-FRENKEL, ADRIANA.....	UDP-GLUCURONYL-TRANSFERASE AND RADIOCONTRAST MEDIA.....	5R01 GM26992-02	45,278
FOWLKS, EDISON R.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07191-01	14,092
FOWLKS, EDISON R.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08050-10	120,760
WILSON, JOSEPH E.....	DEVELOPMENT OF ANTITHROMBOGENIC PLASTIC BIOMATERIALS.....	2R01 HL21194-03	5,939
ORGANIZATION TOTAL	4 186,069		
SOUTHERN METHODIST UNIVERSITY ZIP CODE 75275			
ALLISON, VENITA F.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07194-01	20,394
MC ALISTER, ROBERT O.....	MALARIA: IMMUNOGENIC PROPERTIES OF PARASITE ANTIGENS.....	5R01 AI15828-02	37,127
SOHAL, RAJINDAR S.....	AGE-ASSOCIATED CELLULAR ALTERATIONS IN THE HOUSEFLY.....	2R01 AG00171-04	54,533
ORGANIZATION TOTAL	3 112,054		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS ZIP CODE 75235			
ANDERSON, RICHARD G.....	AN INTEGRATED STUDY OF THE OVIDUCT BASAL BODY AND CILIUM.....	5R01 HD08987-06	62,082
ATKINS, JAMES M.....	CARDIOVASCULAR ADAPTATION TO STRESS IN DISEASE STATES.....	3R01 HL20678-03S1	27,758
BARNEA, AYALLA.....	ROLE OF HORMONES IN NEURONAL PROCESSING OF LHRH & TRH.....	5R01 AM25692-02	69,721

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
BAXTER, CHARLES R.	CIRCULATORY AND FLUID VOLUME CHANGES IN BURNS	5P50 GM21681-16	260,025
BAXTER, CHARLES R.	LEUCOCYTE FUNCTION IN BURN AND TRAUMA PATIENTS	5R01 GM25504-02	107,194
BELL, WILLIAM H.	SURGICAL-ORTHODONTICS AND BONE HEALING	5R01 DE03794-08	109,015
BERGSTRESSER, PAUL R.	MECHANISMS OF ALTERED GRANULOCYTE FUNCTION IN PSORIASIS	5R01 AM25563-02	57,221
BILHEIMER, DAVID W.	LIPOPROTEIN METABOLISM IN RELATION TO ATHEROSCLEROSIS	3R01 HL15949-06S1	24,077
BILHEIMER, DAVID W.	LIPOPROTEIN METABOLISM IN RELATION TO ATHEROSCLEROSIS	2R01 HL15949-07A1	120,710
BILLINGHAM, RUPERT E.	IMMUNOBIOLOGY OF TISSUE TRANSPLANTATION AND PREGNANCY	5R01 AI10678-09	374,034
BONTE, FREDERICK J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RM05426-19	189,787
BRATER, DONALD C.	DETERMINANTS OF THE RESPONSE TO FUROSEMIDE IN MAN	1R01 AM27059-01	84,962
BRATER, DONALD C.	MODULATION BY DISEASE OF EFFECT OF FUROSEMIDE IN MAN	5R23 HL22882-03	37,381
BRETSCHER, ANTHONY P.	MICROFILAMENT ORGANIZATION AND MEMBRANE ATTACHMENT	1R01 GM28045-01	85,657
BRUCE, LARRY A.	HORMONE INFLUENCES ON GI MOTOR FUNCTION	5R01 AM21657-03	45,073
BUCHSBAUM, HERBERT J.	GYNECOLOGIC ONCOLOGY GROUP (INSTITUTIONAL)	1R10 CA28160-01	123,622
BUTOW, RONALD A.	MECHANISMS OF BIOENERGETIC REACTIONS	5R01 GM19090-08	65,313
BUTOW, RONALD A.	REGULATION OF MITOCHONDRIAL BIOGENESIS IN YEAST	5R01 GM22525-05	71,301
CAMPBELL, WILLIAM B.	ANGIOTENSIN AND PROSTAGLANDIN CONTROL OF ALDOSTERONE	2R01 HL21066-04	64,907
CAPRA, J DONALD.	IMMUNOGLOBULIN V REGION STRUCTURES: GENETIC IMPLICATION	5R01 AI2127-06	167,545
CAPRA, J DONALD.	STUDIES ON THE H-2 LINKED SS PROTEIN	5R01 AI14742-04	66,312
COMBES, BURTON	PROGRAM-PROJECT IN LIVER DISEASES	5P01 AM19329-05	500,418
COTTAM, GENE L.	NATURE OF THE REGULATION OF LIVER PYRUVATE KINASE	5R01 AM19031-05	59,937
CRYSTAL, GEORGE J.	AORTIC BODY CONTROL OF MYOCARDIAL CONTRACTILITY	1R23 HL25897-01	42,534
DIETSCHY, JOHN M.	CONTROL OF CHOLESTEROL METABOLISM—BILE ACID TRANSPORT	2R01 HL09610-16	235,071
DOBBS, RICHARD E.	HYPOTHALAMIC LESIONS AND PANCREATIC ISLET FUNCTION	5R01 AM25974-02	41,326
DOWBEN, ROBERT M.	PROBE STUDIES OF ADRENERGIC RECEPTOR ADENYL CYCLASE	5R01 HL18272-05	47,080
DOWNEY, H FRED	REGIONAL, NON-ISCHEMIC MYOCARDIAL HYPOXIA	2R01 HL21657-03	81,704
DU BOSE, THOMAS D, JR	MECHANISM OF RENAL ACID-BASE HOMEOSTASIS	5R01 AM25730-02	81,811
EIDELS, LEON	STUDIES ON DIPHTHERIA TOXIN AND ITS RECEPTOR	1R01 AI16805-01	88,528
ERDOS, ERVIN G.	VASOACTIVE PEPTIDES WHICH STIMULATE SMOOTH MUSCLES	5R01 HL16320-07	86,655
ERDOS, ERVIN G.	RENAL ENZYMES THAT REGULATE BLOOD PRESSURE	5R01 HL20594-04	95,771
ESTABROOK, RONALD W	HEPATIC MICROSOMAL DRUG OXIDATION	5R01 GM16488-13	300,864
ESTABROOK, RONALD W	MASS SPECTROMETER	5P41 GM27506-02	23,386
FAWCETT, C PETER	HYPOTHALAMIC REGULATION OF THE ENDOCRINE PANCREAS	3R01 AM21163-03S1	21,867
FEIT, HOWARD	THE ROLE OF TUBULIN AT THE NERVE ENDING	5R01 NS12743-05	68,351
FINKELSTEIN, DAVID B.	COORDINATION OF PERIODIC GENE EXPRESSION IN YEAST	5R01 GM25829-02	55,629
FIXLER, DAVID E.	CARDIOVASCULAR FOLLOW-UP OF HYPERTENSIVE ADOLESCENTS	5R01 HL18456-05	128,871
FORDTRAN, JOHN S.	GASTRIC ACID SECRETION AND BUFFER CONTENT AFTER EATING	5R01 AM16816-07	101,846
FORMAN, JAMES M.	ANALYSIS OF H-2 MUTANT STRAINS	5R01 AI31111-05	109,101
FOSTER, DANIEL W.	REGULATION OF KETOGENESIS AND BIOCHEMISTRY OF OBESITY	2R01 AM18573-19	195,581
FRENKEL, EUGENE P.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18132-06	103,321
FRENKEL, EUGENE P.	NEW IMMUNOLOGIC APPROACHES TO LYMPHOID NEOPLASMS	5P01 CA23117-03	467,297
GAFFNEY, FRANCIS A.	CARDIOVASCULAR REGULATION DURING ISOMETRIC EXERCISE	1R23 HL25710-01	44,217
GALOSY, RICHARD A.	CENTRAL NERVOUS SYSTEM CONTROL OF HYPERTENSION	5R01 HL24127-02	69,728
GANT, NORMAN F, JR	PLACENTAL FUNCTION IN NORMAL AND ABNORMAL PREGNANCY	5R01 HD08360-07	128,413
GARRARD, WILLIAM T.	STRUCTURE OF THE SUBUNITS OF EUKARYOTIC CHROMOSOMES	5R01 GM22201-06	70,238
GILLIAM, JAMES N.	IMMUNE MECHANISMS OF SKIN DISEASE	1P50 AI17363-01	153,867
GILLIAM, JAMES N.	CUTANEOUS LUPUS ERYTHEMATOSUS PATHOGENESIS MECHANISMS	5R01 AM19101-05	77,206
GOLDSTEIN, JOSEPH L.	MOLECULAR BASIS OF CHOLESTEROL METABOLISM	5P01 HL20948-04	752,207
GOMEZ-SANCHEZ, CELSO E.	ROLE OF MINERALOCORTICOIDS IN LOW RENIN HYPERTENSION	5R01 HL18730-05	26,227
GOMEZ-SANCHEZ, CELSO E.	STEROIDS IN ADRENAL REGENERATION HYPERTENSION	5R01 HL21779-03	34,759
GONYEA, WILLIAM J.	ADAPTATION OF MUSCLE TO HIGH-INTENSITY EXERCISE	5R01 AM17615-06	79,286
GRIFFIN, WILMA S.	BRAIN DEVELOPMENT AND GRAFT VERSUS HOST DISEASE	5R01 AI4663-03	59,388
GRINNELL, FREDERICK L.	MOLECULAR BASIS OF CELLULAR ADHESIVENESS	5R01 CA14609-08	88,194
GRINNELL, FREDERICK L.	BLOOD-MATERIAL INTERACTIONS: ADSORPTION OF FIBRONECTIN	5R01 HL24221-02	35,443
HART, DAVID A.	REGULATION OF LYMPHOCYTE ACTIVITY BY PROTEASES	5R01 CA24444-03	41,862
HEIFETZ, AARON H.	GLYCOPROTEINS IN HUMAN VASCULAR CELL INTERACTIONS	1R01 HL25937-01	64,126
HELDERMAN, J HAROLD	INSULIN RECEPTOR RELATIONSHIP WITH IMMUNOCOMPETENT CELLS	5R01 AM22150-03	90,472
HERSH, LOUIS B.	METHYLAMINE METABOLISM, STUDIES OF ENZYME HOMOLOGY	5R01 AM13443-12	66,464
HERSH, LOUIS B.	CHOLINE ACETYLTRANSFERASE: IN VITRO AND IN SITU STUDIES	1R01 NS15739-01	65,359
HUMPHRIES, ERIC H.	EXPRESSION OF AVIAN SARCOMA VIRUS IN RAT FIBROBLASTS	5R01 CA23041-03	52,848
HURD, ERIC R.	IMMUNE MECHANISMS OF INJURY TO PULMONARY ENDOTHELIUM	5R01 HL25061-02	90,406
JACOBSON, HARRY R.	TRANSPORT HETEROGENEITY IN MAMMALIAN PROXIMAL TUBULES	5R01 AM23091-02	35,642

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
JASIN, HUGO E.	ROLE OF IMMUNE COMPLEXES IN CHRONIC INFLAMMATION	5R01 AM16209-07	60,592
JOHNSON, ALICE R.	INTERACTION OF PEPTIDES AND TARGET CELLS IN LUNG	5R01 HL18826-06	52,236
JOHNSON, ALICE R.	TRANSPORT MECHANISMS IN PULMONARY ENDOTHELIUM	5R01 HL20623-02	35,312
JOHNSTON, JOHN M.	FETAL LUNG MATURATION: PREVENTION OF RDS	1P01 HD13912-01	315,100
KETTMAN, JOHN R., JR.	THE RELATION OF HUMORAL AND CELL MEDIATED IMMUNITIES	2R01 AI11630-07	69,099
KOKKO, JUHA P.	TRANSPORT PROPERTIES OF NEPHRONS	5R01 AM14677-11	321,120
KOZLOWSKI, GERALD P.	IMMUNOTECHNIQUES FOR GNRH AND RELATED NEUROPEPTIDES	7R01 HD15040-01	83,153
LEBOVITZ, ROBERT M.	VESTIBULO-COCHLEAR EFFECTS OF UHF-MICROWAVE RADIATION	5R01 ES01937-06	65,204
LIPSCOMB, MARY F.	CLEARANCE OF VIRUS FROM BRONCHO-ALVEOLAR SPACES	5R01 HL23870-02	67,115
LIPTON, JAMES M.	CENTRAL MECHANISMS IN FEVER	5R01 NS10046-07	54,564
LONGHURST, JOHN C.	CARDIOVASCULAR EFFECTS FROM VISCERAL AFFERENTS	5R23 HL22669-03	41,530
MARKS, JAMES F.	THE ONTOGENY OF PUBERTY IN DIABETES MELLITUS	2R01 AM20777-04	72,913
MARTIN, NANCY C.	TRANSCRIPTION AND ORGANIZATION OF MITOCHONDRIAL GENES	5R01 GM27597-02	60,823
MARVER, DIANA H.	CHARACTERIZATION OF HORMONE TARGET SITES ON CHROMATIN	5R01 AM1576-03	48,966
MASTERS, BETTIE S.	MICROSOMAL ELECTRON TRANSPORT IN LIVER AND HEART	3R01 HL13619-10S2	2,370
MASTERS, BETTIE S.	MICROSOMAL ELECTRON TRANSPORT IN LIVER AND HEART	5R01 HL13619-11	80,899
MC CANN, SAMUEL M.	NEUROHUMORAL CONTROL OF THE ANTERIOR PITUITARY	5R01 AM10073-15	100,755
MC CANN, SAMUEL M.	NEURAL CONTROL OF GONADOTROPIN AND PROLACTIN SECRETION	5P01 HD09988-04	284,138
MC CULLEY, JAMES P.	MEIBOMIAN KERATOCONJUNCTIVITIS	7R01 EY03650-01	52,256
MIHALOFF, GREGORY A.	AN ANALYSIS OF STRUCTURE AND FUNCTION OF BASILAR PONS	5R01 NS12644-03	37,804
MILEWICH, LEON	STERIOD METABOLISM IN HUMAN LUNG TISSUE AND PNEUMOCYTES	1R01 AM27257-01	104,758
MITCHELL, JERE H.	CARDIOVASCULAR AND PULMONARY ADAPTATION TO STRESS	5P01 HL06296-20	415,498
MORRISON, MARCELLE R.	MESSANGER RNA STRUCTURE, METABOLISM AND FUNCTION	1R01 GM27214-01	49,642
MOSS, ROBERT L.	HYPOTHALAMIC PEPTIDES AND REPRODUCTIVE BEHAVIOR	5R01 HD11814-03	49,225
MOSS, ROBERT L.	NEUROHUMORAL EVENTS IN CELLS ENDING IN MEDIAN EMINENCE	5R01 NS10434-09	38,755
MUNFORD, ROBERT S.	ASSAYS FOR ENDOTOXIN IN PLASMA	5R23 AI14942-03	26,759
MURPHY, F. KEVIN	CELLULAR IMMUNITY IN HUMAN HERPES SIMPLEX INFECTION	5R23 AI14591-03	34,206
NAPOLI, JOSEPH L.	CHARACTERIZATION OF RETINOIC ACID METABOLISM	1R01 AM26535-01	52,491
NEAVES, WILLIAM B.	BIOLOGY OF AGING LEYDIG CELLS	5R01 AG00793-03	35,901
NEUWELT, EDWARD A.	OSMOTIC OPENING OF BLOOD BRAIN BARRIER TO CHEMOTHERAPY	1R01 CA27191-01	64,495
NORGARD, MICHAEL V.	T PALLIDUM ANTIGENS FROM RECOMBINANT DNA	1R01 AI16692-01	85,072
OZANNE, BRADFORD W.	MAPPING OF POLYPEPTIDES TO MURINE SARCOMA VIRUS RNA	5R01 CA23043-03	48,287
PAK, CHARLES Y.	THEORETICAL AND THERAPEUTIC ASPECTS OF CALCIFICATION	5R01 AM16061-09	91,693
PAK, CHARLES Y.	FORMULATION OF RATIONAL THERAPY OF UROLITHIASIS	5P01 AM20543-04	315,313
PAKES, STEVEN P.	ANIMAL RESOURCES DISEASE LABORATORY	5P40 RR00890-07	116,716
PARKER, JANET L.	CARDIAC MUSCLE FUNCTION IN CIRCULATORY SHOCK	5R23 HL23423-02	46,863
PARKER, RICHARD C., JR.	AGING EFFECTS ON NEURONAL PEPTIDES IN HUMAN BRAIN	1R23 AG02295-01	38,999
PARKER, RICHARD C., JR.	CONTROL OF LIPOPROTEIN & STEROID LEVELS IN THE FETUS	1R01 HD14513-01	104,768
PARNAVELAS, JOHN G.	VISUAL CORTEX DEVELOPMENT	5R01 EY02964-02	66,216
PETERSON, JULIAN A.	REGULATION OF MICROBIAL OXIDATION REACTIONS	2R01 GM19036-12	65,139
PETTINGER, WILLIAM A.	NORADRENERGIC ROLES IN SEVERAL CLINICAL SYNDROMES	5R01 HL23670-02	73,284
PETTINGER, WILLIAM A.	ALPHA-ADRENERGIC RECEPTOR REGULATION	5R01 HL24480-02	112,721
PIERCE, ALAN K.	DEFENSE MECHANISMS OF THE LUNG	5R01 HL21827-03	92,240
PORTER, JOHN C.	HORMONE DYNAMICS & TARGET ORGANS IN AGING MEN & WOMEN	5P01 AG00306-04	387,644
PORTER, JOHN C.	SECRETION OF HYPOTHALAMIC AND PITUITARY HORMONES	5R01 AM01237-25	121,719
PRICE, KENNETH P.	AUTONOMIC PREDICTORS OF HYPERTENSION IN CHILDREN	3R01 HL20655-02S3	34,580
PROUGH, RUSSELL A.	BIOCHEMICAL-PHARMACOLOGICAL EVALUATION OF LUNG CELLS	5R01 HL19654-05	71,563
RANNEY, DAVID F.	CHALONE REGULATION OF HUMAN LYMPHOID NEOPLASMS	3R01 CA26031-01S1	9,388
RASKIN, PHILIP	HYPERLIPIDEMIA AND DIABETES: GLUCOSE LIPID INTERACTIONS	5R01 AM18179-06	61,163
REEVES, JOHN P.	REGULATION OF GLUCOSE TRANSPORT IN RAT THYMOCYTES	5R01 GM21423-05	41,825
ROAN, PETER G.	EFFECT OF HYPERTENSION AND HYPERTROPHY ON LV ISCHEMIA	1R23 HL25371-01	47,780
ROSENBERG, ROGER N.	BIOCHEMICAL EVENTS IN DIFFERENTIATING NEUROBLASTOMA	3R01 CA21602-03S1	26,992
ROSENFELD, CHARLES R.	STUDIES OF UTERO-PLACENTAL CIRCULATION	5R01 HD08783-07	104,046
SAID, SAMI I.	VASOACTIVE INTESTINAL & LUNG POLYPEPTIDES-TUMOR	5R01 CA21570-04	42,894
SAID, SAMI I.	SUPPORT FOR CENTER FOR LUNG RESEARCH	5P50 HL14187-09	744,613
SEELIG, LEONARD L., JR.	DYNAMICS OF LYMPHOCYTE TRANSFER TO THE NEWBORN	1R01 HD14358-01	59,571
SELDIN, DONALD W.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00633-08	1,064,760
SHADDUCK, JOHN A.	DIAGNOSIS AND TREATMENT OF MAMMALIAN ENCEPHALITIZOONOSIS	5R24 RR00938-06	4,715
SHAY, JERRY W.	TUBULIN AND THE REGULATION OF STEROID BIOGENESIS	1R01 GM29261-01	38,531
SHAY, JERRY W.	ANALYSIS OF HEART CELL CONTRACTION	3R01 HL20643-03S1	5,259
SIMPSON, EVAN R.	LIPOPROTEINS AND STEROIDOGENESIS IN REPRODUCTION	5R01 HD13234-02	82,474

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
SMILEY, JAMES D.....	THE LOCAL IMMUNE RESPONSE IN RHEUMATOID SYNOVITIS.....	5R01 AM08418-17	43,273
SNELL, WILLIAM J.....	CELL SURFACE RECOGNITION AND CELL INTERACTIONS.....	5R01 GM25661-03	48,363
SOKOL, BARRY A.....	PHOTORECEPTOR RESPONSES TO SINGLE PHOTON ABSORPTIONS.....	1R01 EY03204-01	83,348
SPECIALE, SAMUEL G. JR.....	NEUROCHEMISTRY OF THE RETINOHYPOTHALAMIC PROJECTION.....	1R01 EY03327-01	76,572
SREBRO, RICHARD.....	PSEUDORANDOM STIMULI FOR CLINICAL VEP TESTING.....	5R01 EY03068-02	76,437
SREER, PAUL A.....	STRUCTURES AND MECHANISMS OF CITRATE ENZYMES.....	5R01 AM11313-14	81,876
STASTNY, PETER.....	HLA-D AND IA-LIKE ANTIGENS IN RHEUMATOID ARTHRITIS.....	5R01 AI12563-06	91,859
STASTNY, PETER.....	ENDOTHELIAL-MONOCYTE ALLOANTIGENS.....	5R01 AM22185-02	91,990
STEIN-STREILEIN, JOAN E.....	BIOLOGICAL FUNCTIONS OF ALPHA 2 MACROGLOBULIN.....	5R01 CA26842-02	30,073
STREILEIN, J WAYNE.....	ANTERIOR CHAMBER INFLUENCE ON RESPONSE TO OCULAR ANTIGEN.....	5R01 EY03119-02	90,983
STREILEIN, J WAYNE.....	PRODUCTION OF SYRIAN HAMSTER CONGENIC STRAINS.....	3P40 RR01133-03S1	748
STREILEIN, J WAYNE.....	PRODUCTION OF SYRIAN HAMSTER INBRED AND CONGENIC STRAINS.....	2P40 RR01133-04	66,775
STULL, JAMES T.....	ROLE OF PHOSPHOPROTEIN IN CARDIAC INOTROPIC RESPONSES.....	5R01 HL23990-03	67,038
STULL, JAMES T.....	BIOCHEMICAL MECHANISMS OF SMOOTH MUSCLE CONTRACTION.....	1R01 HL26043-01	102,129
SULLIVAN, TIMOTHY J.....	BIOCHEMISTRY OF MAST CELL SECRETION.....	3R01 AI17298-01S1	10,810
SULLIVAN, TIMOTHY J.....	STUDIES OF POLLEN ANTIGEN STRUCTURE.....	1R01 AI17685-01	58,072
SUTKO, JOHN L.....	SODIUM-CALCIUM INTERACTIONS IN MAMMALIAN MYOCARDIUM.....	3R23 HL21262-03S1	4,213
TAUROG, ALVIN M.....	THYROID FUNCTION AND IODINE METABOLISM.....	2R01 AM03612-21	151,901
TIGELAAR, ROBERT E.....	IMMUNOBIOLOGY OF CUTANEOUS LYMPHOID INFILTRATES.....	7R01 AM28425-01	93,039
TUCKER, PHILIP W.....	TRANSFORMED B LYMPHOCYTE HEAVY CHAIN GENE ORGANIZATION.....	7R01 AI18016-01	73,519
UHR, JONATHAN W.....	REGULATION OF THE IMMUNE RESPONSE.....	5R01 AI10967-08	98,869
UHR, JONATHAN W.....	THE BIOLOGY AND BIOCHEMISTRY OF THE LYMPHOCYTE SURFACE.....	5P01 AI11851-07	571,144
UNGER, ROGER H.....	THE GLUCOREGULATORY PEPTIDE HORMONES.....	5R01 AM02700-21	79,601
UYEDA, KOSAKU.....	STRUCTURE AND FUNCTION OF PHOSPHOFRUCTOKINASE.....	5R01 AM16194-09	51,926
VITETTA, ELLEN S.....	THE BIOLOGY AND BIOCHEMISTRY OF CELL SURFACE IGD.....	5R01 AI12789-06	92,678
VITETTA, ELLEN S.....	STRUCTURAL STUDIES OF TL, IA, AND QA-3 ANTIGENS.....	5R01 AI13448-05	70,099
WATERMAN, MICHAEL R.....	POLYMERIZATION OF DEOXYHEMOGLOBIN S.....	5R01 AM20659-02	56,330
WATERMAN, MICHAEL R.....	MOLECULAR BASIS OF CYTOCHROME P-450 INDUCTION.....	1R01 GM27151-01	52,863
WILDENTHAL, C KERN.....	FETAL HEARTS IN ORGAN CULTURE.....	5R01 HL14706-09	92,413
WILDENTHAL, C KERN.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07175-04	189,787
WILLERSON, JAMES T.....	ISCHEMIC HEART DISEASE SPECIALIZED CENTER OF RESEARCH.....	2P50 HL17669-06	1,235,650
WILSON, CAROL M.....	THE GENETIC CONTROL OF RENIN ACTIVITY.....	5R01 GM26414-02	51,904
WILSON, JEAN D.....	ACTION OF HORMONES ON PROTEIN AND RNA METABOLISM.....	5R01 AM03892-22	189,822
WILSON, JEAN D.....	ONSET AND PROGRESSION OF PUBERTY.....	5R01 HD10909-03	41,916
WRIGHT, WOODRING E.....	GENE EXPRESSION IN AGING AND DEVELOPMENT.....	5R01 AG01228-02	50,323
ZIFF, MORRIS.....	IMMUNOLOGICAL & OTHER ASPECTS OF RHEUMATIC DISEASES.....	5P01 AM09899-16	414,972
ZIFF, MORRIS.....	AUTOANTIBODY FORMATION IN RHEUMATOID ARTHRITIS.....	2R01 AM18505-06	89,650
ORGANIZATION TOTAL	162 19,034,470		
WADLEY INSTITUTES OF MOLECULAR MEDICINE ZIP CODE 75235			
BOLLON, ARTHUR P.....	ANALYSIS OF YEAST NUCLEAR GENES.....	1R01 GM28090-01	58,543
ORGANIZATION TOTAL	1 58,543		
DENTON			
NORTH TEXAS STATE UNIVERSITY ZIP CODE 76203			
CLEVELAND, DONALD B.....	LESS THAN FULLTEXT INDEXING USING THE INDIRECT METHOD.....	5R01 LM03259-02	32,066
GRACY, ROBERT W.....	THE EFFECTS OF AGING ON LYMPHOCYTE ACTIVATION.....	5R01 AG01274-02	39,914
GRACY, ROBERT W.....	MOLECULAR BASIS OF GENETIC DEFECTS OF GLYCOLYSIS.....	5R01 AM14638-10	76,732
GRACY, ROBERT W.....	BIOMEDICAL RESEARCH SUPPORT.....	1S07 RR07195-01	25,659
HARRIS, BEN G.....	REGULATION OF METABOLISM IN PARASITIC HELMINTHS.....	5R01 AI12331-05	51,265
JACOBSON, MYRON K.....	ALTERATION OF NAD METABOLISM BY CHEMICAL CARCINOGENS.....	5R01 CA23994-03	46,988
JACOBSON, MYRON K.....	STRUCTURAL REQUIREMENTS FOR NITROSAMINE CARCINOGENICITY.....	5R01 ES01975-03	43,105
LACKO, ANDRAS G.....	SPECIAL INITIATIVE GRANT FOR GERONTOLOGICAL RESEARCH.....	5R21 AG01450-02	60,897
MROTEK, JAMES J.....	EFFECT OF AGING ON ADRENAL CELL RESPONSE TO ACTH.....	5R23 AG01055-02	35,125
THOMPSON, RICHARD F.....	HEPATIC CHOLESTEROL BIOSYNTHESIS IN DIABETIC RATS.....	5R01 HL25045-02	42,082
ORGANIZATION TOTAL	10 453,833		
TEXAS WOMAN'S UNIVERSITY ZIP CODE 76204			
GROSS, GUENTER W.....	NEURONAL NETWORKS ON MULTIMICROELECTRODE SURFACES.....	5R01 NS15167-02	39,638

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
MILNER, ALICE N.....	BONE QUALITY CHANGES IN HUMANS: A 20-YEAR FOLLOW-UP.....	3R01 AM21518-02S1	321
MILNER, ALICE N.....	BONE QUALITY CHANGES IN HUMANS: A 20-YEAR FOLLOW-UP.....	5R01 AM21518-03	31,555
RUDICK, MICHAEL J.....	THE MECHANISM OF GLYCOPROTEIN SECRETION.....	5R01 GM22707-05	30,411
ORGANIZATION TOTAL	4	101,925	
EDINBURG			
PAN AMERICAN UNIVERSITY	ZIP CODE 78539		
SAVAGE, NORMAN L.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08038-10	348,464
ORGANIZATION TOTAL	1	348,464	
EL PASO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT EL PASO	ZIP CODE 79968		
MOSS, DONALD E.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08012-10	456,810
ORGANIZATION TOTAL	1	456,810	
FORT WORTH			
TEXAS CHRISTIAN UNIVERSITY	ZIP CODE 76129		
BABITCH, JOSEPH A.....	A MODEL FOR STUDYING THE INTERIOR OF SYNAPSES.....	5R01 NS14408-02	30,650
SELLS, SAUL B.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07106-06	23,938
ORGANIZATION TOTAL	2	54,588	
TEXAS COLLEGE OF OSTEOPATHIC MEDICINE	ZIP CODE 76107		
TAI, HSIN-HSIUNG.....	ENZYMES IN PROSTAGLANDIN METABOLISM.....	5R01 GM25247-04	46,719
YORIO, THOMAS.....	ROLE OF PHOSPHOLIPASES IN MEMBRANE PERMEABILITY.....	5R01 AM25639-02	24,631
ORGANIZATION TOTAL	2	71,350	
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON	ZIP CODE 77550		
ABELL, CREED W.....	BIOCHEMISTRY OF NORMAL AND LEUKEMIC LYMPHOCYTES.....	5R01 CA14525-08	71,023
ADAMS, PAUL R.....	POSTJUNCTIONAL EVENTS IN ENDPLATES.....	5R01 NS14920-02	37,511
ADAMS, PAUL R.....	DRUG ACTIONS OF SYNAPTIC CHANNELS OF NEURONS.....	5R01 NS14986-02	30,540
ADAMS, PAUL R.....	FLUORESCENCE ANALYSIS OF CHOLINERGIC EXCITATION.....	1R01 NS15846-01	88,555
AHMED, AHMED E.....	MELPHALAN: PHARMACOKINETICS AND MECHANISM OF ACTION.....	5R01 CA25505-02	60,829
AHMED, AHMED E.....	CHEMICAL PATHOLOGY OF ACRYLONITRILE BIOTRANSFORMATION.....	5R01 ES01871-02	72,692
ARNETT, DAVID W.....	FUNCTION OF NEURON NETWORKS IN VERTEBRATE VISUAL SYSTEMS.....	5R01 EY01897-05	107,892
AWASTHI, YOGESH C.....	MECHANISM OF ANTI-CARCINOGENIC EFFECT OF ANTIOXIDANTS.....	1R01 CA27967-01	46,486
BARBER, JOHN C.....	TISSUE STABILIZED ALLOPLASTIC CORNEAL PROSTHESIS.....	5R01 EY02610-02	61,466
BARNETT, DONALD R.....	PURIFICATION AND SUPPLEMENTATION OF A1-ANTITRYPSIN.....	5R01 HL24853-02	74,029
BARRANCO, SAM C.....	DRUG SENSITIVITY OF MAMMALIAN CELLS IN PLATEAU PHASE.....	5R01 CA15397-08	86,272
BARRANCO, SAM C.....	USE OF CELL KINETICS TO PLAN HUMAN TUMOR TREATMENT.....	5P01 CA23114-03	117,797
BARRANCO, SAM C.....	DIFFERENTIAL DRUG SENSITIVITIES OF HUMAN TUMOR CELLS.....	5R01 CA23145-03	52,420
BOOR, PAUL J.....	MECHANISM OF MYOCARDIAL INJURY BY ALIPHATIC AMINES.....	1R01 HL26189-01	82,218
BOWMAN, BARBARA H.....	THE BASIC DEFECT IN CYSTIC FIBROSIS.....	3R01 AM20606-02S1	12,873
BOWMAN, BARBARA H.....	THE BASIC DEFECT IN CYSTIC FIBROSIS.....	5R01 AM20606-03	120,218
BOWMAN, BARBARA H.....	GENETIC CONTROL OF BASEMENT MEMBRANE GLYCOPROTEINS.....	1R01 AM26381-01	54,362
BOWMAN, BARBARA H.....	GENETIC CONTROL OF THE STRUCTURE OF HUMAN PROTEINS.....	5R01 HD03321-14	118,372
BOX, EDITH D.....	HOST PARASITE RELATIONSHIPS OF SARCOCYSTIS SPECIES.....	5R01 AI15945-02	36,715
BRODWINCK, MALCOLM S.....	MEMBRANE PROPERTIES AND CHEMICAL NATURE OF PERMEATION.....	5R01 NS11963-05	41,342
BROWN, ARTHUR M.....	NERVOUS AND IONIC FACTORS IN SUDDEN CARDIAC DEATH.....	5R01 HL18798-06	121,899
BROWN, ARTHUR M.....	MEMBRANE CURRENTS IN CARDIAC MUSCLE.....	1R01 HL25145-01	95,952
BROWN, ARTHUR M.....	IONIC MOVEMENTS ACROSS NERVE CELL BODY MEMBRANES.....	5R01 NS11453-06	59,275
BRUHN, JOHN G.....	DEVELOPMENT OF POSITIVE HEALTH BEHAVIOR IN PRESCHOOLERS.....	5R01 HD13101-02	296,927
BRYAN, GEORGE T.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05427-19	189,787
BRYSK, MIRIAM M.....	CELL SURFACE CHANGES IN EPIDERMAL DIFFERENTIATION.....	5R01 CA27441-02	69,882
CARNEY, DARRELL H.....	ROLE OF CELL SURFACE IN REGULATING CELL PROLIFERATION.....	5R01 AM25807-02	53,517
CHAN, LEE-NIEN L.....	REGULATION OF HEMOGLOBIN SYNTHESIS IN CHICK EMBRYOS.....	5R01 HL24048-03	62,690

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
CHANG, JEFFREY P.	CHARACTERIZATION OF CILIATED RESPIRATORY EPITHELIA	5R01 HL23851-02	92,689
CHRISTENSEN, BURGESS N.	SYNAPTIC ORGANIZATION IN THE CENTRAL NERVOUS SYSTEM	5R01 NS14429-03	41,103
COGGESHALL, RICHARD E.	UNMYELINATED FIBER SYSTEMS IN THE VERTEBRATE	5R01 NS10161-10	60,975
COSTANZI, JOHN J.	SOUTHWEST ONCOLOGY GROUP	5R10 CA03096-23	226,028
COSTANZI, JOHN J.	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	5P30 CA17701-06	481,584
COSTANZI, JOHN J.	GALVESTON CLINICAL CANCER EDUCATION PROGRAM	5R25 CA20643-02	123,956
COULTER, JOE D.	CENTRAL ORGANIZATION OF SOMATOSENSORY SYSTEMS	5R01 NS12481-05	60,969
CRANFORD, JERRY L.	NEURAL MECHANISMS OF BINAURAL HEARING	3R01 NS15323-02S1	1,411
CZERWINSKI, EDMUND W.	STRUCTURAL STUDIES OF ISOCITRATE DEHYDROGENASE	1R01 GM27024-01	70,487
DAVIS, CHARLES P.	BLADDER INFECTIONS: PATHOGENESIS AND RESISTANCE	5R01 AI14508-03	41,944
DENNEY, RICHARD M.	SOMATIC CELL GENETICS OF AMINOACYL-TRNA SYNTHETASES	5R01 GM25090-03	39,446
DUNCAN, DONALD	FINE STRUCTURE OF THE SUBSTANTIA GELATINOSA	5R01 NS13171-04	54,900
EATON, DOUGLAS C.	SODIUM TRANSPORT MECHANISMS IN MAMMALIAN URINARY BLADDER	5R01 AM20068-03	38,608
EDEN, AVRIM R.	NEURAL PROJECTIONS OF INDIVIDUAL VESTIBULAR RECEPTORS	1R01 NS16082-01	70,431
EISENBERG, HOWARD M.	A CENTER FOR THE STUDY OF NERVOUS SYSTEM INJURY	5P01 NS07377-11	363,977
EWERT, ADAM	IN VIVO AND IN VITRO EFFECTS OF DRUGS ON BRUGIA MALAYI	1R01 AI16469-01	74,387
FILE, SHARON K.	IN VITRO CYTOTOXICITY OF SCHISTOSOME EGGS	5R22 AI15569-02	43,421
FISHMAN, HARVEY M.	FLUCTUATION PHENOMENA AND ION MOVEMENTS IN MEMBRANES	2R01 NS11764-08	52,796
FISHMAN, HARVEY M.	STOCHASTIC AND KINETIC PROCESSES IN MEMBRANE FUNCTION	2P01 NS13778-04	292,475
FLEISCHMANN, W R, JR.	MODULATION OF THE ANTITUMOR EFFECT OF INTERFERON	1R01 CA26475-01A1	73,199
FORKERT, LUTZ	ROLE OF CHEST WALL IN THE DISTRIBUTION OF VENTILATION	1R23 HL25745-01	42,377
FULLER, GERALD M.	REGULATION OF PLASMA PROTEIN BIOSYNTHESIS	5R01 HL16445-07	77,152
GABEL, JOSEPH C.	PULMONARY EDEMA; MECHANISMS AND THERAPY	5R01 HL23272-02	91,752
GALLAGHER, JOEL P.	PHARMACOLOGY OF A GAMMA-AMINOBUTYRIC ACID RECEPTOR	3R01 NS13727-03S1	1,577
GAN, JOSE C.	PULMONARY FUNCTION & STRUCTURE OF ALPHA-1-ANTITRYPSIN	5R01 HL23547-02	67,993
GILES, WAYNE R.	INITIATION OF THE HEARTBEAT—A VOLTAGE-CLAMP STUDY	5R01 HL25409-02	72,395
GRANT, J ANDREW	BASOPHILS AND MAST CELLS: ROLE IN IMMUNE REACTIONS	5R01 AI12621-05	73,691
HALL, CHARLES E.	HORMONAL AND DIETARY MODIFICATION OF NaCl TOXICITY	5R01 HL09911-13	42,132
HALL, CHARLES E.	TRACE METALS, VASCULAR ACTIVITY AND HYPERTENSION	5R01 HL22603-03	37,523
HAMILTON, SUSAN L.	STRUCTURE AND BIOGENESIS OF ACETYLCHOLIN RECEPTOR	1R01 NS16088-01	80,451
HANCOCK, MICHAEL B.	ORGANIZATION OF THE PELVIC INNERVATION	5R01 NS15546-02	31,363
HILLMAN, GILBERT R.	IRREVERSIBLE ANTICHLINERGIC EFFECTS IN SCHISTOSOMES	5R22 AI15536-02	59,797
HOLLAND, O BRYAN	ALDOSTERONE IN HYPERTENSION	1R01 HL26856-01	59,021
HOLUBEK, VIKTOR	INTERFERENCE OF AZOCARCINOGENS WITH RNA PROCESSING	5R01 CA22559-03	47,403
HULET, WILLIAM H.	CAPTURE & MAINTENANCE OF SQUID LOLIGO PEALEI	3P40 RR01024-04S1	1,623
JOHNSON, HOWARD M.	PRODUCTION AND PURIFICATION OF TYPE II INTERFERON	1R01 AI16428-01A1	94,131
JOHNSON, HOWARD M.	HUMAN IMMUNE INTERFERON PREPARATION ANTITUMOR EFFECT	1R01 CA27590-01	111,731
KITREDGE, JAMES S.	BAG CELL HORMONES: ISOLATION AND STRUCTURE	5R01 NS12952-03	63,292
KLEBE, ROBERT J.	CELL ADHESION PROTEINS AND MALIGNANCY	5R01 CA19017-05	68,406
KLEBE, ROBERT J.	SOMATIC CELL GENETICS OF DIFFERENTIATED PHENOTYPES	5R01 GM21433-07	73,319
KNUDSON-COOPER, MARY S.	ANTECEDENTS AND CONSEQUENCES OF CHILD BURN INJURIES	5R01 GM25016-02	41,411
LA BELLE, EDWARD F, JR.	HORMONE EFFECTS ON RECONSTITUTED MEMBRANES	5R01 AM25244-03	35,627
LEVIN, WILLIAM C.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00073-18	632,589
MC ADOO, DAVID J.	GLYCINE AS A NEUROTRANSMITTER IN IDENTIFIED NEURONS	3R01 NS13311-03S1	1,162
MC ADOO, DAVID J.	R-3-R14 GLYCINERGIC OR PEPTIDERGIC NEURONS, OR BOTH?	2R01 NS13311-04	67,934
MC ADOO, DAVID J.	PRIMARY AFFERENT NEUROTRANSMITTERS IN THE SPINAL CORD	1R01 NS16093-01	44,274
MEYER, WALTER J, III	HYPERTENSION AND VASCULAR STEROID RECEPTORS	5R01 HL20201-03	38,460
MOORE, LEE E.	FLUCTUATION SPECTROSCOPY OF NERVE AND MUSCLE	5R01 NS13520-04	40,779
MOUTLON, RICHARD G.	LYMPHOKINES FORMED IN VIVO: ROLE IN TUMOR SUPPRESSION	5R01 CA26051-02	71,990
NELSON, THOMAS E.	SKELETAL MUSCLE LESION IN MALIGNANT HYPERTHERMIA	5R01 GM23875-04	35,535
PEREZ-POLO, JOSE R.	NEURAL DIFFERENTIATION: NERVE GROWTH FACTOR PROTEINS	5R01 NS14034-04	63,757
PEREZ-POLO, JOSE R.	RELATIONSHIP OF NERVE GROWTH FACTOR TO SCHIZOPHRENIA	5R01 NS15324-02	19,454
PINSKER, HAROLD M.	NEUROETHOLOGICAL STUDIES OF CENTRAL PATTERN GENERATION	1R01 NS16087-01	75,314
POFFENBARGER, PHILLIP L.	ENDOCRINOLOGY OF NONSUPPRESSIBLE INSULIN-LIKE PROTEIN	2R01 AM18513-04	94,930
POLLARD, RICHARD B.	HERPESVIRUSES AND IMMUNITY IN BURNED CHILDREN	1R23 GM27098-01	42,447
PRIANO, LAWRENCE L.	ACTION OF IV ANESTHETICS ON REGIONAL BLOOD FLOWS	1R23 GM27172-01	45,028
REMMERS, JOHN E.	NEURAL MECHANISMS CONTROLLING MOTOR ACT OF BREATHING	5R01 HL18007-07	77,532
REYNOLDS, EDWARD S.	CHEMICAL PATHOLOGY OF HALOETHYLENE INJURY	5R01 ES02102-02	98,198
RUSSELL, JOHN M.	CHLORIDE TRANSPORT IN NERVE AND MUSCLE	2R01 NS11946-07	66,267
SANT'AMBROGIO, GIUSEPPE	OPERATIONAL MECHANISMS OF AIRWAY RECEPTORS	5R01 HL20122-04	66,114
SAUNDERS, J PALMER	MECHANISMS IN HUMAN CANCER IMMUNOLOGY SYMPOSIUM	1R13 CA27958-01A1	32,688

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
SCHNEIDER, ROSE G.	HEMOGLOBIN VARIANTS IN RELATION TO DISEASE	3R01 AM00780-29S1	2,531
SHINNICK-GALLAGHER, PATRICIA	CHARACTERIZATION OF PARASYMPATHETIC GANGLIA	1R01 NS16228-01	81,462
SMITH, EDWARD R.	CHARACTERIZATION OF UTERINE RESPONSE DURING AGING	5R23 AG00892-02	38,669
SMITH, LELAND L.	POTENTIALLY CARCINOGENIC AND ATHEROGENIC STEROLS	3R01 CA21617-03S1	1,130
SORDAHL, LOUIS A.	MECHANISM(S) OF ALTERED CA ²⁺ TRANSPORT IN ISCHEMIC HEART	5R01 HL23153-03	32,222
SORIERO, ALICE A.	ESTROGEN RECEPTOR CHANGES IN THE AGING UTERUS	5R23 AG01263-02	36,165
SRIVASTAVA, SATISH K.	METABOLIC STUDIES IN NORMAL AND CATARACTOUS LENSES	5R01 EY01677-06	60,746
SRIVASTAVA, SATISH K.	STUDIES OF OCULAR MANIFESTATIONS IN SPHINGOLIPIDOSES	5R01 EY02266-03	33,241
SRIVASTAVA, SATISH K.	BIOCHEMICAL STUDIES IN NEURONAL CEROID-LIPOFUSCINOSIS	5R01 NS14966-02	59,193
STANTON, G JOHN.	ACUTE HEMORRHAGIC CONJUNCTIVITIS AND INTERFERON	5R01 EY01715-05	94,435
STANTON, G JOHN.	STUDY OF HOST DEFENSES IN HERPES KERATITIS	1R01 EY03348-01	80,382
SZABO, GABOR.	STRUCTURE-FUNCTION RELATIONSHIPS FOR GATABLE CHANNELS	5R01 GM26897-02	49,786
SZABO, GABOR.	PERMEABILITY TRANSIENTS OF CARRIERS, CHANNELS AND HEART	5R01 HL24820-04	52,179
SZABO, GABOR.	STRUCTURE AND PERMEABILITY IN BILAYERS AND NERVE	5R01 NS14247-03	38,439
THOMPSON, JAMES C.	SURGICAL STUDIES ON METABOLISM OF GI HORMONES	5R01 AM15241-10	109,562
THUESON, DAVID O.	BASOPHILS: ROLE IN CELL MEDIATED IMMUNE REACTIONS	5R23 AI14879-03	44,372
WALDBILLIG, RONALD C.	MEMBRANE SOLUBILITY OF ANESTHETICS IN BILAYER NERVE	1R01 GM26980-01	91,113
WEIGEL, PAUL H.	CELL RECOGNITION AND RESPONSES TO EXTERNAL CARBOHYDRATES	1R01 GM26228-01A1	77,473
WILLIAMS, BETTY J.	CARDIOTOXICITY OF CHRONIC LEAD EXPOSURE	5R01 ES01767-03	54,457
WILLIAMS, EDWARD H.	OPTIMAL MYOCARDIAL PROTECTION	1R01 HL25082-01	37,971
WILLIAMS, JOHN F, JR.	FACTORS ALTERING THE COURSE OF MYOCARDIAL DYSFUNCTION	5R01 HL13639-09	60,704
WILLIS, WILLIAM D, JR.	SYNAPTIC CONNECTIONS OF SPINAL CORD NEURONS	2R01 NS09743-11	98,905
WILLIS, WILLIAM D, JR.	COMPARATIVE NEUROBIOLOGY	5P01 NS11255-07	180,653
WONG, FULTON	CONDUCTANCE FLUCTUATIONS IN PHOTORECEPTORS OF LIMULUS	5R01 EY03308-02	17,449
YOUNES, MAGDY K.	CONTROL OF BREATHING PATTERN IN HEALTH AND DISEASE	5R01 HL22910-03	80,577
ORGANIZATION TOTAL	114	9,030,762	

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ALFORD, BOBBY R.	OTOPHYSIOLOGY AND OTOPATHOLOGY RESEARCH CENTER	5P50 NS10940-08	450,536
ALLEN, JULIUS C.	PHARMACOLOGIC BASIS OF SMOOTH MUSCLE HETEROGENEITY	1R01 HL24585-01A1	75,400
ANDERSON, ROBERT E.	CHEMISTRY AND METABOLISM OF RETINA LIPIDS	5R01 EY00871-09	168,911
APPEL, STANLEY H.	ACETYLCHOLINE RECEPTOR TURNOVER IN MYASTHENIA GRAVIS	5R01 NS14380-03	62,860
AUNE, KIRK C.	THE RIBOSOME: WHAT HOLDS IT TOGETHER?	5R01 GM22244-05	47,673
BAER, PAUL E.	HIGH BLOOD PRESSURE IN THE YOUNG, PREVALENCE & PRECURSOR	5R01 HL19929-05	100,623
BAKER, CAROL J.	HUMAN IMMUNITY TO GROUP B STREPTOCOCCUS	5R01 AI13249-05	167,932
BARNES, EUGENE M, JR.	REGULATION OF TRANSPORT IN MAMMALIAN CELLS	2R01 AM17436-07	60,110
BASINGER, SCOTT F.	RETINA: PHOTORECEPTOR MEMBRANE SYNTHESIS AND FUNCTION	5R01 EY01406-06	105,930
BEATTIE, KENNETH L.	A BIOCHEMICAL STUDY OF ERROR-PRONE DNA SYNTHESIS	5R01 GM25530-03	35,680
BEAUDET, ARTHUR L.	LYSOSOMAL LIPASES AND PHOSPHOLIPASES IN HUMAN DISEASE	5R01 GM25397-03	100,899
BIRNBAUMER, LUTZ	ACTION OF GLUCAGON ON LIVER ADENYL CYCLASE	2R01 AM19318-04A1	96,805
BIRNBAUMER, LUTZ	GONADOTROPHIN AND PROSTAGLANDIN ACTION IN THE OVARY	2R01 HD09581-04A1	171,474
BLACK, HOMER S.	PHOTOCHEMICAL REACTIONS RELATED TO SKIN CANCER	5R01 CA13464-08	27,273
BOYD, AUBREY E, III.	ALTERATIONS IN THE CYTOSKELETON IN DIABETES	5R01 AM23033-02	68,811
BRIDGES, C DAVID	PHOTO- AND BIOCHEMICAL REACTIONS IN THE VISUAL SYSTEM	5R01 EY02489-04	184,779
BRIDGES, C DAVID	CENTER FOR RESEARCH ON THE VISUAL SYSTEM	3P30 EY02520-01A1S1	2,000
BRIDGES, C DAVID	VISION RESEARCH CENTER	5P30 EY02520-02	157,318
BRINKLEY, BILL R.	CYTOSKELETON AND CELL TRANSFORMATION TO MALIGNANCY	5R01 CA22610-03	113,717
BRINKLEY, BILL R.	MITOSIS IN NORMAL AND NEOPLASTIC CELLS	5R01 CA23022-04	136,963
BRYAN, JOSEPH	CHEMISTRY AND LOCALIZATION OF ACTIN GELLING PROTEINS	5R01 GM26091-02	80,030
BRYAN, JOSEPH	FLUORESCENTLY LABELED MARKERS IN CELLS AND ORGANELLES	5P41 GM27468-02	22,160
BRYAN, R NICK	NEUROTOXICITY OF RADIOGRAPHIC CONTRAST AGENTS	5R01 NS14907-02	26,464
BULLOCK, DAVID W.	UTERINE PROTEIN REGULATION IN EARLY PREGNANCY	5R01 HD09378-06	99,404
BULLOCK, DAVID W.	BIOCHEMISTRY OF IMPLANTATION	1R01 HD13663-01	58,664
BUSCH, HARRIS	CANCER RESEARCH CENTER	5P01 CA10893-13	1,224,176
BUSCH, HARRIS	NUCLEOLAR ANTIGENS OF HUMAN CANCER CELLS	1R01 CA27534-01	110,549
BUTEL, JANET S.	BIOLOGICAL PROPERTIES OF SV40 EARLY PROTEINS	5R01 CA22555-03	98,615
BUTEL, JANET S.	TUMOR VIRUS EFFECTS ON MOUSE MAMMARY EPITHELIAL CELLS	5R01 CA25215-02	77,073
BUTLER, WILLIAM T.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00350-14	688,549

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
BUTLER, WILLIAM T.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05425-19	197,787
CARLTON, CARTER E., JR.....	BLADDER CANCER CHEMOTHERAPY: TRYPTOPHAN METABOLISM.....	1R01 CA25560-01A1	41,259
CASKEY, CHARLES T.....	MAMMALIAN CELL PROTEIN SYNTHESIS MUTANTS.....	1R01 GM27235-01	73,031
CASKEY, CHARLES T.....	ALPHA-1-ANTITRYPSIN DEFICIENCY.....	5R01 HL20070-03	31,267
CHAN, LAWRENCE C.....	SOMATOSTATIN BIOSYNTHESIS IN THE ENDOCRINE PANCREAS.....	1R01 AM26498-01	80,246
CHAN, LAWRENCE C.....	REGULATION OF LIPOPROTEIN SYNTHESIS.....	5R01 HL23470-02	76,638
CHINAULT, ALAN C.....	MOLECULAR ORGANIZATION OF YEAST CENTROMERIC REGIONS.....	1R01 GM27304-01	76,463
CLARK, JAMES H.....	MAMMARY CANCER AND HORMONE INDUCED RESPONSES.....	2R01 CA20605-04	85,835
CLARK, JAMES H.....	ESTROGEN RECEPTORS AND REPRODUCTIVE FUNCTIONS.....	5R01 HD08436-08	147,909
COATS, ALFRED C.....	HUMAN AUDITORY NERVE AND BRAINSTEM EVOKED POTENTIALS.....	5R01 NS12910-05	110,259
DE BAKEY, MICHAEL E.....	NATIONAL HEART & BLOOD VESSEL RESEARCH AND DEMONSTRATION.....	2P60 HL17269-06	4,410,742
DEDMAN, JOHN R.....	BIOLOGICAL ROLE OF INTRACELLULAR CA ²⁺ -BINDING PROTEINS.....	5R01 GM25557-03	42,664
DI FERRANTE, NICOLA M.....	THE ENZYMIC BASIS OF KERATANSULFATURIA.....	1R01 AM26482-01	42,500
DI FERRANTE, NICOLA M.....	GLYCOSAMINOGLYCANS AND LIPOPROTEINS OF HUMAN PLASMA.....	5R01 HL18692-05	97,755
DRESDEN, MARC H.....	SCHISTOSOMA MANSONI: MECHANISMS OF PENETRATION.....	2R22 AI13802-04	58,610
DRESDEN, MARC H.....	SCHISTOSOMA MANSONI: THE ACID PROTEASE OF ADULT WORMS.....	5R22 AI15864-02	33,237
DRISCOLL, DAVID J.....	CARDIOVASCULAR PHARMACODYNAMICS IN IMMATURE ANIMALS.....	5R23 HL22309-03	40,505
ELIAS, CHERIN S.....	PROBLEM SOLVING IN YOUNG AND ELDERLY ADULTS.....	5R23 AG01494-02	47,084
ENTMAN, MARK L.....	CONTROL OF MYOCARDIAL SARCO-TUBULAR CALCIUM STORES.....	5R01 HL13870-11	76,406
ENTMAN, MARK L.....	BIOLOGY OF MYOCARDIAL ISCHEMIA.....	5R01 HL23161-03	110,422
EPSTEIN, HENRY F.....	THE MOLECULAR BASIS OF NEUROMUSCULAR DEVELOPMENT.....	5R01 AG01302-04	115,538
EPSTEIN, HENRY F.....	DEVELOPMENTAL GENETICS OF MUSCLE STRUCTURE.....	3R01 HD12610-02S1	13,058
ESKIN, SUZANNE G.....	RESPONSE OF CULTURED ENDOTHELIAL CELLS TO FLOW.....	5R01 HL23016-02	54,247
ESTES, MARY K.....	CROHN'S DISEASE: STUDIES OF AN INFECTIOUS ETIOLOGY.....	5R01 AM25198-02	69,164
FEIGIN, RALPH D.....	PROSPECTIVE EVALUATION OF CHILDHOOD MENINGITIS.....	5R01 NS14292-04	97,480
FEIGIN, RALPH D.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00188-16	498,127
FERNBACH, DONALD J.....	SOUTHWEST ONCOLOGY GROUP (PEDIATRIC).....	2R10 CA03161-23	226,662
FIELD, JAMES B.....	FACTORS INVOLVED IN INSULIN HOMEOSTASIS.....	5R01 AM25253-02	55,138
FIELD, JAMES B.....	EFFECT OF TSH ON THYROID CARBOHYDRATE METABOLISM.....	5R01 AM26088-02	187,848
FRIEDMAN, ZVI.....	ESSENTIAL FATTY ACIDS/VITAMIN E/PROSTAGLANDINS—NEWBORN.....	5R01 HD13507-02	48,425
GARBER, ALAN J.....	PHARMACOLOGIC CONTROL AND DESENSITIZATION IN MUSCLE.....	1R01 NS15950-01A1	83,987
GERBA, CHARLES P.....	HEPATITIS A AND GASTROENTERITIS VIRUSES IN MARINE LIFE.....	5R01 ES01738-03	51,860
GILBERT, HIRAM F.....	ENZYME CATALYSIS OF PROTON TRANSFER FROM CARBON.....	5R01 GM25347-02	33,731
GLASSER, STANLEY R.....	RAT TROPHOBLAST IN VITRO: STRUCTURE-FUNCTION CORRELATES.....	5R01 HD12964-02	89,751
GLEDZEN, WILLIAM P.....	HOST FACTORS IN PATHOGENESIS OF RESPIRATORY DISEASE.....	5R01 HL19651-05	76,505
GLÖSTEIN, MARGARET A.....	ANALYSIS OF Z BANDS IN HEART BY OPTICAL DIFFRACTION.....	5R01 HL17376-06	36,801
GREEN, MARY T.....	RECURRENT OCULAR HERPES.....	5R01 EY02724-02	78,816
GREENBERG, STANLEY D.....	A SEARCH FOR PRE-NEOPLASTIC CELL MARKERS IN SPUTUM.....	1R01 CA27313-01A1	122,454
GRIFFITH, DONALD P.....	MEDICAL TREATMENT OF INFECTION-INDUCED STONES.....	5R01 AM20159-02	285,907
GROSSMAN, ROBERT G.....	THE FOURTH CHICAGO CONFERENCE ON NEURAL TRAUMA.....	1R13 NS16972-01	15,071
HARMON, MAURICE W.....	RAPID DIAGNOSIS OF VIRAL RESPIRATORY INFECTIONS.....	2R01 AI15089-03	64,098
HARTLEY, CRAIG J.....	ULTRASONIC INSTRUMENTATION FOR CARDIOVASCULAR STUDIES.....	5R01 HL22512-03	63,620
HAZLEWOOD, CARLTON F.....	ROLE OF WATER IN CANCER CELL DIVISION.....	3R01 CA21624-03S1	6,977
HOLLYFIELD, JOE G.....	PHAGOCYTIC ACTIVITY OF THE PIGMENT EPITHELIUM.....	5R01 EY02362-04	80,559
HOLLYFIELD, JOE G.....	DEVELOPMENT AND MAINTENANCE OF PHOTORECEPTOR CELLS.....	5R01 EY02363-04	144,064
HOLMQUIST, GERALD P.....	G-BANDING MECHANISMS IN MAMMALIAN CHROMOSOMES.....	2R01 GM23905-04	94,537
HORNING, EVAN C.....	ANALYTICAL BIOCHEMISTRY FOR HUMAN STUDIES.....	5P01 GM13901-15	435,009
HORNING, MARJORIE G.....	CHEMICAL BASIS FOR DRUG TOXICITY.....	5R01 GM24092-03	288,349
HUCKINS, CLAIRE.....	CONTROL OF STEM CELL SPERMATOGONIA IN RODENT TESTES.....	3R01 HD07655-06S1	15,761
HUNT, J N.....	GASTRIC EMPTYING, FOOD INTAKE, AND OBESITY IN MAN.....	1R01 AM26665-01	73,445
IYENGAR, SRINIVAS R.....	PURIFICATION OF GLUCAGON RECEPTOR.....	1R23 AM26905-01	52,069
JOHNSTON, DANIEL.....	ELECTROBIOLOGY OF HIPPOCAMPAL NEURONS.....	1R01 NS15772-01	84,731
JONES, DAN B.....	ENDOGENOUS FUNGAL ENDOPHTHALMITIS.....	5R01 EY02714-03	109,147
KELLAWAY, PETER A.....	EPILEPSY RESEARCH CENTER.....	5P50 NS11535-06	450,707
KELLEMS, RODNEY E.....	CONTROL OF HOST GENE EXPRESSION BY DNA TUMOR VIRUSES.....	5R01 CA24518-02	45,777
KIT, SAUL.....	BIOCHEMICAL ASPECTS OF VIRAL CARCINOGENESIS.....	5R01 CA06656-18	208,458
KLEIN, PETER D.....	METABOLISM OF 13C COMPOUNDS IN DIGESTIVE DISEASES.....	7R01 AM28129-01	25,121
KLEIN, PETER D.....	METABOLISM OF 13C COMPOUNDS IN DIGESTIVE DISEASES.....	5R01 AM28129-02	151,906
KRETZER, FRANK L.....	RETINA: ULTRASTRUCTURE OF PHOTORECEPTORS.....	5R01 EY02607-03	33,428
LAM, DOMINIC M.....	NEUROTRANSMITTERS IN THE VISUAL SYSTEM.....	5R01 EY02423-04	65,013
LAM, DOMINIC M.....	DEVELOPMENT AND REGENERATION OF THE VERTEBRATE RETINA.....	5R01 EY02608-03	86,983

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
LANE, MONTAGUE	SOUTHWEST ONCOLOGY GROUP	5R10 CA03392-23	135,929
LANE, MONTAGUE	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA24268-03	211,288
LAWRENCE, CHARLES B.	MECHANISMS OF EUKARYOTIC GENE EXPRESSION	1R01 AI16484-01	68,950
MARCUS, DONALD M.	GLYCOLIPID CELL MEMBRANE ANTIGENS	7R01 AI17712-01	127,610
MARTIN, R RUSSELL	HUMAN MACROPHAGES AND OTHER CELLS IN CARCINOGENESIS	5R01 CA15784-06	85,511
MAYOR, HEATHER D.	GROWTH & MATURATION OF ADENOASSOCIATED SATELLITE VIRUSES	3R01 CA14618-06S1	3,584
MAYOR, HEATHER D.	GROWTH & MATURATION OF ADENOASSOCIATED SATELLITE VIRUSES	5R01 CA14618-07	72,354
MC BRIDE, RAYMOND A.	IMMUNOGENETIC ANALYSIS OF ROUS SARCOMA DEVELOPMENT	5R01 CA24497-03	217,900
MC CORMACK, SHIRLEY A.	A MODEL FOR INDUCTION OF CHORIOCARCINOMA IN THE RAT	3R01 CA20853-03S1	18,683
MEANS, ANTHONY R.	BIOLOGY OF THE TESTIS: ACTION OF FSH	5R01 HD07503-08	130,437
MEANS, ANTHONY R.	LIPOPROTEIN METABOLISM AND HORMONAL REGULATION	5R01 HL16512-06	69,685
MEDINA, DANIEL	CHEMOTHERAPY OF MOUSE MAMMARY PRENEOPLASIAS	5R01 CA22591-03	71,348
MEYER, JOHN S.	CEREBROVASCULAR RESEARCH CENTER	2P50 NS09287-10	321,568
MITCHELL, JERRY R.	MOLECULAR BASIS OF HUMAN DRUG TOXICITY	5P01 GM26611-02	437,911
MOSES, ROBB E.	MECHANISMS OF CHROMOSOME REPLICATION	5R01 GM19122-09	80,314
MOSES, ROBB E.	CELLULAR DNA REPAIR MECHANISMS AND MUTAGENESIS	5R01 GM24711-03	88,270
NELSON, THOMAS E.	GLYCOGEN DEBRANCHING ENZYME IN MUSCLE GLYCOGENOLYSIS	5R01 AM17978-05	71,583
O'BRIEN, WILLIAM E.	ENZYMES OF ARGININE AND UREA BIOSYNTHESIS	1R01 AM25938-01A1	74,881
O'BRIEN, WILLIAM E.	BIOCHEMICAL BASIS FOR HYPERGLYCEMIA	2R01 HD12284-03	45,100
O'MALLEY, BERT W.	CENTER FOR POPULATION RESEARCH AND REPRODUCTION STUDIES	5P30 HD07495-08	602,702
O'MALLEY, BERT W.	SEX HORMONE RECEPTOR COMPONENTS AND THE CELL GENOME	5R01 HD07857-09	228,413
O'MALLEY, BERT W.	REPRODUCTIVE HORMONES: BIOLOGICAL & MOLECULAR ACTIONS	5R01 HD08188-09	219,336
PANKO, WALTER B.	THERAPY-INDUCED CHANGES IN HUMAN BREAST CANCER	1R01 CA25586-01A1	75,079
PANKO, WALTER B.	ANOMALOUS RECEPTORS IN BREAST CANCER	5R01 CA26452-02	51,787
PATSCH, JOSEF R.	DIET EFFECT ON METABOLISM AND BLOOD LEVELS OF HDL	5R01 HL24759-02	166,629
PECK, ERNEST J, JR.	NEUROENDOCRINE CONTROL OF PITUITARY HORMONE SECRETION	2R01 HD08389-07	62,327
PECK, ERNEST J, JR.	GAMMA-AMINOBUTYRIC ACID RECEPTORS OF THE CEREBELLUM	5R01 NS11753-06	64,108
PIERSON, DUANE L.	CHARACTERIZATION OF HUMAN CARBAMYLPHOSPHATE SYNTHETASE	5R01 AM21989-03	32,960
PITTS, BARRY J.	PALMITOYL-CARNITINE INHIBITION OF ION PUMPS IN ISCHEMIA	5R01 HL22813-03	50,584
POWALL, HENRY J.	METABOLISM OF REASSEMBLED PLASMA LIPOPROTEINS	1R01 HL26250-01	87,623
RAMIG, ROBERT F.	GENETICS OF THE ROTAVIRUSES	1R22 AI16687-01	75,028
RANDERATH, KURT.	CHEMICAL STUDIES ON TUMOR NUCLEIC ACIDS	5R01 CA13591-09	92,531
RANDERATH, KURT.	EFFECTS OF CARCINOGENS ON NUCLEOLAR DNA	5R01 CA25590-02	71,047
RICH, ROBERT R.	REGULATION OF CELL-MEDIATED IMMUNE RESPONSES	5R01 AI13810-04	148,027
RICH, ROBERT R.	HUMAN IMMUNE RESPONSES TO HAPTENS IN VITRO	5R01 AI15394-02	74,447
RICH, SUSAN S.	BIOCHEMISTRY OF T CELL REGULATORY MOLECULES	1R01 AI17048-01	96,107
ROSEN, JEFFREY M.	HORMONAL REGULATION OF BREAST CANCER	5R01 CA16303-06	165,104
ROSSEN, ROGER D.	ANTIGEN-ANTIBODY COMPLEXES IN CANCER PATIENTS' SERA	5R01 CA20543-05	69,615
SCARDINO, PETER T.	CHEMOTHERAPY TRIALS FOR CARCINOMA OF THE PROSTATE	1R26 CA28500-01	110,235
SCHWARTZ, ROBERT J.	DIFFERENTIATION OF ACTIN AND TROPOMYOSIN MYOGENESIS	5R01 NS15050-02	34,397
SCHWARTZ, ROBERT J.	CONTROL OF MYOSIN LIGHT CHAIN SYNTHESIS IN MYOGENESIS	1R01 NS16494-01	46,875
SEARS, DAVID A.	ERYTHROCYTE AND PLATELET MEMBRANE PROTEIN	7R01 AM28210-01	34,895
SEIDEL, CHARLES L.	VEIN ARTERIALIZATION FOLLOWING AORTOCORONARY GRAFTING	5R01 HL23815-02	71,261
SEIDEL, CHARLES L.	METABOLIC AND MORPHOLOGIC CORRELATES OF HYPERTENSION	5R01 HL25349-02	55,718
SHEARER, WILLIAM T.	STIMULATION OF TUMOR CELL GROWTH BY ANTIBODY	5R01 CA25567-03	84,054
SKINNER, JAMES E.	BRAIN REGULATION OF CARDIAC ARRHYTHMIA	5R01 HL17907-06	107,157
SMITH, LOUIS C.	LIPID METABOLISM: TRANSPORT BY LATERAL DIFFUSION	1R01 HL15648-07A1	130,744
SOCHER, SUSAN H.	HORMONE INFLUENCES DURING MAMMARY TUMORIGENESIS	2R01 CA27293-01	89,200
SUKI, WADI N.	NEPHRONAL SITES OF DIVALENT ION TRANSPORT	5R01 AM21394-03	86,882
SYBERS, HARLEY D.	MYOCARDIAL ISCHEMIA: ION REDISTRIBUTION	5R01 HL21218-02	34,557
TAVELLA, DANIELA	A STUDY OF LDL RECEPTORS OF FIBROBLASTS MEMBRANE	5R23 HL23179-02	43,297
TENG, CHING-SUNG	STUDY OF HORMONE-CONTROLLED SEX-ORGAN DIFFERENTIATION	5R01 HD08218-08	76,246
TENG, CHRISTINA T.	MECHANISM OF AGING IN THE CHICK OVARY	5R01 AG00523-04	81,002
TERMAN, DAVID S.	IMMUNOADSORBENTS FOR SPECIFIC IMMUNOTHERAPY	3R01 GM23517-03S1	24,654
TINDALL, DONALD J.	PURIFICATION OF BINDING PROTEINS FOR ANDROGENS	5R01 HD12788-02	73,049
TRENTIN, JOHN J.	IMMUNOGENETIC RESISTANCE TO LYMPHOMA-LEUKEMIA	5R01 CA03367-23	124,279
TRENTIN, JOHN J.	CONTROL OF HEMOPOIETIC STEM CELL DIFFERENTIATION	5R01 CA22670-03	117,192
TWOMEY, JEREMIAH J.	RHEUMATOID FACTOR AND TUMOR-HOST INTERACTION	5R01 CA15333-07	79,852
TWOMEY, JEREMIAH J.	CLINICAL STUDIES OF THE THYMUS WITH MYASTHENIA GRAVIS	1R01 NS16325-01	45,440
VAN WINKLE, WALLACE B.	LIPID-PROTEIN INTERACTIONS IN CARDIAC AND SKELETAL SR	5R01 HL22856-02	55,750
VON NOORDEN, GUNTER K.	CLINICAL AND LABORATORY STUDIES OF AMBLYOPIA	5R01 EY01120-08	96,373

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
WAKIL, SALIH J.....	ROLE OF INSULIN IN FATTY ACID METABOLISM.....	5R01 AM21286-04	61,507
WAKIL, SALIH J.....	THE METABOLISM AND CONTROL OF FATTY ACIDS.....	5R01 GM19091-10	166,781
WARNER, MARLENE R.....	PERINATAL ESTRADIOL INFLUENCE ON MAMMARY DEVELOPMENT.....	1R01 CA28698-01	93,071
WILSON, GERALDINE S.....	EFFECTS OF MATERNAL SMOKING ON NEONATAL BEHAVIOR.....	1R01 HD13346-01A1	114,944
WILSON, JOHN H.....	SV40 GENETIC ANALYSIS OF MAMMALIAN RECOMBINATION.....	5R01 CA15743-07	59,690
WRAY, GRANVILLE W.....	ISOLATED CHROMOSOMES IN GENETICS AND CANCER RESEARCH.....	5R01 CA18455-05	60,726
WRAY, GRANVILLE W.....	PRECONDENSED CHROMOSOMES—STRUCTURE AND BIOCHEMISTRY.....	5R01 GM26415-02	63,209
WRENN, SIMEON.....	CARDIAC ADENYLYL CYCLASE-PURIFICATION-REGULATION.....	5R01 HL22366-02	57,506
WRENN, SIMEON.....	BETA-RECEPTOR & MEMBRANE CATECHOL-O-METHYLTRANSFERASE.....	1R01 HL25571-01	5,200
WU, JANG-YEN.....	STUDIES OF NEURONAL AND GLIAL GLUTAMATE DECARBOXYLASES.....	5R01 NS13224-05	112,821
WYDE, PHILIP R.....	IMMUNOPATHOLOGY OF INFLUENZA VIRUS PNEUMONIA.....	5R01 AI13905-05	66,279
ORGANIZATION TOTAL	163 22,853,529		
RICE UNIVERSITY ZIP CODE 77001			
BECKINGHAM, KATHLEEN M.....	INTRONS OF DIPTERAN R DNA.....	7R01 GM28379-01	69,302
BENNETT, GEORGE N.....	STRUCTURE-FUNCTION STUDY OF BACTERIAL PROMOTERS.....	5R01 GM26437-02	52,591
BERGET, SUSAN M.....	GENE EXPRESSION IN ADENOVIRUS-INFECTED CELLS.....	5R01 AI15813-02	66,203
CAMPBELL, JAMES W.....	METABOLISM OF GASTROPOD MOLLUSCS.....	5R01 AI05006-17	42,315
FUKUYAMA, TOHRU.....	SYNTHESIS OF NAPHTHYRIDINOMYCIN AND SAFRAMYCIN B.....	1R01 CA28119-01	77,584
GORDON, W E.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07103-14	77,459
HELLUMS, JESSE D.....	EFFECTS OF PHYSICAL FORCES ON PLATELETS.....	5R01 HL18584-05	73,380
HELLUMS, JESSE D.....	MASS TRANSFER IN THE MICROCIRCULATORY.....	2R01 HL19824-03A1	84,034
MATTHEWS, KATHLEEN S.....	FLUORESCENCE STUDIES OF THE LACTOSE REPRESSOR PROTEIN.....	5R01 GM22441-05	73,745
MC INTIRE, LARRY V.....	PERFUSION LUNG: ROLE OF TRAUMATIZED LEUKOCYTES.....	5R01 HL17437-05	68,175
MC INTIRE, LARRY V.....	DYNAMIC STUDIES OF CLOT STRUCTURE FORMATION.....	2R01 HL18672-04	64,011
MC INTIRE, LARRY V.....	SUBHEMOLYTIC DAMAGE TO ERYTHROCYTES: MODEL DEFECT.....	5R01 HL23313-02	49,946
OLSON, JOHN S.....	FUNCTIONAL PROPERTIES OF HEMOGLOBIN AND ERYTHROCYTES.....	2R01 HL16093-07A1	88,142
PALMER, GRAHAM A.....	MOLECULAR MECHANISMS OF BIOLOGICAL REDOX REACTIONS.....	5R01 GM21337-06	124,182
PARRY, RONALD J.....	BIOSYNTHESIS OF COMPOUND 593A AND OF ELAIOMYCIN.....	5R01 CA25142-02	36,819
PARRY, RONALD J.....	METABOLISM OF CHIRALLY LABELED ADENOSINE.....	5R01 GM26166-02	48,413
PROCUINER, JAMES D.....	ANALYSIS OF EUKARYOTIC REDUNDANT LOCI.....	1R01 GM28008-01	122,868
QUIOCHO, FLORANTE A.....	STRUCTURE AND FUNCTION OF SUGAR BINDING PROTEINS.....	5R01 GM21371-06	62,629
QUIOCHO, FLORANTE A.....	LEUCINE ISOLEUCINE, VALINE-BINDING PROTEIN STRUCTURE.....	5R01 GM26485-02	40,280
RUDOLPH, FREDERICK B.....	REGULATION OF METABOLISM BY PURINE INTERCONVERSIONS.....	5R01 CA14030-08	48,787
SASS, RONALD L.....	STRUCTURAL AND CHEMICAL STUDY OF TISSUE CALCIFICATION.....	5R01 AM18582-06	60,619
SCHROEPFER, GEORGE J, JR.....	INTERMEDIARY METABOLISM OF STEROLS.....	5R01 HL15376-08	138,998
SCHROEPFER, GEORGE J, JR.....	INHIBITORS OF CHOLESTEROL BIOSYNTHESIS.....	5R01 HL22532-03	223,796
WALKER, JAMES B.....	EFFECTS OF CYCLOCREATINE-P ON ISCHEMIC HEARTS.....	5R01 HL23797-02	47,692
WENKERT, ERNEST.....	ALKALOID SYNTHESIS.....	2R01 GM21076-07	97,145
ORGANIZATION TOTAL	25 1,939,115		
STEHLIN FOUNDATION FOR CANCER RESEARCH ZIP CODE 77002			
GIOVANELLA, BEPPINO C.....	DETERMINATION OF MALIGNANT POTENTIAL OF CULTURED CELLS.....	1R01 CA26861-01	78,821
ORGANIZATION TOTAL	1 78,821		
TEXAS SOUTHERN UNIVERSITY ZIP CODE 77004			
SESSION, JOHN J.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08061-10	458,516
ORGANIZATION TOTAL	1 458,516		
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON AT HOUSTON ZIP CODE 77004			
BROWN, J H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07147-08	66,005
CATES, LINDLEY A, JR.....	TISSUE SPECIFIC AND IMINO-PHOSPHORUS ONCOLYTICS.....	5R01 CA24970-02	33,334
CATES, LINDLEY A, JR.....	PHOSPHORUS GABA-T INHIBITOR ANTICONVULSANTS.....	1R01 NS15704-01A1	31,547
DYCKES, DOUGLAS F.....	PANCREATIC POLYPEPTIDE STRUCTURE & ACTIVITY STUDIES.....	1R01 AM26432-01	38,116
EICHBERG, JOSEPH.....	ROLE OF LIPIDS AND LIPOPROTEINS IN MEMBRANES.....	3R01 NS12493-04S1	2,436
FLOM, MERTON C.....	SENSORY AND MOTOR MECHANISMS IN FUNCTIONAL AMBLYOPIA.....	1R01 EY03694-01	110,128
FRANKLIN, LUTHER E.....	EFFECTS OF MALE AGE ON SPERM FERTILIZING ABILITY.....	1R01 HD13236-01A1	37,173
GRAY, HORACE B, JR.....	HYDRODYNAMICS OF CIRCULAR DNA FORMS.....	2R01 CA11761-10	64,872
GRAY, HORACE B, JR.....	NUCLEIC ACID MODIFICATION WITH SPECIFIC ENDONUCLEASES.....	5R01 GM21839-06	48,832
GREGA, GEORGE J.....	PATHOPHYSIOLOGY OF CIRCULATORY SHOCK.....	5R01 HL25257-02	63,625
HARWERTH, RONALD S.....	BEHAVIORAL MEASURES OF BINOCULAR VISION.....	5R01 EY01139-06	82,908

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
HECHT, RALPH M.	GENETIC CONTROL OF EMBRYOGENESIS	5R01 HD11071-03	39,704
HENNING, SUSAN J.	ONTOGENY OF FEEDING CONTROLS IN THE RAT	5R01 HD14093-02	71,223
HENNING, SUSAN J.	REGULATION OF INTESTINAL DEVELOPMENT	5R01 HD14094-02	61,835
KADISH, KARL M.	REDOX REACTIONS OF HIGH SPIN IRON PORPHYRINS	5R01 GM25172-03	32,758
KLASS, MICHAEL R.	GENETIC AND BIOCHEMICAL ANALYSIS OF AGING	5R01 AG02115-02	43,823
KLASS, MICHAEL R.	CELL-SPECIFIC GENE EXPRESSION	5R01 GM26808-02	56,608
KOHN, HAROLD L.	A BLUEPRINT FOR NEW ANTICONVULSANT COMPOUNDS	5R01 NS15604-02	18,240
LACHMAN, JANET L.	SUBJECT ATTRITION IN COGNITIVE AGING RESEARCH	5R01 AG01378-02	25,440
LEVI, DENNIS M.	CONTRAST SENSITIVITY IN AMBLYOPIA	5R01 EY01728-05	55,661
LOKHANDWALA, MUSTAFA F.	PRESYNAPTIC REGULATORY MECHANISMS IN HYPERTENSION	5R01 HL22668-03	66,608
LOKHANDWALA, MUSTAFA F.	PRESYNAPTIC DOPAMINE RECEPTORS AND SYMPATHETIC FUNCTION	1R01 HL26262-01	43,280
MC INNIS, BAYLISS C.	AUTOMATIC CONTROLS FOR THE ARTIFICIAL HEART	1R01 HL25029-01A1	42,051
PANG, K SANDY	HEPATIC CLEARANCES OF DRUGS AND OF METABOLITES	1R01 GM27323-01	61,770
POPEL, ALEKSANDER S.	OXYGEN TRANSPORT IN SKELETAL MUSCLE MICROCIRCULATION	7R01 HL26901-01	42,522
SCHRAM, KARL H.	DEVELOP CLINICAL GAS CHROMATOGRAPHY-MASS SPECTROMETRY	5R01 CA24690-02	47,324
TU, SHIAO-CHUN	STRUCTURE AND MECHANISM OF FLAVOPROTEIN HYDROXYLASE	5R01 GM25953-02	29,537
VESTAL, MARVIN L.	CROSSED-BEAM LC-MS INVOLATILE BIOLOGICAL SAMPLES	5R01 GM24031-04	93,470
VESTAL, MARVIN L.	PROTEIN SEQUENCING BY LIQUID FLOW MASS SPECTROMETRY	1R01 GM28291-01	47,065
ORGANIZATION TOTAL	29	1,457,895	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025			
ANDREOLI, THOMAS E.	SOLUTE AND WATER TRANSPORT IN THE NEPHRON	1R01 AM25540-01	200,859
ANTHONY, LUEAN E.	NUTRIENT DEFICIENCIES AND THE IMMUNE RESPONSE	5R22 AM25809-02	36,356
ASWANKUMAR, SRINIVASABHAT.	FIBROTIC RESPONSE TO SURGICAL IMPLANTS	1R01 AM26819-01	52,459
BOOTH, FRANK W.	DISUSE AND EXERCISE IN CONDITIONS OF MUSCULAR ATROPHY	5R01 AM19393-05	80,638
BOYAN-SALYERS, BARBARA D.	THE ROLE OF LIPOPROTEINS IN MICROBIAL CALCIFICATION	5R01 DE04212-06	35,617
BOYAN-SALYERS, BARBARA D.	PROTEOLIPIDS AND MINERALIZATION OF BONES AND TEETH	5R01 DE04919-03	30,218
BULGER, RUTH E.	RENAL ULTRASTRUCTURE AND FUNCTION	5R01 AM26134-02	63,641
BUTCHER, REGINALD W.	CONTROL OF CYCLIC AMP LEVELS	2R01 AM26943-02	94,369
BUTCHER, REGINALD W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07148-07	54,884
CAPRIOLI, RICHARD M.	PROTEIN PRIMARY STRUCTURE THROUGH DIPEPTIDE ANALYSIS	5R01 GM25405-03	42,835
CASTRO, GILBERT A.	PHYSIOLOGIC BASIS OF IMMUNITY IN TRICHINOSIS	5R01 AI11361-07	54,998
CECH, IRINA	RELATION OF CANCER RATES AND SOURCE OF DRINKING WATER	5R01 CA24138-02	80,522
COSTA, MAX.	NICKEL CARCINOGENESIS IN TISSUE CULTURE	7R23 ES02487-01	39,346
CRAWFORD, M L.	EXCITABILITY OF VISUAL PATHWAYS	5R01 EY00381-11	67,031
DAVIES, PETER J.	ROLE OF TRANSGLUTAMINASE IN HORMONE INTERNALIZATION	1R01 AM27078-01	76,030
DE MOSS, JOHN A.	ASSEMBLY OF A MEMBRANE-BOUND MULTI-ENZYME COMPLEX	5R01 GM19511-09	77,260
DE MOSS, JOHN A.	SUBUNIT/DOMAIN INTERACTIONS IN MULTIFUNCTIONAL ENZYMES	1R01 GM27887-01	102,240
DOUGLAS, TOMMY C.	CELL SURFACE ANTIGENS: IMMUNOGENICITY AND GENETICS	5R01 AI15772-02	64,345
DOWHAN, WILLIAM	STRUCTURE AND FUNCTION OF MEMBRANE PROTEINS	5R01 GM20478-08	67,536
DOWHAN, WILLIAM	MEMBRANE PROTEIN BIOSYNTHESIS AND ASSEMBLY	5R01 GM25047-03	40,286
DUBINSKY, WILLIAM P, JR.	HORMONAL REGULATION OF CALCIUM FLUXES IN THE LIVER	1R01 AM27377-01	43,262
ENNA, SALVATORE J.	NEUROBIOLOGY AND PHARMACOLOGY OF GABA RECEPTORS	3R01 NS13803-02S1	1,703
ENNA, SALVATORE J.	NEUROBIOLOGY AND PHARMACOLOGY OF GABA RECEPTORS	5R01 NS13803-03	27,100
EVANS, DOLORES G.	VIROLENCE FACTORS OF E. COLI ENTEROTOXIGENIC FOR MAN	5R22 AI13385-05	73,909
EVANS, DOYLE J, JR.	COLONIZATION FACTORS OF BACTERIAL ENTEROPATHOGENS	1R22 AI15379-01A1	39,336
FERRELL, ROBERT E.	GENETIC STUDIES OF RETINOBLASTOMA AND THE RB-1 LOCUS	1R01 EY03430-01	43,513
FRIEDMANN, NAOMI	ROLE OF ION FLUXES IN THE HYPOGLYCEMIC RESPONSE	3R01 AM18083-06S1	1,141
FRIEDMANN, NAOMI	GLUCOCORTICOID CONTROL OF HEPATIC METABOLISM	5R01 AM19751-03	44,837
FRIZZELL, RAYMOND A.	ACTIVE CHLORIDE SECRETION BY MAMMALIAN COLON	5R01 AM26702-02	33,188
FRIZZELL, RAYMOND A.	CHLORIDE SECRETION BY EPITHELIAL TISSUES	1R01 AM27524-01	100,170
GILDENBERG, PHILIP L.	30-YEAR INDEX OF HUMAN STEREOTACTIC SURGERY LITERATURE	5R01 LM03073-03	2,776
GILDENBERG, PHILIP L.	CENTRAL NERVOUS SYSTEM TRAUMA CENTER	1P01 NS14844-01A1	488,288
GOULD, KENNETH L.	CORONARY FLOW RESERVE-NONINVASIVE DETECTION	7R01 HL26862-01	80,206
GOULD, KENNETH L.	VALIDATION OF QUANTITATIVE CORONARY ARTERIOGRAPHY	7R01 HL26885-01	54,299
GROTTJAN, H EDWARD, JR.	GONADOTROPIN BIOSYNTHESIS-SUBCELLULAR ASPECTS	5R01 HD12006-03	31,804
GUYNN, ROBERT W.	KINETICS AND THERMODYNAMICS OF SERINE BIOSYNTHESIS	5R01 GM26488-02	43,731
GUYNN, ROBERT W.	EFFECT OF SEIZURE UPON ENERGY METABOLISM IN BRAIN	5R01 NS11484-06	60,871
HENKIN, JACK	PHOTOCHEMICAL MAPPING AND INACTIVATION OF ENZYMES	5R01 AM22079-03	27,261
HOFFMAN, NEVILLE E.	HEPATIC BILE ACID TRANSPORT	5R01 AM21504-02	82,583
HOWELL, R RODNEY	ROLE OF HUMAN MILK IN INFANT NUTRITION AND HEALTH	5P01 HD13021-02	470,841

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
JOHNSON, LEONARD R	GI HORMONES EFFECT ON GI MUCOSA GROWTH & METABOLISM.....	5R01 AM16505-08	85,696
JOHNSON, LEONARD R	ROLE OF FOOD IN THE GUT IN MAINTAINING GI FUNCTION	5R01 AM18164-06	63,501
JULIANO, RUDOLPH L	PHARMACODYNAMICS OF LIPOSOMES BEARING ANTITUMOR DRUGS.....	1R01 CA25123-01A1	72,060
JULIANO, RUDOLPH L	THE MOLECULAR BASES OF CELL ADHESION	1R01 GM26165-01A1	65,444
KAHAN, BARRY D	ANTIGENIC STIMULUS IN HUMAN COLON CARCINOMA IMMUNITY.....	5R26 CA2370-04	118,081
KAHAN, BARRY D	MOLECULAR APPROACHES TO HUMAN COLON CANCER	1R01 CA27124-01	64,241
KOHL, STEVE	IMMUNE CYTOTOXICITY TO HERPES SIMPLEX INFECTED CELLS.....	5R23 AI14450-03	29,327
KOHN, DENNIS F	DEVELOP A LABORATORY ANIMAL RESOURCE	1P40 RR01255-01	252,168
LEE, CHING Y	REGULATE GONADOTROPIN RECEPTOR & ADENYLATE CYCLASE.....	5R01 HD13905-02	845
LESTER, ROGER	WORKSHOP ON PHYSICAL AND BIOLOGICAL RESEARCH TECHNIQUES.....	1R13 AM27560-01	7,850
LESTER, ROGER	NEONATAL NUTRITION: DEVELOPMENT OF FAT ABSORPTION	5R01 HD14198-02	85,670
LEVER, JULIA E	MECHANISMS OF REGULATION OF MEMBRANE FUNCTION	5R01 GM27055-02	85,926
LICHTENBERGER, LENARD M	REGULATION OF GASTRIN SYNTHESIS AND RELEASE	5R01 AM20686-03	47,708
LIEHR, JOACHIM G	MECHANISM OF ESTROGEN-INDUCED RENAL CARCINOGENESIS.....	1R01 CA27539-01	67,449
MARC, ROBERT E	CHROMATIC INPUTS OF RETINAL NEURONS	5R01 EY02576-03	25,254
MC CANDLESS, DAVID W	EXPERIMENTAL SEIZURES AND CEREBRAL ENERGY METABOLISM.....	1R01 NS16621-01	30,516
MC HENRY, CHARLES S	REGULATION OF THE SYNTHESIS OF REPLICATION PROTEINS.....	5R01 GM25457-03	37,622
MILLER, THOMAS A	PROSTAGLANDINS AND GASTRIC ULCERS SURGICAL STUDIES.....	5R01 AM25838-02	49,178
MONTGOMERY, EDWARD H	INITIATORS AND MEDIATORS IN PERIODONTAL DISEASE	5R01 DE03743-08	54,099
MORRIS, FRANK H, JR.	MATERNAL NUTRITIONAL REGULATION OF FETAL GROWTH	5R01 HD11337-03	53,827
MURPHY, SHELDON D	FACTORS AFFECTING PESTICIDE TOXICITY	5R01 ES01831-03	71,074
MURTHY, K KIRSHNA	MODULATION OF MUSCLE SPINDLE SENSITIVITY BY B EFFERENTS.....	5R01 NS14702-02	33,164
MURTHY, K KIRSHNA	LONG-SPINAL REFLEXES	5R01 NS15012-02	37,876
NALL, BARRY T	PROTEIN FOLDING—THE EFFECT OF SEQUENCE	5R01 GM25463-02	42,429
NEI, MASATOSHI	POPULATION DYNAMICS OF MUTANT GENES	5R01 GM20293-08	53,331
O'NEILL, PEGGY A	LYMPHOCYTE-MEDIATED CYTOTOXICITY IN PERIODONTAL DISEASE.....	5R01 DE04210-06	24,429
OVERDORFER, MICHAEL D	EYE DEVELOPMENT AND ABNORMAL VISUAL PATHWAYS	5R01 EY02926-02	28,402
OLSON, JOHN V	BIOCHEMICAL RESEARCH SUPPORT	2S07 RR05344-18	18,928
ORTEZ, RICHARD A	LYMPHOCYTE CYCLIC AMP-DEPENDENT PROTEIN KINASE	5R01 AI15396-02	39,158
OVERTURF, MERRILL L	EFFECTS OF RENIN ON ATHEROGENESIS	5R01 HL20189-03	121,776
POLLITT, ERNESTO	FUNCTIONAL BIOCHEMICAL IMPACT OF MICRONUTRIENT DEFICITS.....	5R01 HD12843-02	70,952
PRICHARD, HOWARD M	CARCINOGENIC IMPACT OF RADON IN WATER SUPPLIES	5R23 ES01742-03	27,179
RAMASWAMY, KRISHNAMURTHY	EFFECT OF DIABETES MELLITUS ON INTESTINAL FUNCTION	3R01 AM19876-03S1	2,649
REDBURN, DIANNA A	BIOCHEMICAL ANALYSIS OF TRANSMITTER AGENTS IN RETINA.....	5R01 EY01655-05	89,073
ROBISON, GEORGE A	HORMONAL & NON-HORMONAL REGULATION OF ADENYLATE CYCLASE.....	1R01 GM27378-01	102,193
ROSENFELD, GARY C	HORMONAL REGULATION OF ISOLATED GASTRIC MUCOSAL CELLS.....	5R01 AM20431-03	72,440
RUTZKY, LYNNE P	SOCIAL BEHAVIOR OF CULTURED COLON ADENOCARCINOMA CELLS.....	5R23 CA23871-03	35,346
SANBORN, BARBARA M	UTERINE RELAXING FACTORS: MOLECULAR ASPECTS OF ACTION	5R01 HD09618-04	62,304
SCHULL, WILLIAM J	GENETIC EPIDEMIOLOGY OF DIABETES IN MEXICAN-AMERICANS.....	1R01 AM27582-01	272,941
SCHULTZ, STANLEY G	MECHANISMS OF ION TRANSPORT BY EPITHELIAL TISSUES	5R01 AM26690-02	121,340
SPEERLING, HARRY G	EFFECTS OF LIGHT ON THE RETINA	5R01 EY02388-07	74,993
STALLONES, REUEL A	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05828-01	21,272
STANCEL, GEORGE M	ESTROGEN CONTROL OF UTERINE GROWTH AND CELL DIVISION	2R01 HD08615-07	110,488
STEINBERGER, EMIL	MULTIDISCIPLINARY STUDY OF THE REPRODUCTIVE SYSTEM	5P50 HD08338-06	417,386
STEINER, ALTON L	PHYSIOLOGIC ROLES OF CYCLIC GMP AND CYCLIC AMP	7R01 AM28163-01	148,670
STROBEL, HENRY W	AGING AND DRUG METABOLISM SYSTEM ACTIVITIES	1R01 AG02081-01	52,843
STROBEL, HENRY W	GASTROINTESTINAL HORMONES AND COLONIC CARCINOMA	5R26 CA19105-05	70,920
STROBEL, HENRY W	DRUG METABOLISM IN LIVER TUMORS	5R01 CA19621-05	58,977
THOMPSON, W JOSEPH	BIOLOGICAL ROLE OF CYCLIC NUCLEOTIDE PHOSPHODIESTERASE.....	2R01 GM21361-07	132,675
TOM, BALDWIN H	IN VITRO GENERATION OF IMMUNITY TO HUMAN COLON CANCER	5R01 CA24024-02	73,554
TSAI, YU-HUI	ACCEPTOR SITES FOR ANDROGEN-RECEPTOR IN TESTIS CELLS.....	1R01 HD14453-01	91,666
TUTTLE, ROBERT L	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05745-08	161,144
VOGEL, JAMES J	CALCULUS FORMATION USING CALCIFIABLE LIPOPROTEIN ANALOGS.....	5R01 DE04439-03	28,322
WAYMIRE, JACK C	REGULATION OF ADRENERGIC METABOLISM	5R01 NS11061-05	69,058
WEEMS, WILLIAM A	INTESTINAL PROPULSION	5R01 AM23038-02	46,382
WEEMS, WILLIAM A	RENAL AND VASCULAR CONTROL BY SYMPATHETIC GANGLIA	5R01 HL21351-04	41,592
WEISS, KENNETH M	AGING AND HETEROGENEITY IN MORTALITY RISKS	5R01 AG01028-02	52,598
WEISS, KENNETH M	GENETIC EPIDEMIOLOGY OF CANCER	5R01 CA19311-04	131,845
WIGGINS, RICHARD C	STARVATION-VULNERABLE BRAIN SUBCELLULAR MEMBRANES	5R01 NS13799-03	25,752
WIGGINS, RICHARD C	BRAIN TERATOGENESIS OF AMBIENT AIR HALOTHANE	5R01 NS14355-03	39,100

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
WRIGHT, ANTHONY A.	HUE DISCRIMINATION STUDIES IN PRIMATES	5R01 EY01256-06	42,849
ORGANIZATION TOTAL	101 7,627,821		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025			
ALEXANIAN, RAYMOND	SOUTHWEST ONCOLOGY GROUP	5R10 CA03195-23	65,895
ALLISON, JAMES P.	SURFACE ANTIGENS OF RAT HEPATOCELLULAR CARCINOMAS	1R01 CA26891-01	76,043
ANSEVIN, ALLEN T.	A PHYSICAL APPROACH TO GENOMIC ANALYSIS	5R01 GM23067-05	58,768
ARLINGHAUS, RALPH B.	BIOSYNTHESIS AND CHARACTERIZATION OF MURINE ONCORNAVIRUS	5R01 CA25465-02	115,155
BARLOGIE, BARTHEL	CYTOLOGY AUTOMATION	1R01 CA28771-01	74,475
BECKER, FREDERICK F.	PHENOTYPIC ANALYSIS OF CHEMICAL CARCINOGENESIS	5R01 CA20657-05	127,836
BECKER, FREDERICK F.	ANALYSIS OF CELLULAR EVENTS IN CHEMICAL CARCINOGENESIS	2R01 CA20659-05	72,770
BECKER, FREDERICK F.	CHROMOSOMAL PROTEINS IN CHEMICAL CARCINOGENESIS	1R01 CA28263-01	89,120
BLUMENSCHIN, GEORGE R.	CLINICAL CANCER EDUCATION	5R25 CA19808-05	168,024
BLUMENSCHIN, GEORGE R.	CLINICAL CONFERENCE 'GASTROINTESTINAL CANCERS'	1R13 CA28907-01	12,200
CLARKSON, JUDITH M.	CELL CYCLE RELATED DNA REPAIR MECHANISMS	2R01 CA19281-04A1	84,550
CLARKSON, JUDITH M.	IMPORTANCE OF DNA DAMAGE AND REPAIR FOR CELL SURVIVAL	5R01 CA24540-02	60,742
COPELAND, MURRAY M.	NATIONAL STUDY OF LARGE BOWEL CANCER	5R26 CA14140-08	437,335
CORRY, PETER M.	PREFERENTIAL KILLING OF MELANIZED TISSUES	5R01 CA17891-06	104,931
DICKE, KAREL A.	IRRADIATION WITH AUTOLOGOUS MARROW RESCUE IN NEOPLASIA	5P01 CA23077-02	398,785
DICKE, KAREL A.	EFFECT OF CHEMOTHERAPY ON STEM CELLS IN MICE	5R01 CA24770-03	29,270
DREWINKO, BENJAMIN	ANTITUMOR AGENTS ON HUMAN COLON CARCINOMA CELLS	5R26 CA16763-07	77,670
DREWINKO, BENJAMIN	EFFECTS OF NEW ANTICANCER DRUGS ON THE CELL CYCLE	5R01 CA23272-03	152,850
EAST, JAMES L.	RELATEDNESS OF RNA TUMOR VIRUSES AND HUMAN NEOPLASIA	5R01 CA16781-06	103,371
FARQUHAR, DAVID	NOVEL ANTITUMOR NUCLEOTIDES	1R01 CA28001-01	68,519
FLETCHER, GILBERT H.	EVALUATION OF SUPERVOLTAGE THERAPY	3R01 CA05654-19S1	4,903
FLETCHER, GILBERT H.	EXTENSION OF RADIOTHERAPY RESEARCH—FEMALE GENITAL TRACT	5P01 CA06294-19	1,869,926
FLETCHER, GILBERT H.	FAST NEUTRON THERAPY WITH TAMVEC CYCLOTRON	3P01 CA12542-08S1	485,858
FORD, RICHARD J. JR.	SJL MICE LYMPHOMAGENESIS AS A MODEL OF B-CELL LYMPHOMA	5R01 CA25411-02	57,049
FREIREICH, EMIL J.	SOUTHWEST ONCOLOGY GROUP	5R10 CA10376-13	194,244
FREIREICH, EMIL J.	THERAPEUTIC RESEARCH IN CANCER	5P01 CA11520-11	762,148
FREIREICH, EMIL J.	DEVELOPMENTAL THERAPEUTICS	2P01 CA14528-07	999,295
FREIREICH, EMIL J.	HUMAN LEUKEMIA RESEARCH CENTER PROGRAM	1P01 CA28153-01	1,326,696
FURLONG, N BURR	THE ANTITUMOR ACTION OF AMSA	5R01 CA24859-02	64,859
GEHAN, EDMUND A.	SOUTHWEST ONCOLOGY GROUP (STATISTICS)	5R10 CA12014-11	1,046,907
GRDINA, DAVID J.	RADIATION RESPONSE OF CELLS SEPARATED FROM TUMORS	5R01 CA18628-05	84,872
GUINEE, VINCENT F.	STUDIES ON CANCER PATIENT DATA CONTROL	2R10 CA21784-04	99,719
HAIDLE, CHARLES W.	INTERACTION OF ANTICANCER DRUGS WITH MACROMOLECULES	5R01 CA13246-09	57,369
HICKEY, ROBERT C.	CANCER CLINICAL RESEARCH	5P01 CA05831-19	2,245,288
HICKEY, ROBERT C.	CANCER CENTER SUPPORT (CORE) GRANT—COMPREHENSIVE	5P30 CA16672-06	703,949
HICKEY, ROBERT C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05511-18	193,787
HITTELMAN, WALTER N.	MOLECULAR BASIS OF CHROMOSOME ABERRATIONS	1R01 CA27931-01	103,210
HSU, T C.	MONITORING MUTAGENS WITH MAMMALIAN CHROMOSOMES	5R01 ES01304-05	82,598
HUMPHREY, RONALD M.	DNA REPAIR AND RECOVERY IN THE MAMMALIAN CELL CYCLE	2R01 CA04484-22	166,333
HURLBERT, ROBERT B.	PYRIMIDINE ANTIMETABOLITES: HOST-TUMOR RELATIONSHIPS	1R26 CA27962-01	50,779
LE MAISTRE, CHARLES A.	1980 ANNUAL SYMPOSIUM ON FUNDAMENTAL CANCER RESEARCH	1R13 CA26729-01A1	33,696
LOTZOVA, EVA	NK CELLS IN RESISTANCE TO MARROW TRANSPLANTATION	5R01 CA21062-05	66,107
MAIZEL, ABBY L.	CHROMATIN STRUCTURE OF NORMAL AND MALIGNANT T-CELLS	5R01 CA21927-03	58,231
MANN, MICHAEL B.	SEQUENCE SPECIFIC DNA-PROTEIN INTERACTION	1R01 GM27774-01	80,204
MC CREDIE, KENNETH B.	INFECTIONS IN CANCER PATIENTS	5R01 CA19806-05	137,509
MC KELVEY, EUGENE M.	SOUTHWEST ONCOLOGY GROUP	5R10 CA10379-12	124,181
MEISTRICH, MARVIN L.	MUTAGENIC ACTION OF CANCER THERAPY ON TESTIS CELLS	5R01 CA17364-06	91,532
MEYN, RAYMOND E. JR.	CELL CYCLE DEPENDENCE OF ANTICANCER DRUG CYTOTOXICITY	5R01 CA23270-03	67,454
MEYN, RAYMOND E. JR.	REPAIR OF RADIATION DAMAGE IN VITRO AND IN VIVO	5R01 CA26312-02	52,206
MURGOLA, EMANUEL J.	MISSENSE SUPPRESSION AND MUTATIONALLY ALTERED TRNAS	5R01 GM21499-06	54,156
NELSON, JAMES A.	PURINE METABOLISM IN LYMPHOCYTES	5R01 HD13951-02	34,800
NICOLSON, GARTH L.	MAMMARY CARCINOMA METASTASIS	1R01 CA28844-01	125,812
NICOLSON, GARTH L.	CELL SURFACE STUDIES OF METASTATIC MELANOMA	7R01 CA28867-01	63,412
NICOLSON, GARTH L.	MALIGNANT CELL VARIANTS OF LYMPHOSARCOMA	7R01 CA29571-01	88,013
NISHIOKA, KENJI	TYROSINASE AS A MARKER FOR HUMAN MALIGNANT MELANOMA	5R01 CA25381-02	69,270
NISHIOKA, KENJI	ANTITUMOR ACTIVITY OF TUFTSIN	1R01 CA27330-01A1	129,769
PATT, YEHUDA Z.	EVALUATION OF THYMIC HORMONES IN HUMAN CANCER	5R01 CA26023-02	66,188

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
PLUNKETT, WILLIAM K.....	BIOCHEMICAL BASIS FOR THERAPEUTIC ACTIVITY.....	1R01 CA28596-01	16,500
RAO, POTU N.....	ROLE OF POLYAMINES IN MAMMALIAN CELL PROLIFERATION.....	5R01 CA23878-03	50,132
RAO, POTU N.....	PURIFICATION AND CHARACTERIZATION OF MITOTIC FACTORS.....	1R01 CA27544-01	71,795
ROBBESON, DONALD L.....	REGULATION OF MITOCHONDRIAL DNA REPLICATION.....	5R01 CA16527-06	72,962
SAMAAN, NAGUIB A.....	ENDOCRINE RADIOTHERAPY OF TUMORS OF HEAD AND NECK.....	1R01 CA27612-01	66,158
SAUNDERS, GRADY F.....	MESSANGER RNA OF NORMAL AND MALIGNANT HUMAN CELLS.....	5R01 CA20124-04	83,908
SAUNDERS, GRADY F.....	ORGANIZATION AND EXPRESSION OF THE HUMAN GENOME.....	5R01 GM23965-03	87,399
SCHLAMOWITZ, MAX.....	CELL MEMBRANE RECEPTORS FOR MATERNOFETAL TRANSFER OF IGG.....	2R01 HD07752-07	69,057
SHALEK, ROBERT J.....	RADIOLOGICAL PHYSICS CENTER.....	5R10 CA10953-13	416,533
SICILIANO, MICHAEL J.....	GENETICS OF CHEMICAL CARCINOGENESIS IN FISH.....	1R01 CA28909-01	108,368
SICILIANO, MICHAEL J.....	MULTIPLE LOCI SCREEN FOR MUTATIONS IN MAMMALIAN CELLS.....	5R01 ES01287-06	113,471
TSAY, DAVID D.....	MULTIPLE MYELOMA: EVALUATION THROUGH RADIOIMMUNOASSAY.....	5R01 CA21587-03	66,305
VAN EYS, JAN.....	SOUTHWEST ONCOLOGY GROUP (PEDIATRICS).....	2R10 CA03713-23	226,359
WALBORG, EARL F, JR.....	MEMBRANE GLYCOPROTEINS DURING HEPATOCARCINOGENESIS.....	1R01 CA27377-01	71,055
WARD, DARRELL N.....	CHEMISTRY OF LUTEINIZING AND RELATED HORMONES.....	2R01 AM09801-16	195,527
ZIMMERMAN, STUART O.....	BIOMATHEMATICS AND COMPUTING IN A CANCER INSTITUTE.....	5R01 CA11430-15	396,198
ORGANIZATION TOTAL	73	16,432,365	

KINGSVILLE

UNIVERSITY SYSTEM OF SOUTH TEXAS—TEXAS AGRICULTURAL AND INDUSTRIAL UNIVERSITY

ZIP CODE 78363

PEREZ, JOHN C.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08107-07	206,173
ORGANIZATION TOTAL	1	206,173	

LUBBOCK

TEXAS TECH UNIVERSITY ZIP CODE 79409

ANDERSON, JOHN A.....	CYTOCHROME P-450 IN ERGOT ALKALOID BIOSYNTHESIS.....	1R01 GM27617-01	38,111
BARTSCH, RICHARD A.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07183-02	18,314
DAVIES, DONALD G.....	MEDULLARY ECF PH AND VENTILATORY CONTROL.....	1R01 HL25984-01	25,286
DIEDRICH, DANA L.....	LYSYL-DERIVED CROSS-LINKS IN BACTERIAL MEMBRANES.....	5R01 AI14961-03	29,168
EVERSE, JOHANNES.....	THROMBOLYTIC ACTIVITY OF IMMOBILIZED STREPTOKINASE.....	5R01 HL23842-02	21,778
FRALICK, JOE A.....	CHROMOSOME REPLICATION IN ESCHERICHIA COLI.....	2R01 GM22238-04	39,335
HOLLY, FRANK J.....	INVESTIGATION OF TEAR FILM PHYSIOLOGY.....	5R01 EY03002-03	109,102
HONG, BOR-SHYUE.....	STRUCTURE AND FUNCTION OF A DISTINCT COLLAGEN IN CORNEA.....	1R01 EY03337-01	73,611
HUGHES, MAYSIE J.....	THE CARDIAC HISTAMINE RECEPTOR.....	2R01 HL16240-07	60,864
HUTSON, JAMES C.....	CHARACTERIZATION OF SERTOLI CELLS IN DIABETIC ANIMALS.....	1R01 AM23052-01A1	41,136
HUTSON, JAMES C.....	EFFECTS OF TSH ON SERTOLI CELLS.....	1R01 HD13990-01	36,772
JARZEMBSKI, WILLIAM B.....	CURRENT PATHWAYS IN TISSUE DUE TO ELECTRICAL STIMULUS.....	5R01 GM24104-02	29,360
KENNY, ALEXANDER D.....	CALCIUM HOMEOSTASIS: ENDOCRINE AND COMPARATIVE ASPECTS.....	5R01 AM19475-06	75,000
LEFKOWITZ, STANLEY S.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05773-06	41,956
MARKWALD, ROGER R.....	MUCOPOLYSACCHARIDE METABOLISM IN CARDIAC ANOMALIES.....	5R01 HL19136-05	62,255
MORROW, KENNETH J, JR.....	REGULATORY MUTATIONS AFFECTING HPRT SYNTHESIS.....	1R01 GM27268-01	25,048
NATHAN, RICHARD D.....	VOLTAGE CLAMP OF EMBRYONIC HEART CELL AGGREGATES.....	3R01 HL20708-03S1	3,018
OREM, JOHN M.....	BREATHING IN SLEEP.....	2R01 HL21257-04	37,932
PANG, PETER K.....	VITAMIN D METABOLISM IN POIKILOTHERMS.....	3R01 AM21822-01S1	300
PANG, PETER K.....	VITAMIN D METABOLISM IN POIKILOTHERMS.....	5R01 AM21822-02	30,702
POTTER, DAVID E.....	OCULAR EFFECTS OF SELECTIVE BETA-ADRENERGIC DRUGS.....	5R01 EY02156-04	35,025
PRICE, JAMES.....	EYE HISTAMINE: TISSUE LEVELS IN ALBINOS.....	5R01 EY02157-02	45,778
REDINGTON, RICHARD L.....	FORMIC ACID-WATER OXYGEN EXCHANGE KINETICS.....	5R01 GM24515-02	25,328
SELIGER, WILLIAM G.....	MATRIX-MEDIATED EXPRESSION IN CRANIOFACIAL EMBRYOLOGY.....	5R01 DE04603-03	25,137
SONG, PILL-SOON.....	SKIN-SENSITIZING & CARCINOGENIC FUROCUMARINS.....	5R01 CA13598-08	37,188
SONG, PILL-SOON.....	ANEURAL PHOTOSENSORY TRANSDUCTION IN STENTOR COERULEUS.....	5R01 NS15426-02	28,071
ORGANIZATION TOTAL	26	995,575	

PRAIRIE VIEW

TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—PRAIRIE VIEW A & M UNIVERSITY

ZIP CODE 77445

BERRY, JEWEL E.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08094-06	196,166
ORGANIZATION TOTAL	1	196,166	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
RICHARDSON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT DALLAS ZIP CODE 75080			
BREMER, HANS.....	REGULATION OF BACTERIAL GROWTH.....	5R01 GM15142-12	107,524
BREMER, HANS.....	CONTROL OF DNA REPLICATION IN BACTERIA.....	5R01 GM25948-02	67,177
CLOWES, ROYSTON C.....	INFECTIOUS DRUG RESISTANCE PLASMIDS.....	5R01 AI10468-09	96,853
CLOWES, ROYSTON C.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07133-11	48,436
GERKEN, GEORGE M.....	HEARING LOSS AND HYPERSENSITIVITY IN COCHLEAR NUCLEUS.....	1R01 NS16411-01	84,987
GRAY, DONALD M.....	SEQUENCE-DEPENDENCE OF POLYNUCLEOTIDE CONFORMATION-III.....	5R01 GM19060-09	67,964
MARSH, ROBERT C.....	STRUCTURE OF CHROMOSOME REPLICATION ORIGINS.....	2R01 GM23608-04	72,074
ROESER, ROSS J.....	EVALUATING A VIBROTACTILE AID WITH DEAF CHILDREN.....	1R01 NS15982-01A1	97,034
RUPERT, CLAUD S.....	REPAIR OF RADIATION-DAMAGED NUCLEIC ACID.....	2R01 GM16547-15	119,441
SALVI, RICHARD J.....	EFFECTS OF ACOUSTIC TRAUMA.....	1R01 NS16761-01	53,026
SHERRY, ALLAN D.....	CARBON-13 STUDIES OF CON A-CELL RECEPTOR INTERACTIONS.....	2R01 AM16947-07	92,212
WRIGHT, CHARLES G.....	OTOLITH ORGAN DEVELOPMENT AND PATHOLOGY IN MAN.....	1R01 NS16236-01	58,024
ORGANIZATION TOTAL	12 964,752		
SAN ANTONIO			
INCARNATE WORD COLLEGE ZIP CODE 78209			
HEALY, SISTER MARY D.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08170-03	326,115
ORGANIZATION TOTAL	1 326,115		
SOUTHWEST FOUNDATION FOR RESEARCH AND EDUCATION ZIP CODE 78284			
CASTRACANE, V DANIEL.....	PROSTAGLANDINS AND DECIDUAL TISSUE.....	5R01 HD11806-03	74,480
GOODWIN, WILLIAM J.....	ESTABLISHMENT OF A BABOON BREEDING PROGRAM.....	5P40 RR01104-03	182,850
KALTER, SEYMOUR S.....	REFERENCE CENTER FOR THE STUDY OF VIRUSES.....	2P40 RR00361-14	315,127
KUNTZ, ROBERT E.....	SCHISTOSOMIASIS-SCHISTO HAEMATOBIIUM COMPLEX BIOLOGY.....	5R22 AI14999-12	126,287
MC GILL, HENRY C, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05519-18	67,435
MILLER, SAM S.....	CULTURED BONE CELLS: MECHANISMS OF AGING.....	5R01 AG01300-02	57,156
PURDY, ROBERT H.....	MUTAGENIC AND CARCINOGENIC POTENTIAL OF ESTROGENS.....	5R01 CA24629-02	135,842
SHAIKH, ABUBAKAR A.....	STEROID-INDUCED REGULATION OF OVULATION.....	5R01 HD11538-02	11,344
SHAIN, SYDNEY A.....	PROTEIN AND STEROID HORMONES IN PROSTATIC NEOPLASIA.....	1R01 CA23668-01A2	185,692
VANDEBERG, JOHN L.....	ISOZYME GENETICS OF MAMMALS AND BIRDS.....	1R01 GM29249-01	169,944
ORGANIZATION TOTAL	10 1,326,157		
TEXAS DEPARTMENT OF HEALTH RESOURCES--SAN ANTONIO STATE CHEST HOSPITAL ZIP CODE 78223			
COX, REBECCA A.....	IMMUNOGLOBULIN E IN COCCIDIOIDOMYCOSIS.....	5R01 AI16095-02	31,846
ORGANIZATION TOTAL	1 31,846		
TRINITY UNIVERSITY ZIP CODE 78284			
ESPEY, LAWRENCE L.....	OVULATION AS AN INFLAMMATORY PROCESS.....	1R01 HD14539-01	61,944
ORGANIZATION TOTAL	1 61,944		
U.S. DEPARTMENT OF THE ARMY--BROOKE ARMY MEDICAL CENTER ZIP CODE 78234			
MC CRACKEN, JOSEPH D.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA22411-03	28,996
ORGANIZATION TOTAL	1 28,996		
UNIVERSITY OF TEXAS SYSTEM--UNIVERSITY OF TEXAS AT SAN ANTONIO ZIP CODE 78285			
AYLING, JUNE E.....	INHIBITION OF PTERIDINE ENZYMES IN CANCER CHEMOTHERAPY.....	2R01 CA20708-05	94,384
AYLING, JUNE E.....	OXYGEN ACTIVATION BY PHENYLALANINE HYDROXYLASE.....	1R01 GM27880-01	93,676
CHAMPNEY, WILLIAM S.....	PROTEIN SYNTHESIS MUTANTS OF E COLI.....	5R01 GM27622-02	61,617
SAGIK, BERNARD P.....	MINORITIES IN RESEARCH AND SCIENCE ACHIEVEMENT PROGRAM.....	1S06 RR08194-01	249,353
ORGANIZATION TOTAL	4 499,030		
UNIVERSITY OF TEXAS SYSTEM--UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284			
BARNES, LARRY D.....	MECHANISMS OF ANGIOTENSIN II: CYCLIC NUCLEOTIDES & CA ²⁺	5R01 AM21550-03	37,421
BARNES, LARRY D.....	MODULATION OF THE CELL CYCLE BY CYCLIC NUCLEOTIDES.....	1R01 GM27220-01	48,717
BARTKE, ANDRZEJ.....	INFLUENCE OF PROLACTIN ON THE TESTIS.....	2R01 HD12642-03	73,936
BARTKE, ANDRZEJ.....	HYPERPROLACTINEMIA AND MALE REPRODUCTIVE FUNCTIONS.....	5R01 HD12671-02	69,807

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
BECK, NAMA	EFFECT OF AGING ON RENAL METABOLISM	1R01 AG01318-01A1	58,588
BISHOP, VERNON S.	EVALUATION OF LEFT VENTRICULAR FUNCTION	3R01 HL12415-11S1	12,720
BRANS, YVES W.	BODY COMPOSITION IN NEONATES OF DIABETIC MOTHERS	5R01 AM21283-03	36,250
BUNELL, PHILIP A.	IMMUNIZATION WITH A VARICELLA-ZOSTER VIRUS VACCINE	5R01 AI15492-02	85,252
BURK, RAYMOND F, JR	NUTRITIONAL AND METABOLIC SIGNIFICANCE OF SELENIUM	1R01 ES02497-01	133,341
CARRILLO, ALBERTO J.	A NEUROENDOCRINOLOGICAL STUDY OF THE HIPPOCAMPUS	5R01 NS14581-03	55,927
CARRILLO, ALBERTO J.	A NEUROENDOCRINE STUDY OF THE MEDIAL BASAL HYPOTHALAMUS	5R01 NS15454-02	45,710
CHAUVENET, PAULA H.	TUMOR-SPECIFIC IMMUNITY AND HISTOCOMPATIBILITY COMPLEX	1R01 CA25154-01A1	75,017
COLTMAN, CHARLES A, JR	SOUTHWEST ONCOLOGY GROUP	5R10 CA22433-03	162,528
COLTMAN, CHARLES A, JR	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA26047-02	104,302
CRAWFORD, STANLEY E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05654-13	159,376
DOUGLAS, MICHAEL G.	ASSEMBLY OF ENERGY TRANSDUCING MEMBRANES	5R01 GM25648-03	57,782
DOUGLAS, MICHAEL G.	LIPID-PROTEIN ASSEMBLY DURING MEMBRANE BIOGENESIS	5R01 GM26713-02	27,216
DRUTZ, DAVID J.	THE PATHOGENESIS OF RENAL CANDIDIASIS	1R01 AI16534-01	75,284
DUFFEY, PAUL S.	PROTECTIVE T-CELL SUBPOPULATION RESPONSES IN LEUKEMIA	5R01 CA21900-02	60,378
EIDELBERG, EDUARDO.	PROGRAM OF RESEARCH IN SPINAL CORD INJURY	5P50 NS14546-03	249,471
ELBEIN, ALAN D.	LIPID-LINKED SACCCHARIDES IN GLYCOPROTEIN SYNTHESIS	5R01 AM21800-03	68,611
ELBEIN, ALAN D.	COMPLEX CARBOHYDRATES: STRUCTURE, FUNCTION, SYNTHESIS	2R01 HL17783-06	91,453
FRIEDBERG, SAMUEL J.	O-ALKYL LIPIDS IN SURFACE MEMBRANES OF TUMOR CELLS	5R01 CA15047-06	75,767
GAUNT, CHARLES J.	STUDIES OF COXSACKIEVIRUS-INDUCED MYOCARDITIS IN MICE	5R01 HL21047-03	68,446
GEORGE, JAMES N.	THE ROLE OF MEMBRANE PROTEINS IN PLATELET FUNCTION	2R01 HL19996-04A1	86,137
GIBBS, RONALD S.	AMNIOTIC FLUID STUDIES & MATERNAL-FETAL MORBIDITY	5R01 HD12292-02	35,845
GOYAL, RAJ K.	PATHOPHYSIOLOGY OF ESOPHAGEAL MOTOR DISORDERS	5R01 AM25609-03	105,607
GROSE, CHARLES F.	ANTIGENIC DETERMINANTS OF VARICELLA VIRUS	5R23 AI14604-03	27,655
GUARINO, ARMAND J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07187-02	114,738
HAGINO, NOBUYOSHI	EXTEROCEPTIVE AND NEUROENDOCRINE CONTROL OF OVULATION	5R01 HD10071-05	72,066
HANAHAN, DONALD J.	REGULATION OF ERYTHROCYTE CA ²⁺ /MG ²⁺ + ATPASE	5R01 AM25547-02	44,029
HANAHAN, DONALD J.	BIOCHEMICAL STUDIES ON THE BLOOD COAGULATION PROCESS	5R01 HL18852-05	83,412
HANLEY, MICHAEL J.	STUDY OF NEPHRON TRANSPORT IN ACUTE RENAL FAILURE	5R01 AM26154-02	41,207
HANSEN, JOHN T.	ARTERIAL CHEMORECEPTOR FUNCTION	1R01 HL25508-01	40,381
HARPER, MICHAEL J.	PROSTAGLANDINS IN ZYGOTE DEVELOPMENT AND ATTACHMENT	1R01 HD14048-01	64,247
HERBERT, DAMON C.	GONADOTROPIC HORMONES IN MALNOURISHED RATS	5R01 HD10914-03	33,994
HERLIHY, JEREMIAH T.	HYPOXIA-INDUCED RELAXATION OF VASCULAR SMOOTH MUSCLE	5R01 HL19082-03	29,695
HIGUCHI, JUNJI H.	CELLULAR ADHERENCE AND RESPIRATORY TRACT COLONIZATION	5R23 HL24295-02	37,965
HOROWITZ, PAUL M.	STRUCTURE-FUNCTION IN RHODANSE BY FLUOROMETRY	5R01 GM25177-03	33,654
HOROWITZ, PAUL M.	A MULTISUBSTRATE CIRCULAR DICHROISM FACILITY	5P41 GM27379-02	1,000
HUFFMAN, RONALD D.	SYNAPTIC MECHANISMS OF THE GLOBUS PALLIDUS	5R01 NS14091-03	36,702
HUTTON, JOHN J.	NUCLEOTIDE METABOLISM IN CHILDHOOD IMMUNODEFICIENCY	7R01 HD15036-01	63,286
JOHANSON, WALDEMAR G, JR.	PULMONARY SCOR: ADULT RESPIRATORY FAILURE	5P50 HL23578-02	486,031
JOHNSON, JOHN M.	REGULATION OF SKIN BLOOD FLOW IN MAN	2R01 HL20663-04	37,257
KALU, DIKE N.	AGING AND CALCIUM METABOLISM CONTROL	1R01 AG00345-01A3	36,508
KEENAN, ROY W.	THE METABOLISM AND FUNCTION OF THE POLYPRENOLS	5R01 AM17897-06	42,686
KING, RICHARD J.	PHYSIOLOGICAL REGULATION OF PULMONARY SURFACTANT	5R01 HL16725-05	46,609
KING, RICHARD J.	PHYSICOCHEMICAL INTERACTIONS IN PULMONARY SURFACTANT	2R01 HL19676-04	30,011
KOLB, WILLIAM P.	COMPLEMENT ATTACK PROTEINS AS LYMPHOCYTE SURFACE AGS	5R01 CA24447-02	54,393
KRUSKI, ARTHUR W.	EFFECT OF DIET ON BABOON LIPOPROTEINS	1R01 HL24752-01A1	93,047
KUNAU, ROBERT T, JR.	RENAL HEMODYNAMICS—K PLUS DEFICIENCY/NA PLUS EXCRETION	2R01 HL18875-05	77,648
LAMM, DONALD L.	BCG IMMUNOTHERAPY OF SUPERFICIAL BLADDER CANCER	1R01 CA27922-01	132,516
LEVINSON, CHARLES	PHOSPHATE TRANSPORT AND METABOLISM IN CARCINOMA CELLS	5R01 CA10917-12	43,312
LUDENA, RICHARD F.	CONTROL OF MICROTUBULE ASSEMBLY IN VITRO AND IN VIVO	5R01 GM23476-02	44,745
MARKIDES, KYRIAKOS S.	FAMILY RELATIONS IN THREE GENERATIONS OF CHICANOS	1R01 AG01573-01	102,423
MASORO, EDWARD J.	NUTRITIONAL PROBE OF THE AGING PROCESS	5P01 AG01188-02	290,957
MATTLING, STEPHEN J.	GROUP B STREPTOCOCCI AND NEONATAL DISEASE	5R01 AI13836-03	50,943
MC GILL, HENRY C, JR	A/S SCOR: ATHEROSCLEROSIS IN NONHUMAN PRIMATES	5P50 HL19362-04	1,763,029
MC GUIRE, WILLIAM L.	MECHANISM OF HORMONAL CONTROL OF MAMMARY CARCINOMA	5R01 CA11378-11	111,384
MEDINA, MIGUEL A.	TOXIC EFFECTS OF PARAQUAT AND DIQUAT ON LUNG METABOLISM	5R01 ES01828-03	48,628
MILLER, ALEXANDER L.	CO ₂ AND INTERMEDIARY METABOLISM IN DEVELOPING BRAIN	7R01 HD15053-01	35,135
MORGAN, WILLIAM W.	INPUT TO DOPAMINERGIC TUBEROINFUNDIBULAR NEURONS	5R01 NS14855-02	44,591
MUNDY, GREGORY R.	MONOCYTE-MACROPHAGE SYSTEM AND BONE RESORPTION	7R01 AM28149-01	83,302
MUNDY, GREGORY R.	OSTEOTROPISM OF MAMMARY CARCINOMA METASTASIS	7R01 CA29537-01	139,004
NATHAN, MARC A.	MODELS OF SUSTAINED ARTERIAL HYPERTENSION	5R01 HL24529-02	66,767

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
TEXAS—Continued			
NISHIMURA, JONATHAN S.....	SUCCINIC THIOKINASE AND RELATED ENZYMES.....	5R01 GM17534-10	61,417
OLSON, MERLE S.....	REGULATION OF ENERGY METABOLISM IN LIVER.....	5R01 AM19473-05	40,930
OLSON, MERLE S.....	ALPHA-KETO ACID DEHYDROGENASES REGULATION IN THE HEART.....	5R01 HL24654-02	116,242
OSBORNE, C KENT.....	CONTROL OF BREAST CANCER BY SERUM GROWTH FACTORS.....	5R01 CA24129-02	48,809
PAUERSTEIN, CARL J.....	CONTROL MECHANISMS OF OVIDUCTAL SMOOTH MUSCLE.....	5R01 HD09339-06	45,279
PAUERSTEIN, CARL J.....	CENTER FOR RESEARCH IN REPRODUCTIVE BIOLOGY.....	5P30 HD10202-04	375,387
PINCKARD, ROBERT N.....	COMPLEMENT MEDIATED INJURY OF ISCHEMIC MYOCARDIUM.....	5R01 HL20394-05	101,944
PINCKARD, ROBERT N.....	STRUCTURE AND FUNCTION OF PLATELET ACTIVATING FACTOR.....	5R01 HL22555-03	208,061
POOL, THOMAS B.....	QUANTITATIVE CHANGES IN HUMAN FIBROBLASTS DURING AGING.....	1R01 AG02212-01	61,367
POPE, RICHARD M.....	MUCOPEPTIDE IN THE ETIOLOGY OF RHEUMATOID ARTHRITIS.....	5R01 AM25530-02	40,410
PROPPE, DUANE W.....	CONTROL OF THE CIRCULATION IN HEAT-STRESS.....	3R01 HL20766-03S1	4,827
PROPPE, DUANE W.....	CONTROL OF CIRCULATION DURING HEAT STRESS AND FEVER.....	5R01 HL21451-03	37,943
REINECK, HENRY J.....	THE ETIOLOGY OF GENETIC HYPERTENSION.....	5R23 HL22438-03	34,221
RENNELS, EDWARD G.....	A NEW CLONE OF NORMAL RAT PROLACTIN CELLS.....	5R01 AM12583-12	88,988
RENTHAL, ROBERT D.....	MOLECULAR MECHANISM OF A TRANSMEMBRANE PROTON PUMP.....	5R01 GM25483-03	40,801
ROBINSON, NEAL C.....	HYDROPHOBIC ASSOCIATIONS OF MEMBRANE COMPLEXES.....	5R01 GM24795-03	30,847
SANFORD, BARBARA A.....	MECHANISM OF BACTERIAL SUPERINFECTION.....	1R01 AI17242-01	36,948
SEARS, DAVID A.....	ERYTHROCYTE & PLATELET MEMBRANE PROTEIN STUDIES.....	5R01 AM17137-06	4,646
SERWER, PHILIP.....	BIOCHEMISTRY AND BIOPHYSICS OF VIRUS CAPSID ASSEMBLY.....	5R01 AI16117-02	41,096
SERWER, PHILIP.....	BIOPHYSICS AND GENETICS OF VIRAL DNA PACKAGING.....	2R01 GM24365-04	65,868
SHAIN, ROCHELLE N.....	PSYCHOSOCIAL AND PHYSICAL RESULTS OF TUBAL LIGATION.....	1R01 HD13459-01A1	146,434
SHEPHERD, ALBERT P, JR.....	MICROCIRCULATION AND OXYGENATION OF INTESTINE.....	5R01 HL23435-02	37,639
SHERIDAN, PETER J.....	ANDROGEN ACTION ON THE CENTRAL NERVOUS SYSTEM.....	2R01 NS12933-04A1	56,187
SHIINO, MASATAKA.....	STUDIES OF FUNCTIONAL CLONAL GONADOTROPHS OF THE RAT.....	5R01 HD11826-03	37,850
SMITH, THOMAS C.....	DRIVING FORCES FOR NUTRIENT TRANSPORT IN TUMOR CELLS.....	1R01 CA28287-01	42,538
STEIN, JAY H.....	PHYSIOLOGY AND PATHOPHYSIOLOGY OF KIDNEY FUNCTION.....	5P01 AM17387-08	536,224
STERN, MICHAEL P.....	DIABETES AND CARDIOVASCULAR RISK IN MEXICAN AMERICANS.....	5R01 HL24799-02	232,126
SUMAYA, CIRO V.....	EPSTEIN-BARR VIRUS: TRANSMISSION AND HOST RESPONSE.....	5R01 AI15646-02	37,164
SUMAYA, CIRO V.....	EPSTEIN-BARR VIRUS: EFFECTS ON HUMAN LYMPHOCYTES.....	5R01 CA25686-02	28,342
THOR, DANIEL E.....	HOMING LIPOSOMES IN CANCER IMMUNOCHEMOTHERAPY.....	5R01 CA25242-02	98,485
TICKU, MAHARAJ K.....	MOLECULAR MECHANISMS OF DRUGS ON GABA SYNAPTIC EVENTS.....	5R01 NS15339-02	33,310
VENKATACHALAM, MANJERI A.....	RENAL PATHOPHYSIOLOGY: NORMAL AND ALTERED STRUCTURE.....	5R01 AM27015-02	113,271
VON HOFF, DANIEL D.....	RADIOLABELING TECHNIQUE FOR HUMAN TUMOR STEM CELL ASSAY.....	1R01 CA27733-01	58,369
WEINER, MARC H.....	IMMUNODIAGNOSIS OF SYSTEMIC CANDIDIASIS.....	2R01 AI13770-04	69,335
WELCH, RICHARD W.....	LOWER ESOPHAGEAL SPHINCTER IN HEALTH AND ESOPHAGITIS.....	1R01 AM26371-01	56,141
WHARTON, DAVID C.....	PROPERTIES OF CYTOCHROME OXIDASE.....	2R01 HL16686-06	90,080
ORGANIZATION TOTAL	101	9,905,372	
SAN MARCOS			
SOUTHWEST TEXAS STATE UNIVERSITY ZIP CODE 78666			
IRVIN, JAMES D.....	ENZYMATIC INACTIVATION OF EUKARYOTIC RIBOSOMES.....	5R01 AI15344-03	31,304
ORGANIZATION TOTAL	1	31,304	
TEMPLE			
SCOTT AND WHITE MEMORIAL HOSPITAL ZIP CODE 76501			
COULTER, JOHN B, III.....	BIOCHEMICAL INTERACTIONS OF INSULIN WITH THE LENS.....	5R01 EY00404-09	50,873
ORGANIZATION TOTAL	1	50,873	
WACO			
BAYLOR UNIVERSITY ZIP CODE 76703			
FORDTRAN, JOHN S.....	PATHOPHYSIOLOGY OF CHRONIC DIARRHEA.....	1R01 AM26794-01	110,736
ORGANIZATION TOTAL	1	110,736	
STATE TOTAL	991	103,991,982	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH			
LOGAN			
UTAH STATE HIGHER EDUCATION SYSTEM—UTAH STATE UNIVERSITY ZIP CODE 84322			
BOEKER, ELIZABETH A.....	ENZYME DISSOCIATION MECHANISM.....	5R01 GM25471-03	37,185
ELLIS, LE GRANDE C.....	PROSTAGLANDINS AND EPIDIDYMAL SPERM MATURATION.....	5R01 HD12325-02	47,557
EMERY, THOMAS F.....	MECHANISMS OF MICROBIAL IRON TRANSPORT.....	5R01 AI09580-09	58,036
EMERY, THOMAS F.....	SYNTHESIS AND BIOASSAY OF SIDEROCHROME ANALOGS.....	1R01 GM26711-01	44,555
GARDNER, ELDON J.....	STUDIES OF UTAH COLORECTAL CANCER FAMILIES.....	5R26 CA21623-03	137,544
JOHNSON, RALPH M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07093-13	37,823
LANGERMAN, NEAL R.....	ENERGY STATE OF FLAVOPROTEINS.....	1R01 GM27953-01	41,968
OLSEN, RICHARD K.....	SYNTHESIS OF TRIOSTIN AND QUINOMYCIN ANTIBIOTICS.....	5R01 AI15759-02	56,752
OLSEN, RICHARD K.....	SYNTHESIS OF ANTIBIOTIC 593 A.....	5R01 CA22922-03	41,370
SPENCE, JACK T.....	THE FUNCTION OF MOLYBDENUM IN BIOLOGICAL SYSTEMS.....	5R01 GM08347-20	52,205
STINNER, WILLIAM F.....	RACE, AGING AND MIGRATION AMONG OLDER AMERICAN MEN.....	5R01 AG01910-02	55,839
TONEY, MICHAEL B.....	MIGRATION, LIFE CYCLE AND SOCIAL MOBILITY—1966-1976.....	5R01 HD12766-02	69,535
ORGANIZATION TOTAL	12	680,369	
PROVO			
BRIGHAM YOUNG UNIVERSITY ZIP CODE 84602			
ANDERSEN, FERRON L.....	EPIDEMIOLOGY OF ECHINOCOCCOSIS.....	5R01 AI10588-09	59,398
GUBLER, CLARK J.....	PHYSIOLOGICAL FUNCTIONS AND METABOLISM OF THIAMINE.....	3R01 AM02448-19S2	7,670
ROBINS, ROLAND K.....	SYNTHESIS OF TUBERCIDIN 3',5'-CMP AS INTERFERON ENHANCER.....	5R01 AI15324-02	41,528
ROBINS, ROLAND K.....	2'-5' LINKED OLIGONUCLEOTIDES OR GROWTH REGULATORS.....	5R01 CA25778-02	75,872
SEECMILLER, ROBERT E.....	CARTILAGE MATRIX IN HEREDITARY CHONDRODYSPLASIA IN MICE.....	5R01 AM21631-03	40,239
SOLENI, KENNETH A.....	PULSATILE PRESSURES IN MICROEMBOLI FILTRATION.....	1R01 HL25912-01	46,489
ORGANIZATION TOTAL	6	271,196	
SALT LAKE CITY			
INTERMOUNTAIN HEALTH CARE—LDS HOSPITAL ZIP CODE 84143			
BEAN, LEE L.....	POPULATION STUDIES OF MORMON GENEALOGIES.....	2R01 HD10267-05	124,652
BURKE, JOHN P.....	CONTROL OF HOSPITAL-ACQUIRED URINARY TRACT INFECTIONS.....	5R01 AI15655-02	45,498
CLAYTON, PAUL D.....	LEFT VENTRICULAR WALL MOTION ANALYSIS.....	5R01 HL24137-03	54,279
LAZARUS, HARRISON M.....	EFFECTS OF ORGAN STORAGE ON RENAL RNA METABOLISM.....	7R01 AM28139-01	81,134
MORRIS, ALAN H.....	CAPILLARY & TISSUE VOLUME AND LYMPH FLOW IN LUNG EDEMA.....	5R01 HL21948-03	58,255
PRYOR, T ALLAN.....	COMPUTER CONTROLLED TWO-DIMENSIONAL ECHOCARDIOGRAPHY.....	5R01 HL16487-07	57,673
SKOLNICK, MARK H.....	CANCER INCIDENCE AND RISK FACTORS BY KINSHIP.....	5R01 CA16573-06	243,456
WARNER, HOMER R.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05804-02	38,995
WARNICK, C TERRY.....	EFFECT OF ORGAN STORAGE ON NUCLEIC ACID METABOLISM.....	7R01 AM28161-01	39,519
ORGANIZATION TOTAL	9	743,461	
INTERMOUNTAIN HEALTH CARE—PRIMARY CHILDREN'S MEDICAL CENTER ZIP CODE 84103			
CLARK, JUSTIN S.....	SYNCHRONOUS TRACER INJECTION FOR PULMONARY PARAMETERS.....	5R01 HL20355-02	77,049
ORGANIZATION TOTAL	1	77,049	
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112			
ABILDSKOV, J A.....	CARDIAC ELECTROPHYSIOLOGY.....	2P01 HL13480-11	726,415
ANDRADE, JOSEPH D.....	ADSORBED PROTEINS AT INTERFACES.....	2R01 HL18519-05	129,297
ANDRADE, JOSEPH D.....	BLOOD INTERACTIONS OF TRIBLOCK COPOLYMERS.....	5R01 HL24474-02	84,895
ASTLE, LYNN.....	GASTROINTESTINAL CARCINOGENICITY OF MALONDIALDEHYDE.....	1R01 CA28006-01	67,918
ATHENS, JOHN W.....	HEREDITARY HEMOCHROMATOSIS.....	5R01 AM20630-02	75,404
ATHENS, JOHN W.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA13238-09	125,375
ATHENS, JOHN W.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18013-04	164,043
ATKIN, CURTIS L.....	MOLECULAR PATHOGENESIS OF HEREDITARY NEPHRITIS.....	1R01 AM26627-01	85,590
BAKER, WILLIAM K.....	GENETIC CONTROL OF DIFFERENTIAL CELL FUNCTION.....	5R01 GM23707-04	52,372
BAXTER, BRENT S.....	3-D TOMOGRAPH VIEWER FOR CANCER DETECTION AND THERAPY.....	5R01 CA24822-02	166,860
BENTRUDE, WESLEY G.....	CYCLIC NUCLEOTIDE AND CYCLOPHOSPHAMIDE DERIVATIVES.....	5R01 CA11045-12	118,951
BROOM, ARTHUR D.....	POLYRIBONUCLEOTIDES AS TUMOR AND VIRUS INHIBITORS.....	5R01 CA11935-10	69,809
BROWN, HAROLD M.....	TRANSDUCTION MECHANISM OF PHOTORECEPTORS.....	5R01 EY00762-09	165,168

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
BULLARD, WILSON P.	PTERINS AND REGULATION IN CENTRAL DOPAMINE SYSTEMS	1R01 NS16090-01	35,777
BURGESS, MARY J.	BASIC AND CLINICAL STUDIES OF THE ST-T DEFLECTION	5R01 HL12611-12	96,034
BURGESS, MARY J.	ELECTROCARDIOGRAPHIC METHODS OF QUANTIFYING INFARCT SIZE	5R01 HL21710-03	74,577
BURGESS, PAUL R.	GROWTH AND INFORMATION SIGNALLING IN A SENSORY SYSTEM	2R01 NS08769-11	65,214
CAPECCHI, MARIO R.	THE CONTROL, ASSEMBLY AND TERMINATION OF PROTEINS	5R01 GM21168-07	132,736
CARDINAL, JOHN R.	CHOLESTEROL PRECIPITATION FROM SUPERSATURATED BILE	5R01 AM25221-02	53,465
CARROLL, DANA	A NOVEL FUNCTION OF THE SIMIAN VIRUS 40 GENOME	5R01 CA26128-02	35,757
CARROLL, DANA	DEVELOPMENTAL CONTROL AND EVOLUTION OF 5S RNA GENES	5R01 GM22232-06	66,992
CASJENS, SHERWOOD R.	BACTERIOPHAGE P22 ASSEMBLY AND ITS GENETIC CONTROL	5R01 GM21975-05	43,394
CHRISTENSEN, DOUGLAS A.	HYPERTHERMIA PRODUCTION AND MEASUREMENT IN TISSUES	5R01 CA22189-03	119,841
CHUANG, HANSON Y.	PROTHROMBIN, THROMBIN, ATIII INTERACTION WITH MATERIALS	5R01 HL25807-02	78,677
COLE, BARRY C.	MYCOPLASMA-CELL INTERACTIONS AND INTERFERON INDUCTION	5R01 AI12103-06	97,694
COLE, BARRY C.	ROLE OF MYCOPASMAS IN ANIMAL AND HUMAN DISEASE	5R01 AM02255-22	98,209
COLLINS, FRANKLIN D.	NERVE REGENERATION INDUCED BY CONDITIONED MEDIUM	5R01 NS15130-02	59,394
CRUTCHER, KEITH A.	TARGET IDENTIFICATION IN A MODEL OF NEURON SPROUTING	1R01 NS17131-01	46,534
DAYNES, RAYMOND A.	ULTRAVIOLET LIGHT RADIATION AND IMMUNOREGULATION	3R01 CA22126-03S1	57,211
DAYNES, RAYMOND A.	CELLULAR AND GENETIC ASPECTS OF ANTITUMOR IMMUNITY	3R01 CA25917-01S1	20,000
DETHLEFSEN, LYLE A.	OPTIMIZATION OF RADIATION THERAPY	5R01 CA14165-08	173,805
DETHLEFSEN, LYLE A.	INTERACTIONS OF DRUGS AND X-RAYS IN VIVO	3R01 CA22188-03S1	65,395
DICKINSON, WILLIAM J.	THE CONTROL OF ENZYME EXPRESSION IN DEVELOPMENT	2R01 HD10723-04	108,134
DIMOND, MARGARET F.	BEREAVEMENT IN THE ELDERLY: FACTORS IN ADAPTATION	1R01 AG02193-01	163,266
DURNEY, CARL H.	MICROWAVE METHODS OF LUNG WATER MEASUREMENT	2R01 HL20110-03	81,838
DURNEY, CARL H.	QUANTITATION OF DISTRIBUTION OF LUNG WATER BY NMR	5R01 HL23746-02	101,580
EDMUNDSON, ALLEN B.	IMMUNOGLOBULINS IN MULTIPLE MYELOMA AND AMYLOIDOSIS	5R01 CA19616-05	219,825
ERENFELD, ELVERA R.	CONTROL OF TRANSLATION IN POLIOVIRUS-INFECTED CELLS	2R01 AI12387-06	101,781
EICHWALD, ERNST J.	CELL MEDIATED HYPERACUTE REJECTION	5R01 CA23679-02	54,574
EPSTEIN, WILLIAM W.	NEW MODIFICATIONS OF CLAISEN REARRANGEMENT	5R01 GM25437-02	49,732
EPSTEIN, WILLIAM W.	PHOTOCHEMICAL TECHNIQUES ON BIOLOGICAL PROBLEMS	5R01 GM26245-02	67,017
EYRE, HARMON J.	LEUKOCYTE MYELOPEROXIDASE DEFICIENCY FAMILY STUDIES	2R01 GM25600-03	50,923
EYRING, EDWARD M.	FAST FOURIER TRANSFER PHOTOACOUSTIC SPECTROSCOPY—BLOOD	5R01 HL23378-02	55,604
EYRING, HENRY	STRUCTURAL STUDIES OF NUCLEOSIDES AND NUCLEOTIDES	2R01 GM22616-15A1	72,252
EYZAGUIRRE, CARLOS E.	CHEMORECEPTOR ACTIVITY OF THE CAROTID BODY	5R01 NS05666-16	103,781
EYZAGUIRRE, CARLOS E.	NEUROPHYSIOLOGY PROGRAM PROJECT (PERIPHERAL AND CNS)	5P01 NS07938-12	382,452
FIDONE, SALVATORE J.	CHEMICAL TRANSMISSION IN SENSORY RECEPTORS	5R01 NS12636-06	76,857
FRANKLIN, MICHAEL R.	MODIFICATION OF PROCARCINOGEN ENZYMATIC ACTIVATION	2R01 CA15760-07	53,318
FRANZ, DONALD N.	MONOAMINERGIC BULBOSPINAL SYMPATHETIC PATHWAYS	5R01 HL24085-02	50,439
GANDHI, OM P.	ELECTROMAGNETIC ENERGY DEPOSITION IN MAN AND ANIMALS	1R01 ES02304-01	87,993
GARIBALDI, RICHARD	NOSOCOMIAL INFECTION IN SURGICAL PATIENTS	5R01 AI14533-03	114,629
GELFAND, DONNA M.	CHILDREN'S ALTRUISTIC BEHAVIOR AND BELIEFS	2R01 HD06914-07A1	64,698
GEORGIOPOULOS, CONSTANTINE	BACTERIAL FUNCTIONS IN PHAGE DEVELOPMENT	2R01 GM23917-04	133,016
GIBBS, FREDERIC A. JR.	HYPERTHERMIA—A DIFFERENTIAL RADIOSENSITIZER IN VIVO	2R01 CA20333-04	82,801
GIDDINGS, J. CALVIN	BIOCHEMICAL SEPARATIONS: OPTIMIZATION AND NEW METHODS	5R01 GM10851-23	142,124
GLASGOW, LOWELL A.	INTERFERON AND HOST RESISTANCE TO VIRAL INFECTIONS	5R01 AI10217-11	94,946
GLASGOW, LOWELL A.	INTERFERON TREATMENT OF A MURINE OSTEOGENIC SARCOMA	5R01 CA23475-03	84,157
GRANT, DAVID M.	CARBON-13 MAGNETIC RESONANCE—METHODS AND THEORY	5R01 GM08521-20	101,894
GRANT, DAVID M.	REGIONAL RESEARCH FACILITY IN NMR	3P41 RR00574-08S2	30,000
GRANT, DAVID M.	REGIONAL RESEARCH FACILITY IN NMR	2P41 RR00574-09	84,210
GRAY, WILLIAM R.	STRUCTURE, FUNCTION, GENETICS OF HISTIDINOL DI'ASE	5R01 GM24686-03	104,690
GREEN, JON A.	UNEXPRESSED, RESTORABLE DELAYED HYPERSENSITIVITY	5R01 AI15074-03	94,738
GURNEY, ELIZABETH T.	GROWTH CONTROL AND VIRAL GENE EXPRESSION	2R01 CA21797-04	109,687
GURNEY, THEODORE, JR.	DRY FRACTIONATION OF MAMMALIAN CELLS	5R01 GM26137-02	61,601
HENLE, KURT J.	MODULATORS OF CELLULAR HEAT SENSITIVITY	1R01 CA27817-01	58,386
HERRICK, GLENN A.	OXYTRICHA GENE AND GENOME STRUCTURE AND FUNCTION	5R01 GM25203-03	62,815
HILL, HARRY R.	MECHANISM OF HOST RESISTANCE TO GROUP B STREPTOCOCCI	2R01 AI13150-04	83,263
HILL, HARRY R.	MECHANISMS OF DIABETIC PHAGOCYTE CONTROL BY INSULIN	5R01 AM21140-03	93,045
HUANG, WAI M.	DNA INITIATION AND REPLICATION	5R01 GM21960-06	57,647
JACOBSEN, STEPHEN C.	CONTROL SYSTEMS FOR A MULTI-JOINT PROSTHETIC ARM	2R01 GM23499-04	67,776
JANATA, JARMILA	STRUCTURAL ASPECTS OF A FUNCTION OF THE C3 COMPONENT	1R23 AI17122-01	45,586
JANATA, JIRI	IMMUNOCHEMICALLY SENSITIVE FIELD EFFECT TRANSISTOR	5R01 GM26508-02	58,479
JARVIK, ROBERT K.	STUDIES WITH ELECTRIC TOTAL ARTIFICIAL HEARTS	5R01 HL24338-02	263,937
JOHANSON, CONRAD E.	ONTOGENY OF HOMEOSTATIC TRANSPORT IN CHOROID PLEXUS	2R01 NS13988-04	36,773

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
JOHNSON, GARY H.....	GYNECOLOGIC ONCOLOGY GROUP (UTAH).....	1R10 CA15469-01A5	77,736
JOHNSON, STEVEN A.....	CANCER HYPERTHERMIA THERMOMETRY BY ULTRASOUND.....	5R01 CA23430-03	92,599
JOHNSON, STEVEN A.....	CANCER HYPERTHERMIA CONTROL.....	1R01 CA28506-01	20,754
KAPLAN, JERRY.....	REGULATION OF PROTEASE SECRETION BY ALVEOLAR MACROPHAGES.....	7R01 HL26902-01	32,406
KECK, GARY E.....	NEW SYNTHETIC APPROACHES TO ANTITUMOR ALKALOIDS.....	5R01 CA24166-02	51,826
KIM, SUNG-WAN.....	INITIAL EVENTS IN THROMBUS FORMATION ON SURFACES.....	5R01 HL17623-07	42,693
KIM, SUNG-WAN.....	A NOVEL APPROACH TO NONTHROMBOGENIC POLYMER SURFACES.....	3R01 HL20251-03S1	23,309
KIM, SUNG-WAN.....	A NOVEL APPROACH TO NONTHROMBOGENIC POLYMER SURFACES.....	2R01 HL20251-04	34,893
KIMMEL, DONALD B.....	CELLS OF ALVEOLAR BONE DURING HYPERPARATHYROIDISM.....	1R23 DE05607-01	39,527
KLESSIG, DANIEL F.....	THE MULTI-FUNCTIONAL ADENOVIRUS DNA BINDING PROTEIN.....	1R01 AI17315-01	131,750
KOLB, HELGA E.....	NEURAL CIRCUITRY OF THE VERTEBRATE RETINA.....	1R01 EY03323-01	134,990
KOLFF, WILLEM J.....	INTRA-AORTIC BALLOON PUMPING IN SMALL ANIMALS.....	5R01 HL20803-04	59,752
KRALIOS, FANY A.....	FUNCTIONAL AUTONOMIC DEVELOPMENT IN NEONATAL HEARTS.....	5R01 HL17367-07	86,735
KRUEGER, GERALD G.....	IMMUNOLOGY OF PSORIASIS—2 COMPONENT GRANT.....	5R01 AM21405-03	71,005
KUBY, STEPHEN A.....	STUDIES OF ADENOSINE TRIPHOSPHATE TRANSPHOSPHORYLASES.....	5R01 AM07824-18	75,638
KUBY, STEPHEN A.....	STUDIES OF ENZYMES OF METABOLIC AND GENETIC INTEREST.....	5R01 AM22088-03	97,345
KUEHL, LEROY R.....	NONHISTONE NUCLEAR PROTEIN STUDIES.....	2R01 GM13864-15	102,254
KUSHNER, JAMES P.....	PORPHYRIN BIOSYNTHESIS IN NORMAL AND DISEASE STATES.....	2R01 AM20503-04	151,760
LAHEY, M EUGENE.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA10198-13	84,351
LARK, KARL G.....	DNA REPLICATION IN EUKARYOTES AND PROKARYOTES.....	5R01 AI10056-11	175,509
LARK, KARL G.....	DETECTING MUTATIONS INDUCED BY ENVIRONMENTAL POLLUTANTS.....	5R01 ES01498-03	127,301
LEE, G RICHARD.....	STUDIES IN COPPER AND IRON METABOLISM.....	5R01 AM20207-04	288,283
LEE, G RICHARD.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05428-19	195,787
LINKER, ALFRED.....	STRUCTURE AND FUNCTION OF MUCOPOLYSACCHARIDES.....	5R01 AM13412-20	65,642
LYMAN, DONALD J.....	BIOMEDICAL ENGINEERING CENTER FOR POLYMER IMPLANTS.....	5P50 GM24487-03	443,366
MASON, REGINALD G, JR.....	ENDOTHELIAL LININGS FOR ARTIFICIAL ORGANS.....	5R01 HL25805-02	72,717
MAYS, CHARLES W.....	REDUCING CANCER RISK BY RADIONUCLIDE CHELATION.....	1R01 CA28314-01	32,668
MC CLOSKEY, JAMES A.....	MASS SPECTROMETRY OF NUCLEIC ACIDS AND THEIR ANALOGS.....	5R01 CA18024-06	104,970
MC CLOSKEY, JAMES A.....	MASS SPECTROMETRY OF NUCLEIC ACIDS AND THEIR ANALOGS.....	5R01 GM21584-06	137,908
MEECH, ROBERT W.....	MEMBRANE MECHANISMS ASSOCIATED WITH PHOTOTRANSDUCTION.....	5R01 EY02290-02	56,692
MEIKLE, ALFRED W.....	PROSTATIC CANCER: GENETIC AND ENDOCRINE RISK FACTORS.....	5R26 CA25031-03	128,791
MICHL, JOSEF.....	DIRECTIONAL OPTICAL PROPERTIES OF BIOMOLECULES.....	5R01 GM19450-07	52,924
MICHL, JOSEF.....	MAGNETIC CIRCULAR DICHROISM OF ORGANIC MOLECULES.....	5R01 GM21153-07	48,869
MILLER, SCOTT C.....	OSTEOCLAST SPECIALIZATIONS IN BONE RESORPTION.....	5R23 DE04931-03	23,195
MOHAMMAD, SYED F.....	PLATELET FACTOR & AND BLOOD-MATERIAL INTERACTIONS.....	5R01 HL25804-02	81,150
MOODY, FRANK G.....	MECHANISMS OF GASTRIC ULCEROGENESIS.....	5R01 AM16233-10	92,592
MOODY, FRANK G.....	TRAUMA AND BURN RESEARCH CENTER.....	2P50 GM23095-05	437,990
MORTENSEN, J D.....	CHRONIC TOTAL CARDIOPULMONARY MECHANICAL SUBSTITUTION.....	5R01 HL22661-03	109,040
MULLEN, RICHARD J.....	DEVELOPMENTAL GENETICS OF THE CENTRAL NERVOUS SYSTEM.....	5R01 NS16156-02	99,288
NELSON, DON H.....	CORTICOID EFFECT ON FAT CELL RESPONSE TO INSULIN.....	5R01 AM24038-03	91,083
NINNEMANN, JOHN L.....	LPS ACTIVATION OF SUPPRESSOR CELLS AFTER BURN INJURY.....	1R01 GM29223-01	93,914
ODELL, WILLIAM D.....	SHORT-LOOP FEEDBACK OF PITUITARY HORMONES.....	1R01 AM27899-01	81,644
OLIVERA, BALDOMERO M.....	A BIOCHEMICAL CHARACTERIZATION OF CONUS TOXINS.....	5R01 GM22737-03	77,768
OLIVERA, BALDOMERO M.....	PYRIDINE NUCLEOTIDES—TURNOVER AND REGULATION.....	5R01 GM25654-02	39,087
OLIVERA, BALDOMERO M.....	DISCONTINUOUS DNA SYNTHESIS IN VITRO.....	5R01 GM26107-10	91,930
OLSEN, DON B.....	ARTIFICIAL HEART IMPLANT, LATER CARDIAC TRANSPLANT.....	5R01 HL24419-02	97,427
OLSEN, DON B.....	PNEUMATIC ARTIFICIAL HEART STUDIES.....	5R01 HL24561-02	483,407
OLSON, RANDALL J.....	CORNEAL PHYSIOLOGY AND KERATOPLASTY INDUCED GLAUCOMA.....	5R01 EY03294-02	82,874
OTHMER, HANS G.....	CYNAMIC PATTERN IN CHEMICALLY-REACTING SYSTEMS.....	7R01 GM29123-01	29,680
OWEN, JEFFREY D.....	CA 2+ ELECTRODE MEASUREMENTS IN LIMULUS PHOTORECEPTORS.....	5R01 EY02402-03	60,198
PARKINSON, JOHN S.....	GENETICS OF CHEMOTACTIC BEHAVIOR IN ESCHERICHIA COLI.....	5R01 GM19559-08	105,489
PARKS, THOMAS N.....	AFFERENT INFLUENCES ON NERVOUS SYSTEM DEVELOPMENT.....	5R01 NS15132-02	61,165
PARMA, DAVID H.....	THE GENETICS OF STRUCTURALLY ALTERED PHAGE T4 GENOMES.....	5R01 AI09943-10	69,657
PETERS, JEFFREY L.....	SINGLE AND BIVENTRICULAR CANNULAE CIRCULATORY SUPPORT.....	5R01 HL23279-02	126,343
PINCUS, SETH H.....	ANTI-(T,G)-A-L IDIOTYPE EXPRESSION ON T-CELLS.....	5R01 AI15980-02	92,789
POULTER, C DALE.....	SUBSTRATE ANALOGS FOR TERPENE CONDENSATION REACTIONS.....	5R01 GM21328-06	89,950
POULTER, C DALE.....	STUDIES OF STEROL BIOSYNTHESIS.....	5R01 GM25521-02	56,359
RECHSTEINER, MARTIN C.....	NAD METABOLISM AND CHROMOSOME LOSS IN HYBRID CELLS.....	5R01 GM24617-03	73,923
RECHSTEINER, MARTIN C.....	MICROINJECTION STUDIES ON PROTEIN DEGRADATION.....	1R01 GM27159-01	57,021
REED, DONAL J.....	ROLE OF THE CHOROID PLEXUS IN REGULATING THE CSF.....	5R01 NS12869-05	61,091
RILLING, HANS C.....	MECHANISMS AND ENZYMES OF TERPENE BIOSYNTHESIS.....	5R01 AM13140-20	121,009

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
UTAH—Continued			
RILLING, HANS C.	STRUCTURAL & SPECTROSCOPIC STUDIES ON PRENYLTRANSFERASE	5R01 AM21745-03	44,439
ROTH, JOHN R.	AN ANALYSIS OF GENES INVOLVED IN TRNA PRODUCTION	5R01 GM23408-04	136,808
ROTH, JOHN R.	GENETIC ANALYSIS OF BACTERIAL CHROMOSOME STRUCTURE	1R01 GM27068-01	47,189
ROTI, ROTI, JOSEPH L.	RADIATION INDUCED ALTERATIONS OF CHROMOSOMAL PROTEINS	5R01 CA16465-06	87,523
SANDBERG, LAWRENCE B.	CHEMICAL & FUNCTIONAL STUDIES OF LOW COPPER IN LUNG	5R01 HL22446-03	60,524
SCHWEIZER, MARTIN P.	CARBON-13 NMR STUDIES OF TRNA SYNTHETASE INTERACTIONS	5R01 GM25512-03	63,479
SCHWEIZER, MARTIN P.	FUNCTION OF UNUSUAL NUCLEOSIDES IN TRANSFER RNA	5R01 GM25591-02	52,196
SKOLNICK, MARK H.	COMPUTER RESOURCE FOR GENETIC EPIDEMIOLOGY	5R01 GM27192-02	143,261
SMITH, CHARLES B.	INFECTIOUS ETIOLOGY OF CONNECTIVE TISSUE DISEASES	5R01 AM13463-11	90,706
SORENSEN, JAMES A.	IMPROVED CONTRAST IN CHEST RADIOGRAPHY	2R01 GM24029-04	175,166
SPIKES, JOHN D.	PHOTOSENSITIVE LIPOSOMES FOR LOCALIZED DRUG DELIVERY	1R01 GM27921-01	42,038
SPIKES, JOHN D.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07092-15	182,938
STANG, PETER J.	VINYL AND ALKYNYL TRIFLATE CHEMISTRY	5R01 CA16903-05	60,064
SUMMERS, DONALD F.	COMPOSITION, ASSEMBLY AND REPLICATION OF RNA VIRUSES	2R01 AI12316-06	176,235
TUCKETT, ROBERT P.	NEURAL MECHANISMS OF PRURITUS	5R01 NS15102-02	48,863
TYLER, FRANK H.	CELLULAR MEMBRANE IN DUCHENNE MUSCULAR DYSTROPHY	5R01 NS14868-02	75,722
TYLER, FRANK H.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00064-16	544,826
UEDA, ISSAKU	ANESTHETIC INTERACTION WITH PHOSPHOLIPID MEMBRANES	5R01 GM25716-03	57,557
UEDA, ISSAKU	ANESTHETIC INTERACTION WITH MODEL PROTEINS	5R01 GM26950-02	56,412
UEDA, ISSAKU	AROMATIC AMINE LOCAL ANESTHETICS AND MEMBRANES	1R01 GM27670-01	59,728
WALKER, JOHN L.	INTRACELLULAR IONIC ACTIVITIES IN HEART MUSCLE	5R01 HL18053-05	88,988
WECHSLER, JAMES A.	CONTROL OF NORMAL AND ABNORMAL CHROMOSOME GROWTH	5R01 GM25476-03	75,288
WEST, CHARLES D.	ROLE OF ADRENAL STEROIDS IN DIABETIC ATHEROSCLEROSIS	5R01 HL24211-02	102,084
WEST, DEE W.	BLADDER CANCER RISK FACTORS IN UTAH	5R26 CA26362-02	83,914
WESTENSKOW, DWAYNE R.	BIOINSTRUMENTATION FOR DIFFERENTIAL VENTILATION	1R01 HL25553-01	55,430
WILLIAMS, ROGER R.	CHARACTERIZATION OF PEDIGREES PRONE AND RESISTANT TO CHD	2R01 HL21088-04	120,275
WILLIAMS, ROGER R.	GENETIC & ENVIRONMENTAL DETERMINANTS OF HYPERTENSION	1R01 HL24855-01	257,692
WILSON, DANA E.	MASSIVE HYPERTRIGLYCERIDEMIA IN SELECTED FAMILIES	5R01 HL23535-02	81,615
WOLF, HAROLD H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05738-09	49,987
WOLSTENHOLME, DAVID R.	STRUCTURE OF MITOCHONDRIAL DNA	5R01 GM18375-10	124,691
WOLSTENHOLME, DAVID R.	VARIANTS OF RAT MITOCHONDRIAL DNA	5R01 GM26520-02	45,659
WOODBURY, DIXON M.	THYROIDAL ANION TRANSPORT: MECHANISMS AND REGULATION	5R01 AM20935-03	90,213
WOODBURY, DIXON M.	RESEARCH IN EPILEPSY: CAUSES, PREVENTION, TREATMENT	1P01 NS15767-01	211,100
WOODBURY, J. WALTER	ION TRANSPORT THRU MEMBRANES AND CELL ACID-BASE STATE	5R01 AM20674-06	30,700
YOSHIKAMI, DOJU	ION SELECTIVITY OF SYNAPTIC CHANNELS IN NEURONS	5R01 NS15543-02	59,318
ZMIJEWSKI, MILTON J., JR.	BIOSYNTHESIS AND MODE OF ACTION OF ANTIBIOTIC A23187	1R01 AI16771-01	47,175
ORGANIZATION TOTAL	171	17,524,683	
STATE TOTAL	199	19,296,758	

VERMONT

BENNINGTON

INSTITUTE FOR MEDICAL RESEARCH OF BENNINGTON ZIP CODE 05201

RHODE, SOLON L., III	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05811-03	15,581
SINGER, IRWIN I.	CELL SURFACE FIBROUS PROTEINS & CONTROL OF METASTASIS	1R01 CA27389-01	62,603
TOOLAN, HELENE W.	ROLE OF LATENT VIRUSES IN RESISTANCE	5R01 CA25866-03	144,989
ORGANIZATION TOTAL	3	223,173	

BURLINGTON

UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05405

ALBERTINI, RICHARD J.	STUDIES OF LYMPHOCYTE-DEFINED HLA AND B-CELL ANTIGENS	5R01 CA25036-03	41,659
ALPERT, NORMAN R.	ENERGETICS OF CARDIAC HYPERTROPHY	2R01 HL17592-04A2	134,070
AULETTA, FREDERICK J.	PRIMATE LUTEOLYSIS: ROLE OF ESTROGENS AND PROSTAGLANDIN	1R01 HD15444-01	100,371
BEATY, HARRY N.	PATHOGENESIS OF LEGIONNAIRES' DISEASE	5R01 AI15903-02	169,988
BEEKEN, WARREN L.	PATHOGENESIS OF INFLAMMATORY BOWEL DISEASE	5R01 AM21564-03	83,972
BRESNICK, EDWARD	POLYCYCLIC HYDROCARBON METABOLISM AND CARCINOGENESIS	5R01 CA20711-05	81,709

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VERMONT—Continued			
BRESNICK, EDWARD.....	DNA REPAIR AFTER POLYCYCLIC HYDROCARBON ADMINISTRATION.....	5R01 CA23514-03	81,297
BRESNICK, EDWARD.....	EXPRESSION OF CYTOCHROME P448 ENVIRONMENTAL INFLUENCES.....	5R01 ES01974-03	56,325
CHIU, JEN-FU.....	ALPHA-FETOPROTEIN REGULATION IN FETAL & CANCER LIVER.....	5R01 CA25098-03	93,319
CHIU, JEN-FU.....	MOLECULAR MECHANISMS IN LARGE BOWEL CARCINOGENESIS.....	5R26 CA25136-03	73,375
CIDLOWSKI, JOHN A.....	INTEGRATION OF HORMONE ACTION ON THYMUS CELLS.....	5R01 AM20762-02	38,066
CIDLOWSKI, JOHN A.....	GLUCOCORTICOID RECEPTORS IN SYNCHRONIZED CELLS.....	5R01 AM20892-03	49,004
CIDLOWSKI, JOHN A.....	VITAMIN B6 AND STEROID HORMONE ACTION.....	1R01 AM25316-01A1	71,717
CLAPP, JAMES F, III.....	FETAL METABOLISM & BRAIN FUNCTION DURING CHRONIC HYPOXIA.....	5R01 HD11122-03	64,476
CRAIGHEAD, JOHN E.....	VERMONT LUNG CENTER.....	2P60 HL17292-06	1,115,828
CUTRONEO, KENNETH R.....	COLLAGEN SYNTHESIS REGULATION DURING PULMONARY FIBROSIS.....	5R01 HL23607-02	60,880
ELLIOTT, C MICHAEL.....	MODELS FOR THE ACTIVE SITE IN CYTOCHROME C OXIDASE.....	5R01 GM26958-02	58,685
FIVES-TAYLOR, PAULA M.....	PLII OF S SANGUIS AND THEIR ROLE IN ADHESION.....	1R01 DE05606-01	58,707
FOSTER, ROGER S, JR.....	NATIONAL SURGICAL ADJUVANT PROGRAM FOR BREAST AND BOWEL.....	2R10 CA20203-04	27,955
GENNARI, F JOHN.....	RENAL TUBULAR PCO2 AND ACID-BASE EQUILIBRIUM.....	5R01 AM26699-02	82,704
GIBBONS, WALTER R.....	VOLTAGE CONTROL OF CONTRACTION IN HEART.....	5R01 HL14614-09	69,004
GRAHAM, WILLIAM G.....	ALTITUDE ADAPTATION IN CHRONIC LUNG DISEASE.....	5R01 HL21107-03	23,260
GUMP, DIETER W.....	CHLAMYDIA AND MYCOPLASMA IN HUMAN INFERTILITY.....	5R01 HD11441-03	77,218
HALPERN, WILLIAM.....	VISCOELASTIC AND OPTICAL PROPERTIES OF MUSCLE.....	5R01 AM17163-06	44,295
HALPERN, WILLIAM.....	CONTRACTILE PROPERTIES OF HYPERTENSIVE ARTERIOLES.....	2R01 HL17335-07	95,246
HALPERN, WILLIAM.....	CELLULAR PROPERTIES OF SMALL ARTERIES IN THE SHR.....	1R01 HL26313-01	160,419
HAMRELL, BURT B.....	ACTIVE TENSION AND SHORTENING IN CARDIAC HYPERTROPHY.....	3R01 HL21182-03S1	14,025
HAPP, GEORGE M.....	CONTROL OF REPRODUCTIVE MATURATION: AN INSECT MODEL.....	2R01 AI15662-03	82,862
HAPP, GEORGE M.....	EXOCRINE GLANDS: MODELS OF DIFFERENTIATIVE TRANSITIONS.....	5R01 GM26140-02	61,198
HORTON, EDWARD S.....	EFFECTS OF EXERCISE ON INSULIN RESISTANCE IN MUSCLE.....	1R01 AM26217-01A1	122,194
JAFFE, JULIAN J.....	ANTIMETABOLITE TARGETS IN SCHISTOSOMES AND FILARIAE.....	5R22 AI12060-06	82,218
KRAKOFF, IRWIN H.....	CANCER CENTER (CORE) SUPPORT GRANT.....	5P30 CA22435-03	429,706
KRAKOFF, IRWIN H.....	PROGRAM IN ANTICANCER DRUG DEVELOPMENT.....	5P01 CA24543-02	429,049
KUEHNE, MARTIN E.....	TOTAL SYNTHESIS OF INDOLE ALKALOIDS.....	2R01 CA12010-18	136,733
LA GRANGE, BETTY M.....	EFFECTS OF BODY WEIGHT CYCLING ON OBESITY IN RATS.....	1R01 AM26308-01A1	62,536
LAWSON, ROBERT B, JR.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07125-11	39,508
LITTEN, RAYE Z, III.....	THE RESPONSE OF CARDIAC MYOSIN TO HYPERTROPHIC STRESS.....	5R01 HL22845-03	47,237
LOW, ROBERT B.....	INSULIN AMINO ACID POOLS AND MUSCLE PROTEIN SYNTHESIS.....	5R01 AM26121-03	66,795
LOW, ROBERT B.....	CORRELATED STUDIES OF PULMONARY FIBROSIS.....	5P50 HL14212-09	798,428
LUGINBUHL, WILLIAM H.....	GENERAL CLINICAL RESEARCH CENTER.....	5M01 RR00109-17	411,034
LUGINBUHL, WILLIAM H.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05429-19	181,288
MACGILLIVRAY, DAVID W.....	SARCOMERE MECHANICS IN DISRUPTED VENTRICULAR MUSCLE.....	5R01 HL21312-03	53,469
MC LAUGHLIN, MARGARET K.....	MECHANISM OF ALTERED VASCULAR REACTIVITY IN PREGNANCY.....	1R23 HL26312-01	43,123
MOEHRING, THOMAS J.....	MAMMALIAN CELL RESPONSE TO DIPHTHERIA TOXIN.....	5R01 AI09100-11	110,666
MOSSMAN, BROOKE T.....	ESTABLISHMENT OF INSULIN-SECRETING BETA CELL LINES.....	5R23 AM25821-02	48,720
NYBORG, WESLEY L.....	BIOPHYSICAL BASIS FOR THRESHOLDS IN BIO-ULTRASOUND.....	2R01 GM08209-16	143,558
PARSONS, RODNEY L.....	EXCITATION-CONTRACTION COUPLING IN ENLARGED HEARTS.....	5R01 HL22269-03	84,088
PARSONS, RODNEY L.....	KINETICS OF SYNAPTIC CURRENTS IN SYMPATHETIC GANGLIA.....	5R01 NS14552-03	54,089
PERL, DANIEL P.....	TRACE ELEMENTS IN AGED NEURONS AND SENILE DEMENTIA.....	5R01 AG01415-02	69,028
REICHMAN, RICHARD C.....	HOST-VIRUS INTERACTIONS IN HERPES SIMPLEX GENITALIS.....	1R01 AI17199-01	64,828
SCHAEFFER, WARREN I.....	STUDIES OF IN VITRO CARCINOGENESIS WITH AFLATOXIN B1.....	5R01 CA12056-09	70,623
SCHWABER, JAMES S.....	AUTONOMIC-EMOTIONAL PATHWAY OF THE AMYGDALA.....	3R01 NS16107-01S1	7,515
SCHWABER, JAMES S.....	AUTONOMIC-EMOTIONAL PATHWAY OF THE AMYGDALA.....	5R01 NS16107-02	45,789
SIMS, ETHAN A.....	METABOLIC INTERRELATIONSHIPS OF OBESITY AND DIABETES.....	5R01 AM10254-15	188,242
SMITH, CAROL J.....	HEPATOMA ALPHA-FETOPROTEIN: CHEMISTRY AND METABOLISM.....	5R01 CA15222-06	101,773
THANASSI, JOHN W.....	REGULATORY ASPECTS OF VITAMIN B6 METABOLISM.....	5R01 AM25490-02	74,292
WHITEHORN, DAVID.....	BARORECEPTOR REFLEX-DEFENSE REACTION IN HYPERTENSION.....	5R01 HL24110-02	69,824
WOODWORTH, ROBERT C.....	IRON DELIVERY VIA BLOOD; STRUCTURAL ROLE OF TRANSFERRIN.....	5R01 AM21739-02	54,993
WOODWORTH, ROBERT C.....	IRON IN THE HEART, ITS BIOCHEMISTRY IN CARDIAC CELLS.....	5R01 HL23752-02	53,638
ORGANIZATION TOTAL	59 7,316,618		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VERMONT—Continued			
WHITE RIVER JUNCTION			
U.S. VETERANS ADMINISTRATION MEDICAL AND REGIONAL OFFICE CENTER ZIP CODE 05001			
PHILLIPS, PHILIP G	BIOCHEMICAL PROBES OF MALIGNANT CELL SURFACES	5R01 CA25626-03	108,815
ORGANIZATION TOTAL	1 108,815		
STATE TOTAL	63 7,648,606		
VIRGINIA			
ARLINGTON			
ARLINGTON HOSPITAL ZIP CODE 22205			
BUTLER, ROBERT C	ROLE OF MEDIATORS IN LEUKEMIC CELL IMMUNE RESPONSES	5R23 CA27415-02	24,933
ORGANIZATION TOTAL	1 24,933		
DATA USE AND ACCESS LABORATORIES ZIP CODE 22209			
BAKER, R P.	A STUDY OF THE REFUGEE RESETTLEMENT PROCESS	1R01 HD14327-01	53,626
ORGANIZATION TOTAL	1 53,626		
BLACKSBURG			
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY ZIP CODE 24061			
BARNETT, RONALD E.	STUDIES OF LIPID BILAYERS AND NATURAL MEMBRANES	5R01 GM24819-03	22,519
BATES, ROBERT C	PARVOVIRUS TRANSCRIPTION COMPLEXES	1R01 AI16583-01	69,628
BUNCE, GEORGE E.	CATARACT FROM A VEGETABLE PROTEIN BASED DIET	5R01 EY01060-10	50,398
CUMMINS, CECIL S.	COMPARATIVE TESTING OF VACCINES FROM C. PARVUM	5R01 CA24729-02	97,169
EBEL, RICHARD E.	MEMBRANE CONTROL OF MICROSOMAL CYTOCHROME P-450	5R23 CA24364-03	33,096
EBEL, RICHARD E.	EFFECTS OF MIREX AND KEPONE ON CYTOCHROME P-450	5R01 ES02045-02	43,664
FAILLA, MARK L	ZINC METABOLISM BY LIVER NONPARENCHYMAL CELLS	1R01 AM26382-01	52,823
FALKINHAM, JOSEPH O, III	ANALYSIS OF THE LON-LOCUS OF ESCHERICHIA COLI K-12	1R01 GM27679-01	20,958
GREGORY, EUGENE M.	SUPEROXIDE DISMUTASE AND CATALASE IN B FRAGILIS	5R01 AI15250-03	62,953
GREGORY, EUGENE M.	ANAEROBE AEROTOLERANCE SUPEROXIDE DISMUTASE & CATALASE	5R01 AI15465-02	44,890
HOLTON, ROBERT A.	SYNTHESIS OF PROSTAGLANDINS AND THROMBOXANES	5R01 GM26113-02	59,986
JOHNSON, JOHN L.	DNA HOMOLOGIES AMONG BACTERIA OF PERIODONTAL DISEASES	5R01 DE05218-02	66,611
KINGSTON, DAVID G.	PLANT TUMOR INHIBITORS	5R01 CA12831-09	51,326
MOORE, WALTER E.	RAPID IDENTIFICATION OF CLINICAL BACTERIA	5R01 AI15244-02	45,492
PATERSON, ROBERT A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07095-13	59,979
RUTHERFORD, CHARLES L.	ALTERNATE PATHWAYS IN CELLULAR AGING	5R01 AG00677-04	38,693
RUTHERFORD, CHARLES L.	MICROANALYSIS OF CAMP ENZYMES IN HUMAN BREAST TUMORS	5R01 CA24150-03	46,164
SCHMIDT, ROBERT R.	GENE-ENZYME CONTROL IN EUKARYOTIC CELL CYCLE	5R01 GM19871-08	70,695
STORRIE, BRIAN	PROCESSING OF PINOCYTIC VESICLES IN FIBROBLASTS	1R01 GM28188-01	66,012
TAMBLYN, TOBY M.	IDENTIFICATION OF ACTIN AND MYOSIN IN MAMMALIAN SPERM	5R01 HD12504-02	39,581
TAYLOR, LARRY T.	STRUCTURE AND REACTIVITY OF MANGANESE-OXYGEN COMPLEXES	5R01 GM21844-05	41,821
TYSON, JOHN J.	CONTROL OF NUCLEAR DIVISION IN PHYSARUM POLYCEPHALUM	1R01 GM27629-01	32,276
WILKINS, TRACY D.	ISOLATION OF TOXINS FROM C DIFFICILE AND C SORDCELLII	5R01 AI15749-02	61,226
WILKINS, TRACY D.	RELATIONSHIPS OF FECAL MUTAGENS TO COLON CANCER	5R26 CA23857-03	47,226
WOLFE, JAMES F.	SYNTHESIS OF NEW ANTICONVULSANT DRUGS	5R01 NS10197-06	53,675
ORGANIZATION TOTAL	25 1,278,861		
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE ZIP CODE 22903			
ADAMS, JAMES M.	DYNAMIC INTERACTION OF CHEMORECEPTORS	1R23 HL25606-01	48,073
ADLER, PAUL N.	GENETIC AND MOLECULAR CONTROL OF DEVELOPMENT	5R01 HD11763-03	50,085
ATKINSON, RICHARD L, JR	HUMORAL MECHANISMS OF SATIETY	1R01 AM26225-01	47,357
AYERS, CARLOS R.	RENAL HORMONES IN HYPERTENSION	5R01 HL16044-05	99,122
BARENHOLZ, YECHKEZEL	ROLE OF SPHINGOMYELIN IN BIOMEMBRANES AND BILAYERS	5R01 HL17576-06	61,062

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
BARNES, DENNIS W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07094-15	112,569
BAUERLE, RONALD H.	GENETIC ANALYSIS OF THE ASSEMBLY OF AN ENZYME COMPLEX	1R01 GM26293-01A1	79,208
BELLER, GEORGE A.	THALLIUM KINETICS IN NORMAL AND ISCHEMIC MYOCARDIUM	1R01 HL26205-01	80,952
BENJAMIN, DAVID C.	CELLULAR AND STRUCTURAL BASIS OF IMMUNOLOGICAL TOLERANCE	5R01 CA24431-09	68,647
BENJAMIN, DAVID C.	PROTEIN FOLDING: IMMUNOCHEMICAL AND GENETIC ANALYSES	1R01 GM28241-01	84,822
BERNE, ROBERT M.	BLOOD FLOW AND ADENINE NUCLEOTIDE METABOLISM	5R01 HL10384-15	206,395
BERNE, ROBERT M.	STUDY OF VASCULAR SMOOTH MUSCLE	2P01 HL19242-04	681,940
BERNSTEIN, SANFORD I.	ORGANIZATION AND REGULATION OF MUSCLE GENES	5R01 GM26706-02	115,475
BIGGAR, JEANNE C.	ELDERLY MIGRATION PATTERNS, 1955-60 AND 1965-70	1R01 AG01891-01	131,220
BILTONEN, RODNEY L.	A MODEL CALCIUM TRANSPORT SYSTEM	5R01 GM26894-02	86,452
BLOCK, GENE D.	NEURAL BASIS OF ORGANIZATION	5R01 NS15264-02	32,545
BLOODGOOD, ROBERT A.	MEMBRANE-ASSOCIATED MOTILITY	7R01 GM28766-01	51,031
BOLTON, WARREN K.	GENETICS IN MURINE EXPERIMENTAL IMMUNE NEPHROPATHIES	5R01 AM21484-02	53,207
BRADBEER, CLIVE	TRANSPORT OF VITAMIN B12—MICROORGANISMS	5R01 AM12653-12	61,073
BROOKER, GARY	METABOLIC AND HORMONAL CONTROL OF CARDIAC CONTRACTION	5R01 HL15985-08	85,788
BROWN, JAY C.	ROLE OF THE CELL SURFACE IN CANCER AND DEVELOPMENT	5R01 HD06390-09	49,398
BRUNI, CARLO	ELECTRON MICROSCOPY OF MUSCLE CARCINOGENESIS	5R01 CA22025-02	37,931
BRUNS, MARY E.	DEVELOPMENTAL ASPECTS OF MAMMALIAN CALCIUM TRANSPORT	5R01 HD12335-02	65,240
BUTLER, ALBERT B.	MECHANISMS OF CEREBROSPINAL FLUID ABSORPTION	1R01 NS15585-01	81,465
CAREY, ROBERT M.	RENAL CATECHOLAMINES: PATHOPHYSIOLOGY OF HYPERTENSION	5R01 HL22306-03	64,164
CHEVALIER, ROBERT L.	ADAPTATION TO REDUCED RENAL MASS IN EARLY DEVELOPMENT	5R01 AM25727-02	65,876
COLLINS, CAROLYN J.	INTEGRATION OF RNA TUMOR VIRUSES IN SEMILUNAR CELLS	5R01 CA24137-03	61,453
CURNOW, RANDALL T.	PROTEIN PHOSPHATASE IN NORMAL AND DIABETIC LIVER	2R01 AM20787-04	88,516
DAVIS, JOHN S. IV	IMMUNOLOGICAL MECHANISMS IN RHEUMATIC DISEASES	5R01 AM11766-11	173,590
DECK, J. DAVID	TISSUE ORGANIZATION AND TURNOVER IN SEMILUNAR VALVES	5R01 HL16935-07	66,325
DULING, BRIAN R.	LOCAL REGULATION OF MICROVASCULAR FUNCTION	5R01 HL12792-11	112,231
DUNN, JOHN T.	THYROGLOBULIN IN THYROID DISEASE	5R01 AM11043-11	77,617
EDWARDS, STEPHEN B.	PROJECTIONS OF THE MIDBRAIN RETICULAR FORMATION	2R01 NS11254-05	65,480
EMERSON, SUZANNE U.	VESICULAR STOMATITIS VIRUS RNA SYNTHESIS	5R01 AI11722-07	67,367
ENGELHARD, VICTOR H.	RECOGNITION AND KILLING BY CYTOTOXIC T LYMPHOCYTES	1R01 AI16808-01	54,958
FAGER, ROGER S.	PREPARATION AND CHARACTERIZATION OF CONE PIGMENTS	2R01 EV01505-06	134,443
FREEDLENDER, ARTHUR E.	VASOACTIVE HORMONE RECEPTORS IN THE KIDNEY	7R01 AM28547-01	49,340
FREIRE, ERNESTO	STATISTICAL THERMODYNAMIC STUDIES OF MEMBRANES	5R01 GM27244-01	34,080
FRIESE, WOLFGANG O.	NEURAL CONTROL OF MOVEMENT	5R01 NS14965-02	34,091
GARRETT, REGINALD H.	THE ENZYMOLOGY OF NITRATE ASSIMILATION	5R01 GM18955-12	51,913
GARRETT, REGINALD H.	THE REGULATION OF NITRATE ASSIMILATION	5R01 GM22738-05	61,133
GARRISON, JAMES C. II	HORMONAL CONTROL OF HEPATIC CARBOHYDRATE METABOLISM	2R01 AM19952-04	76,240
GEAR, ADRIAN R.	ERYTHROCYTE AND PLATELET AGGREGATION IN DIABETES	5R01 AM20727-03	36,440
GILMAN, ALFRED G.	REGULATION OF CYCLIC NUCLEOTIDE METABOLISM	2R01 NS10193-09	184,219
GOLD, PAUL E.	AGING IN THE RAT: PSYCHOBIOLOGY OF MEMORY AND AGING	5R21 AG01642-02	61,694
GRAINGER, ROBERT M.	FUNCTIONAL ORGANIZATION OF A PURIFIED EUKARYOTIC GENE	5R01 GM24430-03	52,796
GRAINGER, ROBERT M.	THE ROLE OF OOCYTE PROTEINS AND RNAs IN DEVELOPMENT	5R01 GM26139-02	66,655
GRAY, LINCOLN	EXPERIMENTAL INFLUENCES ON PERCEPTUAL DEVELOPMENT	1R01 NS17320-01	54,912
GREENLEE, JOHN E.	K VIRUS INFECTION IN MODEL	5R01 NS13982-03	50,486
GRISHAM, CHARLES M.	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS	5R01 AM19419-05	54,666
HAMLIN, JOYCE L.	CONTROL OF EUKARYOTIC DNA SYNTHESIS	5R01 GM26108-03	71,704
HARBERT, GUY M. JR.	STUDIES OF PRIMATE UTERINE PHYSIOLOGY	2R01 HD02798-13	87,297
HARRISON, WILLARD W.	BIOLOGICAL TRACE ANALYSIS BY HOLLOW CATHODE GLOW	5R01 GM14569-13	52,216
HASTINGS, KENNETH E.	CONTROL OF MUSCLE PROTEIN SYNTHESIS DURING MYOGENESIS	5R01 HD07796-08	99,175
HAYDEN, FREDERICK G.	COMBINED ANTIVIRAL THERAPY OF INFLUENZA PNEUMONIA	1R23 AI17034-01	43,487
HAYNES, ROBERT C. JR.	HORMONAL CONTROL OF HEPATIC GLUCONEOGENESIS	3R01 AM14347-11S1	21,178
HAYNES, ROBERT C. JR.	HORMONAL CONTROL OF HEPATIC GLUCONEOGENESIS	2R01 AM14347-12	99,192
HECHT, SIDNEY M.	TOTAL SYNTHESIS OF BLEOMYCIN	5R01 CA27603-02	99,769
HECHT, SIDNEY M.	NUCLEOTIDE REPLACEMENTS IN TRANSFER RNA	1R01 GM27815-01	67,225
HENDLEY, J. OWEN	MECHANISMS OF HUMAN IMMUNITY TO BORDETELLA PERTUSSIS	5R01 AI15582-02	34,250
HEWLETT, ERIK L.	BORDETELLA ADENYLATE CYCLASE: REGULATION AND FUNCTION	1R01 AI18000-01	71,542
HOLLOWAY, CAROLINE T.	REGULATION BY DIETARY LIPID OF AORTA MEMBRANES	2R01 HL19936-04	78,335
HOLLOWAY, PETER W.	THE DYNAMIC STATE OF CYTOCHROME B5 IN MEMBRANES	5R01 GM23858-03	48,570
HORWITZ, DAVID A.	IMMUNOREGULATORY MECHANISMS IN THE RHEUMATIC DISEASES	5R01 AM20967-02	57,217
HOWARDS, STUART S.	MICROPUNCTURE STUDIES OF TESTIS AND EPIDIDYMIS	5R01 HD09490-06	80,428
HOWARDS, STUART S.	MICROPERFUSION STUDY OF SNT AND CAPUT CHO TRANSPORT	1R01 HD14445-01	51,705

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
HUANG, CHING-HSIEN	PHOSPHOLIPID VESICLES—MODEL FOR BIOLOGICAL MEMBRANES	5R01 GM17452-09	66,262
HUANG, CHING-HSIEN	PROTEIN KINASE—STRUCTURE AND BIOLOGICAL ACTIVITY	2R01 GM22430-04A1	96,795
HUNT, DONALD F.	STRUCTURES OF LDL AND ERYTHROCYTE MEMBRANE PROTEINS	1R01 AM26533-01	136,910
JOHNSON, LEWIS B.	DENTAL ALLOY WITH SMALL ADDITIONS OF OTHER MATERIALS	5R01 DE03965-07	70,793
KADNER, ROBERT J.	GENE AMPLIFICATION AND MEMBRANE PROTEINS	5R01 GM19078-09	52,736
KADNER, ROBERT J.	REGULATION OF BACTERIAL SPORE DEVELOPMENT	5R01 GM19236-08	53,081
KEEFER, DONALD A.	FACTORS AFFECTING SEX HORMONE RECEPTOR LEVELS	5R01 HD12173-02	38,181
KNORR, NORMAN J.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00847-07	506,953
KNORR, NORMAN J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05431-19	189,787
KONIGSBERG, IRWIN R.	CONTROL OF PROLIFERATION DURING MUSCLE DEVELOPMENT	5R01 HD07083-08	151,830
KRETSINGER, ROBERT H.	CRYSTALLOGRAPHY OF MODULATOR PROTEIN AND TROPONIN	5R01 AM16253-09	75,213
KRETSINGER, ROBERT H.	DEVELOPMENT OF AN AREA X-RAY DIFFRACTOMETER	3P41 RR01135-02S1	6,482
KRETSINGER, ROBERT H.	DEVELOPMENT OF AN AREA X-RAY DIFFRACTOMETER	5P41 RR01135-03	144,609
KUEHL, KAREN S.	CHARACTERIZATION OF THE B PROTEINS OF SERUM LIPOPROTEINS	3R01 HL20712-03S1	7,032
KUEHL, W MICHAEL	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN MYELOMA CELLS	5R01 AI12525-06	66,954
KUTCHAI, HOWARD C.	RED CELLS AND CHICK HEART: TRANSPORT AND FLUIDITY	2R01 GM24168-04	60,751
KUTCHAI, HOWARD C.	LIMITING FACTORS IN OXYGEN UPTAKE IN THE LUNG	5R01 HL17967-06	27,273
KUTCHAI, HOWARD C.	LACTATE TRANSPORT IN AORTA: NORMALS VS DIABETICS	5R01 HL24460-02	62,703
LAKE, CAROL L.	DETERMINANTS OF VENTRICULAR DEFIBRILLATION IN MAN	1R01 HL25919-01	39,133
LANGDON, ROBERT G.	MECHANISM OF GLUCOSE TRANSPORT THROUGH BIOMEMBRANES	1R01 GM27171-01A1	88,961
LANGMAN, JAN	ABNORMAL DEVELOPMENT OF THE NERVOUS SYSTEM	5R01 NS06188-15	134,895
LARNER, JOSEPH	CHEMICAL MECHANISM OF ACTION OF INSULIN	2R01 AM14334-12	203,832
LARNER, JOSEPH	DIABETES RESEARCH AND TRAINING CENTER	5P60 AM22125-03	726,879
LARNER, JOSEPH	CHOLINERGIC & ALPHA-ADRENERGIC RESPONSE IN THE PAROTID	5R01 NS14992-02	31,197
LEE, JEN-SHIH	MONITORING PULMONARY FILTRATION BY DENSITY COMPARATOR	5R01 HL23769-02	44,579
LEVY, WILLIAM B.	SYNAPSES AS INFORMATION PROCESSING & MEMORY ELEMENTS	5R01 NS15488-02	54,716
LINDEN, JOEL M.	BETA-ADRENERGIC RECEPTORS OF INTACT HEART CELLS	1R01 HL25587-01	53,649
LITMAN, BURTON J.	DISK FUNCTION: RHODOPSPIN SUBSTRUCTURE AND ENVIRONMENT	2R01 EY00548-09	69,002
LONGNECKER, DAVID E.	HYPERTENSION AND OXYGEN DELIVERY TO TISSUE	1R01 HL26370-01	71,912
LOONEY, WILLIAM B.	THE EFFECT OF RADIOTHERAPY ON EXPERIMENTAL SOLID TUMORS	3R01 CA20516-04S1	10,000
LOONEY, WILLIAM B.	THE EFFECT OF RADIOTHERAPY ON EXPERIMENTAL SOLID TUMORS	5R01 CA20516-05	152,583
MACLEOD, ROBERT M.	CONTROL OF PITUITARY GLAND AND PITUITARY TUMOR HORMONES	5R01 CA07535-17	108,406
MANDELL, GERALD L.	MECHANISM OF PHAGOCYTE MICROBICIDAL ACTIVITY	2R01 AI09504-11	114,841
MARTIN, R BRUCE	ANTITUMOR COMPLEXES	5R01 CA14832-06	39,255
MARTIN, R BRUCE	CALCIUM PROBES	5R01 GM24875-02	48,992
MELLON, DE FOREST, JR.	NERVOUS CONTROL OF MUSCLE TRANSFORMATION	5R01 NS15006-02	48,212
MILLER, EDWARD D, JR.	ANESTHETIC AGENTS -- RENIN -- HYPERTENSION	2R01 GM24313-04	43,445
MILLER, JOSEPH C.	DISEASE AND MEDICINE IN THE ANGOLAN SLAVE TRADE	3R01 LM03003-01S1	2,873
MILLER, OSCAR L, JR.	ULTRA STRUCTURAL STUDIES OF GENETIC ACTIVITY	5R01 GM21020-04	101,040
MURAD, FERID	REGULATION OF CYCLIC NUCLEOTIDE FORMATION AND ACTION	5R01 AM15316-10	138,849
NOLAN, STANTON P.	FUNCTION AND STRUCTURE OF SEMILUNAR VALVES	5R01 HL17969-06	83,485
OGILVIE, JAMES W.	PHOSPHOFRUCTOKINASE: STRUCTURE-FUNCTION RELATIONSHIPS	1R01 GM27840-01	42,724
OLIPHANT, EDWARD E.	OVIDUCT ROLE IN BLASTOCYST DEVELOPMENT	5R01 HD06573-08	89,130
PARSONS, J THOMAS	MECHANISMS OF RNA TUMOR VIRUS DNA INTEGRATION	1R01 CA27578-01	76,653
PAULSEN, ELSA P.	RETINAL/RENAL CAPILLARY LEAKAGE IN CHILDHOOD DIABETES	5R01 EY03187-02	108,942
PEARL, ELLIOTT R.	MATURATION OF B CELL PRECURSORS IN HUMANS	1R23 AI16664-01	38,625
QUESENBERRY, PETER J.	HEMOPOIETIC CELLULAR INTERACTIONS AND LITHIUM	1R01 AM27424-01	7,031
QUESENBERRY, PETER J.	ENDOTHELIAL COLONY-STIMULATING ACTIVITY	5R01 CA27466-02	69,941
RALL, THEODORE W.	CYCLIC AMP IN ACTIONS OF NEUROHORMONES	5R01 NS12764-06	121,230
REBHUN, LIONEL I.	CONTROL OF SULFHYDRYLS OF TUBULIN AND OTHER PROTEINS	5R01 GM22407-05	61,586
REBHUN, LIONEL I.	ISOLATION AND CHARACTERIZATION OF MITOTIC ORGANELLES	5R01 GM26784-02	65,442
RITTER, ROGERS C.	MAGNETIC SUSPENSION BALANCES	5R01 GM19682-08	49,250
ROCHESTER, DUDLEY F.	PERFORMANCE OF RESPIRATORY MUSCLES UNDER STRESS	5R01 HL21500-04	62,630
ROCHESTER, DUDLEY F.	RESPIRATORY MUSCLE DYSFUNCTION IN RESPIRATORY FAILURE	5R01 HL22022-03	37,612
RODEWALD, RICHARD D.	TRANSCELLULAR TRANSPORT OF IMMUNOGLOBULINS	5R01 AI11937-06	56,458
ROSS, ELLIOTT M.	EFFECTS OF MEMBRANE STRUCTURE ON ADENYLATE CYCLASE	5R01 GM26445-02	46,018
ROSS, WILLIAM T, JR.	LIVER MORPHOLOGY AFTER MODIFIED HALOTHANE METABOLISM	5R23 GM25117-02	43,822
RUBEL, EDWIN W.	AFFERENT INFLUENCES ON AUDITORY SYSTEM ONTOGENY	5R01 NS15395-02	60,431
RUBEL, EDWIN W.	ONTOGENY OF SENSORY PROCESSES	5R01 NS15478-02	66,142
SCHNAITMAN, CARL A.	CELL SURFACE MEMBRANE PROTEINS	2R01 GM18006-09	77,842
SEROW, WILLIAM J.	ETHNIC ELDERLY: COMPARISON AND CHANGE, 1960-1970	5R01 AG01522-02	49,745

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
SHEBILSKE, WAYNE L.	VISUOMOTOR COORDINATION	5R01 EY02291-03	23,781
SINGHAS, CHARLES A.	PROLACTIN & STEROID INTERACTION IN THE UTERUS	1R01 HD13893-01	45,561
SPERELAKIS, NICK	ELECTROPHYSIOLOGY OF HEART CELLS	5R01 HL18711-05	62,139
SPYKER, DANIEL A.	MEDICAL INFORMATION SYSTEM WITH CLINICAL DATA CAPTURE	5R23 LM03379-02	42,007
STEWART, OSWALD	POST-LESION PLASTICITY OF NEURONAL CIRCUITRY	5R01 NS12333-06	49,142
SUNDBERG, RICHARD J.	COORDINATION CHEMISTRY OF IMIDAZOLE DERIVATIVES	5R01 GM25294-03	52,096
SUTHERLAND, WILLIAM M.	CPK SUBUNIT SYNTHESIS DURING MUSCLE CELL MATURATION	1R01 AG01875-01A1	10,200
TAYLOR, RONALD P.	CHARACTERIZATION OF PATHOGENIC DNA-ANTIBODY COMPLEXES	5R01 AM24083-02	57,572
THOMPSON, THOMAS E.	A STUDY OF PHOSPHOLIPID BILAYER MEMBRANES	5R01 GM14628-15	85,778
TILLACK, THOMAS W.	GLYCOLIPID LOCALIZATION IN LIPOSOMES AND MEMBRANES	1R01 GM26234-01A1	68,113
VILLAR-PALASI, CARLOS	CONTROL OF HEART CONTRACTILE PROTEIN PHOSPHORYLATION	5R01 HL24487-02	38,880
WAGNER, ROBERT R.	CELLULAR RESISTANCE TO VIRAL INFECTION	5R01 AI11112-14	179,286
WAGNER, ROBERT R.	CANCER CELL AND VIRUS MEMBRANES: STRUCTURE AND FUNCTION	3P01 CA18701-03S2	24,924
WARD, DAVID G.	HEMODYNAMIC CONTROL OF VASOCONSTRICTION	1R01 HL26349-01	80,038
WILEY, LYNN M.	CELL SURFACE-CYTOSKELETAL FUNCTION IN MORPHOGENESIS	5R01 HD11788-03	42,221
WRIGHT, THEODORE R.	ONTOGENY AND THE GENETIC CONTROL OF ENZYME ACTIVITY	5R01 GM19242-09	157,915
YOUNG, WILLIAM W. JR.	ROLE OF GLYCOLIPIDS IN IMMUNE CELL FUNCTION	7R23 CA29539-01	42,803
ORGANIZATION TOTAL	144	11,953,823	
NORFOLK			
EASTERN VIRGINIA MEDICAL AUTHORITY—EASTERN VIRGINIA MEDICAL SCHOOL ZIP CODE 23501			
CONRAD, MARGARET C.	COMPENSATORY RESPONSES TO ARTERIAL OCCLUSION	5R01 HL21034-03	47,837
FAULCONER, ROBERT J.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18067-06	85,474
MC COMBS, ROBERT M.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05771-04	25,879
MERCHANT, DONALD J.	CHARACTERIZATION OF CELLS GROWN FROM HUMAN PROSTATE	5R26 CA23699-03	102,179
ROSENTHAL, MIRIAM D.	POLYUNSATURATED FATTY ACID METABOLISM OF HUMAN CELLS	5R23 HL23658-02	36,368
SANDERS, KENTON M.	REGULATION OF GI MUSCLES BY ENDOGENOUS PROSTAGLANDINS	1R01 AM27281-01	85,597
SOMERS, KENNETH D.	CELLULAR TRANSFORMATION BY MSV	1R01 CA28474-01	77,307
WILLIAMS, PATRICIA B.	CHARACTERIZATION OF COLLATERAL BLOOD VESSELS	5R01 HL19275-05	45,266
WRIGHT, GEORGE L. JR.	PURIFICATION OF PROSTATE CARCINOMA-ASSOCIATED ANTIGENS	5R26 CA26659-02	60,013
ORGANIZATION TOTAL	9	565,920	
NORFOLK STATE UNIVERSITY ZIP CODE 23504			
BEMPONG, MAXWELL A.	MINORITY BIOMEDICAL SUPPORT	2S06 RR08033-10	199,890
ORGANIZATION TOTAL	1	199,890	
OLD DOMINION UNIVERSITY ZIP CODE 23508			
SITZ, THOMAS O.	RNA METHYLATION: A PARADOX IN NORMAL AND CANCER CELLS	5R01 CA23632-03	74,859
SONENSHINE, DANIEL E.	SEX PHEROMONES OF DISEASE TRANSMITTING TICKS	5R01 AI10986-07	32,223
ORGANIZATION TOTAL	2	107,082	
PETERSBURG			
VIRGINIA STATE UNIVERSITY ZIP CODE 23803			
SEN, DILIP K.	MINORITY BIOMEDICAL SUPPORT	5S06 RR08090-09	182,909
ORGANIZATION TOTAL	1	182,909	
RICHMOND			
UNIVERSITY OF RICHMOND ZIP CODE 23173			
TOPHAM, RICHARD W.	PHYSIOLOGICAL ROLE OF THE INTESTINAL FERROXIDASE	5R01 AM20148-04	63,507
TOPHAM, RICHARD W.	PHYSIOLOGICAL ROLE OF A SERUM FERROXIDASE INHIBITOR	1R01 AM26383-01	41,198
ORGANIZATION TOTAL	2	104,705	
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
ADLER, STUART P.	EPIDEMIOLOGY OF ACQUIRED CYTOMEGALOVIRUS INFECTIONS	1R01 AI17069-01	97,725
ARCHER, GORDON L.	PREVENTION OF PROSTHETIC VALVE ENDOCARDITIS	2R01 HL19818-04	40,917
BANKS, WILLIAM L. JR.	ESSENTIAL AMINO ACID NUTRITION AND MOUSE TUMOR GROWTH	1R01 CA26532-01A1	73,362
BARNES, ROBERT W.	DIAGNOSTIC TECHNIQUES IN VENOUS THROMBOEMBOLISM	5R01 HL22852-03	51,884

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
BARNES, ROBERT W.	PREVENTION OF PERIOPERATIVE STROKE	5R01 HL23568-02	50,372
BAUMGARTEN, CLIVE M.	MEMBRANE POTENTIAL AND IONIC ACTIVITIES IN A-V NODE	1R23 HL24847-01	44,317
BECKER, DONALD P.	HEAD INJURY CLINICAL RESEARCH CENTER	5P01 NS12587-05	879,003
BIBER, MARGARET C.	BIOCHEMICAL CORRELATES OF 5-HT NEURONAL ACTIVITY	1R01 NS14090-01A1	50,001
BIBER, THOMAS U.	FLUCTUATION ANALYSIS OF EPITHELIAL CELL MEMBRANES	1R01 AM26282-01	55,254
BLACKARD, WILLIAM G.	PATHOGENESIS OF DIABETES MELLITUS	5R01 AM18903-05	95,110
BOND, JUDITH S.	INTRACELLULAR PROTEIN CATABOLISM IN DIABETES MELLITUS	2R01 AM19691-04	59,402
BRIGGS, F NORMAN	CA UPTAKE BY NORMAL & FAILED CARDIAC (CA&MG) ATPASE	5R01 HL19485-05	32,811
CHELBOWSKI, JAN F.	ASSEMBLY, ACTIVATION AND REGULATION OF ENZYMES	5R01 GM27493-02	57,255
CLAMANN, H PETER	MOTOR POOL ORGANIZATION IN SYNERGISTIC INTERACTION	5R01 NS11677-06	37,795
COHEN, IRWIN K.	COLLAGEN METABOLISM IN WOUND REPAIR AND KELOID	2R01 GM20298-07	108,425
COLLINS, JAMES M.	DNA SYNTHESIS IN TRANSFORMED CELLS	5R01 CA24158-02	65,157
CONRAD, DANIEL H.	CHARACTERIZATION OF CELL RECEPTORS FOR IGE AND C3	5R01 AI15812-02	58,127
CORLEY, KARL C, JR.	BEHAVIORAL STRESS AND CARDIOMYOPATHY	3R01 HL13454-09S1	11,286
DE SIMONE, JOHN A.	A PHYSICOCHEMICAL INVESTIGATION OF TASTE	2R01 NS13767-04	84,046
DE VRIES, GEORGE H.	MOLECULAR BASIS OF AXOLEMMAL & GLIAL INTERACTIONS	2R01 NS10821-07A1	64,134
DE VRIES, GEORGE H.	ISOLATE/CHARACTERIZE PERIPHERAL NS NERVE FRACTIONS	5R01 NS15408-02	41,742
DIASIO, ROBERT B.	MECHANISM OF CLINICAL TOXICITY OF 5-FLUOROCYTOSINE	5R01 CA23412-03	51,701
DRISKA, STEVEN P.	PHOSPHORYLATION OF MYOSIN IN INTACT SMOOTH MUSCLE	1R23 HL24881-01	45,894
DUNN, NANCY L.	CELLULAR ENZYME CHANGES IN CHILDHOOD LEUKEMIA	1R01 CA27073-01	75,663
ECKBERG, DWAIN L.	AUTONOMIC MECHANISMS IN MAN	5R01 HL22296-03	40,065
ECKBERG, DWAIN L.	BARORECEPTOR REFLEX MECHANISMS IN MAN	5R01 HL22546-04	62,698
ELFORD, HOWARD L.	RIBONUCLEOTIDE REDUCTASE AND CANCER CHEMOTHERAPY	3R01 CA21305-03S1	11,457
ELZAY, RICHARD P.	CLINICAL CANCER EDUCATION PROGRAM (DENTAL)	5R25 CA19294-05	30,849
EPSTEIN, LUDWIG I.	A READING AID FOR PATIENTS WITH MACULAR BLINDNESS	1R01 EY03200-01	34,614
EVANS, HERBERT J.	EFFECTS OF SNAKE VENOMS ON HEMOSTASIS	5R01 HL24281-02	28,021
FABIATO, ALEXANDRE	CONTRACTILE ACTIVATION OF SKINNED CARDIAC CELLS	5R01 HL19138-05	110,895
FALLON, HAROLD J.	LIVER METABOLISM PROGRAM PROJECT	5P01 AM18976-05	472,717
FORD, GEORGE D.	SARCOPLASMIC CA ²⁺ /IONS REGULATION IN AORTIC SMOOTH MUSCLE	5R01 HL23764-02	38,398
FRANSON, RICHARD C.	ROLE OF PHOSPHOLIPASES A2 IN HUMAN PLATELET FUNCTION	1R01 HL24907-01	55,767
FREEDLENDER, ARTHUR E.	VASOACTIVE HORMONE RECEPTORS IN THE KIDNEY	5R01 AM23000-02	15,936
FREER, RICHARD J.	CIRCULATORY SYSTEM EFFECTS OF ANGIOTENSIN ANALOGS	5R01 HL19653-05	103,281
GARRETTSON, LORNE K.	THEOPHYLLINE: AGE-DEPENDENT DISPOSITION AND EFFECTS	5R01 GM24187-03	40,068
GLENNON, RICHARD	MESOIONIC PURINONES AS PHOSPHODIESTERASE INHIBITORS	5R01 HL22566-03	54,502
GOLDBERG, STEPHEN J.	INPUTS TO ABDUCENS NEURONS: AN INTRACELLULAR STUDY	5R01 EY01442-06	40,768
GOLDMAN, I DAVID	TRANSPORT & METABOLISM OF FOLATES IN RAT HEPATOCYTES	5R01 AM25716-02	54,467
GOLDMAN, I DAVID	CELLULAR PHARMACOKINETICS OF ANTICANCER AGENTS	5R01 CA16906-07	128,135
GROGAN, W MC LEAN	POLYENOIC ACID IN TESTIS DIFFERENTIATION AND FUNCTION	5R01 HD13019-02	68,116
GUZELIAN, PHILIP S, JR	PHARMACOKINETICS & TOXICITY OF KEPONE	2R01 ES01519-04	64,555
HAM, WILLIAM T, JR	PRIMATE OCULAR PHOTOPATHOLOGY OF THE LENS AND RETINA	5R01 EY02324-03	88,366
HARRIS, THOMAS M.	OCULAR BASEMENT MEMBRANE CHANGES IN CORNEAL PATHOLOGY	5R01 EY02991-02	55,461
HAWKCRIDGE, FRED M.	ELECTRON TRANSFER AT SURFACE ELECTRODES	1R01 GM27208-01	38,278
HAZRA, TAPAN A.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA22032-04	159,306
HESS, MICHAEL L.	MYOCARDIAL FUNCTION, CORONARY FLOW, AND ENDOTOXIN SHOCK	5R01 HL24502-02	61,954
HESS, MICHAEL L.	PRESERVATION OF THE ISCHEMIC/REPERFUSED MYOCARDIUM	1R01 HL24917-01	108,074
HOLMES, WALTER M.	GENE ORGANIZATION AND EXPRESSION OF TRNA	5R01 GM25871-02	48,366
HUF, ERNST G.	METABOLISM AND ACTIVE ION TRANSPORT IN SKIN	2R01 GM03545-25	16,384
HYLEMON, PHILLIP B.	STERIOD METABOLISM BY INTESTINAL ANAEROBIC BACTERIA	1R01 AM26262-01	63,716
HYLEMON, PHILLIP B.	BACTERIAL 7-A-DEHYDROXYLATION AND COLON CARCINOGENESIS	5R01 CA17747-06	43,470
JACOBSON, ERIC S.	BIOCHEMICAL GENETICS OF CRYPTOCOCCUS NEOFORMANS	5R01 AI15752-02	43,725
JOHN, DAVID T.	HOST-RESISTANCE & VIRULENCE IN NAEGLERIA INFECTIONS	1R01 AI16454-01	54,365
JOHNSON, JAMES H.	ANALYSIS OF NEURAL INHIBITION OF PITUITARY LH RELEASE	5R01 HD12165-03	48,859
KALIMI, MOHAMMED Y.	GLUCOCORTICOID ACTION IN DEVELOPING RAT LIVER	5R01 AM26904-02	46,528
KAPLAN, ALAN M.	THE CELLULAR BASIS OF ACQUIRED IMMUNOLOGIC TOLERANCE	5R01 AI11561-06	84,878
KONTOS, HERMES A.	CEREBRAL MICROCIRCULATION IN EXPERIMENTAL HYPERTENSION	5R01 HL21851-03	136,649
KOONTZ, WARREN W, JR.	EVALUATION AND MANAGEMENT OF BLADDER CARCINOMA	2R26 CA15492-07	83,528
LAMB, ROBERT G.	TOXINS AND HEPATIC GLYCEROLIPID BIOSYNTHESIS	5R01 AM21924-02	56,301
LAWRENCE, WALTER, JR.	COOPERATIVE CANCER CENTER CORE SUPPORT	5P30 CA16059-05	391,176
LAYCHOCK, SUZANNE G.	PUTATIVE MEDIATORS OF INSULIN SECRETION	5R25 AM25705-02	50,235
LIBERTI, JOSEPH P.	PURIFICATION AND BIOCHEMISTRY OF SOMATOMEDIN	5R01 AM16457-07	52,839
LITTMAN, BRUCE H.	REGULATION OF CELLULAR COOPERATION BY SOLUBLE FACTORS	2R01 AM20317-04	60,459

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
VIRGINIA—Continued			
LORIA, ROGER M.	DIABETES HEREDITY AND VIRAL PANCREOPATHY	5R01 AM21872-03	90,354
LORIA, ROGER M.	DIABETES MELLITUS: IMMUNOLOGICAL AND VIRAL INTERACTIONS	5R01 AM24097-02	28,022
MACRINA, FRANCIS L.	GENETICS OF ORAL MICROFLORA	5R01 DE04224-06	55,355
MAKHLOUF, GABRIEL M.	HORMONAL INTEGRATION OF EXOCRINE AND ENDOCRINE ORGANS	5R01 AM15564-09	106,657
MARTINEZ-CARRION, MARINO	PROBES OF MOLECULAR FUNCTION IN PYRIDOXAL ENZYMES	5R01 GM24885-04	69,320
MARTINEZ-CARRION, MARINO	ISOZYMES OF HEART GLUTAMATE ASPARTATE TRANSAMINASE	2R01 HL22265-04	90,685
MAURER, HAROLD M.	INTERGROUP RHABDOMYOSARCOMA STUDY	5R10 CA24507-02	170,138
MAURER, HAROLD M.	MULTIDISCIPLINARY STUDIES OF CHILDHOOD CANCER—SWOG	1R10 CA28530-01	30,132
MOHANAKUMAR, THALACHALLOUR	CHARACTERIZATION OF NEW HUMAN IA AND LEUKEMIA ANTIGEN	1R01 CA27416-01	72,072
MOORE, EDWARD W.	ION-EXCHANGE CALCIUM ELECTRODES	1R01 AM27104-01	72,873
MORAHAN, PAGE S.	MACROPHAGE EXTRINSIC ACTIVITY VS VIRUSES	5R01 CA24686-02	81,137
MULLINAX, PERRY F.	IMMUNOGLOBULINS AS GLYCOPROTEINS	5R01 AM26187-05	127,224
NANCE, WALTER E.	GENETIC EPIDEMIOLOGY OF DIABETES IN RUBELLA DEAFNESS	1R01 AM25786-01	121,047
NANCE, WALTER E.	MEDICAL COLLEGE OF VA HUMAN TWIN PANEL—TWINNING BIOLOGY	5P01 HD10291-05	411,414
NEIFELD, JAMES P.	INTRATUMORAL IMMUNOTHERAPY PRIOR TO SURGERY	5R01 CA23338-03	109,597
NOLIN, JANET M.	REGULATORY CELL BIOLOGY OF PROLACTIN TARGETS	1R01 HD14478-01	49,548
OKEN, DONALD E.	MICROPUNCTURE STUDIES OF AMINO ACID TRANSPORT	5R01 AM21928-02	79,385
OTTENBRITE, RAPHAEL M.	POLYANIONS: A PROBE FOR MACROPHAGE DIFFERENTIATION	1R01 AI15612-01A1	54,427
PETERSON, DARRELL L.	STRUCTURE OF HEPATITIS B SURFACE ANTIGEN PROTEINS	5R01 AI15955-02	58,385
PITTMAN, ROLAND N.	VASODILATION AND MICROVASCULAR OXYGEN DELIVERY	5R01 HL18292-06	40,313
PRICE, STEVEN	A MOLECULAR GENETIC APPROACH TO OLFACTION	5R01 DE04271-05	61,761
PUTNEY, JAMES W, JR.	CELLULAR PHARMACOLOGY OF SALIVARY SECRETION	7R01 DE05764-01	63,247
PUTNEY, JAMES W, JR.	CELLULAR PHARMACOLOGY OF LACRIMATION	7R01 EY03533-01	55,533
QUATTROPANI, STEVEN L.	OVARIAN AGING: MORPHOGENESIS OF A SEROUS CYSTADENOMA	5R01 AG00652-03	34,929
QURESHI, GHULAM D.	REGULATION OF FIBRINOGEN SYNTHESIS	5R01 HL24554-02	34,463
RANNEY, RICHARD R.	PERIODONTAL DISEASES: MICROBIOLOGICAL STUDIES	5R01 DE05054-02	175,716
RANNEY, RICHARD R.	CLINICAL RESEARCH CENTER FOR PERIODONTAL DISEASE	5P50 DE05139-03	554,695
RANNEY, RICHARD R.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05724-09	59,810
RAO, GOPALA	A SEALED CHAMBER IONOGRAPHIC X-RAY IMAGING SYSTEM	5R01 GM23838-03	83,692
RIDGWAY, ELLIS B.	CALCIUM MOVEMENTS DURING E-C COUPLING IN MUSCLE	2R01 NS10919-07	53,527
ROSENBLUM, WILLIAM I.	SUPPORT OF FLUOROCARBON TRANSFUSED PRIMATES	5R01 HL16643-04	2,412
ROSENBLUM, WILLIAM I.	MICROVASCULAR EFFECTS OF TRAUMA TO BRAIN MICROVESSELS	5R01 HL18932-05	119,197
ROSENBLUM, WILLIAM I.	PLATELET AGGREGATION IN BRAIN VESSELS OF DIABETIC MICE	5R01 HL23560-02	63,945
RUDDY, SHAUN	CELLULAR INTERACTIONS WITH COMPLEMENT AND PROPERDIN	5R01 AI13049-05	96,570
RUTHERFORD, R BRUCE	ROLE OF MACROPHAGES IN PERIODONTAL DISEASE	1R01 DE05512-01	77,011
SCHIRCH, LAVERNE G.	PHYSICAL AND STRUCTURAL STUDIES OF HYDROXYMETHYLASES	1R01 GM28143-01	69,457
SCHWARTZ, CHARLES C.	CHOLESTEROL METABOLISM IN PLASMA LIPOPROTEINS AND LIVER	5R01 AM25920-02	58,733
SCOTT, ROBERT B.	DIFFERENTIATION AND FUNCTION OF HEMATOPOIETIC CELLS	5R01 CA08482-15	85,123
SHELTON, KEITH R.	NONHISTONE PROTEINS OF REACTIVATED ERYTHROCYTE NUCLEI	5R01 CA15923-06	70,320
SHELTON, KEITH R.	PROTEINS IN LEAD-INDUCED NUCLEAR INCLUSION BODIES	1R01 ES02377-01	46,725
SHIPLEY, PATRICIA L.	ADHERENCE ANTIGENS OF ENTEROPATHOGENIC E COLI	5R01 AI15586-02	39,366
SHOLLEY, MILTON M.	RADIATION RESPONSE OF MICROVASCULAR GROWTH	1R01 CA26316-01A1	69,602
SMITH, WADE K.	NEUTROPHIL ANTIGENS IN IMMUNE NEUTROPENIA	5R01 CA25045-03	54,875
SPENCER, NANCY J.	DIFFERENCES BETWEEN WHAT IS SAID AND WHAT IS HEARD	5R01 HD13392-02	24,506
SPENCER, ROBERT F.	ANATOMY OF OCULOMOTOR SYSTEMS	5R01 EY02191-03	39,804
STEIN, BARRY E.	SUPERIOR COLLICULUS: DEVELOPMENT OF CELL PROPERTIES	5R01 NS15912-04	60,669
STEINFELD, JESSE L.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00065-18	716,805
STEINFELD, JESSE L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05430-19	199,787
STILL, WILLIAM J.	PATHOGENESIS OF ATHEROSCLEROSIS	5R01 HL09622-16	52,218
SUGERMAN, HARVEY J.	PATHOPHYSIOLOGIC EFFECTS OF PERITONITIS	1R23 GM27245-01	41,174
TAUB, ROBERT N.	ANTISERA TO HUMAN LEUKEMIA-ASSOCIATED ANTIGENS	5R01 CA22128-03	101,368
TAUB, ROBERT N.	CHRONIC MYELOCYTIC LEUKEMIA PATHOGENESIS & THERAPY	1R01 CA27989-01	73,230
TEW, JOHN G.	ROLE OF FOLLICULAR ANTIGEN-BINDING DENDRITIC CELLS	1R01 AI17142-01	79,591
THORNER, MICHAEL O.	CONTROL OF GONADOTROPIN RELEASE & SYNTHESIS IN VITRO	5R01 HD13197-02	57,194
TUCKER, HENRY S.	MACROPHAGE ROLE IN IMMUNITY TO MURINE LEUKEMIA VIRUS	5R23 CA24172-03	33,140
VALLARINO, LIDIA M.	LATHANIDE FLUORESCENT STAINS	7R01 CA30148-01	115,115
VAN TUYLE, GLENN C.	MOLECULAR PACKAGING OF RAT LIVER MITOCHONDRIAL DNA	5R01 GM22597-05	63,093
VLAHCEVIC, ZDRAVKO R.	ELUCIDATION OF BILE ACID METABOLISM PATHWAYS IN MAN	5R01 AM23028-02	51,442
WAMPLER, GALEN L.	ANALYSIS OF COMPLEX DOSE RESPONSE SURFACES	3R01 CA23333-02S1	283
WAMPLER, GALEN L.	ANALYSIS OF COMPLEX DOSE RESPONSE SURFACES	5R01 CA23333-03	63,450
WATLINGTON, CHARLES O.	CHLORIDE TRANSPORT REGULATORY HORMONES IN MAN	5R01 AM19694-02	60,887

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator		Project title	Grant number	Dollars
VIRGINIA—Continued				
WEAVER, WARREN E.....		BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05697-11	38,515
WEBB, STANLEY R.....		DIABETES MELLITUS: ROLE OF HOST GENETICS AND VIRUSES.....	5R01 AM21730-03	63,047
WEGLUICK, WILLIAM B.....		MYOCARDIAL ORGANELLE LIPID STRUCTURE AND FUNCTION.....	5R01 HL19148-05	139,005
WEGLUICK, WILLIAM B.....		MECHANISMS OF MEMBRANE INJURY IN MYOCARDIAL ISCHEMIA.....	5R01 HL23142-03	96,471
WEIR, GORDON C.....		SOMATOSTATIN, GLUCAGON, AND DIABETES.....	5R01 AM20349-04	83,659
WITORSCH, RAPHAEL J.....		PROLACTIN BINDING IN NORMAL AND NEOPLASTIC PROSTATE.....	5R26 CA23653-03	37,806
WOLF, BARRY.....		GENETICS AND BIOCHEMISTRY OF PROPIONIC ACIDEMIA.....	5R01 AM25675-02	50,816
WOLF, BARRY.....		TREATMENT OF PROPIONIC ACIDEMIA.....	5R01 AM26127-02	26,614
WRIGHT, HARLAN T.....		STRUCTURE AND INTERACTION OF PROTEINS WITH MEMBRANES.....	1R01 AI17992-01	114,658
ORGANIZATION TOTAL	135	11,932,350		
STATE TOTAL	321	26,404,099		
WASHINGTON				
CHENEY				
EASTERN WASHINGTON UNIVERSITY ZIP CODE 99004				
LIGHTFOOT, DONALD R.....		STRUCTURE OF HYPOMETHYLATED TUMOR 5.8S RIBOSOMAL RNA.....	1R01 CA28513-01	66,492
ORGANIZATION TOTAL	1	66,492		
ISSAQUAH				
ISSAQUAH HEALTH RESEARCH INSTITUTE ZIP CODE 98027				
STUART, KENNETH D.....		MITOCHONDRIAL DNA OF NORMAL AND MUTANT TRYPANOSOMES.....	5R01 AI14102-05	95,077
ORGANIZATION TOTAL	1	95,077		
OLYMPIA				
WASHINGTON DEPARTMENT OF SOCIAL AND HEALTH SERVICES ZIP CODE 98504				
LANDESMAN-DWYER, SHARON J.....		A PROSPECTIVE STUDY OF RESIDENTIAL ALTERNATIVES.....	5R01 HD11551-03	104,405
ORGANIZATION TOTAL	1	104,405		
PULLMAN				
WASHINGTON STATE UNIVERSITY ZIP CODE 99163				
BROSEMER, RONALD W.....		THE ROLE OF GLYOXYLIC ACID IN DISEASE.....	5R01 NS14317-03	36,957
BUSTAD, LEO K.....		BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05465-18	45,537
CAMPBELL, KENNETH B.....		VENTRICLE-ARTERY INTERACTION: MEASUREMENT/PREDICTION.....	2R01 HL21462-04	84,332
CARLSON, JAMES R.....		3-METHYLINDOLE-INDUCED PULMONARY EDEMA AND EMPHYSEMA.....	5R01 HL13645-13	109,028
CHEEVERS, WILLIAM P.....		STUDIES OF VIRAL PERSISTENCE IN EQUINE INFECTIOUS ANEMIA.....	5R01 AI07471-14	109,529
CLARK, ROBERT W, JR.....		NEURAL CONTROL OF MANDIBULAR MOVEMENT.....	5R23 DE05310-02	17,888
DUNKER, A KEITH.....		LASER RAMAN STUDIES OF LIPID/PROTEIN INTERACTIONS.....	5R01 GM25937-02	35,553
GRISWOLD, MICHAEL D.....		HORMONAL REGULATION OF SERTOLI CELL MATURATION.....	2R01 HD10808-04	44,090
HARDING, JOSEPH W.....		THE ROLE OF CARNOSINE IN OLFACTION.....	5R01 NS15217-02	69,040
HAYTON, WILLIAM L.....		ENVIRONMENTAL EFFECTS ON XENOBIOTIC KINETICS IN FISH.....	5R01 ES01995-02	41,531
HAYTON, WILLIAM L.....		RATE LIMITING BARRIERS IN INTESTINAL DRUG ABSORPTION.....	1R01 GM27924-01	42,686
HEGREBERG, GERALD A.....		REFERENCE TOOLS ON ANIMAL MODELS OF HUMAN DISEASE.....	3R01 LM03071-02S1	2,900
HILL, HERBERT H.....		DEVELOPMENT OF SELECTIVE IONIZATION DETECTORS.....	5R01 GM24970-02	44,693
HOSICK, HOWARD L.....		ANALYSIS OF CONTROL & FUNCTION OF A SINGLE INTACT GENE.....	1R01 GM27872-01	26,178
KOLATTUKUDY, P E.....		BIOCHEMISTRY OF NATURAL PRODUCTS.....	5R01 GM18278-10	120,650
KRAMER, JOHN W.....		A NEW ANIMAL MODEL OF INHERITED DIABETES MELLITUS.....	2R01 AM20462-04	65,142
LEGG, JOHN I.....		BINDING OF SUBSTITUTION-INERT METAL IONS TO PROTEINS.....	2R01 GM23081-04A1	72,420
LEID, ROY W, JR.....		LARVAL TAPEWORM MODULATION OF INFLAMMATION.....	7R01 AI17913-01	66,923
LOEWUS, FRANK A.....		INOSITOL METABOLISM.....	5R01 GM22427-06	98,005
MAGNUSON, JAMES A.....		METAL ION ACTIVATION OF LECTINS.....	2R01 CA14496-08	64,847
MATTESON, DONALD S.....		AMINO BORONIC ACIDS.....	1R01 GM27109-01	36,102
MC FADDEN, BRUCE A.....		BIOCHEMISTRY OF MEMBRANE AND CATALYTIC PROTEINS.....	5R01 GM19972-11	85,843

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
MC FADDEN, BRUCE A.....	SHARED AMINO ACID ANALYZER.....	5P41 GM27484-02	21,750
MEYER, RICH B, JR.....	SPECIFIC INHIBITORS OF PURINE NUCLEOTIDE SYNTHESIS.....	7R01 CA30157-01	43,500
MEYERS, KENNETH M.....	ROLE OF ARACHIDONATE AND ADP/5HT IN PLATELET ACTIVATION.....	5R01 HL24277-02	60,945
MOFFETT, DAVID F.....	POTASSIUM TRANSPORT BY INSECT MIDGUT.....	5R01 GM26287-02	41,366
MOFFETT, STACIA B.....	REGENERATION OF CENTRAL NERVOUS PATHWAYS.....	5R01 NS14333-03	44,582
NILAN, ROBERT A.....	DEVELOPMENT OF EUKARYOTIC 'AMES TYPE' MUTAGEN MONITOR.....	5R01 ES02224-02	55,100
NYMAN, C J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR07097-15	92,486
PALL, MARTIN L.....	CYCIC NUCLEOTIDES IN NEUROSPORA CRASSA.....	5R01 GM24368-02	43,688
PAZNOKAS, JOHN L.....	PYRUVATE KINASE AND DEVELOPMENT IN MUCOR.....	5R01 GM24670-03	46,687
PERRYMAN, LANCE E.....	INVESTIGATIONS OF COMBINED IMMUNODEFICIENCY.....	5R01 HD08886-07	116,574
REEVES, O RAYMOND.....	HISTONE HYPERACETYLATION AND MOUSE CELL GENE ACTIVITY.....	5R01 GM26702-02	78,456
RITTER, WILMA S.....	PSYCHOBIOLOGY OF STRESS-INDUCED BEHAVIORAL DEFICITS.....	5R01 NS14450-03	52,313
RONALD, ROBERT C.....	NOVEL ANTIBIOTICS FROM CYTOSPORA.....	5R01 AI15296-03	52,479
SCHROEDER, ALICE L.....	NEUROSPORA DNA REPAIR.....	5R01 CA22587-03	55,197
SCHROEDER, ALICE L.....	POST-REPLICATION-REPAIR OF DNA IN NEUROSPORA.....	5R01 CA26314-02	20,278
SCHROEDER, PAUL C.....	MECHANISMS OF LOWER VERTEBRATE OVULATION.....	5R01 HD12499-02	54,655
SMERDON, MICHAEL J.....	CARCINOGEN DAMAGE AND REPAIR OF DNA IN HUMAN CHROMATIN.....	7R23 ES02614-01	27,753
STEVENS, CARL M, II.....	MECHANISMS OF CHAIN ELONGATION OF ALPHA-KETO ACIDS.....	5R01 GM21996-05	29,428
WAY, JAMES I.....	METABOLISM OF CYANIDE AND ITS TOXICOLOGIC IMPLICATION.....	1R01 ES02317-01	87,318
WILSON, ROBERT B.....	ANIMAL MODELS FOR COMPARATIVE MEDICAL RESEARCH.....	2P40 RR00515-12	187,243
YOUNT, RALPH G.....	INTERACTION OF ATP ANALOGS WITH MYOSIN.....	3R01 AM05195-19S1	3,124
YOUNT, RALPH G.....	INTERACTION OF ATP ANALOGS WITH MYOSIN.....	5R01 AM05195-20	127,916
ORGANIZATION TOTAL	44	2,662,712	
RICHLAND			
BATTELLE MEMORIAL INSTITUTE—PACIFIC NORTHWEST LABORATORIES ZIP CODE 99352			
FREE, MICHAEL J.....	TESTICULAR AND EPIDIDYMAL FUNCTION IN VIVO.....	5R01 HD08868-05	90,699
SIKOV, MELVIN R.....	EFFECT OF EXPOSURE OF THE PRENATAL RAT TO ULTRASOUND.....	5R01 GM20661-07	92,005
TOLLEY, H DENNIS.....	EPIDEMIOLOGICAL RISK MODELING AND ESTIMATION.....	7R23 ES02493-01	57,414
WESTERMAN, RICHARD E.....	POROUS METAL DENTAL ANCHORS IN LONG-TERM FUNCTION.....	5R01 DE03938-06	48,976
ORGANIZATION TOTAL	4	289,094	
SEATTLE			
BATTELLE MEMORIAL INSTITUTE ZIP CODE 98105			
MC LAUGHLIN, STEVEN D.....	THE DETERMINANTS OF ADOLESCENT FERTILITY.....	1R01 HD15540-01	73,605
MICKLIN, MICHAEL.....	ADOLESCENT SOCIALIZATION AND HETEROSEXUAL BEHAVIOR.....	3R01 HD11061-03S1	28,104
ORGANIZATION TOTAL	2	101,709	
CHILDREN'S ORTHOPEDIC HOSPITAL AND MEDICAL CENTER ZIP CODE 98105			
BLEYER, WERNER A.....	CLINICAL PHARMACOLOGY OF INTRATHECAL METHOTREXATE.....	5R01 CA16525-06	38,105
CHARD, RONALD L, JR.....	CHILDREN'S CANCER STUDY GROUP A.....	5R10 CA10382-14	175,296
DOCTER, JACK M.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05655-10	33,366
HARTMANN, JOHN R.....	CLINICAL CANCER EDUCATION PROGRAM (PEDIATRIC).....	2R25 CA18039-06	74,206
PENDERGRASS, THOMAS W.....	ENVIRONMENTAL EXPOSURES AND CHILDHOOD LEUKEMIA.....	5R23 CA24186-03	28,504
SMITH, ARNOLD L.....	AMINOGLYCOSIDE PHARMACOLOGY IN CHILDREN.....	5R01 GM26550-03	78,651
STREETER, DANIEL D, JR.....	FIBER GEOMETRY IN HYPERTROPHY AND CARDIOMYOPATHY.....	3R01 HL20883-03S1	4,371
STREETER, DANIEL D, JR.....	FIBER GEOMETRY IN HYPERTROPHY AND CARDIOMYOPATHY.....	5R01 HL20883-04	106,524
WILSON, CHRISTOPHER B.....	ANTIMICROBIAL PROPERTIES OF PLACENTAL MACROPHAGES.....	1R23 AI16760-01	39,450
ORGANIZATION TOTAL	9	578,473	
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
BERNSTEIN, IRWIN D.....	MECHANISMS OF BCG-MEDIATED SUPPRESSION OF TUMOR GROWTH.....	5R01 CA19170-05	62,585
BROWN, JOSEPH P.....	ANTIGENS OF CHEMICALLY TRANSFORMED MOUSE FIBROBLASTS.....	1R01 CA27841-01	46,176
BUCKNER, C DEAN.....	AUTOLOGOUS MARROW TRANSPLANTATION.....	1R01 CA26828-01	102,502
EISENMAN, ROBERT N.....	CONTROL MECHANISMS IN AVIAN ONCORNAVIRUS REPLICATION.....	2R01 CA20525-04	78,444
GALLOWAY, DENISE A.....	HERPES VIRUS EXPRESSION IN TRANSFORMATION AND LATENCY.....	5R01 CA26001-02	58,774
GILLIS, STEVEN.....	CONTROL OF NORMAL AND LEUKEMIC T-CELL PROLIFERATION.....	1R01 CA28419-01	78,080
GREEN, WILLIAM R.....	CYTOTOXIC T CELLS TO SYNGENEIC MULV+ TUMORS.....	1R23 CA27552-01	39,410

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
HAKOMORI, SEN-ITIROH	RELATION OF BLOOD GROUP AND HUMAN TUMOR ANTIGEN	2R01 CA19224-05	83,613
HAKOMORI, SEN-ITIROH	IMMUNOSPECIFIC GLYCOLIPIDS OF NORMAL AND CANCER CELLS	5R01 CA20026-05	52,449
HAKOMORI, SEN-ITIROH	GALACTOPROTEIN A AND B IN NORMAL AND TRANSFORMED CELLS	5R01 CA23907-02	87,606
HAKOMORI, SEN-ITIROH	ANTICARBOHYDRATE ANTIBODY IN CELL BIOLOGY	3R01 GM23100-04S1	18,151
HELLSTROM, INGEGERD E	TRANSPLANTATION ANTIGENICITY OF VIRUS INDUCED TUMORS	3R01 CA19149-05S1	28,138
HELLSTROM, INGEGERD E	TRANSPLANTATION ANTIGENICITY OF VIRUS INDUCED TUMORS	5R01 CA19149-06	137,657
HELLSTROM, KARL E	LYMPHOCYTE ALLOGENEIC INHIBITION AND TUMOR IMMUNITY	5R01 CA19148-06	91,787
HELLSTROM, KARL E	CELL SURFACE ANTIGENS OF CHEMICALLY INDUCED SARCOMAS	5R01 CA25558-02	98,156
HENNEY, CHRISTOPHER S	IN VITRO STUDIES OF CELL MEDIATED IMMUNITY	2R01 AI15383-02	91,157
HENNEY, CHRISTOPHER S	IMMUNOBIOLOGY OF CYTOTOXIC LYMPHOID CELLS	2R01 AI15384-03	77,323
HENNEY, CHRISTOPHER S	MURINE EFFECTOR CELLS	5R01 CA24537-03	65,889
HUTCHINSON, WILLIAM B	CANCER CENTER SUPPORT GRANT (COMPREHENSIVE)	2P30 CA15704-07	3,119,217
HUTCHINSON, WILLIAM B	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05761-06	131,737
LINIAL, MAXINE L	VIRAL CODED FUNCTIONS IN ROUS SARCOMA VIRUS	5R01 CA18282-05	117,676
MARGOLIS, ROBERT L	REGULATION OF THE MICROTUBULE STEADY-STATE	1R01 GM28189-01	52,791
MEYERS, JOEL D	VIRAL INFECTION AND IMMUNITY AFTER MARROW TRANSPLANT	5R23 AI15689-02	35,930
MEYERS, JOEL D	INTERFERON FOR CMV INFECTION, LEUKEMIC RELAPSE & GVHD	1R01 CA26966-01	200,549
NEIMAN, PAUL E	MOLECULAR MECHANISMS IN NEOPLASIA	5R01 CA20068-05	112,378
NEIMAN, PAUL E	RETROVIRUSES AND CANCER	1P01 CA28151-01	394,486
NELSON, KAREN A	ANTIGEN-SPECIFIC SUPPRESSION OF ANTITUMOR IMMUNITY	5R23 CA26116-02	28,221
NEWMAN, WALTER	RESPONSE OF HUMAN T CELLS TO HAPTEN MODIFIED CELLS	1R01 AI16496-01	46,455
NOWINSKI, ROBERT C	ANTIBODY THERAPY OF HUMAN CYTOMEGALOVIRUS	1R01 AI16416-01	50,264
NOWINSKI, ROBERT C	IMMUNOLOGICAL ASPECTS OF MOUSE LEUKEMIAS	5R01 CA18074-05	114,178
NOWINSKI, ROBERT C	MOUSE LEUKEMIA VIRUSES; IMMUNOGENETIC STUDIES	5R01 CA24706-02	83,098
OSTENSON, RICHARD C	IDENTIFICATION OF AG SPECIFIC SUPPRESSOR CELLS IN MAN	1R23 CA28433-01	41,003
POLLACK, SYLVIA B	SPECIFIC ANTITUMOR ACTIVITY BY 'ARMED' LYMPHOID CELLS	5R01 CA18647-06	55,529
PRENTICE, ROSS L	EXPLORATORY STUDIES OF CANCER PATIENT DATA CONTROL	2R10 CA21193-04	87,772
PRENTICE, ROSS L	STATISTICAL METHODS FOR CASE-CONTROL STUDIES	2R01 GM24472-03	38,217
PRENTICE, ROSS L	STATISTICAL METHODS FOR FAILURE TIME DATA	1R01 GM28314-01	79,815
REEDER, RONALD H	CONTROL OF RIBOSOMAL GENE TRANSCRIPTION	5R01 GM26624-02	102,671
RILEY, DONALD E	GENE REGULATION AT THE LEVEL OF CHROMATIN STRUCTURE	5R01 GM25815-02	43,611
ROHRSCHEIDER, LARRY R	MECHANISMS OF ONCORNAVIRUS-INDUCED TRANSFORMATION	2R01 CA20551-04	65,505
STORB, RAINER F	MARROW GRAFTING IN TREATMENT OF HEMATOLOGIC MALIGNANCIES	3P01 CA18221-05S1	15,031
STORB, RAINER F	MARROW GRAFTING IN TREATMENT OF HEMATOLOGIC MALIGNANCIES	5P01 CA18221-06	531,902
THOMAS, E DONNALL	ADULT LEUKEMIA RESEARCH CENTER	5P01 CA18029-05	2,815,646
THOMAS, E DONNALL	SEPARATION OF BLOOD BY CONTINUOUS CENTRIFUGE	2R01 CA18579-06	117,465
TOROK-STORB, BEVERLY J	EFFECT OF LYMPHOCYTES ON HEMATOPOIESIS	5R23 HL24439-02	34,847
WARREN, REED P	STUDY OF GROUP 5 ANTIGENS IN HEMATOLOGIC MALIGNANCIES	5R01 CA25139-02	56,791
WEIDEN, PAUL L	IMMUNOTHERAPY STUDIES OF SPONTANEOUS MALIGNANCY	5R01 CA18105-05	107,803
WEINTRAUB, HAROLD M	CELL TRANSFORMATION BY RSV	5R01 CA26663-02	53,868
WEINTRAUB, HAROLD M	THE COMPLEXITY OF CHROMOSOME STRUCTURE AND ASSEMBLY	5R01 GM26176-02	52,629
WEISS, NOEL S	EPIDEMIOLOGY OF FRACTURES IN AGING WOMEN	5R01 AG01764-02	58,594
WEISS, NOEL S	EPIDEMIOLOGY OF MYELOMA AND LYMPHOCYTIC LEUKEMIA	5R01 CA23350-02	189,346
WOODBURY, RICHARD G	THE MOLECULAR NATURE OF TUMOR ANTIGENS	5R23 CA26584-02	29,318
WRIGHT, PETER W	MECHANISMS OF ALLOGRAFT TOLERANCE	5R01 CA17481-06	80,918
YOSHIMURA, FAYTH K	DNA FORMS OF MURINE LEUKEMIA VIRUSES	5R01 CA25461-02	50,322
YOUNG, WILLIAM W, JR	ROLE OF GLYCOLIPIDS IN IMMUNE CELL FUNCTIONS	1R23 CA27746-01	5,967
ZAKIAN, VIRGINIA A	DNA REPLICATION AND CHROMOSOME STRUCTURE IN YEAST	5R01 GM26938-02	59,623
ORGANIZATION TOTAL	55	10,559,070	
INSTITUTE OF APPLIED PHYSIOLOGY AND MEDICINE ZIP CODE 98122			
REID, JOHN M	NON-INVASIVE ASSESSMENT OF CORONARY BYPASS GRAFTS	5R01 HL23868-02	93,149
REID, JOHN M	ULTRASONIC SCATTERING STUDIES IN TISSUE CHARACTERIZATION	5R01 HL24805-02	151,613
SPENCER, MERRILL P	ULTRASONIC DETECTION OF THE ATHEROSCLEROTIC PLAQUE	5R01 HL19341-05	83,185
SPENCER, MERRILL P	PATHOPHYSIOLOGICAL FACTORS IN DECOMPRESSION SICKNESS	5R01 HL24321-02	72,841
SPENCER, MERRILL P	BIOMEDICAL RESEARCH SUPPORT	1S07 RR05827-01	28,188
ORGANIZATION TOTAL	5	428,976	
PACIFIC NORTHWEST RESEARCH FOUNDATION ZIP CODE 98104			
HANSEN, JOHN A	DIFFERENTIATION ANTIGENS ON HUMAN LYMPHOCYTES	1R01 CA29548-01	99,866
SCRIBNER, JOHN D	EARLY AND CRITICAL EVENTS IN CHEMICAL CARCINOGENESIS	5R01 CA23712-03	162,180

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
WRIGHT, PETER W.....	HUMAN ANTIBODIES TO MELANOMA.....	7R01 CA29516-01	109,310
ORGANIZATION TOTAL	3 371,356		
PROVIDENCE MEDICAL CENTER ZIP CODE 98124			
BAGDADE, JOHN D.....	POLYAMINES AS CELLULAR MEDIATORS OF ATHEROGENESIS.....	7R01 HL27327-01	82,742
SAUVAGE, LESTER R.....	PROSTHESES FOR AORTOCORONARY BYPASS.....	2R01 HL18644-04A1	146,415
SUBBAIAH, PAPASANI V.....	PHOSPHOLIPID METABOLISM IN PLASMA LIPOPROTEINS.....	1R23 HL26265-01	34,576
ORGANIZATION TOTAL	3 263,733		
PUGET SOUND BLOOD CENTER ZIP CODE 98104			
DONOHUE, DENNIS M.....	A COMMUNITY BLOOD RESOURCE PROGRAM.....	2P60 HL17265-06	823,896
ORGANIZATION TOTAL	1 823,896		
SWEDISH HOSPITAL MEDICAL CENTER ZIP CODE 98104			
CHANDLER, JOHN W, JR.....	IMMUNOPATHOLOGY AND THERAPY OF CORNEAL DISEASE.....	5R01 EY02673-03	58,631
CHANDLER, JOHN W, JR.....	HERPETIC KERATITIS: EARLY VIRUS-NEURON INTERACTIONS.....	5R01 EY02902-03	44,703
FUNDERBURGH, JAMES L.....	PROTEOLYCATS IN NORMAL AND SCARRED CORNEAS.....	1R01 EY02976-01A1	76,669
RIVKIN, SAUL E.....	SOUTHWEST ONCOLOGY GROUP.....	5R10 CA20319-04	57,019
ORGANIZATION TOTAL	4 237,022		
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—PHS HOSPITAL ZIP CODE 98114			
NISHIMURA, EDWIN T.....	CATALASE ISOZYMES IN NORMAL AND NEOPLASTIC TISSUES.....	5R01 CA24966-03	26,614
ORGANIZATION TOTAL	1 26,614		
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
ADAMSON, JOHN W.....	IN VITRO STUDIES OF HEMATOPOIETIC REGULATION.....	2R01 AM19410-05	79,991
ADAMSON, JOHN W.....	ERYTHROPOIETIN ANTIBODIES FROM HYBRIDOMAS.....	1R01 HL25160-01	44,479
AGABIAN, NINA M.....	REGULATION OF CELL SURFACE DEVELOPMENT IN CAULOBACTER.....	5R01 GM25527-03	63,627
ALBERS, JOHN J.....	LECITHIN-CHOLESTEROL ACYLTRANSFERASE.....	5R01 HL15263-08	46,182
ALBERS, JOHN J.....	HIGH DENSITY LIPOPROTEIN QUANTITATION.....	5R01 HL22285-02	55,960
ALMERS, WOLFHARD.....	ELECTRIC STUDIES OF MUSCLE EXCITATION AND CONTRACTION.....	5R01 AM17803-07	58,778
ALVARES, OLAV F.....	THE ROLE OF NUTRITION IN ORAL HEALTH.....	1R01 DE05279-01	56,189
ANDERSEN, NIELS H.....	ASSAY METHODS FOR ARACHIDONIC ACID METABOLITES.....	5R01 GM26935-02	73,707
ANDERSEN, NIELS H.....	PROSTACYCLIN-TXA2 ANALOG CHEMISTRY AND PHARMACOLOGY.....	5R01 HL23103-03	21,073
ANDERSON, MARJORIE E.....	ELECTROPHYSIOLOGICAL ANALYSIS OF BASAL GANGLIA OUTPUT.....	5R01 NS15017-02	31,272
APPLEBAUM-BOWDEN, DEBORAH.....	HEPATIC TRIGLYCERIDE LIPASE.....	5R23 HL22381-02	30,677
AUTH, DAVID C.....	ENDOSCOPIC INSTRUMENTS FOR CONTROL OF BLEEDING.....	5R01 GM25262-03	80,155
BASSINGTHWAIGHTE, JAMES B.....	HETEROGENEITY OF REGIONAL MYOCARDIAL BLOOD FLOW.....	5R01 HL19135-06	90,212
BASSINGTHWAIGHTE, JAMES B.....	DISPERSION OF DIFFUSIBLE INDICATORS IN THE BODY.....	5R01 HL19139-05	114,070
BASSINGTHWAIGHTE, JAMES B.....	DETERMINATION OF INTRAMYOCARDIAL CATION DISTRIBUTIONS.....	1R01 HL23684-01A1	68,486
BAYLINK, DAVID J.....	ENDOSTEAL BONE VOLUME REGULATION AND OSTEOPOROSIS.....	1R01 AM27386-01	63,589
BEASLEY, R PALMER.....	HEPATOCELLULAR CARCINOMA RISK IN HEPATITIS B CARRIERS.....	5R01 CA25327-02	165,331
BEAVO, JOE A.....	METABOLISM AND FUNCTION OF CYCLIC NUCLEOTIDES.....	5R01 AM21723-03	59,112
BENDICH, ARNOLD J.....	REPEATED DNA SEQUENCES AND LAND PLANT EVOLUTION.....	5R01 GM22870-05	96,259
BENDITT, EARL P.....	MARINE/FRESHWATER BIOMEDICAL CENTER GRANT.....	5P30 ES02190-02	132,431
BENDITT, EARL P.....	MECHANISMS OF ACUTE VASCULAR REACTION TO INJURY.....	5P01 HL03174-25	732,279
BENSINGER, RICHARD E.....	SUPEROXIDE DISMUTASE: TRANSPORT, AGING AND DEGENERATION.....	5R01 EY02726-03	38,198
BERGER, ALBERT J.....	RESPIRATORY SYSTEM INTEGRATION BY THE BRAIN STEM.....	5R01 NS14857-02	58,051
BERNSTEIN, ILENE L.....	LEARNED FOOD AVERSION: A COMPONENT OF CANCER ANOREXIA.....	5R01 CA26419-02	54,835
BIERMAN, EDWIN L.....	AGING, METABOLISM AND ATHEROSCLEROSIS.....	3P01 AG00299-09S1	57,481
BIERMAN, EDWIN L.....	PATHOBIOLOGY OF DIABETES MELLITUS.....	5P01 AM02456-22	340,755
BINDER, MARC D.....	DESIGN FEATURES OF SEGMENTAL MOTOR SYSTEM.....	5R01 NS15404-02	42,069
BONICA, JOHN J.....	DENTAL/OROFACIAL PAIN—MECHANISMS BEHAVIOR & MODULATION.....	5P01 DE05130-02	202,422
BOOTHE, RONALD G.....	DEVELOPMENT OF SPATIAL VISION.....	3R01 EY02510-02S1	3,250
BOOTHE, RONALD G.....	DEVELOPMENT OF SPATIAL VISION.....	5R01 EY02510-03	84,586
BORNSTEIN, PAUL.....	BIOGENESIS AND FUNCTION OF CONNECTIVE TISSUE PROTEINS.....	2R01 AM11248-14	117,537
BOWDEN, DOUGLAS M.....	AGING IN NONHUMAN PRIMATES.....	1R21 AG01841-01	64,337
BRUCE, ROBERT A.....	CORONARY BYPASS GRAFTING & CARDIAC CAPACITY IMPROVEMENT.....	5R01 HL23404-02	113,253
BRUNZELL, JOHN D.....	PATHOPHYSIOLOGY OF GENETIC HYPERTRIGLYCERIDEMIAS.....	5R01 HL18687-05	68,287
BUCHANAN, THOMAS M.....	IMMUNOCHEMISTRY & PATHOGENIC ROLE OF GONOCOCCAL PILI.....	5R01 AI13149-05	65,638
BUCHANAN, THOMAS M.....	SERODIAGNOSIS OF SUBCLINICAL LEPROSY (PROPOSAL I).....	5R21 AI16290-02	44,139

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
BUCK, STEVEN L.	INTERACTION IN THE VISUAL SYSTEM.....	5R01 EY03221-02	39,704
BUNT, ANN H.	PROTEIN TRANSPORT IN RETINAL PHOTORECEPTORS AND AXONS.....	5R01 EY01311-07	86,369
BURSTEIN, SAMUEL A.	STUDIES OF MEGAKARYOCYTOPOIESIS.....	1R01 HL24984-01	41,525
BUTLER, JOHN.	PULMONARY HEMODYNAMICS IN LUNG EDEMA DURING PEEP.....	5R01 HL20690-04	57,345
BUTLER, JOHN	PULMONARY EDEMA IN ARDS—BASIC MECHANISMS AND TREATMENT.....	3P01 HL24153-01S:	4,878
BUTLER, JOHN	PULMONARY EDEMA IN ARDS—BASIC MECHANISMS AND TREATMENT.....	5P01 HL24153-02	808,389
BYERS, BRECK E.	MOLECULAR CYTOLOGY OF THE YEAST CELL CYCLE.....	5R01 GM18541-09	99,816
BYERS, MARGARET R.	DISTRIBUTION AND ULTRASTRUCTURE OF DENTAL INNervation.....	5R01 DE05159-02	79,281
CAMERMAN, ARTHUR.	STEREOCHEMISTRY OF THYROID HORMONES AND ANALOGS.....	5R01 AM16417-04	42,376
CAMERMAN, ARTHUR	STEREOCHEMICAL PRINCIPLES FOR ANTICANCER DRUGS.....	5R01 CA15879-06	81,982
CARRICO, C JAMES.	SYSTEMIC RESPONSE TO MECHANICAL AND THERMAL INJURY.....	5P50 GM24990-03	780,965
CATTERALL, WILLIAM A.	THE MOLECULAR BASIS OF ELECTRICAL EXCITABILITY.....	5R01 HL22239-03	54,113
CATTERALL, WILLIAM A.	VOLTAGE-SENSITIVE SODIUM CHANNELS IN BRAIN.....	1R01 NS16751-01	65,375
CHAMPOUX, JAMES J.	STRAND SEPARATION IN DNA REPLICATION.....	5R01 GM23224-05	80,566
CHAPMAN, C RICHARD.	ACUPUNCTURE AND PERCEPTION OF DENTAL PAIN IN MAN.....	2R01 DE04004-06	85,693
CHAPMAN, C RICHARD.	PERCEPTUAL PROCESSES IN HUMAN PAIN.....	1R01 GM27621-01	74,824
CHAPMAN, C RICHARD.	CHRONIC PAIN: MECHANISMS AND MANIFESTATIONS.....	1P01 NS16329-01	351,586
CHAPMAN, WARREN H.	IMMUNOLOGY OF BLADDER TUMORS.....	5R26 CA14135-08	175,948
CHATRIAN, GIAN E.	RESPONSES TO TOOTH PULP STIMULATION IN HUMANS.....	5R01 DE03485-07	58,501
CHRISTIAN, GARY D.	A VIDEO FLUOROMETER FOR BIOLOGICAL ANALYSES.....	5R01 GM22311-05	62,419
CLAGETT, JAMES A.	PERIODONTAL DISEASES: B CELLS ACTIVATED BY MITOGENS.....	5R01 DE04887-03	53,057
CLARK, EDWARD A.	GENETICS AND REGULATION OF CELL-MEDIATED CYTOTOXICITY.....	1R01 CA26713-01	48,558
CONRAD, JOHN T.	STRETCH CHANGES IN THE RABBIT CERVIX BY PROSTAGLANDIN.....	5R01 HD11227-03	48,343
COONEY, MARION K.	RHINOVIRUS ANTIGENIC VARIATION AND ANTIBODY RESPONSE.....	5R01 AI15018-03	80,035
COREY, LAWRENCE	THE IMMUNOLOGY OF GENITAL HERPES.....	5R23 AI14415-03	34,584
COREY, LAWRENCE	CLINICAL EPIDEMIOLOGY—PATHOGENESIS OF GENITAL HERPES.....	5R01 AI14495-03	139,074
DALE, BEVERLY A.	KERATOHYALIN IN KERATINIZATION: ORAL MUCOSA AND SKIN.....	5R01 DE04660-05	83,981
DALE, DAVID C.	MARROW REGULATION IN CYCLIC HEMATOPOIESIS.....	2R01 AM18951-05	82,993
DAVIDSON, ERNEST R.	ELECTRONIC STRUCTURE OF BIOPOLYMERS.....	5R01 GM22937-05	56,475
DAVIE, EARL W.	PROTEINS OF BLOOD COAGULATION.....	5R01 HL16919-07	393,389
DAY, ROBERT W.	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05714-10	100,730
DE HAEN, CHRISTOPH A.	INSULIN-STIMULATED H2O2 PRODUCTION IN FAT CELLS.....	1R01 AM27267-01	55,387
DE TORNYAY, RHEBA	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05758-07	63,520
DETWILER, PETER B.	PHOTORECEPTORS AND 2ND ORDER CELLS IN VERTEBRATE RETINA.....	2R01 EY02048-04	55,224
DILLARD, DAVID H.	HYPOTHERMIA FOR INFANT HEART SURGERY.....	2R01 HL19203-04A1	121,271
DOBSON, MARGARET V.	CLINICAL ASSESSMENT OF VISUAL ACUITY IN HUMAN INFANTS.....	5R01 EY02581-03	63,730
DODGE, HAROLD T.	SUDDEN CARDIAC DEATH AND LETHAL ARRHYTHMIAS.....	5R01 HL18805-06	425,319
DODGE, HAROLD T.	FUNCTIONAL CHARACTERISTICS OF THE LEFT HEART.....	5R01 HL19451-05	170,349
DOERMANN, AUGUST H.	INVESTIGATION OF GENETIC PROBLEMS WITH BACTERIOPHAGES.....	5R01 GM13280-17	168,504
EDDY, EDWARD M.	ANALYSIS OF SPERM SURFACE COMPONENTS.....	1R01 HD14054-01	27,816
EDWARDS, JOHN S.	NEURAL DEVELOPMENT.....	2R01 NS07778-13	121,006
EMANUEL, IRVIN	RESEARCH IN MENTAL RETARDATION AND CHILD DEVELOPMENT.....	5P30 HD02274-15	786,838
EMLEN, JAMES W.	THE ROLE OF DNA IN SYSTEMIC LUPUS.....	5R01 AM24015-02	59,557
ENSINCK, JOHN W.	REGULATION OF BIOSYNTHESIS AND SECRETION OF GLUCAGON.....	5R01 AM16008-08	101,590
ESCHBACH, JOSEPH W. JR.	ERYTHROPOIETIN THERAPY FOR ANEMIA OF RENAL FAILURE.....	1R01 AM27054-01	103,463
EVANS, CHARLES A.	FLORA OF HUMAN SKIN.....	5R01 AM22082-05	21,103
FALKOW, STANLEY	NATURE OF ENTEROTOXIN PRODUCTION BY E COLI & V CHOLERAEE.....	5R22 AI10885-09	39,999
FANGMAN, WALTON L.	EUKARYOTIC CHROMOSOME STRUCTURE AND REPLICATION.....	5R01 GM18925-09	110,463
FANTELL, ALAN G.	BIOTRANSFORMATION OF TERATOGENS.....	5R01 HD12717-02	110,200
FARLEY, JOHN R.	SKELETAL ALK. PHOS. - SERUM ASSAY & FUNCTION IN VIVO.....	1R01 AM27195-01	39,913
FARNER, DONALD S.	VIII INTERNATIONAL SYMPOSIUM ON NEUROSECRETION.....	1R13 NS16065-01	12,647
FEFFER, ALEXANDER.	ADOPTIVE CHEMOIMMUNOTHERAPY OF TUMORS IN MICE.....	5R01 CA10777-12	150,480
FETZ, EBERHARD E.	NEURAL CONTROL OF MUSCLE ACTIVITY.....	5R01 NS12542-06	59,196
FIALKOW, PHILIP J.	HUMAN CANCER—ORIGIN AND GENETIC MARKERS.....	5R01 CA16448-06	62,575
FINCH, CLEMENT A.	KINETIC STUDIES OF THE BLOOD.....	5R01 HL06242-20	393,666
FINK, B RAYMOND	HYPOSMOTIC LOCAL ANESTHESIA: MECHANISMS AND TOXICITY.....	1R01 GM27673-01	125,539
FISCHER, EDMOND H.	RELATION OF STRUCTURE TO FUNCTION OF ENZYMES.....	5R01 AM07902-18	154,335
FORDYCE, WILBERT E.	PREVENTION OF CHRONIC PAIN.....	5R01 NS15428-02	82,562
FOY, HJORDIS M.	SEROEPIDEMIOLOGICAL STUDY OF LEGIONELLA INFECTIONS.....	1R01 AI17100-01	79,953
FUCHS, ALBERT F.	NEUROPHYSIOLOGY OF THE OCULOMOTOR SYSTEM.....	5R01 EY00745-10	92,703
FUJIMOTO, WILFRED Y.	CELL ISLET FUNCTION IN TISSUE CULTURE AND DIABETES.....	5R01 AM15312-09	88,255

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
GADDUM-ROSSE, PENELOPE.....	IN VITRO FERTILIZATION IN ANIMALS.....	1R01 HD13075-01A1	67,587
GALLANT, JONATHAN A.....	CONTROL OF CELL GROWTH.....	5R01 GM13626-14	77,725
GERACI, JOSEPH P.....	LATE EFFECTS IN NEUTRON RADIOTHERAPY.....	5R01 CA22431-03	116,032
GIBALDI, MILO.....	PLASMA AND TISSUE PROTEIN BINDING IN DRUG DISPOSITION.....	5R01 GM25745-02	33,797
GIBALDI, MILO.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05635-07	27,120
GIBLIN, ELIZABETH C.....	RESPIRATORY IMPAIRMENT: SLEEP AND BREATHING PATTERNS.....	5R01 HL22540-02	89,863
GOLDMAN, PEGGY L.....	PATHOGENESIS OF ENDOCARDITIS.....	5R01 HL17751-05	83,332
GORDON, ALBERT M.....	CONTROL OF CONTRACTION IN STRIATED MUSCLE.....	5R01 NS08384-12	44,828
GOULD, KENNETH L.....	CORONARY FLOW RESERVE—NONINVASIVE DETECTION.....	5R01 HL18492-05	7,071
GRAUBARD, KATHERINE.....	GRADED SYNAPTIC TRANSMISSION IN LOCAL NEURAL CIRCUITS.....	5R01 NS15697-02	53,997
GRAYSTON, J THOMAS.....	EPIDEMIOLOGY OF CHLAMYDIA TRACHOMATIS INFECTIONS.....	5R01 AI16222-02	126,031
GRAYSTON, J THOMAS.....	PREVENTION OF TRACHOMA AND RELATED INFECTIONS.....	2R01 EY00219-19A1	144,048
GRAYSTON, J THOMAS.....	REGIONAL PRIMATE RESEARCH CENTER.....	5P51 RR00166-20	2,673,203
GREEN, WILLIAM L.....	STUDIES OF THYROID HORMONE METABOLISM.....	2R01 AM15810-07A1	79,291
GREENLEE, THEODORE K, JR.....	COLLAGEN TYPES IN INJURED TENDONS.....	5R01 AM25749-02	88,971
GRIFFIN, THOMAS W.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA12260-09	79,403
GRIFFIN, THOMAS W.....	FAST NEUTRON BEAM RADIOTHERAPY.....	5P01 CA12441-08	361,530
GROMAN, NEAL B.....	PHAGE-BACTERIAL EFFECTS ON VIRULENCE OF C DIPHTHERIAE.....	5R01 AI10492-09	76,713
GUEST, AVERY M.....	METROPOLITAN NEIGHBORHOOD & COMMUNITY AREA ATTACHMENT.....	5R01 HD11930-03	26,586
GUEST, AVERY M.....	U S FERTILITY IN 1900.....	5R01 HD13080-02	56,513
HAACKENSTAD, ALAN O.....	REMOVAL OF RENAL IMMUNE COMPLEXES WITH EXCESS ANTIGEN.....	1R01 AM26249-01	100,838
HALBERT, SHERIDAN A.....	ANALYSIS OF THE MECHANISMS OF OVIDUCTAL TRANSPORT.....	2R01 HD10988-04	107,166
HALL, BENJAMIN D.....	EXPRESSION AND REGULATION OF CYTOCHROME C GENES.....	2R01 GM11895-17	132,140
HALTER, JEFFREY B.....	AGING AND SYMPATHETIC NERVOUS SYSTEM FUNCTION IN MAN.....	5R01 AG01926-02	66,439
HARKER, LAURENCE A.....	PLATELET AND ENDOTHELIAL MECHANISMS IN VASCULAR DISEASE.....	2R01 HL11775-13	101,871
HARTWELL, LELAND H.....	GENETIC ANALYSIS OF THE EUKARYOTIC CELL CYCLE.....	2R01 GM17709-11	131,822
HASCHKE, RICHARD H.....	RETROGRADE AXONAL TRANSPORT IN THE VISUAL SYSTEM.....	5R01 EY01756-05	167,337
HAUSCHKA, STEPHEN D.....	CLONAL ANALYSIS OF SKELETAL MUSCLE DEVELOPMENT.....	5R01 AM18860-05	81,560
HAWTHORNE, DONALD C.....	SUPPRESSOR GENES AND INTERSPECIFIC HYBRIDS OF YEAST.....	1R01 GM27624-01	61,163
HAZZARD, WILLIAM R.....	ROLE OF APOLOPROTEIN-E IN LIPOPROTEIN METABOLISM.....	5R01 HL22607-03	70,917
HAZZARD, WILLIAM R.....	METABOLIC CONTROL OF HIGH DENSITY LIPOPROTEINS.....	5R01 HL23474-02	63,296
HENDERSON, WILLIAM R, JR.....	SUPEROXIDE AND PEROXIDE IN IMMEDIATE HYPERSENSITIVITY.....	5R23 AI14805-02	40,200
HENDRICKSON, ANITA E.....	PRIMATE VISUAL SYSTEM DEVELOPMENT AND DEPRIVATION.....	2R01 EY01208-07	127,369
HILLE, BERTIL.....	MOLECULAR PROPERTIES OF IONIC PERMEABILITY IN NERVE.....	2R01 NS08174-12	150,974
HILLE, MERRILL B.....	PROTEIN SYNTHESIS MOLECULAR ACTIVATION IN EGG & EMBRYO.....	3R01 HD11070-03S1	9,793
HODSON, WILLIAM A.....	PEDIATRIC PULMONARY SCOR: HYALINE MEMBRANE DISEASE.....	5P50 HL19187-04	524,650
HOFFMAN, ALLAN S.....	SURFACE THROMBOGENESIS: MECHANISMS AND PREVENTION.....	5P01 HL22163-03	567,926
HOLLOWAY, G ALLEN, JR.....	SKIN BLOOD FLOW AS A PREDICTOR OF AMPUTATION SUCCESS.....	5R01 HL23711-02	27,858
HOLMES, KING K.....	VENEREAL DISEASE RESEARCH PROGRAM PROJECT.....	5P01 AI12192-06	516,540
HORBETT, THOMAS A.....	CELL AND PROTEIN REACTIONS WITH FOREIGN MATERIALS.....	2R01 HL19419-05	147,021
HORNBEIN, THOMAS F.....	ANESTHETIC MONITORING OF BRAIN HYPOXIA.....	5R01 GM25824-02	95,443
HORNBEIN, THOMAS F.....	BRAIN HYPOXIA IN INTRAOPERATIVE HYPOTENSION-HEMODILUTION.....	1R01 GM27069-01	76,207
HORNBEIN, THOMAS F.....	CHEMICAL REGULATION OF VENTILATION.....	5R01 HL23390-02	99,079
HUNTSMAN, LEE L.....	MECHANICAL PROPERTIES OF ISOLATED MYOCARDIUM.....	3R01 HL20613-03S1	775
HWANG, KARL J.....	A FUNDAMENTAL STUDY ON LIPOSOME-ENCAPSULATED INSULIN.....	5R01 AM25608-02	50,437
JENSEN, LYLE H.....	STRUCTURE OF BIOLOGICALLY IMPORTANT COMPOUNDS.....	5R01 GM10828-25	47,647
JENSEN, LYLE H.....	CRYSTALLOGRAPHIC STUDY OF PROTEINS.....	5R01 GM13366-16	99,086
JOHNSON, DALE E.....	ENERGY LOSS MICROANALYSIS OF MYOCARDIAL CATIONS.....	2R01 HL21371-04	28,986
JUCHAU, MONT R.....	METABOLISM OF DRUG SUBSTRATES BY HUMAN PLACENTA.....	5R01 HD04839-10C1	49,190
KALINA, ROBERT E.....	INTERDISCIPLINARY VISION AND OPHTHALMIC RESEARCH CENTER.....	5P30 EY01730-05	257,259
KAPLAN, HENRY G.....	EFFECTS OF ADRIAMYCIN AND BCNU ON GLUTATHIONE.....	1R01 CA27575-01	38,524
KEHL, THEODORE H.....	SUPPORT FOR PHYSIOLOGY AND BIOPHYSICS COMPUTER.....	2P41 RR00374-14	259,743
KELLER, PATRICIA J.....	SALIVARY GLAND SECRETORY MECHANISMS.....	1R01 DE05251-01A1	94,181
KENNEY, NANCY J.....	CNS REGULATION OF BODY FLUIDS.....	5R01 AM22024-03	31,777
KENNY, GEORGE E.....	ANTIGEN COMPOSITION OF MYCOPLASMA PNEUMONIAE.....	5R01 AI06720-14	93,065
KERR, BETH.....	REACTION TIME REPETITION EFFECT (CHILDREN AND ADULTS).....	1R01 HD13981-01	21,644
KLEBANOFF, SEYMOUR J.....	ANTIMICROBIAL EFFECT OF PEROXIDASE IN LEUKOCYTES.....	5R01 AI07763-14	87,156
KLEBANOFF, SEYMOUR J.....	UTERINE EOSINOPHIL STRUCTURE AND FUNCTION.....	5R01 HD02266-15	71,164
KOENIG, JANE Q.....	SULFUR OXIDES EFFECTS ON LUNG FUNCTION IN ASTHMATICS.....	1R01 ES02366-01	88,306
KRANING, KENNETH K.....	SWEATING RESPONSES IN NORMAL AND ALLERGIC SUBJECTS.....	5R01 AI16636-02	66,656
KUO, CHO-CHOU.....	IMMUNOLOGY OF CHLAMYDIA TRACHOMATIS GENITAL INFECTION.....	2R01 AI14180-04	114,347

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
LAIRD, CHARLES D.	CHROMOSOME STRUCTURE AND FUNCTION	2R01 GM19179-09	128,339
LARSON, STEVEN M.	MECHANISM OF 67GA UPTAKE BY EMT-6 SARCOMA BALB/C MICE	5R01 CA24598-02	71,059
LEE, MINAKO Y.	EXPANSION OF HEMOPOIETIC BONE MARROW	1R01 CA28228-01	52,823
LOEB, LAWRENCE A.	THE FIDELITY OF DNA REPLICATION IN HUMAN LYMPHOCYTES	2R01 CA24845-03	80,043
LOEB, LAWRENCE A.	GENETIC MISCODING BY METALS	5R01 CA24998-02	75,042
LUSCHEI, ERICH S.	NEURAL PROCESSES IN SOMATIC MOVEMENT	2R01 DE04884-12	64,325
MACKLER, BRUCE	STUDIES OF BIOLOGICAL OXIDATIONS	5R01 GM23006-21	63,814
MANNIK, MART	STUDIES OF THE RENAL DISEASE OF SYSTEMIC LUPUS	5R01 AM11476-14	127,145
MANNIK, MART	RHEUMATOID ARTHRITIS IMMUNOLOGY STUDIES	5R01 AM12849-12	92,819
MARTIN, GEORGE M.	GENE ACTION IN THE PATHOBIOLOGY OF AGING	5P01 AG01751-02	626,188
MARTIN, JOAN C.	CONTRIBUTION OF IRON DEFICIENCY TO MENTAL RETARDATION	3P01 HD11680-02S1	24,741
MARTIN, JOAN C.	CONTRIBUTION OF IRON DEFICIENCY TO MENTAL RETARDATION	5P01 HD11680-03	451,510
MARTIN, JOAN C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07096-15	189,787
MARTIN, ROY W.	AIR EMBOLI DETECTION BY ULTRASONIC CATHETER METHODS	5R01 GM26187-02	71,114
MARTIN, ROY W.	SIDS, ULTRASONIC SPECTROSCOPY AND INFANT AIRWAY GLANDS	5R01 HD13040-02	70,851
MARTIN, ROY W.	BLOOD FLOW MEASUREMENT BY ULTRASONIC CATHETER TIP METHOD	5R01 HL14645-09	96,175
MATSEN, FREDERICK A., III	INCREASED PRESSURE IN COMPARTMENTS OF THE EXTREMITIES	5R01 AM18642-04	61,256
MC CLEAN, MICHAEL D.	AFFERENT FUNCTION IN LIP MOTOR CONTROL FOR SPEECH	5R01 NS14048-03	3,245
MC KNIGHT, STANLEY G.	HORMONAL REGULATION OF GENE EXPRESSION	1R01 HD14412-01	110,919
MELTZOFF, ANDREW N.	IMITATION IN THE FIRST YEAR OF LIFE	5R01 HD13024-02	53,765
MILLER, JOSEF M.	STUDIES OF THE COCHLEAR PROSTHESIS	5P50 NS13056-05	213,590
MINSHAW, BARBARA H.	GENETICS OF ESCHERICHIA COLI VIRULENCE FACTORS	5R01 AI14740-03	36,753
MOORE, ALTON W.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05346-19	79,489
MORRIS, DAVID R.	BIOSYNTHESIS AND BIOLOGICAL FUNCTION OF POLYAMINES	5R01 GM13957-14	85,778
MOTTET, N. KARLE	METHYLMERCURY EMBRYOPATHY	2R01 ES00677-10	235,480
MOTULSKY, ARNO G.	SUPPORT FOR STUDY OF INHERITED DISEASES	5P50 GM15253-14	1,234,486
NELSON, SIDNEY D.	HYDRAZINE METABOLISM AS IT RELATES TO TOXICITY	5R23 ES01717-03	26,333
NELSON, SIDNEY D.	ALTERATION OF METABOLISM BY STRUCTURAL MODIFICATION	5R01 GM25418-03	30,588
NELSON, WENDEL L.	METABOLISM OF BETA-ADRENERGIC BLOCKERS-CHEMICAL ASPECTS	5R01 GM25373-02	50,190
NESTER, EUGENE W.	MOLECULAR BASIS OF CROWN GALL TUMORIGENESIS	5R01 CA13015-09	191,967
NUTE, PETER E.	HEMOGLOBIN GAMMA-CHAIN GENES—EVOLUTION & INDUCIBILITY	3R01 HL20961-03S1	1,353
O'CONNOR, MARY L.	A STUDY OF THE REGULATION OF METHANE OXIDATION	1R01 GM27766-01	55,014
ODLAND, GEORGE F.	INTERDISCIPLINARY BASIC RESEARCH IN DERMATOLOGY	5P01 AM21557-02	175,102
PAGE, ROY C.	SUPPORT FOR ORAL BIOLOGY RESEARCH CENTER	2P50 DE02600-14	1,520,413
PAGE, ROY C.	CONNECTIVE TISSUE OF PERIODONTIUM COLLAGEN MATURATION	5R01 DE03301-10	138,255
PALMITER, RICHARD D.	HORMONAL CONTROL OF DIFFERENTIATION AND GENE ACTION	5R01 HD09172-06	130,344
PAULSEN, C. ALVIN	REPRODUCTIVE MEDICINE	5P50 HD12629-02	316,951
PEHLKE, D. MICHAEL	REGULATION OF EPIDERMAL STEROL METABOLISM IN AGING	5R01 AG01830-02	39,391
PETERSON, DONALD R.	PHYSICAL ACTIVITY AND PRIMARY CARDIAC ARREST	1R01 HL26208-01	16,765
PIOUS, DONALD A.	GENETIC REGULATION OF LYMPHOID DIFFERENTIATION ANTIGENS	1R01 AI16689-01	122,733
PIOUS, DONALD A.	GENETIC STRUCTURE AND FUNCTION IN HUMAN CELLS	5R01 GM15883-16	115,019
POLLACK, GERALD H.	MYOCARDIAL SARCOMERE MECHANICS	5R01 HL18676-05	142,736
PORTE, DANIEL, JR.	NEURAL REGULATION OF PANCREATIC HORMONE SECRETION	5R01 AM12829-12	95,728
PORTE, DANIEL, JR.	DIABETES-ENDOCRINOLOGY RESEARCH CENTER	5P30 AM17047-06	498,419
PULLUM, THOMAS W.	CENTER FOR STUDIES IN DEMOGRAPHY AND ECOLOGY	5P30 HD09397-05	127,705
RASEY, JANET S.	FAST NEUTRON RADIOTHERAPY OF EXPERIMENTAL TUMORS	1R01 CA27382-01	76,096
RASEY, JANET S.	EFFECT OF THERAPY ON GALLIUM-67 UPTAKE BY TUMORS	1R01 CA27699-01	80,091
RATNER, BUDDY D.	12TH ANNUAL INTERNATIONAL BIOMATERIALS SYMPOSIUM-1980	1R13 AM27190-01	12,500
RATNER, BUDDY D.	12TH ANNUAL INTERNATIONAL BIOMATERIALS SYMPOSIUM-1980	1R13 DE05551-01	15,000
RAUCHER, STANLEY	INDOLE ALKALOID SYNTHESIS VIA CLAISEN REARRANGEMENT	1R01 GM25816-01A1	56,450
RAUSCH, ROBERT L.	STUDIES OF ECHINOCOCCUS SPECIES AND HYDATID DISEASE	5R01 AI15172-03	59,502
REID, BRIAN R.	RECOGNITION OF TRANSFER RNA BY PROTEINS	7R01 GM28764-01	93,832
RIDDIFORD, LYNN M.	STUDIES OF JUVENILE HORMONE ACTION	5R01 AI12459-05	98,063
ROBERTSON, R. PAUL	REGULATION OF PGE RECEPTORS IN LIVER PLASMA MEMBRANE	1R01 AM26177-01A1	76,003
RODIECK, ROBERT W.	PRIMATE COLOR VISION	5R01 EY02923-02	95,021
ROMAN, HERSCHEL I.	GENETIC INVESTIGATIONS IN YEAST-SACCHAROMYCES	9R01 GM27949-28A1	74,147
ROSS, RUSSELL	WOUND REPAIR, INFLAMMATION AND CONNECTIVE TISSUE	5R01 AM13970-19	97,818
ROSS, RUSSELL	BIOLOGY OF THE ARTERY WALL AND ATHEROSCLEROSIS	5P01 HL18645-05	569,739
ROSSE, CORNELIUS	LYMPHOCYTE PRODUCTION AND TRAFFIC IN THE BONE MARROW	2R01 CA20823-04A1	105,834
RUBIN, CYRUS E.	THE PATHOGENESIS OF HUMAN ALIMENTARY MUCOSAL DISEASE	5R01 AM16059-22	306,749
SAARI, JOHN C.	RETINAL METABOLISM	5R01 EY00343-15	54,528

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
SAARI, JOHN C.	BIOCHEMISTRY OF THE RETINA AND PIGMENT EPITHELIUM	2R01 EY02317-04	84,869
SACKETT, GENE P.	PREMATURITY IN PRIMATES: CAUSES, EFFECTS, PREVENTION	5P01 HD08633-07	337,257
SANDLER, LAURENCE M.	CYTOGENETICS OF MEIOSIS AND DEVELOPMENT IN DROSOPHILA	5R01 GM09965-18	115,245
SARTHY, VIJAY P.	GLIAL FUNCTION OF THE VERTEBRATE RETINA	5R01 EY03523-02	38,849
SCHER, ALLEN M.	REGULATION OF THE PERIPHERAL CIRCULATION	5P01 HL16910-07	705,219
SCHER, ALLEN M.	CARDIAC FIBER DIRECTION AND THE QRS COMPLEX	2R01 HL20273-04	86,064
SCHROEDER, THOMAS E.	CELL CORTEX AND CONTRACTILE RING FORMATION IN EGGS	5R01 GM19464-08	82,172
SCHUBIGER, GEROLD A.	DETERMINATION AND DIFFERENTIATION IN DROSOPHILA	5R01 GM24879-03	87,694
SCHWARTZ, STEPHEN M.	ENDOTHELIAL INJURY IN SMALL VESSELS	1R01 HL26405-01	115,399
SEMBROWICH, WALTER L.	SUBCELLULAR MECHANISMS OF MUSCULAR FATIGUE	5R01 HL25439-02	56,630
SHAPIRO, BENNETT M.	MOLECULAR EVENTS IN FERTILIZATION	2R01 GM23910-04	93,285
SHEPARD, THOMAS H.	LABORATORY FOR THE STUDY OF HUMAN EMBRYOS AND FETUSES	5R01 HD00836-17	71,907
SIMKIN, PETER A.	PATHOPHYSIOLOGY OF SYNOVIAL EFFUSIONS	1R01 AM22186-01A1	87,554
SIMPSON, JOHN B.	ANGIOTENSIN EFFECTS ON WATER INTAKE AND EXCRETION	2R01 HL21800-03	67,354
SIVARAJAN, MURALI	MYOCARDIAL BLOOD FLOW DURING ANESTHESIA	1R01 HL24900-01	70,597
SPENCE, ALEXANDER M.	ETHYLNITROSOUREA-INDUCED RAT GLIOMAS	1R01 CA27390-01	49,059
STAHL, WILLIAM L.	MEMBRANE PROPERTIES OF CULTURED CELLS	1R01 NS15790-01	55,088
STAMATOYANNOPOULOS, GEORGE	CELLULAR MECHANISMS OF HEMOGLOBIN F REGULATION	5R01 HL20899-04	120,557
STANTON, THOMAS H.	GENETICS AND BIOCHEMISTRY OF MOUSE ALLOANTIGENS	5R01 AI16048-02	55,624
STEINER, ROBERT A.	NEUROENDOCRINE CONTROL: PUBERTY AND GONADOTROPINS	5R01 HD12625-02	53,895
STIBBS, HENRY H.	BRAIN METABOLISM/BEHAVIOR IN AFRICAN TRYPAOSOMIASIS	1R01 NS16386-01	64,592
STIRLING, CHARLES E.	ACTIVE TRANSPORT IN EPITHELIA	5R01 AM13182-12	40,092
STIRLING, CHARLES E.	RETINAL TRANSPORT MECHANISMS	5R01 EY02393-03	51,239
STOEL-GAMMON, CAROL	ASPECTS OF NORMAL & ABNORMAL PHONOLOGICAL DEVELOPMENT	5R01 HD12695-02	57,100
STORB, URSULA B.	CONTROL OF IMMUNOGLOBULIN SYNTHESIS	5R01 CA25754-08	75,559
STORM, DANIEL R.	MECHANISM OF ACTION FOR BACITRACIN, POLYMYXIN AND EM 49	5R01 AI14801-02	56,378
STORM, DANIEL R.	CYCLIC NUCLEOTIDE METABOLISM IN HEART MUSCLE	5R01 HL23606-02	51,074
STRANDNESS, DONALD E, JR.	LONG-TERM STUDY OF DIABETIC VASCULAR DISEASE	3R01 HL20381-04S1	3,529
STRANDNESS, DONALD E, JR.	LONG-TERM STUDY OF DIABETIC VASCULAR DISEASE	5R01 HL20381-05	152,741
STRANDNESS, DONALD E, JR.	ULTRASONIC EVALUATION IN DIRECT ARTERIAL SURGERY	5R01 HL20898-04	212,838
STRANDNESS, DONALD E, JR.	NATURAL HISTORY OF THE POSTPHLEBITIC SYNDROME	5R01 HL21572-03	47,411
STRIKER, GARY E.	RENAL MICROVASCULAR MATRIX IN CHRONIC HYPERTENSION	1R01 HL26382-01	57,144
SU, JUDY Y.	MECHANISM OF ANESTHETIC-INDUCED MYOCARDIAL DEPRESSION	2R01 HL20754-04	70,820
SWANSON, PHILLIP D.	ENERGY UTILIZING PROCESSES IN THE CENTRAL NERVOUS SYSTEM	5R01 NS05424-15	129,920
TAMARIN, ARNOLD	VISCERAL ARCHES AND ORO-FACIAL MORPHOGENESIS	5R01 DE05138-02	50,465
TELLER, DAVID C.	ASSOCIATION REACTIONS OF ENZYMES	5R01 GM13401-15	72,381
TELLER, DAVIDA Y.	PSYCHOPHYSICAL STUDIES OF INFANT VISION	5R01 EY02920-02	36,751
TENG, LIN-NAR L.	MOLECULAR MODIFICATION OF HEPARIN BY CHEMICAL MEANS	5R01 HL22035-03	44,088
TERRY, MARYEVA W.	PRIMATE SUPPLY RESOURCE INFORMATION	1P40 RR01240-01	57,445
THOMAS, E DONNALL	IRRADIATION AND MARROW TRANSPLANTATION IN LARGE ANIMALS	3R01 CA18047-16S1	168,722
TIGELAAR, ROBERT E.	IMMUNOBIOLOGY OF CUTANEOUS LYMPHOID INFILTRATES	1R01 AM26923-01	237
TOWE, ARNOLD L.	HIGH-SPEED DATA ACQUISITION IN SOMATOSENSORY SYSTEM	2R01 NS05136-17	68,181
TOWE, ARNOLD L.	COMPUTER SYSTEM FOR A NEUROPHYSIOLOGICAL LABORATORY	1R01 NS15717-01	47,100
TRAGER, WILLIAM F.	PRODUCT RATIOS AND MICROSOMAL MULTIPLICITY	5R01 GM25136-03	35,328
TRAGER, WILLIAM F.	BIOMEDICAL RESEARCH DEVELOPMENT GRANT	5S08 RR09082-02	28,471
TRUMAN, JAMES W.	HORMONE ACTION ON THE CENTRAL NERVOUS SYSTEM	5R01 NS13079-05	72,489
VAN CITTERS, ROBERT L.	GENERAL CLINICAL RESEARCH CENTER	2M01 RR00037-20	712,662
VAN CITTERS, ROBERT L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05432-19	197,787
VAN HOOSIER, GERALD L, JR.	ANIMAL DIAGNOSTIC AND INVESTIGATIVE LABORATORY	5P40 RR01203-02	227,890
VERDUGO, PEDRO J.	CILIARY ACTIVITY OF THE LUNG STUDIED BY LASER SCATTERING	5R01 HL20192-04	81,257
VINCENZI, FRANK F.	RED BLOOD CELL CALCIUM IN HEALTH AND DISEASE	5R01 AM16436-07	47,423
VOGEL, ARTHUR M.	EFFECTS OF MITOGENS ON NORMAL AND NEOPLASTIC CELLS	1R01 CA28238-01	100,521
WALSH, KENNETH A.	BIOLOGICAL CONTROL BY LIMITED PROTEOLYSIS	5P01 GM15731-13	345,397
WARD, ARTHUR A, JR.	EPILEPSY RESEARCH SUPPORT	5P50 NS04053-19	539,337
WEDGWOOD, RALPH J.	DEVELOPMENTAL AND GENETIC DEFECTS OF IMMUNITY	5R01 AI07073-14	72,048
WEINSTEIN, PHILIP	DENTIST COMMUNICATION VARIABLES AND FEAR IN CHILDREN	5R01 DE04770-02	55,400
WESTRUM, LESNICK E.	TEETH AND TRIGEMINAL PATHWAYS	5R01 DE04942-03	45,910
WESTRUM, LESNICK E.	FINE STRUCTURE OF DEAFFERENTATION	5R01 NS09678-09	74,518
WEYMULLER, E A, JR.	EXTENDED ORBITAL RESECTION	5R01 CA26967-02	2,600
WHITE, THOMAS T.	PANCREATIC DUCTAL VERSUS DUODENAL SECRETIONS	5R01 CA14380-08	86,996
WHITELEY, HELEN R.	REGULATION OF RNA SYNTHESIS	5R01 GM20784-06	89,903

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WASHINGTON—Continued			
WHITELEY, HELEN R.	PHAGE-INFECTED B. SUBTILIS; PROMOTER STUDIES	5R01 GM26100-02	46,283
WILKIE, FRANCES L.	CHRONIC ANTIHYPERTENSIVE DRUG EFFECTS ON AGED COGNITION	1R01 AG02164-01	121,778
WOODS, STEPHEN C.	INSULIN AND CNS CONTROL OF BODY WEIGHT AND FEEDING	5R01 AM17844-06	57,888
WYLER, ALLEN R.	OPERANT CONTROL OF CORTICAL NEURONS	5R01 NS14590-02	35,479
YOUNG, ELTON T, II	CONTROL OF FUNCTIONAL MESSENGER RNA SYNTHESIS	5R01 AI09456-11	58,357
YOUNG, ELTON T, II	GENETIC REGULATION OF ALCOHOL METABOLISM IN YEAST	5R01 GM26079-02	91,288
ORGANIZATION TOTAL	286 38,354,037		
VIRGINIA MASON RESEARCH CENTER ZIP CODE 98101			
BEAN, MICHAEL A.	CELLULAR IMMUNE RESPONSES TO HUMAN BLADDER CARCINOMA	5R26 CA19165-06	118,706
BRANNEN, GEORGE	EVALUATION AND MANAGEMENT OF BLADDER CARCINOMA	2R26 CA17466-06	113,316
D'Aoust, BRIAN G.	VASCULAR BUBBLES & ETIOLOGY OF DECOMPRESSION SICKNESS	5R01 HL17503-05	85,378
D'Aoust, BRIAN G.	ISOBARIC VASCULAR BUBBLES AND DECOMPRESSION SICKNESS	5R01 HL22406-03	79,862
D'Aoust, BRIAN G.	ISOBARIC COUNTERDIFFUSION OF EXOTIC GASES IN VIVO	1R01 HL25012-01	82,811
GIBBONS, ROBERT P.	CHEMOTHERAPY FOR ADVANCED PROSTATIC CANCER	5R26 CA15421-07	60,160
HILDEBRANDT, JACOB	LUNG AND TISSUE MECHANICS	5R01 HL14854-09	62,163
HOUCK, JOHN C.	BACTERIAL SUPPRESSION OF LYMPHOCYTE TRANSFORMATION	5R01 AI15957-02	37,448
HOUCK, JOHN C.	MACROPHAGE PERMEABILITY FACTOR IN LUNG EDEMA	5R01 HL22369-02	45,617
HOUCK, JOHN C.	TISSUE DERIVED BETA ENDORPHIN	1R01 NS16243-01	29,965
HOUCK, JOHN C.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05588-14	56,510
LAI, YIH-LOONG	RESPIRATION DURING PROLONGED HYPERCAPNIA	5R01 HL20568-05	44,691
MARTIN, CARROLL J.	AGING AND THE LUNG OF NONHUMAN PRIMATES	1R01 AG02391-01	47,800
MARTIN, CARROLL J.	LUNG ELASTIC RECOIL: AGE AND DISEASE	5R01 HL22313-03	44,099
PICKART, LOREN R.	ISOLATION OF BIOLOGICAL HEPATOANTIMITOTIC MOLECULES	1R01 CA27129-01	106,956
PICKART, LOREN R.	BIOLOGICAL AND SYNTHETIC MODULATORS OF CELL GROWTH	5R01 CA28858-02	86,349
SCURLOCK, JAMES E.	ULTRALONG NERVE BLOCK AND UNCONVENTIONAL ANESTHETICS	2R01 GM26136-03	57,778
WINN, ROBERT K.	TRANSUDATION OF FLUID AND SOLUTE IN THE LUNG	1R23 HL25706-01	41,400
ORGANIZATION TOTAL	18 1,201,009		
STATE TOTAL	438 56,163,675		
WEST VIRGINIA			
MORGANTOWN			
WEST VIRGINIA UNIVERSITY ZIP CODE 26506			
BLAIR, JAMES B.	AGE AND LIVER ADRENERGIC RECEPTOR SYSTEMS	1R01 AM28176-01	76,157
BROWN, PAUL B.	ORGANIZATION OF CUTANEOUS NEURONS OF THE DORSAL HORN	5R01 NS12061-06	58,190
BUTCHER, FRED R.	CYCLIC NUCLEOTIDES AND CALCIUM IN PAROTID GLAND FUNCTION	2R01 AM25249-02	80,854
BUTCHER, ROY L.	SITE OF AGING ON HORMONES AND EMBRYONIC DEFECTS	1R01 AG02311-01	66,322
CHARON, NYLES W.	A GENETIC-BIOCHEMICAL ANALYSIS OF SPIROCHETE MOTILITY	5R23 DE04645-03	28,117
COLASANTI, BRENDA K.	ADRENERGIC AND CHOLINERGIC INTERACTIONS IN THE EYE	3R01 EY01217-06S1	6,740
ELLINGSON, JOHN S.	METABOLISM OF PHOSPHOLIPIDS IN SECONDARY LYSOSOMES	5R01 GM23807-03	41,306
FLEMING, WILLIAM W.	MECHANISM OF NONSPECIFIC SUPPERSENSITIVITY TO DRUGS	5R01 NS08300-12	90,454
HAINES, DUANE E.	CEREBELLAR EVOLUTION AND FUNCTION	5R01 NS11327-06	60,076
HARRIS, CHARLES L.	ROLE OF THIONUCLEOTIDES IN TRANSFER RNA	5R01 GM25620-03	41,736
HEDGE, GEORGE A.	NEUROENDOCRINE REGULATION OF ACTH AND TSH SECRETION	5R01 AM21348-04	75,145
IRISH, JAMES M, III	ISOLATED RENAL TUBULE PHYSIOLOGY OF ORGANIC IONS	5R01 AM25765-02	28,964
JOHNSON, DAVID C.	QUANTITATIONS OF HUMAN PULP INNERVATION	5R01 DE04091-04	21,751
JOHNSON, MICHAEL D.	CONTROL OF RENIN SECRETION BY CIRCULATING EPINEPHRINE	1R01 HL25555-01	47,693
JONES, BARBARA	SOUTHWEST ONCOLOGY GROUP—PEDIATRICS	1R10 CA28581-01	22,386
JONES, JOHN E.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05433-19	75,391
KENNEDY, ROLAND L.	FETAL UPTAKE AND DISTRIBUTION OF LOCAL ANESTHETICS	5R01 HD13085-02	83,702
KLABUNDE, RICHARD E.	BLOOD FLOW REGULATION IN CONTRACTING SKELETAL MUSCLE	5R01 HL25412-02	35,612
KLETZTEN, ROLF F.	GLUCOCORTICOID PERMISSIVE EFFECTS ON GLUCONEOGENESIS	5R01 AM24051-03	32,737
MAWHINNEY, MICHAEL G.	METABOLISM AND INHIBITION OF PROSTATIC NEOPLASIA	5R01 CA13103-09	46,180
MENGOLI, HENRY F.	IGG FC-RECEPTOR ON ORAL STREPTOCOCCI	5R01 DE04631-03	36,804
MILLER, MICHAEL R.	CONTROL OF DNA REPLICATION IN THE ANIMAL CELL CYCLE	5R01 GM25677-03	57,020
QUINLAN, DENNIS C.	MEMBRANE DYNAMICS IN NORMAL AND TUMOR CELLS	5R01 GM24556-03	52,004

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WEST VIRGINIA—Continued			
RAFTER, GALE W.....	LEUKOCYTE DISULFIDE-METABOLIZING ENZYME.....	5R01 AM21447-02	43,219
RAICH, PETER C.....	SUPPRESSOR T-CELLS IN MALIGNANT LYMPHOMA.....	5R01 CA25072-02	52,566
RAICH, PETER C.....	CANCER AND LEUKEMIA GROUP B.....	1R10 CA28652-01	79,287
REASOR, MARK J.....	EFFECTS OF AMPHIPHILIC DRUGS ON ALVEOLAR MACROPHAGES.....	5R01 HL24305-02	33,142
REYER, RANDALL W.....	LENS AND NEURAL RETINA DEVELOPMENT AND REGENERATION.....	5R01 EY00196-23	28,646
ROWLES, GRAHAM D.....	THE GEOGRAPHICAL EXPERIENCE OF THE ELDERLY.....	5R23 AG00862-03	43,336
SANDER, EUGENE G.....	BIOCHEMICAL MECHANISMS OF PYRIMIDINE ALKYLATION.....	5R01 CA21167-04	8,808
SANDER, EUGENE G.....	NUTRITIONAL ROLE OF VITAMIN K: K DEPENDENT CARBOXYLASE.....	1R01 HL25051-01	82,294
STAUBER, WILLIAM T.....	LYSOSOMAL IMPAIRMENT IN HYPERTENSIVE VASCULAR SM MUSCLE.....	5R01 HL25388-02	45,472
STRATFORD, EUGENE S.....	SYNTHESIS OF POTENTIAL NEW ANTICONVULSANT COMPOUNDS.....	5R01 NS15442-02	19,349
TRYFIATES, GEORGE P.....	A NOVEL VITAMIN B6 METABOLITE IN HEPATOMAS.....	1R01 CA28140-01A1	48,084
WATNE, ALVIN L.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA19530-05	66,547
WIMMER, MARY J.....	MECHANISMS OF ENERGY-COUPLED ATP SYNTHESIS/HYDROLYSIS.....	5R01 GM26334-02	56,281
WIMMER, MARY J.....	MASS SPECTROMETRIC APPROACHES TO BIOCHEMICAL PROBLEMS.....	5P41 GM27514-02	20,325
WIRTZ, GEORGE H.....	RADIOIMMUNOASSAY OF A FAT SOLUBLE VITAMIN.....	3R01 AM19716-02S1	4,626
ORGANIZATION TOTAL	38	1,797,323	
SHEPHERDSTOWN			
SHEPHERD COLLEGE ZIP CODE 25443			
FIALA, SILVIO E.....	THE ROLE OF CARCINOGEN IN NUCLEIC ACID METABOLISM.....	2R01 CA14084-08	38,818
ORGANIZATION TOTAL	1	38,818	
STATE TOTAL	39	1,836,141	
WISCONSIN			
GREEN BAY			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-GREEN BAY ZIP CODE 54302			
SAGER, DOROTHEA B.....	PCBS IN LACTATION: OFFSPRING REPRODUCTION & BEHAVIOR.....	1R01 ES02279-01	39,827
ORGANIZATION TOTAL	1	39,827	
KENOSHA			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-PARKSIDE ZIP CODE 53141			
MARRON, MICHAEL T.....	ELECTROMAGNETIC FIELD EFFECTS ON THE CELL MEMBRANE.....	1R01 ES02319-01	28,485
ORGANIZATION TOTAL	1	28,485	
MADISON			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
ABBS, JAMES H.....	NEUROGENIC SPEECH DISORDERS.....	2P01 NS13274-04	701,735
ABBS, JAMES H.....	SPEECH MOVEMENT RESEARCH WITH AN X-RAY MICROBEAM.....	1P01 NS16373-01	1,036,794
ADLER, JULIUS.....	BEHAVIOR OF BACTERIA—BIOCHEMISTRY AND GENETICS.....	5R01 AI08746-12	96,380
ALLEN, CAROL A.....	THE STRUCTURAL BASIS OF TISSUE CELL MOTILITY.....	5R01 GM25133-03	34,547
AMIDON, GORDON L.....	DRUG ABSORPTION THROUGH MEMBRANE METABOLISM.....	1R01 GM27680-01	50,219
ANDERSON, LAURENS.....	CHEMICAL SYNTHESIS OF OLIGOSACCHARIDES.....	5R01 AM10588-15	65,541
ATLEE, JOHN L.....	CARDIAC CONDUCTION AND ARRHYTHMIAS DURING ANESTHESIA.....	5R23 GM25064-03	40,604
AUERBACH, ROBERT.....	DEVELOPMENT OF IMMUNITY.....	5R01 AI14607-03	95,786
AUERBACH, ROBERT.....	ANGIOGENESIS IN THE MOUSE EYE.....	5R01 EY03243-02	62,505
AX, ROY L.....	FSH CONTROL OF OVARIAN PROTEOGLYCAN SYNTHESIS.....	1R01 HD13964-01	69,208
AZEN, EDWIN A.....	GENETIC POLYMORPHISMS OF SALIVA.....	2R01 DE03658-16	67,378
BABCOCK, DONNER F.....	HORMONE-RESPONSIVE CA2ION LOCALIZATION IN HEPATOCYTES.....	1R23 AM26277-01	40,257
BACH, FRITZ H.....	ORGAN TRANSPLANTATION STUDIES.....	5R01 AI15588-02	234,476
BALISH, EDWARD.....	IMMUNITY TO CANDIDA ALBICANS IN NUDE MICE.....	5R01 AI14537-02	71,475
BALISH, EDWARD.....	IMMUNITY TO DERMATOPHYTES.....	5R01 AI15119-02	75,358
BALL, LAURENCE A.....	MECHANISM OF ACTION OF INTERFERON.....	5R01 AI16356-02	65,546

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
BASS, PAUL	MOTOR, ELECTRIC PROPERTIES OF STOMACH AND SMALL BOWEL	5R01 AM15417-07	43,308
BAVISTER, BARRY D	PHYSIOLOGICAL AND BIOCHEMICAL STUDY OF SPERM MOTILITY	5R01 HD14235-02	43,752
BECK, STANLEY D	PHOTOPERIODIC REGULATION OF INSECT DEVELOPMENT	1R01 GM28012-01	61,782
BEINERT, HELMUT	COMPONENTS AND PATHWAYS IN BIOLOGICAL OXIDATIONS	5R01 GM12394-17	103,017
BELZER, FOLKERT O	ORGAN PRESERVATION STUDIES	5R01 AM18624-05	108,553
BELZER, FOLKERT O	IMPROVED MATCHING TECHNIQUES IN RENAL TRANSPLANTATION	5R01 AM21579-03	89,107
BENEVENGA, NORLIN J	EFFECT OF AGE ON SULFUR AMINO ACID METABOLISM	2R01 AM15227-09	46,292
BENJAMIN, ROBERT M	AUTONOMIC AND NEURAL CORRELATES OF OLFACTORY STIMULI	5R01 NS15591-02	68,989
BERGDOLL, MERLIN S	PURIFICATION AND CHEMISTRY OF THE ENTEROTOXINS	5R01 AI07615-14	72,934
BERSU, EDWARD T	DEVELOPMENTAL STUDIES OF THE TRISOMY 19 MOUSE	1R01 HD13952-01	38,854
BISGARD, GERALD E	PERIPHERAL AND CENTRAL VENTILATORY CONTROL	5R01 HL15473-06	62,703
BLATTNER, FREDERICK R	REGULATORY SITES IN PRO- AND EUKARYOTIC GENOMES	2R01 GM21812-06	168,297
BLATTNER, FREDERICK R	APPLICATION OF MICROPROCESSORS TO NUCLEIC ACID DATA	1R01 GM28252-01	42,940
BLEIER, RUTH H	HYPOTHALAMIC CYTOARCHITECTONICS AND SEXUAL DIMORPHISM	1R01 NS16643-01	43,341
BOCK, ROBERT M	REGIONAL PRIMATE RESEARCH CENTER SUPPORT	5P51 RR00167-20	2,255,872
BOCK, ROBERT M	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07098-15	195,787
BORDEN, ERNEST C	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA18397-06	147,229
BORISY, GARY G	MECHANISM AND CONTROL OF MICROTUBULE ASSEMBLY	5R01 GM25062-03	111,225
BOWMAN, ROBERT E	EFFECTS OF LEAD ON FETAL AND NEONATAL DEVELOPMENT	5R01 ES01062-06	134,527
BOWMAN, ROBERT E	EFFECTS OF PCBs ON FETAL AND NEONATAL DEVELOPMENT	5R01 ES01847-03	131,081
BOWND, M DERIC	MOLECULAR BIOLOGY OF VISUAL RECEPTOR OUTER SEGMENTS	5R01 EY00463-12	121,243
BREMEL, ROBERT D	OXYTOCIN IN EXCITATION-CONTRACTION COUPLING	5R01 HD09764-05	69,436
BRESNICK, GEORGE H	ELECTRORETINOGRAPHIC STUDIES IN DIABETIC RETINOPATHY	5R01 EY03084-02	94,386
BRILL, WINSTON J	MOLYBDENUM METABOLISM	5R01 GM22130-06	76,990
BRYAN, GEORGE T	CARCINOGENICITY AND METABOLISM OF 5-NITROFURANS	5R01 CA11946-10	78,595
BRYAN, GEORGE T	METABOLIC FACTORS INVOLVED IN BLADDER CARCINOGENESIS	3R26 CA14524-06S1	50,982
BUCKNER, CARL K	AUTONOMIC RECEPTORS OF THE PULMONARY VASCULATURE	5R01 HL23209-03	38,855
BUMPASS, LARRY L	CENTER FOR POPULATION RESEARCH	5P30 HD05876-10	405,721
BURGER, WARREN C	CHOLESTEROL REGULATION BY CEREALS AND FUNGAL PRODUCTS	1R01 HL25591-01	61,758
BURRIS, ROBERT H	BIOLOGICAL FIXATION OF NITROGEN BY MICROORGANISMS	5R01 AI00848-25	54,478
BUSSE, WILLIAM W	MECHANISMS OF VIRUS INDUCED ASTHMA	5R01 AI15685-02	86,591
CARBONE, PAUL P	CANCER CENTER SUPPORT (COMPREHENSIVE)	2P30 CA14520-08	1,452,438
CARBONE, PAUL P	CLINICAL ONCOLOGY (MULTIDISCIPLINARY)	5P01 CA20432-04	684,995
CARBONE, PAUL P	EASTERN COOPERATIVE ONCOLOGY-WISCONSIN STUDIES	5R10 CA21076-05	325,046
CARBONE, PAUL P	EASTERN COOPERATIVE ONCOLOGY GROUP OPERATIONS OFFICE	5R10 CA21115-05	832,138
CHAMBLISS, GLENN H	TRANSCRIPTION AND TRANSLATION BY B. SUBTILIS EXTRACTS	1R01 AI16812-01	71,521
CHESNEY, RUSSELL W	INDUCERS OF MATURATION OF RENAL AMINO ACID TRANSPORT	5R01 AM19489-03	54,967
CHU, FUN S	IMMUNOCHEMICAL STUDIES ON CARCINOGENIC MYCOTOXINS	5R01 CA15064-08	46,469
CLARK, ALLEN W	TRANSMITTER RELEASE FROM THE NEUROMUSCULAR JUNCTION	5R01 NS11445-06	47,704
CLELAND, CHARLES S	BEHAVIORAL MANAGEMENT OF PARKINSONIAN SYMPTOMS	1R01 NS15796-01A1	113,466
CLELAND, W WALLACE	DETERMINATION OF ENZYME MECHANISMS BY KINETIC STUDIES	5R01 GM18938-09	81,230
CLIFTON, KELLY H	RADIATION IN VITRO-MAMMARY NEOPLASM CELL SURVIVAL	5R01 CA13881-08	132,722
CLOUGH, FRED W	SYNTHESIS OF 2'-DEOXY C-NUCLEOSIDES	1R23 CA28199-01	44,072
COLAS, ANTONIO E	BIOCHEMICAL AND CLINICAL ASPECTS OF STEROID RECEPTORS	5R01 CA23921-02	44,478
COLEMAN, WILLIAM	THE FRENCH VIEW OF YELLOW FEVER	1R01 LM03474-01	12,663
COOPER, STUART L	PROTEIN AND THROMBUS DEPOSITION ON VASCULAR GRAFTS	5R01 HL21001-03	70,427
COOPER, STUART L	TRANSIENT THROMBOTIC EVENTS AT POLYMERIC SURFACES	5R01 HL24046-02	82,324
CRAIG, ELIZABETH A	CHARACTERIZATION OF TRANSCRIPTIONALLY REGULATED GENES	1R01 GM27870-01	77,734
CRIVEN, GARY R	THE STRUCTURE AND ASSEMBLY OF THE 30S RIBOSOME	5R01 GM24109-04	126,518
CRIPPS, DEREK J	ACTION SPECTRA AND BIOCHEMISTRY OF PHOTODERMATOSES	5R01 AM09995-15	54,035
CROW, JAMES F	HIGH MUTABILITY AND HYBRID DYSGENESIS	1R01 GM27867-01	82,350
CROW, JAMES F	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05435-19	193,787
CULBERTSON, MICHAEL R	FRAMESHIFT SUPPRESSORS AND TRANSFER RNA IN YEAST	5R01 GM26217-02	47,499
DAHLBERG, JAMES E	SMALL RNAs OF RNA TUMOR VIRUSES	5R01 CA15166-07	92,393
DAVIES, JULIAN E	MECHANISMS OF ANTIBIOTIC RESISTANCE IN MICROORGANISMS	5R01 AI10076-14	107,703
DAVIES, JULIAN E	MACROMOLECULAR SYNTHESIS IN YEAST-GENETICS/BIOCHEMISTRY	5R01 AI12448-07	59,422
DAVIS, GARY A	CAMP AND CATECHOLAMINES IN REPRODUCTIVE FUNCTION	5R01 HD11515-03	41,013
DAVIS, LARRY D	CELLULAR POTENTIAL CHANGES CAUSING CARDIAC ARRHYTHMIA	5R01 HL13375-11	12,382
DE FOLIART, GENE R	TRANSMISSION AND CONTROL OF CALIFORNIA-GROUP VIRUSES	5R01 AI07453-14	60,091
DE LUCA, HECTOR F	METABOLISM AND FUNCTION OF THE FAT-SOLUBLE VITAMINS	3P01 AM14881-09S1	57,198
DE LUCA, HECTOR F	METABOLISM AND FUNCTION OF THE FAT-SOLUBLE VITAMINS	2P01 AM14881-10	385,296

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
DE MARS, ROBERT I.	T LYMPHOCYTE HYBRIDS AND LYMPHOBLASTOID VARIANTS	5R01 AI15486-02	98,815
DE MARS, ROBERT I.	GENETIC STUDIES WITH CULTIVATED MAMMALIAN CELLS	2R01 GM06983-21	160,175
DE VENECIA, GUILLERMO B.	PRIMATE RETINA AND CHOROID IN MALIGNANT HYPERTENSION	3R01 EY02034-03S1	4,452
DEBERG, JOHN E.	IMMUNOGENETIC STUDIES OF A SPERM ENZYME PGK-B	5R01 HD11200-03	65,507
DEMPSEY, JEROME A.	HUMAN VENTILATORY ADAPTATION	2R01 HL15469-08	74,295
DEMPSEY, JEROME A.	NEUROPHYSIOLOGY OF CHEMORECEPTORS IN CHRONIC HYPOXIA	5R01 HL24429-02	28,410
DENNIS, WARREN H.	ROLE OF MEMBRANE LIPIDS IN HYPERTHERMIC KILLING	5R01 CA23754-03	48,985
DENNIS, WARREN H.	MEMBRANE COMPOSITION AND HYPERTHERMIC CELL DEATH	5R01 CA24872-02	32,122
DEUTSCH, HAROLD F.	HUMAN BLOOD AND TISSUE PROTEINS	5R01 CA01786-26	130,976
DIMOND, RANDALL L.	REGULATION OF DIVERGENT PATHWAYS OF DEVELOPMENT	5R01 GM26632-02	90,589
EBENHOLTZ, SHELDON M.	DETERMINANTS OF PERCEPTUAL ORIENTATION	5R01 EY02264-03	38,960
EBENHOLTZ, SHELDON M.	STUDIES OF HYSTERESIS EFFECTS IN ACCOMMODATION	1R01 EY03421-01	49,738
ENGERMAN, RONALD L.	STUDY OF DIABETIC RETINOPATHY	5R01 EY00300-15	225,486
ENSIGN, JERALD C.	EXPLANATION OF WHY STREPTOMYCES PRODUCE ANTIBIOTICS	2R01 AI13948-04	86,744
EPSTEIN, MILES L.	ROLE OF DEVELOPING SEROTONIN NEURON IN GUT MOTILITY	1R01 NS16280-01	55,505
EVENSON, MERLE A.	PATHOBIOLOGICAL RESPONSE OF PRIMATES TO BIPHENYLS	3R01 ES00958-05S1	114,806
EVENSON, MERLE A.	IMPLICATIONS OF LOW LEVEL EXPOSURE TO DIOXINS	5R01 ES01339-04	121,852
EVENSON, MERLE A.	RESPONSE OF PRIMATES TO POLYBROMINATED BIPHENYLS	5R01 ES01943-03	81,706
FAHLEN, LEONARD A.	REGULATION OF MAMMALIAN AMINO ACID METABOLISM	5R01 AM17587-06	64,175
FAHNSTOCK, STEPHEN R.	RIBOSOME STRUCTURE AND FUNCTION	1R01 GM28003-01	76,155
FAHNSTOCK, STEPHEN R.	RIBOSOMAL CONTROL OF FIDELITY OF PROTEIN SYNTHESIS	1R01 GM28004-01	66,537
FARRELL, PHILIP M.	FETAL LUNG DEVELOPMENT IN THE DIABETIC PREGNANCY	5R01 HD11429-03	94,978
FERRY, JOHN D.	VISCOELASTIC PROPERTIES OF BIOLOGICAL MACROMOLECULES	5R01 GM21652-06	49,560
FILLINGAME, ROBERT H.	PROTON-TRANSLLOCATING SECTOR OF E. COLI ATPASE COMPLEX	5R01 GM23105-05	44,831
FRIEDMAN, RICHARD B.	EXPLORATORY STUDIES ON CANCER PATIENT DATA CONTROL	2R10 CA21077-04	90,849
GANEZKY, BARRY S.	NEUROGENETICS OF TS-PARALYTIC MUTANTS	5R01 NS15390-02	65,765
GANTHER, HOWARD E.	ORGANOSULFENIUM COMPOUNDS: BIOSYNTHESIS AND FUNCTION	5R01 AM14184-11	83,112
GIBBONS, WILLIAM A.	STRUCTURE, SPECTROSCOPY, AND FUNCTION OF NEUROPEPTIDES	9R01 GM28826-06	92,578
GILBERT, ENID F.	MECHANISMS OF CARDIOVASCULAR TERATOGENESIS	5R01 HL18050-06	80,648
GILBOE, DAVID D.	METABOLISM OF THE BRAIN	2R01 NS05961-15	169,021
GOLDFARB, STANLEY	CHOLESTEROL METABOLISM IN HEPATIC NEOPLASMS	3R01 CA15664-06S1	8,348
GOLDSTEIN, ROBERT	AUTOMATED THRESHOLD AUDIOMETRY	5R01 NS09278-08	98,057
GORSKI, JACK	PROLACTIN IN NORMAL AND NEOPLASTIC PITUITARY TISSUE	5R01 CA18110-06	56,010
GORSKI, JACK	ESTROGEN REGULATION OF UTERINE GROWTH AND FUNCTION	5R01 HD08192-08	138,328
GRAHAM, FRANCES K.	SHORT-TIME AND ORIENTING SYSTEMS IN INFANCY	5R01 HD01490-13	51,403
GRAZIANO, FRANK M.	REGULATION OF BASOPHILS IN DELAYED HYPERSENSITIVITY	1R23 AI16331-01A1	40,470
GREASER, MARION L.	CRYSTALLOGRAPHY AND BIOCHEMISTRY OF TROPONIN	2R01 HL18612-04A1	68,087
GREGER, JANET L.	EFFECT OF ALUMINUM & TIN ON HUMAN MINERAL METABOLISM	5R01 AM25666-02	45,978
GREIST, JOHN H.	COMPUTER-BASED, INTERACTIVE MEDICAL KNOWLEDGE CENTER	1R01 LM03713-01	100,280
HABERLY, LEWIS B.	NEURONAL INTEGRATION IN THE PIRIFORM CORTEX	5R01 NS15004-02	27,686
HALL, TIMOTHY C.	INFECTIVE ROLE OF AMINO ACID BINDING BY VIRAL RNA	2R01 AI11572-08	108,850
HARPER, ALFRED E.	EFFECTS OF ALTERED DIET AND PLASMA AMINO ACID PATTERN	5R01 AM10747-15	100,806
HARPER, ALFRED E.	EFFECT OF DIET AND HORMONES ON ENZYMES AND METABOLISM	5R01 AM10748-14	65,058
HARRINGTON, B. JANE	HEMATOPHAGOUS CLERADINI: SYSTEMATICS AND ZOOGEOGRAPHY	1R01 AI17152-01	15,017
HARTING, JOHN K.	CORTICAL EFFECTS OF SENSORY DEPRIVATION	2R01 EY01277-06	88,436
HAYES, COLLEEN E.	T LYMPHOCYTE-SPECIFIC IA ANTIGENS IN THE MOUSE	5R01 AI15728-02	50,485
HEBER, RICK F.	WISCONSIN CENTER ON MENTAL RETARDATION—CORE SUPPORT	5P30 HD03352-13	615,914
HECOX, KURT E.	HUMAN AUDITORY DEVELOPMENT-ELECTROPHYSIOLOGICAL MEASURES	1R01 NS16436-01	93,994
HINZE, HARRY C.	VACCINATION AGAINST AN ONCOGENIC HERPESVIRUS	2R01 CA21195-03	79,126
HOKIN, LOWELL E.	REGULATION OF NA-K-ATPASE—TURNOVER AND BIOGENESIS	5R01 GM26000-02	80,297
HOKIN, LOWELL E.	BIOCHEMISTRY AND PHARMACOLOGY OF NA-K TRANSPORT	5R01 HL16318-23	147,422
HONG, RICHARD	ALLERGIC DISEASE CENTER	5P50 AI10404-10	70,981
HONG, RICHARD	CLINICAL AND EXPERIMENTAL STUDIES OF CULTURED THYMUS	3R01 AI14354-03S1	35,683
HONG, RICHARD	STUDY AND THERAPY OF IMMUNE DEFICIENCY	5R01 HD07778-08	89,762
HOROWITZ, SHELDON D.	T CELL DIFFERENTIATION BY THYMIC POLYPEPTIDES	5R01 AI15723-02	49,254
HOWE, MARTHA M.	ANALYSIS OF INTEGRATION MECHANISM OF BACTERIOPHAGE MU	5R01 AI12731-05	50,530
HSIA, MONG-TSENG S.	TOXICOLOGY OF POLYCHLORINATED AZOXY AND AZOBENZENES	5R23 ES01737-03	29,694
HUTCHINSON, C. RICHARD	CHEMISTRY/METABOLISM OF NATURAL ANTITUMOR COMPOUNDS	5R01 CA17127-07	35,614
HUTCHINSON, C. RICHARD	ANTHRACYCLINE ANTIBIOTIC SYNTHESIS FROM NATURAL PRODUCTS	5R01 CA22937-03	56,282
HUTCHINSON, C. RICHARD	MEDICINAL CHEMISTRY OF ANTITUMOR IRIODIDS	1R01 CA25953-01A1	37,626
HUTCHINSON, C. RICHARD	STEREOCHEMISTRY OF POLYKETIDE ANTIBIOTIC BIOSYNTHESIS	5R01 GM25799-02	26,292

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
INMAN, ROSS B.	STRUCTURE AND REPLICATION OF DNA	5R01 GM14711-14	143,857
JEFCOATE, COLIN R.	CHOLESTEROL METABOLISM AND MITOCHONDRIAL CYTOCHROME P450	5R01 AM18585-05	56,731
JEFCOATE, COLIN R.	DNA MODIFICATION BY POLYCYCLIC HYDROCARBONS	2R01 CA16265-06	98,147
JONES, JEFFREY M.	RADIOIMMUNOASSAYS FOR DIAGNOSIS OF SEVERE CANDIDIASIS	5R01 AI15682-02	30,972
KAESBERG, PAUL J.	STRUCTURE OF BIOLOGICAL MACROMOLECULES	5R01 AI01466-24	96,623
KAESBERG, PAUL J.	TRANSLATION OF RNA VIRUS MESSENGERS	5R01 AI15342-07	110,867
KAHAN, LAWRENCE	IMMUNOCHEMICAL ANALYSIS OF 30S RIBOSOME STRUCTURE	5R01 GM22150-06	55,822
KAHAN, LAWRENCE	CELL SORTING CORE FACILITY	5P41 GM27408-02	15,000
KALIL, KATHERINE	DEVELOPMENTAL STUDIES OF THE MOTOR SYSTEM	5R01 NS14428-03	55,408
KALIL, RONALD E.	DEVELOPMENTAL STUDIES OF THE VISUAL SYSTEM	5R01 EY01331-07	99,721
KARAVOLAS, HARRY J.	STEROID BIOCHEMISTRY OF THE HYPOTHALAMIC-OVARIAN AXIS	5R01 HD05414-09	70,283
KAUFMAN, PAUL L.	ANTERIOR OCULAR SEGMENT PHYSIOLOGY AND PHARMACOLOGY	5R01 EY02698-02	56,220
KEESEY, RICHARD E.	PHYSIOLOGICAL REGULATION OF BODY WEIGHT	2R01 AM19944-16	79,854
KENDRICK, JOHN E.	NEURAL INTEGRATION OF THE CARDIOVASCULAR REFLEXES	5R01 HL22715-03	32,789
KLEIN, RONALD	EPIDEMIOLOGICAL STUDY OF DIABETIC RETINOPATHY	5R01 EY03083-02	144,023
KLOTZ, JEROME H.	STATISTICAL PROBLEMS IN CLINICAL CANCER RESEARCH	5R01 CA18332-06	69,044
KUNG, CHING	GENETIC AND BIOCHEMICAL STUDIES OF PARAMECIUM BEHAVIOR	2R01 GM22714-06	205,522
LAISHES, BRIAN A.	PROLIFERATION CONTROL DURING HEPATOCARCINOGENESIS	5R01 CA24818-02	48,230
LARDY, HENRY A.	CONTROL PROCESSES IN MAMMALIAN CELLS	5R01 AM10334-15	277,406
LEMANSKI, LARRY F.	GENETIC CARDIOMYOPATHIES IN VERTEBRATES	5R01 HL22550-04	84,477
LEVENTHAL, HOWARD	PATIENT EDUCATION FOR HYPERTENSION CONTROL	5R01 HL24543-02	208,797
LIEBERMAN, MARA E.	REGULATION OF PROLACTIN AND GROWTH HORMONE SYNTHESIS	5R01 AM25694-02	70,570
LIPTON, BRUCE H.	SATELLITE CELLS AND REGENERATION IN DYSTROPHIC MUSCLE	5R01 NS12171-05	50,326
LIPTON, PETER	K/ION ACTIVATED PROTEIN SYNTHESIS ON BRAIN CELL FUNCTION	5R01 NS14175-03	33,183
LIPTON, PETER	HYPOXIC BLOCK OF SYNAPTIC TRANSMISSION IN HIPPOCAMPUS	1R01 NS15878-01	44,584
MACDONALD, MAURICE M.	RELATIVE INCOME AND FERTILITY: LONGITUDINAL ANALYSIS	5R01 HD10751-03	16,959
MANNING, DEAN D.	MECHANISM AND USES OF ANTI-IG IMMUNOSUPPRESSION	5R01 CA17531-06	49,560
MARLETT, JUDITH A.	MEASURING DIETARY FIBER	5R01 AM21712-03	35,569
MARSH, RICHARD F.	SLOW INFECTION BY CONVENTIONAL/UNCONVENTIONAL VIRUSES	5R01 NS14822-08	133,355
MARTIN, THOMAS F.	HORMONAL REGULATION OF URIDINE UPTAKE IN ANIMAL CELLS	5R01 AM25861-02	44,541
MC BEATH, ANDREW A.	EFFECT OF 1,25(OH) ₂ D ₃ & CALCITONIN ON FRACTURE REPAIR	1R01 AM25689-01A1	57,632
MC CLAIN, WILLIAM H.	GENETIC ANALYSIS OF TRNA'S CODED BY PHAGE T4	5R01 AI10257-09	169,980
MELLON, WILLIAM S.	REGULATION OF VITAMIN D ACTION IN ITS TARGET TISSUES	1R01 AM27234-01	47,084
METZENBERG, ROBERT L, JR.	THE GENETIC CONTROL OF PROTEIN SYNTHESIS	5R01 GM08995-19	74,757
MILLER, JAMES A.	BIOCHEMICAL STUDIES IN CHEMICAL CARCINOGENESIS	5P01 CA22484-03	872,697
MONTERO, VICENTE M.	NORMAL AND ABNORMAL VISUAL PATHWAYS IN MAMMALS	5R01 EY02877-02	82,724
MORGAN, WILLIAM P.	QUALITY OF LIFE AND HEALTH STATUS OF FORMER ATHLETES	1R01 HL25786-01	34,764
MOSHER, DEANE F, JR.	STUDIES OF FIBRONECTIN AND RELATED GLYCOPROTEINS	5R01 HL21644-03	59,003
MOSHER, DEANE F, JR.	ISOLATION OF FIBRONECTIN FOR THERAPEUTIC USE	5R01 HL24885-02	63,029
MOSS, RICHARD L.	MECHANICAL PROPERTIES OF CA-ACTIVATED HEART MUSCLE	1R01 HL25861-01	55,499
MUELLER, GERALD C.	REGULATORY MECHANISMS IN TUMOR BIOLOGY	5P01 CA23076-03	1,140,902
MUKERJEE, PASUPATI	MICROENVIRONMENTAL STUDIES ON PHOSPHOLIPID SYSTEMS	5R01 GM26078-02	28,742
MUNKRES, KENNETH D.	MOLECULAR BIOLOGY OF INFORMATION TRANSFER DURING AGING	5R01 AG00930-02	51,353
NELSEN, STEPHEN F.	RADICAL ION REACTION	5R01 GM25428-03	29,988
NOMURA, MASAYASU	GENETICS AND BIOCHEMISTRY OF RIBOSOME BIOSYNTHESIS	5R01 GM20427-08	214,863
NORRIS, DALE M.	STEROIDAL HORMONE DEFICIENCY AND ACCELERATED AGING	5R01 AG01271-02	45,595
NORTHROP, DEXTER B.	KINETIC MECHANISMS OF ANTIBIOTIC INACTIVATING ENZYMES	5R01 AI11603-05	35,446
ODELL, GERARD B.	MATURATION OF LIVER FOR THE METABOLISM OF BILIRUBIN	5R01 AM21668-04	94,494
OLSEN, WARD A.	INTESTINAL MUCOSAL FUNCTION IN DIABETES	5R01 AM13927-11	33,097
OLSON, EARL B, JR.	METABOLISM IN PERFUSED FETAL AND NEWBORN RABBIT LUNGS	5R01 HL18952-05	37,324
ORSINI, MARGARET W.	ENDOCRINOLOGY AND MORPHOLOGY OF HAMSTER IMPLANTATION	5R01 HD12683-02	63,062
PAMUKCU, A M.	URINARY BLADDER CARCINOGENESIS BY BRACKEN FERN	5R26 CA14523-07	109,610
PARASCANDOLA, JOHN L.	JOHN ABEL & THE DEVELOPMENT OF AMERICAN PHARMACOLOGY	5R01 LM03300-02	8,937
PARIZA, MICHAEL W.	MODE OF ACTION OF CLOSTRIDIUM PERFRINGENS ENTEROTOXIN	5R01 AI15693-02	42,708
PATE, JACK L.	BIOLOGY OF ASTICCACALUS BIPROSTHECUM	5R01 GM19859-08	49,142
PETERSON, RICHARD E.	ENVIRONMENTAL POLLUTANTS AND TOXICOLOGY OF THE LIVER	5R01 ES01332-06	53,760
PETERSON, RICHARD E.	TOXICOLOGY OF DITHIOBIURET AND ENVIRONMENTAL AGENTS	1R01 ES01906-01A1	51,625
PILIAVIN, JANE A.	DEVELOPING COMMITMENT TO ALTRUISTIC BLOOD DONATION	5R01 HL24425-02	54,827
PITOT, HENRY C.	CANCER RESEARCH AT THE MC ARDLE LABORATORY	5P30 CA07175-17	1,567,962
POLAND, ALAN P.	TOXICOLOGY OF CHLORINATED DIBENZO-P-DIOXINS	5R01 ES01884-04	65,233
PORTER, JOHN W.	ENZYMATIC SYNTHESIS OF FATTY ACIDS AND CHOLESTEROL	5R01 AM01383-24	102,988

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
PORTER, JOHN W.	REGULATION OF LIPOGENESIS BY INSULIN AND GLUCAGON	5R01 AM21148-04	55,918
PORTER, JOHN W.	REGULATION OF LIPID BIOSYNTHESIS AND TRANSPORT	5R01 HL16364-06	47,729
POTTER, VAN R.	ONCOGENY AS BLOCKED ONTOGENY: STUDIES OF LIVER CANCER	5R01 CA17334-05	152,839
RAETZ, CHRISTIAN R.	SYNTHESIS AND FUNCTION OF MEMBRANE PHOSPHOLIPIDS	2R01 AM19551-04	82,340
RAETZ, CHRISTIAN R.	BIOGENESIS OF MEMBRANE LIPIDS IN ANIMAL CELLS	5R01 AM21722-03	56,308
RECORD, M. THOMAS, JR.	ION EFFECTS ON INTERACTIONS OF RNA POLYMERASE & DNA	2R01 GM23467-04	74,658
REICH, HANS J.	THE CHEMISTRY OF SELENIC ACIDS	5R01 AM23042-02	38,425
REZNIKOFF, CATHERINE A.	TRANSFORMATION IN VITRO OF HUMAN URINARY TRACT CELLS	1R26 CA29525-01	40,754
REZNIKOFF, WILLIAM S.	PROMOTER AND TRANSPOSON STRUCTURAL STUDIES	2R01 GM19670-08	102,499
RICH, DANIEL H.	STUDIES OF ENZYME SUBSTRATES AND INHIBITORS	5R01 AM20100-02	55,801
RICH, DANIEL H.	CYTOSTATIC CYCLIC PEPTIDES: SYNTHESIS AND MECHANISM	1R01 CA27985-01	55,682
RICH, DANIEL H.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05456-18	42,076
RIS, HANS	SUBMICROSCOPIC ORGANIZATION OF CHROMOSOMES	5R01 GM04738-25	71,923
RIS, HANS	ELECTRON MICROSCOPE FACILITY FOR BIOMEDICAL RESEARCH	2P41 RR00570-10	291,778
ROBINSON, JERRY A.	CHANGES IN THE REPRODUCTIVE SYSTEMS OF AGED MONKEYS	5R01 AG01612-02	60,505
ROSE, DAVID P.	PITUITARY AND THYROID FUNCTION IN BREAST CANCER	5R01 CA17579-06	44,460
ROWND, ROBERT H.	THE CONTROL OF THE REPLICATION OF BACTERIAL EPISOMES	5R01 GM14398-15	138,288
ROWND, ROBERT H.	ORGANIZATION AND REPLICATION OF YEAST RIBOSOMAL DNA	5R01 GM26527-02	84,276
RUECKERT, ROLAND R.	STRUCTURE AND SYNTHESIS OF AVIAN RNA TUMOR VIRUSES	5R01 CA08662-14	83,065
RUOHO, ARNOLD E.	MOLECULAR CHARACTERIZATION OF BETA-ADRENERGIC RECEPTORS	5R01 NS12392-06	60,265
SAUTER, STEVEN L.	BEHAVIORAL COMPONENTS OF THE SMOKING WITHDRAWAL SYNDROME	5R23 ES02105-02	43,691
SCHULTZ, EDWARD	SATELLITE CELLS, REGENERATION POTENTIAL AND OLD AGE	1R01 AG01686-01A1	64,600
SHAHIDI, NASRULLAH T.	CHILDREN'S CANCER STUDY GROUP A	5R10 CA05436-20	68,901
SHANAHAN, MICHAEL F.	EFFECTS OF INSULIN ON HEXOSE TRANSPORT IN SARCOLEMMA	5R23 AM26093-02	38,353
SHAPIRO, SANDER S.	INDUCTION OF PROTEIN SYNTHESIS IN HUMAN ENDOMETRIUM	5R01 HD11726-03	26,485
SHRAGO, EARL S.	CONTROL MECHANISMS IN INTERMEDIARY METABOLISM	2R01 GM14033-14	63,090
SHUG, AUSTIN L.	METABOLIC CHANGE DURING CARDIAC ISCHEMIA	5R01 HL17736-06	93,459
SIEGEL, FRANK L.	EFFECTS OF HYPERTHERMIA ON MAMMALIAN DEVELOPMENT	5R01 HD12001-03	64,243
SIEGEL, FRANK L.	CALCIUM-BINDING PROTEINS IN NERVOUS TISSUE	5R01 NS11652-07	78,224
SIH, CHARLES J.	PROSTAGLANDINS AND OTHER PHYSIOLOGICALLY-ACTIVE LIPIDS	3R01 AM09688-15S1	32,512
SIH, CHARLES J.	MICROBIAL DEGRADATION OF STEROL SIDE CHAINS	1R01 GM26838-01	69,411
SIH, CHARLES J.	THE USE OF MICROBIAL SYSTEMS IN ORGANIC SYNTHESIS	1R01 HL25772-01	79,600
SIMPSON, DAVID P.	ACID-BASE BALANCE REGULATION OF RENAL METABOLISM	5R01 AM18351-06	107,345
SMITH, DEAN O.	SYNAPTIC STRUCTURE AND FUNCTION DURING SENEESCENCE	5R01 AG01572-02	18,857
SMITH, DEAN O.	MECHANISMS OF AXON CONDUCTION FAILURE	2R01 NS13600-04	57,160
SMITH, EVERETT L.	EXERCISE, A MODALITY FOR BONE ACCRETION IN THE AGED	5R01 AG01029-02	71,849
SMITHIES, OLIVER	DNA CONTROLLING THE SYNTHESIS OF HUMAN HEMOGLOBINS F & A	5R01 AM20120-04	90,523
SMITHIES, OLIVER	GENETIC CONTROL OF PROTEIN STRUCTURE AND SYNTHESIS	5R01 GM20069-08	184,288
SOKKOWICZ, HANNA M.	NEURONAL PATTERNS AND SYNAPSES IN CULTURED COCHLEA	5R01 NS15061-02	73,575
SPEAR, PETER D.	VISUAL INTEGRATION IN THE BRAIN	2R01 EY01916-05	70,691
SPEAR, PETER D.	BINOCULAR INTERACTIONS IN VISUAL SYSTEM DEVELOPMENT	5R01 EY02545-03	46,051
STEELE, THOMAS H.	THE SPONTANEOUSLY HYPERTENSIVE KIDNEY	5R01 HL22836-03	55,857
STONE, WILLIAM H.	IMMUNOGENETICS AND REPRODUCTION IN RHESUS MONKEYS	5R01 HD07385-07	89,553
STONE, WILLIAM H.	MEASURE OF INBREEDING IN NONHUMAN PRIMATES	5R24 RR01216-02	33,501
STRETTON, ANTONY O.	PHYSIOLOGICAL STUDIES OF A PARASITIC NEMATODE	5R01 AI15429-02	73,570
STRETTON, ANTONY O.	ACETYLCHOLINE FUNCTIONS IN NEMATODE ASCARIS	5R01 AI15890-02	49,070
STROTHER, CHARLES M.	COMPUTERIZED FLUOROSCOPY IN CAROTID ANGIOGRAPHY	1R01 HL26001-01	128,602
SUGIYAMA, HIROSHI	MICE AS MODEL FOR STUDYING BOTULISM OF HUMAN INFANTS	5R01 AI15336-02	43,150
SUGIYAMA, HIROSHI	STRUCTURE-TOXICITY RELATIONSHIP OF BOTULINUM TOXIN	2R01 ES01822-07	38,206
SUNDARALINGAM, MUTTAIYA	X-RAY STUDIES OF NUCLEIC ACID CONSTITUENTS	5R01 GM17378-11	61,215
SUNDARALINGAM, MUTTAIYA	X-RAY DIFFRACTION STUDIES OF RIBONUCLEIC ACIDS	5R01 GM18455-07	75,220
SUNDHARADAS, GNANASIGAMONI	STUDIES OF A TUMOR FACTOR THAT AFFECTS MACROPHAGES	1R01 CA24916-01A1	75,040
SUTTIE, JOHN W.	PEPTIDE SUBSTRATES TO STUDY VITAMIN K ACTION	5R01 AM21472-03	42,487
SWEET, JAMES A.	POST-1970 FERTILITY TRENDS & DIFFERENTIALS IN THE US	1R01 HD13824-01	26,840
SWICK, ROBERT W.	ISOZYME INTERRELATIONSHIPS IN GLUCONEOGENESIS	5R01 AM19215-03	29,570
TAEUBER, KARL E.	MIGRATION AND REDISTRIBUTION: SMSA DETERMINANTS	5R01 HD10666-03	63,917
TEMIN, HOWARD M.	MOLECULAR BIOLOGY AND GENETICS OF TUMOR VIRUSES	5P01 CA22443-03	447,806
TERASAWA, EI	HYPOTHALAMIC CONTROL OF PUBERTY	5R01 HD11355-03	46,271
THOMPSON, WAYNE H.	LA CROSSE ARBOVIRUS STUDIES IN FORESTED AREAS	5R22 AI11547-08	126,096
TIENDA, MARTA	CONTEXTUAL EFFECTS AND FERTILITY DIFFERENTIALS: PERU	1R01 HD13973-01	66,960
TOMPKINS, WILLIS J.	A MICROPROCESSOR-BASED NEONATAL APNEA MONITOR	1R01 HD14103-01	31,846

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
TORMEY, DOUGLASS C.	CEA AND FHAP AS BREAST CANCER MANAGEMENT PARAMETERS	1R01 CA26935-01	31,132
TROST, BARRY M.	NOVEL SYNTHETIC APPROACHES TO ANTITUMOR COMPOUNDS	2R01 CA20916-04	90,631
TROST, BARRY M.	MACROLIDES, STEROIDS, PROSTANOIDS, ETC.—SYNTHETIC DESIGN	5R01 GM13598-15	107,165
TULUNAY-KEESEY, ULKER	MOTION OF RETINAL IMAGE AND CONTRAST SENSITIVITY	5R01 EY02483-03	111,610
UEHLING, DAVID T.	BACTERIAL ADHERENCE IN URINARY TRACT INFECTIONS	5R01 AM21426-03	50,086
UPDIKE, STUART J.	IMMOBILIZED ENZYMES TO ALTER AND ANALYZE METABOLISM	5R01 GM16133-13	63,205
VAUGHAN, WORTH E.	ION AND POLYION DYNAMICS IN DNA SOLUTIONS	1R01 GM27651-01	27,305
VEDEJS, EDWIN	CYTOTOXIC MACROCYCLES: CYTOCHALASIN ANALOGS	5R01 CA17918-06	73,663
WALKER, DUARD L.	STUDY OF A NEW HUMAN PAPOVAVIRUS	5R01 AI11217-08	132,780
WALLOW, INGOLF H.	THE BLOOD-RETINAL BARRIER IN DIABETIC RETINOPATHY	5R01 EY01634-05	70,592
WEBSTER, JOHN G.	ORIGIN OF THE ELECTRICAL IMPEDANCE PULSE IN MAN	5R01 HL23442-02	29,472
WEBSTER, JOHN G.	PORTABLE ARRHYTHMIA MONITOR	1R01 HL25691-01	71,433
WEISMER, GARY G.	ACOUSTIC CHARACTERISTICS OF /S/-MISARTICULATION	7R01 NS17316-01	13,250
WELKER, WALLACE I.	TRIGEMINAL LOCALIZATION OF TACTILE CODING FUNCTION	5R01 NS14748-03	116,069
WELLING, PETER G.	FACTORS INFLUENCING GASTROINTESTINAL DRUG ABSORPTION	5R01 GM20327-05	47,789
WELLS, ROBERT D.	DNA STRUCTURE AND GENE REGULATION	5R01 CA20279-03	96,782
WHITLOCK, HOWARD W, JR.	A PRACTICAL SYNTHESIS OF DAUNOMYCIN	5R01 CA23837-03	39,098
WIRTANEN, GEORGE W.	MULTIDISCIPLINARY PROGRAM IN RADIATION ONCOLOGY	5P01 CA19278-05	682,533
WOOLSEY, CLINTON N.	TRAVEL SUPPORT TO IBRO-UNESCO WORKSHOP	1R13 NS16372-01	25,255
YATVIN, MILTON B.	ENGINEERING OF LIPOSOMES TO RELEASE DRUG BY HYPERTHERMIA	1R01 GM26227-01A1	47,375
YIN, TOM C.	CENTRAL NERVOUS SYSTEM CONTROL OF EYE MOVEMENTS	5R01 EY02606-03	68,471
YODA, ATSUNOBU	INTERACTION OF CARDIAC AGLYCONES WITH NA-K-ATPASE	3R01 HL16549-05S1	3,470
YUILL, THOMAS M.	WILDLIFE RESERVOIRS OF ARBOVIRUSES	5R01 AI00771-25	61,164
ZACHMAN, RICHARD D.	CONVERSION OF CHOLINE TO PHOSPHATIDYLCHOLINE IN LUNG	5R01 HL22500-03	27,439
ZACHMAN, RICHARD D.	PULMONARY UPTAKE OF LIPOSOMAL PHOSPHATIDYLCHOLINE	1R01 HL24387-01A1	43,095
ZAGZEBSKI, JAMES A.	DEVELOPMENT OF ULTRASONIC BREAST TISSUE PHANTOM	5R01 CA25634-02	62,460
ZIMMERMAN, HOWARD E.	PHOTOCHEMISTRY OF ORGANIC MOLECULES	2R01 GM07487-20	99,029
ZU RHEIN, GABRIELE M.	MORPHOLOGY OF CHRONIC VIRAL INFECTIONS OF THE BRAIN	5R01 NS11129-08	64,914
ORGANIZATION TOTAL	288 33,421,701		
MARSHFIELD			
MARSHFIELD MEDICAL FOUNDATION ZIP CODE 54449			
TEWKSBURY, DUANE A.	A BIOCHEMICAL STUDY OF ANGIOTENSINOGEN	5R01 HL23707-02	94,319
ORGANIZATION TOTAL	1 94,319		
MILWAUKEE			
BLOOD CENTER OF SOUTHEASTERN WISCONSIN ZIP CODE 53233			
ASTER, RICHARD H.	HEMORRHAGIC DISEASES	5R01 HL13629-11	130,481
DUQUESNOY, RENE J.	IMMUNOBIOLOGY OF HLA AND ITS CLINICAL APPLICATIONS	5R01 AI12507-06	103,562
ORGANIZATION TOTAL	2 234,043		
MARQUETTE UNIVERSITY ZIP CODE 53233			
COURTRIGHT, JAMES B.	GENETIC REGULATION OF TISSUE-SPECIFIC GENE EXPRESSION	1R01 GM27866-01	53,329
FITTS, ROBERT H.	ALTERATIONS IN SKELETAL MUSCLE WITH USE AND DISUSE	5R01 AM22037-02	77,191
IORIO, ROBERT J.	CRANIOFACIAL ABNORMALITIES IN VIT D RESISTANT RICKETS	5R01 DE05024-02	47,772
KUMARAN, A KRISHNA	GENETIC AND HORMONAL FACTORS IN DROSOPHILA AGING	5R01 AG01975-02	69,133
KUMARAN, A KRISHNA	BIOMEDICAL RESEARCH SUPPORT	1S07 RR07196-01	22,514
MUNROE, STEPHEN H.	RNA-PROTEIN COMPLEXES AND ADENOVIRUS NUCLEAR RNA	5R01 AI16042-02	53,359
ROSKA, A KAY	HYPERSENSITIVITY PNEUMONITIS IN GUINEA PIGS	5R23 HL21918-03	46,731
SADOWSKI, JAMES A.	MECHANISM OF COUMARIN INHIBITION OF VITAMIN K ACTION	1R01 AM27494-01	58,156
ORGANIZATION TOTAL	8 428,185		
MEDICAL COLLEGE OF WISCONSIN ZIP CODE 53226			
AMMON, HELMUT V.	BILE ACIDS, FATTY ACIDS AND INTESTINAL FUNCTION	5R01 AM17941-05	60,702
ANKEL, HELMUT K.	INTERFERON RECEPTORS	5R01 AI15007-02	98,373
AUER, HENRY E.	THE BETA PLEATED SHEET IN POLYPEPTIDES AND PROTEINS	5R01 GM26637-02	47,030
BARBORIAK, JOSEPH J.	LIPEMIAS AND RECONSTRUCTIVE CARDIAC SURGERY	5R01 HL14378-09	118,251
BUCKMIRE, FRANCIS L.	SPECIFIC ENVELOPE COMPONENTS OF H. INFLUENZAE TYPE B	5R01 AI13808-03	44,050

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
CALVANICO, NICKOLAS J.	STUDIES OF THE ALLERGENS OF ASPERGILLUS FUMIGATUS.	5R01 AI15700-02	50,972
CAMITTA, BRUCE M.	CANCER CENTER SUPPORT GRANT (SPECIALIZED)	3P30 CA17700-05S2	77,572
CASPER, JAMES T.	IMMUNOCOMPETENT CELLS IN ACUTE LYMPHOCYTIC LEUKEMIA	5R01 CA18602-06	134,400
CASPER, JAMES T.	CHILDHOOD NEUROBLASTOMA: ANTIGENIC CHARACTERISTICS	5R01 CA26226-02	66,906
CATLIN, B WESLEY	DEOXYRIBONUCLEIC ACIDS AND NUCLEASES OF BACTERIA	5R01 AI02353-23	64,677
CHUSID, MICHAEL J.	IN VIVO GRANULOCYTE FUNCTION AFTER TRANSFUSION	5R01 AI15454-02	65,563
COWLEY, ALLEN W, JR.	QUANTIFICATION OF NEUROHUMORAL ARTERIAL PRESSURE CONTROL	1R01 HL27285-01	136,104
COX, JAMES D.	CLINICAL CANCER EDUCATION GRANT	5R25 CA17986-05	103,153
DAVIS, STARKEY D.	EXPERIMENTAL PSEUDOMONAS KERATITIS.	5R01 EY01665-06	110,897
DAWSON, CHRISTOPHER A	PULMONARY HEMODYNAMICS	5R01 HL19298-05	41,105
DAWSON, CHRISTOPHER A	PULMONARY ABSORPTION OF INHALED SOLUBLE ANTIGENS	5R01 HL19733-05	44,068
DODDS, WYLIE J.	ESOPHAGEAL MOTION IN HEALTH AND DISEASE	5R01 AM15540-09	44,637
DODDS, WYLIE J.	GASTROESOPHAGEAL REFLUX CLEARANCE AND REFLUX DISEASE	5R01 AM25731-02	49,750
DUCK, STEPHEN C	THERAPY-INDUCED GROWTH DISORDERS IN CHILDHOOD CANCER	5R01 CA23968-03	70,561
EDELHAUSER, HENRY F.	PATHOGENESIS OF CORNEAL EDEMA AFTER INTRAOCULAR SURGERY	5R01 EY00933-08	127,329
FINK, JORDAN N.	SUPPORT FOR PULMONARY DISEASE RESEARCH CENTER	5P50 HL15389-09	542,480
FORSTER, HUBERT V	MECHANISM(S) OF HYPERPNEA ELICITED BY CO2 INHALATION	1R01 HL25739-01	61,038
FRANKLIN, RONALD B	TOXICOLOGY AND PHYSIOLOGY OF THE CLARA CELL	5R01 HL24262-02	53,993
FRERMAN, FRANK E.	STUDIES OF LIPID TRANSPORT	5R01 AM15527-10	69,918
FRERMAN, FRANK E.	UTILIZATION OF KETONES AND FATTY ACIDS IN HEART	5R01 AM22104-03	58,413
FRERMAN, FRANK E.	ACYL COA DEHYDROGENASES: REGULATION OF B-OXIDATION	5R01 GM25486-03	66,574
FUJIMOTO, JAMES M	MICROWAVE TOXICOLOGY AND MEMBRANE BARRIER CHANGES	1R01 ES02006-01A1	52,158
FUJIMOTO, JAMES M	ALTERATION IN DRUG METABOLISM BY CERTAIN CARBAMATES	2R01 GM16503-12	59,852
GHAZARIAN, JACOB G	CONTROL OF ENZYMES IN THE VITAMIN D3 ENDOCRINE COMPLEX	5R01 AM19145-05	56,017
GLICK, DAVID M	GASTRIC ZYMOGENS, PROTEASES AND INHIBITORS	5R01 AM09826-15	85,176
GOLDMAN, ARNOLD I	FACTORS CONTROLLING DISC SHEDDING AND PHAGOCYTOSIS	5R01 EY02975-02	67,902
GRAUSZ, JOHN P.	NEWBORN LUNG FUNCTION DURING MECHANICAL VENTILATION	2R01 HL22636-03	66,562
GRAY, RICHARD W	CONTROL OF 1,25 (OH)2-D LEVELS IN MALE AND FEMALE RATS.	5R01 AM22014-03	43,571
HARDMAN, HAROLD F.	EFFECTS OF DRUGS UPON MYOCARDIAL HYPOXIA	5R01 HL08311-16	86,359
HAUGHTON, VICTOR M.	ARACHNIDITIS FOLLOWING MYELOGRAPHY	5R01 NS14274-03	63,529
HOLCENBERG, JOHN S.	RESEARCH WITH ENZYMES AS ANTITUMOR AGENTS	2R01 CA20061-04	76,895
HOPWOOD, LARRY E	RESPONSE OF HUMAN CELLS TO HYPERTHERMIA AND RADIATION	5R01 CA23564-03	58,473
HOPWOOD, LARRY E	ANALYSIS OF X-RAY AND HEAT-INDUCED MUTAGENESIS	5R01 CA25192-02	38,252
HUSSA, ROBERT O	ECTOPIC HCG-BETA FROM PURE BETA-PRODUCING CELLS	3R01 CA23357-02S1	11,991
HYDE, JAMES S.	NITROXIDE RADICAL SPIN LABEL PHYSICAL PROPERTIES	5R01 GM22923-05	103,028
HYDE, JAMES S.	BIOMEDICAL ESR SPECTROSCOPY CENTER	5R01 GM27665-02	169,223
HYDE, JAMES S.	BIOMEDICAL ESR SPECTROSCOPY CENTER	5P41 RR01008-05	209,367
ITSKOVITZ, HAROLD D.	SURGICAL AND PHYSIOLOGIC STUDIES OF ISOLATED KIDNEYS	5R01 HL12677-12	157,463
JELSEMA, CAROLE L.	THE ACTION OF ARA-C AND 5-AZA-C ON MEMBRANE SYNTHESIS	5R23 CA25783-03	39,451
JOHN, KAVANAKUZHIVIL V	ROLE OF RETINGLYCOLIPIDS IN GLYCOPROTEIN BIOSYNTHESIS	5R01 GM25464-02	44,605
JONES, FRANK E.	CHEMOPREVENTION OF DMH-INDUCED COLORECTAL NEOPLASMS	5R26 CA25886-02	32,349
JORDON, ROBERT E.	IMMUNOPATHOLOGY OF SELECTED CUTANEOUS DISEASES	2R01 AI14550-04	80,796
KALKHOFF, RONALD K.	METABOLIC EFFECTS OF INSULIN ANTAGONISM & DEFICIENCY	5R01 AM10305-15	65,869
KALKHOFF, RONALD K.	OBESITY AND DIABETES IN PREGNANCY: PROSPECTIVE STUDIES	5R01 AM22105-02	93,360
KAMPMPE, JOHN P.	SYMPATHETIC AFFERENT ACTIVITY OF CARDIAC ORIGIN	5R01 HL16511-06	57,838
KISSEBAH, AHMED H	METABOLISM OF 'REMNANT VLDL' IN DIABETES	5R01 AM24087-03	70,181
KOSTREVA, DAVID R.	CARDIOPULMONARY REFLEXES AND THEIR ANATOMICAL BASIS	5R23 HL21042-03	36,271
LECH, JOHN J.	METABOLISM OF ENVIRONMENTAL CONTAMINANTS BY FISH	5R01 ES01080-06	43,215
LECH, JOHN J.	FRESHWATER BIOMEDICAL CENTER SUPPORT	5P30 ES01985-03	176,060
LEMANN, JACOB, JR.	SUGAR INGESTION, CALCURIARIA, CRYSTALLURIA, AND STONES	5R01 AM15089-11	117,653
LENNON, EDWARD J.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR05434-19	193,787
LIGHTFOOT, ROBERT W, JR.	AN ARTHRITIS CENTER FOR SOUTHEASTERN WISCONSIN	5P60 AM20647-02	235,708
LINEHAN, JOHN H	LUNG METABOLISM OF VASOACTIVE HORMONES	5R01 HL24349-02	42,292
LOMBARD, JULIAN H.	MICROCIRCULATORY FUNCTION IN HYPOTENSION	5R23 HL22972-03	39,306
MADDEN, JANE A	DIETARY MAGNESIUM: INFLUENCE ON CARDIOVASCULAR TISSUE	5R23 HL25506-02	39,000
MC CARTY, DANIEL J.	STUDIES OF CRYSTAL DEPOSITION DISEASE	5R01 AM18074-07	83,102
MC CARTY, DANIEL J.	STUDY OF THE PARTICULATE MATTER OF SYNOVIAL FLUID	5R01 AM26062-02	68,553
MC CARTY, DANIEL J.	GENERAL CLINICAL RESEARCH CENTER	5M01 RR00058-19	621,758
MEHLER, ALAN H	STRUCTURE AND FUNCTION OF AMINOACYL-TRNA SYNTHETASES	5R01 GM13037-15	117,543
MEREDITH, TRAVIS A	MACULAR PHOTOCOAGULATION STUDY	5R10 EY02548-02	46,735
MIZIORKO, HENRY M.	HMG-COA-CYCLE CONTROL IN NORMAL AND DIABETIC LIVER	5R01 AM21491-03	35,562

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WISCONSIN—Continued			
MONTGOMERY, ROBERT R. JR.	VWAGII—A NEW VWD DEFICIENT ANTIGEN	7R23 HL26865-01	48,096
MOORE, VERNON L.	IMMUNOGENETICS OF CHRONIC PULMONARY INFLAMMATION	5R01 HL22301-03	50,723
MOULDER, JOHN E.	KIDNEY RESPONSE TO FRACTIONED RADIATION	5R01 CA24652-02	74,934
MOULDER, JOHN E.	OPTIMIZATION OF RADIOSENSITIZER USE IN RADIOTHERAPY	1R01 CA27084-01	73,065
MURPHY, JEROME V.	ENZYMATIC DETECTION OF NEURODEGENERATIVE DISORDERS	5R01 HD09842-04	74,123
MURRAY, M. PATRICIA	KINEMATIC STUDIES OF NORMAL AND ABNORMAL LOCOMOTION	5R01 AM13854-17	77,633
O'BRIEN, WILLIAM J.	METABOLISM OF ANTIVIRAL COMPOUNDS BY OCULAR TISSUES	5R01 EY02834-02	77,624
SANCES, ANTHONY, JR.	ELECTRICAL BURN INJURY STUDIES	5R01 GM26956-02	84,416
SCHULTZ, RICHARD O.	DIABETES MELLITUS AND THE ANTERIOR SEGMENT OF THE EYE	5R01 EY02901-03	65,484
SEALY, ROGER C.	FREE RADICAL PHOTOTOXICITY IN PIGMENTED SYSTEMS	1R01 AM26950-01	50,115
SKIBBA, JOSEPH L.	THERMOCHEMOTHERAPY FOR CANCER IN THE LIVER	1R01 CA27189-01	126,996
SOERGEL, KONRAD H.	PATHOPHYSIOLOGY OF DIARRHEA	5R01 AM18526-06	101,384
SOHNLE, PETER G.	HOST DEFENSE IN SUPERFICIAL FUNGAL INFECTIONS	1R01 AI16559-01	29,644
SPURR, GERALD B.	NUTRITION & DEVELOPMENT OF PHYSICAL FITNESS IN CHILDREN	5R22 HD10814-03	89,078
STEKIEL, WILLIAM J.	CONTROL OF VASCULAR MUSCLE TONE IN HYPERTENSION	2R01 HL16454-04A1	48,483
STEKIEL, WILLIAM J.	CONTROL OF THE MICROCIRCULATION IN HYPERTENSION	1R01 HL26390-01	77,691
TAKETA, FUMITO C.	STRUCTURE AND FUNCTION OF HEMOGLOBIN	2R01 AM15770-12	82,473
VAN HORN, DIANE L.	REGENERATIVE CAPACITY OF CORNEAL ENDOTHELIUM	5R01 EY01436-06	72,141
VAN HORN, DIANE L.	OPHTHALMIC RESEARCH CENTER	5P30 EY01931-04	120,227
WARTLIER, DAVID C.	PHARMACOLOGY OF MYOCARDIAL ISCHEMIA AND INFARCTION	1R23 HL25120-01	41,084
WERLIN, STEVEN L.	DEVELOPMENT OF PANCREATIC EXOCRINE FUNCTION	5R01 HD12447-02	70,972
WILCOX, KENT W.	REGULATION OF GENE EXPRESSION IN HSV INFECTED CELLS	1R01 AI17246-01	69,081
ORGANIZATION TOTAL	88	7,800,795	
MILWAUKEE CHILDREN'S HOSPITAL ZIP CODE 53233			
CAMITTA, BRUCE M.	CLINICAL CANCER EDUCATION PROGRAM	5R25 CA17997-06	52,573
ORGANIZATION TOTAL	1	52,573	
MILWAUKEE PUBLIC MUSEUM ZIP CODE 53233			
SPIELER, RICHARD E.	PHYSIOLOGICAL EFFECTS OF TIMING THE DAILY MEAL	1R01 AM25919-01	31,940
ORGANIZATION TOTAL	1	31,940	
MOUNT SINAI MEDICAL CENTER ZIP CODE 53233			
BORTIN, MORTIMER M.	SPECIFIC ADOPTIVE IMMUNOTHERAPY OF AKR LEUKEMIA	5R01 CA20484-04	92,027
EISENSTEIN, REUBEN	AORTIC GROWTH INHIBITORS	7R01 CA30083-01	32,820
EISENSTEIN, REUBEN	BIOLOGY OF AORTIC GROUND SUBSTANCE	7R01 HL27330-01	55,958
KAMINSKAS, EDVARDAS	MECHANISMS OF PURINELESS DEATH IN CANCER CELLS	1R01 CA27131-01	82,422
TRUITT, ROBERT L.	MECHANISMS OF SUCCESSFUL ADOPTIVE IMMUNOTHERAPY	5R01 CA26245-02	80,470
ORGANIZATION TOTAL	5	343,697	
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MILWAUKEE ZIP CODE 53201			
COOK, JAMES M.	SYNTHESIS OF ALPHA AND BETA ADRENERGIC ANTAGONISTS	3R01 HL17897-04S1	3,181
MC FARLAND, JAMES T.	RESONANCE RAMAN PROBE STUDIES OF FLAVOPROTEINS	5R01 GM21916-06	47,715
MOON, MARILYN L.	INTERGENERATIONAL TRANSFERS AND PUBLIC POLICY	5R23 AG01323-02	28,248
PETERING, DAVID H.	METAL COMPLEXES OF KNOWN ANTITUMOR AGENTS	3R01 CA22184-03S1	2,867
WATTERS, KENNETH L.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07181-03	34,084
ORGANIZATION TOTAL	5	116,095	
STATE TOTAL	401	42,591,660	
WYOMING			
LARAMIE			
UNIVERSITY OF WYOMING ZIP CODE 82071			
ATHERTON, ROBERT W.	NUCLEOTIDE PROTEIN INTERACTIONS IN MAMMALIAN SPERMATOZOA	5R01 HD11991-02	39,513
BARDEN, ROLAND E.	AFFINITY LABELS FOR ACYL-CoA UTILIZING ENZYMES	5R01 GM20077-06	41,756
HALEY, BOYD E.	APPLICATION OF PHOTO AFFINITY NUCLEOTIDE ANALOGS	5R01 GM21998-06	75,206
JENKINS, ROBERT A.	BIOMEDICAL RESEARCH SUPPORT	2S07 RR07157-05	22,603

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
WYOMING—Continued			
JI, TAE H.....	CROSSLINKING OF HORMONES TO RECEPTORS.....	2R01 GM23586-04	62,240
KAISER, IVAN I.....	NUCLEOTIDE ANALOGS AS STRUCTURAL & FUNCTIONAL PROBES.....	5R01 GM20326-07	39,818
ROSE, JAMES D.....	ELECTROPHYSIOLOGY OF THE GENITAL SENSORY SYSTEM.....	5R01 NS13748-05	42,057
SMITH, DAVID V.....	ADAPTATION AND SENSORY CODING IN TASTE.....	5R01 NS10211-08	27,289
ORGANIZATION TOTAL	8 350,482		
STATE TOTAL	8 350,482		
PUERTO RICO			
MAYAGUEZ			
UNIVERSITY OF PUERTO RICO MAYAGUEZ ZIP CODE 00708			
MISKIMEN, GEORGE W.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08103-07	237,409
ORGANIZATION TOTAL	1 237,409		
PONCE			
CATHOLIC UNIVERSITY OF PUERTO RICO ZIP CODE 00731			
INFANTE, GABRIEL A.....	MINORITY BIOMEDICAL SUPPORT.....	2S06 RR08067-10	257,521
ORGANIZATION TOTAL	1 257,521		
SAN JUAN			
INTER AMERICAN UNIVERSITY OF PUERTO RICO ZIP CODE 00936			
FRAME, ANNE D.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08159-03	107,260
ORGANIZATION TOTAL	1 107,260		
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES ZIP CODE 00936			
BRUSH, JAMES S.....	PLASMA INHIBITORS OF INSULIN PROTEASE.....	3R01 AM20050-03S1	15,462
DEL CASTILLO, JOSE.....	LABORATORY OF NEUROBIOLOGY.....	2P01 NS07464-13	141,514
GARCIA-CASTINEIRAS, SIXTO.....	STRUCTURAL BIOCHEMISTRY OF LENS COLOR & FLUORESCENCE.....	1R01 EY03380-01	98,397
KRAISELBURD, EDMUNDO N.....	INTERNATIONAL WORKSHOP IN ONCOGENIC VIRUSES.....	1R13 CA27449-01	15,901
MARCIAL, VICTOR A.....	RADIATION THERAPY ONCOLOGY GROUP.....	5R10 CA12258-09	148,337
ROMAN-FRANCO, ANGEL A.....	CANCER CENTER SUPPORT GRANT—COMPREHENSIVE.....	5P30 CA16598-05	646,150
SANTIAGO-BORRERO, PEDRO J.....	CLINICAL CANCER EDUCATION PROGRAM.....	5R25 CA18927-05	112,160
SANTIAGO-BORRERO, PEDRO J.....	BIOMEDICAL RESEARCH SUPPORT.....	2S07 RR05419-19	39,317
SPECHT, SUSAN C.....	AXONAL TRANSPORT DURING VISUAL DEVELOPMENT.....	5R01 EY02334-03	48,112
VAZQUEZ, JOSE L.....	THE DEMOGRAPHIC EFFECTIVENESS OF FEMALE STERILIZATION.....	5R01 HD12914-02	3,646
VELEZ-GARCIA, ENRIQUE O.....	SOUTHEASTERN CANCER STUDY GROUP.....	3R10 CA12223-08S1	49,809
ORGANIZATION TOTAL	11 1,318,805		
UNIVERSITY OF PUERTO RICO RIO PIEDRAS ZIP CODE 00931			
HILLYER, GEORGE V.....	MINORITY BIOMEDICAL SUPPORT.....	3S06 RR08102-08S2	85,046
HILLYER, GEORGE V.....	MINORITY BIOMEDICAL SUPPORT.....	5S06 RR08102-09	813,157
ORGANIZATION TOTAL	2 898,203		
STATE TOTAL	16 2,819,198		

OTHER COUNTRIES

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ARGENTINA			
BUENOS AIRES			
INSTITUTE OF BIOLOGY AND EXPERIMENTAL MEDICINE			
GUTNISKY, ABRAHAM	HUMAN URINARY ERYTHROPOIETIN COLLECTION	2R01 HL16675-07	83,390
ORGANIZATION TOTAL	1 83,390		
NAVAL INSTITUTE OF SCIENTIFIC AND TECHNICAL RESEARCH			
CASTRO, JOSE A	MECHANISM OF CARBON TETRACHLORIDE HEPATOTOXICITY	5R01 AM13195-11	57,413
ORGANIZATION TOTAL	1 57,413		
UNIVERSITY OF BUENOS AIRES			
FRYDMAN, BENJAMIN J.	BIOSYNTHETIC INTERMEDIATES OF PORPHYRINS	5R01 GM11973-15	16,040
ORGANIZATION TOTAL	1 16,040		
COUNTRY TOTAL	3 156,843		
AUSTRALIA			
BEDFORD PARK			
FLINDERS UNIVERSITY OF SOUTH AUSTRALIA			
BURGOYNE, LEIGH A.	THE INTERNAL SPACE AND SURFACES OF EUKARYOTE NUCLEI	1R01 GM27968-01	30,665
ORGANIZATION TOTAL	1 30,665		
CANBERRA			
AUSTRALIAN NATIONAL UNIVERSITY			
AIR, GILLIAN M	RNA & PROTEIN SEQUENCING OF INFLUENZA VIRUS VARIANTS	5R01 AI15343-02	59,706
SHINE, JOHN	BACTERIAL GENES INVOLVED IN SYMBIOTIC NITROGEN FIXATION	1R01 GM28027-01	59,863
WHITE, MICHAEL J	CYTOGENETICS—CHROMOSOME REARRANGEMENTS	5R01 GM22710-05	23,095
ORGANIZATION TOTAL	3 142,664		
KENSINGTON			
UNIVERSITY OF NEW SOUTH WALES			
STONE, JONATHAN	STUDIES OF THE RETINA AND VISUAL PATHWAYS	5R01 EY02671-02	34,202
WICKEN, ANTHONY J.	VARIATIONS IN THE SURFACE STRUCTURES OF ORAL BACTERIA	5R01 DE04175-06	65,031
ORGANIZATION TOTAL	2 99,233		
MELBOURNE			
ROYAL SOUTHERN MEMORIAL HOSPITAL			
ZIMMET, PAUL Z	DIABETES IN THE PACIFIC-GENETIC-ENVIRONMENT INTERACTIONS	5R01 AM25446-02	149,625
ORGANIZATION TOTAL	1 149,625		
WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH			
ADAMS, JERRY M	STRUCTURE OF IMMUNOGLOBULIN MESSENGER RNAS AND GENES	5R01 CA12421-09	43,219
METCALF, DONALD	DIFFERENTIATION OF GRANULOCYTES AND MONOCYTES	5R01 CA22556-03	36,566
METCALF, DONALD	LEUKEMIA INDUCTION IN MULTIPOTENTIAL IN VITRO COLONIES	5R01 CA25972-02	46,871
NOSSAL, GUSTAV J	MECHANISMS OF LYMPHOCYTE-ANTIGEN INTERACTIONS	5R01 AI03958-20	80,543
ORGANIZATION TOTAL	4 207,199		
MURDOCH			
MURDOCH UNIVERSITY			
HOWELL, JOHN M	POMPE'S DISEASE IN CATTLE: A MODEL FOR HUMAN DISEASE	5R01 AM22096-02	24,450
RENFREE, MARILYN B	DELAYED IMPLANTATION AND DEVELOPMENT IN MARSUPIALS	2R01 HD09387-04	71,528
ORGANIZATION TOTAL	2 95,978		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
AUSTRALIA—Continued			
PARKVILLE			
UNIVERSITY OF MELBOURNE			
AUGUSTEYN, ROBERT C	THE MECHANISM OF SENILE CATARACT FORMATION	5R01 EY01525-06	23,140
HUDSON, BRYAN	PURIFICATION AND PHYSIOLOGY OF INHIBIN	1R01 HD11729-01A1	50,466
MC KENZIE, IAN F	CELL SURFACE ANTIGENS OF LYMPHOCYTES AND TUMOR CELLS	5R01 CA22080-02	55,077
NIALL, HUGH D	CHEMICAL STUDIES OF RELAXIN AND ITS RECEPTORS	5R01 HD11908-03	103,340
ORGANIZATION TOTAL	4	232,023	
SYDNEY			
INSTITUTE OF DENTAL RESEARCH			
KNOX, KENNETH W	VARIATIONS IN THE SURFACE STRUCTURE OF ORAL BACTERIA	5R01 DE04174-06	59,732
ORGANIZATION TOTAL	1	59,732	
UNIVERSITY OF SYDNEY			
MC AVOY, JOHNSTON W	STUDY LENS CELL DIFFERENTIATION	5R01 EY03177-02	19,877
ORGANIZATION TOTAL	1	19,877	
COUNTRY TOTAL	19	1,036,996	
BELGIUM			
BRUSSELS			
EUROPEAN ORGANIZATION FOR RESEARCH ON TREATMENT OF CANCER			
TAGNON, HENRI J	COOPERATIVE CLINICAL CANCER STUDY (COORDINATING/DATA)	5R10 CA11488-11	237,090
ORGANIZATION TOTAL	1	237,090	
FREE UNIVERSITY OF BRUSSELS			
CHRISTOPHE, JEAN P	MOLECULAR BASIS OF SECRETION IN THE EXOCRINE PANCREAS	5R01 AM17010-06	32,000
VASSART, GILBERT M	INBORN ERRORS OF CARBOHYDRATE METABOLISM	5R01 AM21732-03	21,000
ORGANIZATION TOTAL	2	53,000	
LIEGE			
UNIVERSITY OF LIEGE			
GHUYSEN, JEAN-MARIE	THE PENICILLIN TARGETS IN BACTERIA	5R01 AI13364-05	18,000
ORGANIZATION TOTAL	1	18,000	
LOUVAIN-LA-NEUVE			
CATHOLIC UNIVERSITY OF LOUVAIN			
BAZIN, HERVE	REGULATION OF THE RAT IGE SYNTHESIS	5R01 AI12840-06	53,357
HERS, HENRI-GERY	INBORN ERRORS OF CARBOHYDRATE METABOLISM	2R01 AM09235-15	45,000
LINTS, FREDERIC A	DEVELOPMENTAL PROCESSES AND LIFE-SPAN IN DROSOPHILA	1R01 AG02087-01	55,650
ORGANIZATION TOTAL	3	154,007	
COUNTRY TOTAL	7	462,097	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CANADA			
CALGARY			
ALBERTA PROVINCIAL CANCER HOSPITAL BOARD			
JERRY, L. MARTIN	ADJUVANT THERAPY OF BREAST CANCER	1R10 CA26710-01	12,502
ORGANIZATION TOTAL	1 12,502		
UNIVERSITY OF CALGARY			
TAN, YIN-HWEE	HUMAN INTERFERON PRODUCTION FOR ANTITUMOR STUDIES	5R01 CA19721-05	62,323
ORGANIZATION TOTAL	1 62,323		
GUELPH			
UNIVERSITY OF GUELPH			
DRAPER, HAROLD H.	TOXICITY AND METABOLISM OF MALONALDEHYDE	1R01 CA28242-01	46,675
SAFE, STEPHEN H.	METABOLISM & CARCINOGENICITY OF HALOAROMATIC POLLUTANTS	5R01 CA21814-03	33,878
ORGANIZATION TOTAL	2 80,553		
HALIFAX			
DALHOUSIE UNIVERSITY			
CYNADER, MAX S.	ETIOLOGY OF STRABISMUS IN ANIMALS	5R01 EY02248-03	27,918
REGAN, DAVID	PSYCHOPHYSICAL AND EP ASSESSMENT OF VISUAL PATHOLOGY	5R01 EY03058-02	34,180
ORGANIZATION TOTAL	2 62,098		
HAMILTON			
MC MASTER UNIVERSITY			
COTT, ARTHUR	BEHAVIORAL TREATMENT OF EPILEPSY AND HEADACHE	5R01 NS14906-02	49,775
DIAMOND, JACK	PLASTICITY IN THE DEVELOPING NERVOUS SYSTEM	5R01 NS14951-02	17,712
DIAMOND, JACK	TWO-WAY INTERACTIONS AT MECHANOSENSORY JUNCTIONS	5R01 NS15592-02	26,576
EPAND, RICHARD M.	THE ROLE OF GLUCAGON IN DIABETES	5R01 AM21285-03	25,488
SINCLAIR, JOHN C.	DETERMINANTS OF GROWTH IN LOW-BIRTH-WEIGHT INFANTS	5R01 HD12469-02	48,882
ORGANIZATION TOTAL	5 168,433		
KINGSTON			
QUEEN'S UNIVERSITY AT KINGSTON			
WYATT, GERARD R.	BIOCHEMISTRY OF DEVELOPMENT AND REGULATION	2R01 HD07951-07	67,910
ORGANIZATION TOTAL	1 67,910		
LONDON			
UNIVERSITY OF WESTERN ONTARIO			
BARNETT, HENRY J.	EXTRACRANIAL/INTRACRANIAL ARTERIAL ANASTOMOSIS STUDY	5R01 NS14164-04	880,363
CHERIAN, M. GEORGE	NATURE OF LEAD AND MERCURY BINDING NUCLEAR PROTEINS	2R01 ES01535-04	28,630
PERCY, DEAN H.	HERPETIC OPHTHALMITIS	5R01 EY01833-04	13,541
TREVITHICK, JOHN R.	EYE LENS EPITHELIAL CELL DIFFERENTIATION AND CATARACT	2R01 EY01927-04	56,403
ORGANIZATION TOTAL	4 978,937		
MONTREAL			
CLINICAL RESEARCH INSTITUTE OF MONTREAL			
CHRETIEN, MICHEL	PROOPiocORTIN: BIOSYNTHESIS, ISOLATION AND STRUCTURE	1R01 NS16315-01	44,106
ORGANIZATION TOTAL	1 44,106		
JEWISH GENERAL HOSPITAL			
MARGOLESE, RICHARD G.	PRIMARY BREAST CANCER THERAPY GROUP (NSABP)	2R10 CA20156-04	34,684
PERDUE, JAMES F.	CONTROL OF CELL GROWTH BY MITOGEN RECEPTORS	3R01 GM23763-02S1	13,491
ORGANIZATION TOTAL	2 48,175		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CANADA—Continued			
MAISONNEUVE-ROSEMONT HOSPITAL			
GAGNAN-BRUNETTE, MICHELE.....	STUDY OF PHOSPHATASE ACTIVITY ALONG THE NEPHRON	5R01 AM25615-02	32,471
ORGANIZATION TOTAL	1	32,471	
MC GILL UNIVERSITY			
CHANG, HSIN-KANG.....	PULMONARY ARTERIAL, CAPILLARY AND VENOUS HEMODYNAMICS	5R01 HL24348-02	26,523
MC KENZIE, JOHN M	PATHOGENESIS OF HYPERTHYROIDISM	2R01 AM04121-19	58,505
PATEL, YOGESH C	STUDIES OF PANCREATIC SOMATOSTATIN PHYSIOLOGY	5R01 AM21373-03	40,759
POSNER, BARRY I	POLYPEPTIDE HORMONE RECEPTORS	2R01 AM19573-04	54,673
SMITH, CHARLES E.....	QUANTITATIVE STUDIES OF LYSOSOMES IN THE AMEIOGENESIS.....	5R23 DE05424-02	25,000
SOLOMON, SAMUEL.....	FORMATION, METABOLISM AND ROLE OF HORMONES IN PREGNANCY.....	2R01 HD04365-19	88,213
TANNENBAUM, GLORIA S.....	CHARACTERIZATION OF SPONTANEOUSLY DIABETIC WISTAR RATS	5R01 AM25888-02	31,723
ORGANIZATION TOTAL	7	325,396	
ROYAL VICTORIA HOSPITAL			
SHIBATA, HENRY R.....	PRIMARY BREAST CANCER THERAPY GROUP	2R10 CA20321-04	37,800
ORGANIZATION TOTAL	1	37,800	
ST.-LUC'S HOSPITAL			
POISSON, ROGER C.....	PRIMARY BREAST CANCER THERAPY GROUP	1R10 CA25769-01	32,659
ORGANIZATION TOTAL	1	32,659	
OTTAWA			
NATIONAL RESEARCH COUNCIL OF CANADA			
BOYNTON, ALTON L.....	ASSAYS FOR, AND ACTIONS OF, CARCINOGENS AND PROMOTERS.....	1R01 CA28340-01	51,051
ORGANIZATION TOTAL	1	51,051	
SAINT JOHNS			
MEMORIAL UNIVERSITY OF NEWFOUNDLAND			
ANANTHANARAYANAN, V S.....	COLLAGEN STRUCTURE USING MODEL PEPTIDES	1R01 AM26934-01	37,500
LAIRD, MARSHALL.....	LABORATORY BIOCONTROL EVALUATIONS AGAINST SIMULIIDAE.....	5R01 AI14754-03	19,033
ORGANIZATION TOTAL	2	56,533	
SASKATOON			
UNIVERSITY OF SASKATCHEWAN			
WARRINGTON, ROBERT C.....	L-HISTIDINOL IN THE BIOLOGY AND THERAPY OF CANCER.....	5R01 CA23823-02	25,200
ORGANIZATION TOTAL	1	25,200	
SHERBROOKE			
UNIVERSITY OF SHERBROOKE			
GIBSON, DAVID M.....	GENETIC CONTROL OF IMMUNOGLOBULIN LIGHT CHAINS.....	5R01 AI15202-03	24,315
ORGANIZATION TOTAL	1	24,315	
TORONTO			
HOSPITAL FOR SICK CHILDREN			
SCHACHTER, HARRY.....	GLYCOPROTEIN-GLYCOLIPID METABOLISM IN SPERMATOGENESIS	2R01 HD07889-07	53,540
ORGANIZATION TOTAL	1	53,540	
ONTARIO CANCER INSTITUTE			
ARCHER, MICHAEL C.....	MECHANISM OF NITROSAMINE ALKYLATION OF DNA AND RNA.....	5R01 CA26651-02	46,490
ORGANIZATION TOTAL	1	46,490	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
CANADA—Continued			
TORONTO WESTERN HOSPITAL			
CARLEN, PETER L.....	HIPPOCAMPAL SLICE: MODELLED NEURONS AND DRUG EFFECTS	1R01 NS16660-01	48,900
ORGANIZATION TOTAL	1 48,900		
UNIVERSITY OF TORONTO			
CARMAN, NORMAN.....	STEREOCHEMICAL BASIS OF ANTICONVULSANT DRUG ACTIVITY.....	5R01 NS09839-10	23,482
DOSTROVSKY, JONATHAN O.....	DENTAL PAIN: STUDIES ON TRIGEMINAL NUCLEUS CAUDALIS.....	5R01 DE05404-02	35,426
EYLAR, EDWIN H.....	GUILLIAN-BARRE SYNDROME AND ALLERGIC NEURITIS.....	5R01 NS14422-03	58,101
FARBER, EMMANUEL.....	PATHOGENESIS OF LIVER CANCER INDUCED BY CHEMICALS.....	2R01 CA21157-04	33,245
FARBER, EMMANUEL.....	A SHORT TERM IN VIVO ASSAY FOR CARCINOGENS.....	5R01 CA25094-02	60,891
FRITZ, IRVING B.....	HORMONE ACTIONS ON SERTOLI CELLS IN SPERMATOGENESIS.....	5R01 HD11741-03	112,819
LUCIER, GREGORY E.....	NEURAL MECHANISMS IMPLICATED IN SUDDEN INFANT DEATH.....	5R01 HD10983-03	29,821
MARLISS, ERROL B.....	THE SPONTANEOUSLY DIABETIC 'BB' WISTAR RAT.....	5R01 AM25371-02	40,754
MOBBS, G ELIZABETH.....	INVESTIGATION OF HORMONE BINDING BY PROSTATIC NUCLEI.....	1R26 CA27412-01	46,100
SADOWSKI, PAUL D.....	BACTERIOPHAGE DEVELOPMENT.....	5R01 GM24361-03	69,782
SARMA, D S.....	DNA REPAIR/REPLICATION IN CHEMICAL CARCINOGENESIS.....	5R01 CA23958-03	47,804
SEFTON, MICHAEL V.....	HEPARINIZED MATERIAL AND BLOOD INTERACTION.....	5R01 HL24020-02	28,700
SEN, AMAR K.....	SODIUM-POTASSIUM ATPASE ACTIVITY REGULATING MECHANISMS.....	5R01 AM20425-03	38,151
SESSLE, BARRY J.....	DENTAL AND OROFACIAL PAIN: BRAIN STEM MECHANISMS.....	5R01 DE04786-03	44,485
ORGANIZATION TOTAL	14 669,561		
VANCOUVER			
UNIVERSITY OF BRITISH COLUMBIA			
CANDIDO, E PETER.....	BIOCHEMICAL STUDIES IN DROSOPHILA MELANOGASTER.....	5R01 GM22753-05	46,561
DOLPHIN, DAVID H.....	PORPHYRIN IONS AND RADICALS IN METABOLIC PROCESSES.....	5R01 AM17989-06	70,120
MAUK, ARTHUR G.....	CYTOCHROME B5-HEMOGLOBIN REDOX COUPLE.....	1R01 GM28834-01	32,750
MOLDAY, ROBERT S.....	RETINAL PHOTORECEPTOR MEMBRANE PROTEINS.....	5R01 EY02422-03	32,108
SLEMMER, GLENN L.....	CELL BIOLOGY OF MAMMARY GLAND NEOPLASIA.....	3R01 CA18987-03S1	12,735
SUEDFELD, PETER.....	RESTRICTED ENVIRONMENTAL STIMULATION TECHNIQUE.....	1R01 HL25918-01	34,570
VANCE, DENNIS E.....	HORMONAL CONTROL OF PHOSPHOLIPID BIOSYNTHESIS.....	5R01 AM20691-02	41,320
WADA, JOHN A.....	CHRONIC FOCAL EPILEPTOGENIC LESION AND DEEP STRUCTURES.....	5R01 NS02812-20	39,472
WARD, RICHARD H.....	GENETIC EPIDEMIOLOGY OF PRECURSORS OF HYPERTENSION.....	1R01 HL26869-01	108,228
ORGANIZATION TOTAL	9 417,864		
VICTORIA			
UNIVERSITY OF VICTORIA			
SATZ, PAUL.....	LATERALITY OF SENSORY & MOTOR FUNCTION IN MAN.....	1R01 NS16347-01	39,650
ORGANIZATION TOTAL	1 39,650		
WATERLOO			
UNIVERSITY OF WATERLOO			
CARLSON, JOHN C.....	THE MECHANISM OF CORPUS LUTEUM REGRESSION.....	1R01 HD14058-01	69,522
ORGANIZATION TOTAL	1 69,522		
WINNIPEG			
UNIVERSITY OF MANITOBA			
FRIESEN, HENRY G.....	PLACENTAL & PITUITARY PROTEIN & POLYPEPTIDE HORMONES.....	2R01 HD07843-07	78,150
NIJJAR, M S.....	ROLE OF CYCLIC AMP IN LUNG GROWTH.....	5R01 HL24515-02	49,487
SEHON, ALEC.....	SUPPRESSION OF THE IGE RESPONSE.....	5R01 AI14526-03	94,079
ORGANIZATION TOTAL	3 221,716		
COUNTRY TOTAL	65 3,677,705		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
DENMARK			
AARHUS			
UNIVERSITY OF AARHUS			
HEIMER, LENNART.....	BASAL FOREBRAIN ORGANIZATION.....	5R01 NS15510-02	16,650
MAGNUSSEN, STAFFAN M.....	PROTEIN STRUCTURE IN COAGULATION AND FIBRINOLYSIS.....	2R01 HL16238-07	61,397
ORGANIZATION TOTAL	2	78,047	
COPENHAGEN			
DANISH CANCER REGISTRY			
JENSEN, OLE MOLLER.....	CASE-CONTROL STUDY OF URINARY CANCER, COPENHAGEN.....	5R26 CA24119-02	39,135
ORGANIZATION TOTAL	1	39,135	
WORLD HEALTH ORGANIZATION			
MACFADYEN, DAVID M.....	INTERNATIONAL DATA ON HEALTH RESEARCH OF THE ELDERLY.....	1R13 AG02704-01	90,000
ORGANIZATION TOTAL	1	90,000	
GENTOFTE			
STENO MEMORIAL HOSPITAL			
LERNMARK, AKE.....	ISLET CELL MEMBRANE ANTIBODIES IN DIABETES.....	1R01 AM26190-01	45,945
ORGANIZATION TOTAL	1	45,945	
COUNTRY TOTAL	5	253,127	
FINLAND			
HELSINKI			
UNIVERSITY OF HELSINKI			
GAHMBERG, CARL G.....	GLYCOPROTEINS OF NORMAL/MALIGNANT HUMAN BLOOD CELLS.....	1R01 CA26294-01A1	33,900
HAYRY, PEKKA J.....	MECHANISMS OF KIDNEY GRAFT REJECTION.....	1R01 AM26882-01	58,000
KONTIAINEN, SIRKKA K.....	REGULATION OF IMMUNE RESPONSES BY SPECIFIC FACTORS.....	5R01 AI13145-05	41,060
SAKSELA, EERO J.....	NATURAL AND TISSUE-SPECIFIC IMMUNITY TO HUMAN NEOPLASMS.....	5R01 CA23809-02	40,220
VAHERI, ANTTI I.....	FIBRONECTIN AND ITS LOSS IN MALIGNANT TRANSFORMATION.....	5R01 CA24605-02	32,680
ORGANIZATION TOTAL	5	205,860	
OULU			
UNIVERSITY OF OULU			
TRYGGVASON, KARL.....	BIOCHEMICAL STUDIES ON BASEMENT MEMBRANE IN DIABETES.....	1R01 AM27139-01	22,100
ORGANIZATION TOTAL	1	22,100	
TURKU			
UNIVERSITY OF TURKU			
HARTIALA, KAARLO J.....	GASTROINTESTINAL AND PULMONARY METABOLIC FUNCTIONS.....	2R01 ES01684-19	61,200
ORGANIZATION TOTAL	1	61,200	
COUNTRY TOTAL	7	289,160	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
FRANCE			
PARIS			
COLLEGE OF FRANCE			
LE DOUARIN, NICOLE M.....	MIGRATION AND DIFFERENTIATION OF NEURAL CREST CELLS.....	2R01 DE04257-04	20,500
ORGANIZATION TOTAL	1 20,500		
NATIONAL CENTER FOR SCIENTIFIC RESEARCH			
POLONSKY, JUDITH.....	NEW NATURAL ANTINEOPLASTIC QUASSINOIDS AND LIMONIDS.....	1R01 CA26699-01	34,395
ORGANIZATION TOTAL	1 34,395		
NATURE AND BIOLOGICAL SOCIETY			
ROBEL, PAUL.....	STUDY OF STEROID RECEPTORS IN BPH CELL TYPES.....	5R01 AM25461-02	30,030
ORGANIZATION TOTAL	1 30,030		
UNIVERSITY OF PARIS VII			
DAUSSET, JEAN.....	SURFACE LEUKOCYTE ANTIGENS AND SKIN GRAFTS.....	2R01 AI09293-19	33,000
ORGANIZATION TOTAL	1 33,000		
COUNTRY TOTAL	4 117,925		
GERMANY FED R			
TUBINGEN			
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE—INSTITUTE FOR BIOLOGY			
KLEIN, JAN.....	POLYMORPHISM OF THE MAJOR HISTOCOMPATIBILITY COMPLEX.....	5R01 AI14736-03	93,564
ORGANIZATION TOTAL	1 93,564		
COUNTRY TOTAL	1 93,564		
GUATEMALA			
GUATEMALA			
PAN AMERICAN HEALTH ORGANIZATION—INSTITUTE OF NUTRITION OF CENTRAL AMERICA AND PANAMA			
URRUTIA, JUAN J.....	EFFECT OF OPSONINS REPLACEMENT IN SEVERE MALNUTRITION.....	5R22 HD11844-02	93,473
ORGANIZATION TOTAL	1 93,473		
COUNTRY TOTAL	1 93,473		
IRELAND			
DUBLIN			
ST. VINCENT'S HOSPITAL			
MC KENNA, TERENCE J.....	HORMONAL DISTURBANCES IN ANOVULATORY-HIRSUITE PATIENTS.....	5R01 HD12248-03	53,305
ORGANIZATION TOTAL	1 53,305		
COUNTRY TOTAL	1 53,305		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ISRAEL			
HAIFA			
TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY			
HERSHKO, AVRAM.....	MECHANISMS OF INTRACELLULAR PROTEIN BREAKDOWN.....	1R01 AM25614-01	28,000
PERLMAN, IDO.....	MECHANISMS OF VISUAL ADAPTATION IN THE VERTEBRATE EYE.....	1R01 EY03423-01	25,750
ORGANIZATION TOTAL	2	53,750	
JERUSALEM			
HADASSAH UNIVERSITY HOSPITAL			
COHEN, ALAN M.....	EPIDEMIOLOGY OF DIABETES AMONG NEW IMMIGRANT YEMENITES.....	5R01 AM20733-03	54,389
EISENBERG, SHLOMO.....	PLASMA LIPOPROTEINS CONVERSIONS—PATHWAYS & MECHANISMS.....	5R01 HL23864-02	47,531
SLAVIN, SHIMON.....	A NEW APPROACH TO MARROW AND ORGAN TRANSPLANTATION.....	5R01 AI15387-02	65,731
STEIN, YECHESKIEL.....	DIETS FOR PREVENTION OF CHD AND HDL METABOLISM.....	5R01 HL24680-02	81,845
ORGANIZATION TOTAL	4	249,496	
HEBREW UNIVERSITY OF JERUSALEM			
BAB, ITAI A.....	DYNAMICS OF MATRIX VESICLE ACTIVITY IN SOCKET HEALING.....	1R23 DE05453-01	13,528
CABANTCHIK, Z IOAV.....	ANION TRANSPORT: MOLECULAR DISSECTION OF PROCESSES.....	1R01 GM27753-01	51,037
CEDAR, HOWARD.....	TRANSCRIPTION AND MODIFICATION OF CHROMATIN DNA.....	2R01 GM20483-07	49,411
CERASI, EROL.....	PATHOGENESIS OF DIABETES MELLITUS.....	5R01 AM21598-03	109,525
DIKSTEIN, SHABTAY.....	GABA AND THE RABBIT CORNEAL ENDOTHELIAL PUMP.....	5R01 EY02919-02	29,352
GATT, SHIMON.....	METABOLISM OF THE SPHINGOLIPIDS AND C24 FATTY ACIDS.....	2R01 NS02967-20	53,755
GLASER, GAD.....	STRUCTURE AND CONTROL OF E COLI PROMOTER ACTIVITY.....	5R01 GM25286-03	29,036
LEVITZKI, ALEXANDER.....	BETA-ADRENERGIC RECEPTOR ADENYLATE CYCLASE COMPLEX.....	5R01 GM26604-02	40,924
LEVITZKI, ALEXANDER.....	THE ADENOSINE RECEPTOR AND ITS MODE OF COUPLING.....	1R01 GM27087-01	44,035
NAOR, DAVID.....	IMMUNE RESPONSE TO MOLONEY INDUCED YAC TUMOR.....	5R01 CA23874-03	51,833
ROTSCHENKER, SHLOMO.....	RESPONSE OF INTACT MOTOR NEURONS TO NEURONAL LESION.....	5R01 NS14507-02	17,195
SCHRAMM, MICHAEL.....	ACTION OF HORMONE RECEPTORS IN THE CELL MEMBRANE.....	5R01 AM10451-15	81,192
SELINGER, ZVI.....	A SEARCH FOR LONG-LASTING ANALOGS OF SUBSTANCE P.....	1R01 NS16658-01	56,800
SHAFRIR, ELEAZAR.....	METABOLISM OF LOW INSULIN RESPONDING SPINY MOUSE.....	5R01 AM21228-03	46,780
SHOSHAN, SHMUEL.....	COLLAGEN IN GENETICALLY SELECTED DIABETIC RATS.....	3R01 AM21239-02S1	2,500
SHOSHAN, SHMUEL.....	COLLAGEN IN GENETICALLY SELECTED DIABETIC RATS.....	5R01 AM21239-03	34,464
ORGANIZATION TOTAL	16	711,367	
REHOVOT			
KAPLAN HOSPITAL			
BENTWICH, ZVI H.....	VARIATION IN CANCER PATIENT SURVIVAL BY RACE.....	5R01 CA24418-03	47,853
ORGANIZATION TOTAL	1	47,853	
WEIZMANN INSTITUTE OF SCIENCE			
ALONI, YOSEF.....	CONTROL OF GENE EXPRESSION IN TUMOR VIRUSES AND CELLS.....	2R01 CA14995-07	75,150
BERENBLUM, ISAAC.....	NEW APPROACHES TO SYSTEMIC TWO-STAGE CARCINOGENESIS.....	2R01 CA21088-04	52,100
COHEN, IRUN R.....	IMMUNITY AND AUTOIMMUNITY TO INSULIN.....	1R01 AM26766-01	42,300
FELDMAN, MICHAEL.....	THE IMMUNOBIOLOGY OF TUMOR METASTASIS.....	1R01 CA28139-01	91,350
GRINVALD, AMIRAM.....	PLASTICITY AND REGENERATION IN THE CNS.....	5R01 NS14716-02	15,501
HAGLER, ARNOLD T.....	MONTE CARLO SIMULATION OF WATER IN BIOLOGICAL SYSTEMS.....	5R01 GM24117-03	25,945
SCHLESSINGER, JOSEPH.....	RECEPTORS & GROWTH FACTORS FOR NEOPLASTIC CELLS.....	5R01 CA25820-02	33,490
SHINITZKY, MEIR.....	MODULATION OF CELLULAR RESPONSES BY MEMBRANE FLUIDITY.....	1R01 CA27471-01	75,330
YAFFE, DAVID.....	CONTROL OF DIFFERENTIATION IN ESTABLISHED CELL LINES.....	2R01 GM22767-04	49,410
ORGANIZATION TOTAL	9	460,576	
TEL AVIV			
TEL AVIV UNIVERSITY			
WITZ, ISAAC P.....	FUNCTIONS OF TUMOR-BOUND IG AND IG-RECEPTOR MOLECULES.....	2R01 CA20088-04	123,310
ORGANIZATION TOTAL	1	123,310	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
ISRAEL—Continued			
TEL HASHOMER			
CHAIM SHEBA MEDICAL CENTER			
MODAN, MICHAELA	RISK FACTORS IN GLUCOSE INTOLERANCE	5R01 AM23090-02	200,000
ORGANIZATION TOTAL	1 200,000		
COUNTRY TOTAL	34 1,846,352		
ITALY			
CAGLIARI			
UNIVERSITY OF CAGLIARI			
CAO, ANTONIO	MANAGEMENT AND CONTROL OF B THALASSEMIA	5R01 HL24173-02	28,290
ORGANIZATION TOTAL	1 28,290		
MILAN			
MARIO NEGRI INSTITUTE FOR PHARMACOLOGICAL RESEARCH			
GARATTINI, SILVIO	PHARMACOBIOLOGICAL ASPECTS OF METASTATIC CANCER CELLS	5R01 CA12764-08	46,640
MANTOVANI, ALBERTO	MONONUCLEAR PHAGOCYTES IN HUMAN OVARIAN CARCINOMA	1R01 CA26824-01	28,450
TAGLIABUE, ALDO	IMMUNOLOGICAL REACTIVITIES AND MTV INFECTIONS	1R01 CA26799-01	41,600
ORGANIZATION TOTAL	3 116,690		
NAPLES			
UNIVERSITY OF NAPLES			
ALOJ, SALVATORE M.	STRUCTURE & FUNCTION OF HORMONE, TOXINS & IF RECEPTORS	5R01 AM21689-02	32,000
ORGANIZATION TOTAL	1 32,000		
PISA			
UNIVERSITY OF PISA			
POMPEIANO, OTTAVIO	SENSORY MECHANISMS AND MOTOR CONTROL	5R01 NS07685-12	15,400
ORGANIZATION TOTAL	1 15,400		
COUNTRY TOTAL	6 192,380		
JAPAN			
KAWASAKI			
ST. MARIANNA UNIVERSITY			
TADANO, TAKEO T.	GENETIC STUDIES ON THE MOSQUITO AEDES (FINLAYA) TOGOI	1R22 AI16983-01	6,872
TÖYODA, JUN-ICHI	IONIC BASIS OF RETINAL CELL POTENTIAL	5R01 EY02392-03	20,630
ORGANIZATION TOTAL	2 27,502		
TOKYO			
JUNTENDO UNIVERSITY			
KABASAWA, IZUMI	AGING LENS PROTEINS AND CATARACTS	5R01 EY02900-03	13,200
ORGANIZATION TOTAL	1 13,200		
COUNTRY TOTAL	3 40,702		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
MEXICO			
MEXICO			
NATIONAL POLYTECHNIC INSTITUTE			
CEREJIDO, MARCELINO	EPITHELIOID CELL MONOLAYERS--EPITHELIAL MEMBRANES MODEL	1R01 AM26481-01	54,180
ORGANIZATION TOTAL	1 54,180		
COUNTRY TOTAL	1 54,180		
NETHERLANDS			
AMSTERDAM			
NETHERLANDS CANCER INSTITUTE			
HAGEMAN, PHILOMENA C	MAMMARY CANCER IN ANIMALS AND MAN--CONFERENCE	1R13 CA28816-01	15,000
ORGANIZATION TOTAL	1 15,000		
LEIDEN			
STATE UNIVERSITY OF LEIDEN			
SOBELS, FREDERIK H	INDUCTION OF GENETIC DAMAGE BY CHEMICAL MUTAGENS	3R01 ES01027-06S1	56,601
ORGANIZATION TOTAL	1 56,601		
WAGENINGEN			
STATE AGRICULTURAL UNIVERSITY			
DE BOER, PETER	CHEMICALLY INDUCED NON-DISJUNCTION IN MUTANT MICE	5R01 ES01921-02	48,210
ORGANIZATION TOTAL	1 48,210		
COUNTRY TOTAL	3 119,811		
NEW ZEALAND			
PALMERSTON NORTH			
MASSEY UNIVERSITY			
JOLLY, ROBERT D	MANNOSIDOSIS--A MODEL FOR LYSOSOMAL STORAGE DISEASES	5R01 NS11238-07	48,800
ORGANIZATION TOTAL	1 48,800		
COUNTRY TOTAL	1 48,800		
S AFR REP OF			
PRETORIA			
UNIVERSITY OF PRETORIA			
FALKSON, GEOFFREY	EASTERN COOPERATIVE ONCOLOGY GROUP STUDIES	5R10 CA21692-04	59,254
ORGANIZATION TOTAL	1 59,254		
COUNTRY TOTAL	1 59,254		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
SPAIN			
MADRID			
AUTONOMOUS UNIVERSITY OF MADRID			
SALAS, MARGARITA.....	DNA-PROTEIN COMPLEX BACILLUS SUBTILIS PHAGE 029	1R01 GM27242-01	41,570
ORGANIZATION TOTAL	1	41,570	
COUNTRY TOTAL	1	41,570	
SWEDEN			
GOTHENBURG			
GOTHENBURG UNIVERSITY			
BJORNTORP, PER A.....	OBESITY, DIABETES, AND ADIPOSE TISSUE DEVELOPMENT.....	5R01 AM25173-02	38,259
LINDHE, JAN T.....	PLAQUE CONTROL—HEALING FOLLOWING PERIODONTAL SURGERY.....	5R01 DE04890-02	54,436
LINNER, ERIK E.....	PROSPECTIVE STUDY OF OCULAR HYPERTENSIVE SUBJECTS.....	5R01 EY03035-02	34,150
ORGANIZATION TOTAL	3	126,845	
LUND			
UNIVERSITY OF LUND			
FALCK, BENGT O.....	NEW METHODS FOR THE STUDY OF AMINE TRANSMITTERS.....	5R01 NS06701-14	34,782
SIESJO, BO K.....	MECHANISM OF CELLULAR DAMAGE IN THE BRAIN.....	5R01 NS07838-12	47,565
SJOGREN, HANS O.....	IMMUNITY TO BOWEL NEOPLASMS IN RATS AND MAN.....	5R26 CA14924-08	128,391
ORGANIZATION TOTAL	3	210,738	
STOCKHOLM			
CAROLINE INSTITUTE			
BLOMBACK, BIRGER E.....	STRUCTURE-FUNCTION OF FIBRINOGEN AND FACTOR VIII.....	2R01 HL07379-15	74,890
KIESSLING, ROLF.....	IN VIVO ROLE OF NATURAL KILLER CELLS.....	1R01 CA26782-01	60,000
KLEIN, EVA.....	AUTOREACTIVE CELLS IN TUMOR PATIENTS.....	1R01 CA25184-01A1	59,020
KLEIN, EVA.....	NATURAL KILLER CELLS: GENETIC CONTROL AND ROLE.....	5R01 CA25250-02	58,270
KLEIN, GEORGE.....	RELEVANCE AND FUNCTIONS OF NATURAL KILLER CELLS.....	2R01 CA14054-07A1	75,760
ORGANIZATION TOTAL	5	327,940	
UNIVERSITY OF STOCKHOLM			
ERNSTER, LARS.....	METABOLISM OF POLYCYCLIC HYDROCARBONS AND CANCER.....	1R01 CA26261-01	81,645
ORGANIZATION TOTAL	1	81,645	
UPPSALA			
UNIVERSITY OF UPPSALA			
BÁRANY, ERNST H.....	COMPARATIVE STUDIES OF GLAUCOMA.....	2R01 EY00231-16	100,898
BILL, ANDERS A.....	NUTRITION OF THE EYE.....	5R01 EY00475-14	70,100
PETERSON, PER A.....	RETINOL METABOLISM WITH SPECIAL REGARD TO THE EYE.....	5R01 EY02417-03	66,000
WIGZELL, HANS L.....	RELEVANCE AND FUNCTIONS OF NATURAL KILLER CELLS.....	1R01 CA26752-01	60,000
ORGANIZATION TOTAL	4	296,998	
COUNTRY TOTAL	16	1,044,166	

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
SWITZERLAND			
BASEL			
UNIVERSITY OF BASEL			
ERB, PETER.....	IMMUNOGENETIC REGULATION OF T-MACROPHAGE INTERACTIONS.....	5R01 AI14513-02	47,715
ORGANIZATION TOTAL	1 47,715		
GENEVA			
INTERNATIONAL UNION AGAINST CANCER			
DELAFRESNAYE, JOHN F.....	PROGRAM OF THE INTERNATIONAL UNION AGAINST CANCER.....	2R13 CA05096-19	130,048
MIRAND, EDWIN A.....	INTERNATIONAL CANCER CONGRESS (UICC).....	2R13 CA27210-02	154,906
ORGANIZATION TOTAL	2 284,954		
UNIVERSITY OF GENEVA			
ILLMENSEE, KARL.....	GENE EXPRESSION DURING MAMMALIAN DEVELOPMENT.....	1R01 CA27713-01	78,680
JEANRENAUD, BERNARD.....	CENTRAL NERVOUS SYSTEM CONTROL OF ENDOCRINE PANCREAS.....	5R01 AM25220-02	20,000
ORGANIZATION TOTAL	2 98,680		
ZURICH			
UNIVERSITY OF ZURICH			
ZINKERNAGEL, ROLF M.....	SPECIFICITY OF VIRUS-IMMUNE T CELLS IN VITRO & VIVO.....	1R01 AI17285-01	46,700
ORGANIZATION TOTAL	1 46,700		
COUNTRY TOTAL	6 478,049		
UNITED KINGDOM			
BLETCHLEY			
OPEN UNIVERSITY			
ELLIOTT, GERALD F.....	X-RAY AND NEUTRON DIFFRACTION STUDIES OF CORNEAL STROMA.....	5R01 EY02710-02	21,938
ORGANIZATION TOTAL	1 21,938		
BRISTOL			
UNIVERSITY OF BRISTOL			
PURVES, MICHAEL J.....	THE CONTROL OF BREATHING BEFORE AND AFTER BIRTH.....	5R01 HD09457-05	73,930
SINNOTT, MICHAEL L.....	BRAIN GLYCOSIDASES—MECHANISM AND SPECIFICITY.....	5R01 GM22769-03	19,911
ORGANIZATION TOTAL	2 93,841		
CAMBRIDGE			
AGRICULTURAL RESEARCH COUNCIL—INSTITUTE OF ANIMAL PHYSIOLOGY			
HOWARD, JONATHAN C.....	GENETICS OF RESPONSE TO HISTOCOMPATIBILITY ANTIGENS.....	5R01 AI13162-05	61,738
ORGANIZATION TOTAL	1 61,738		
LEEDS			
UNIVERSITY OF LEEDS			
POWELL, KENNETH L.....	HERPES SIMPLEX VIRUS NON-STRUCTURAL PROTEINS.....	5R01 AI15034-03	43,574
ORGANIZATION TOTAL	1 43,574		

Table 2.—NIH Research Grants, by Area, Organization, and Principal Investigator, Fiscal Year 1980—Continued

Principal investigator	Project title	Grant number	Dollars
UNITED KINGDOM—Continued			
LONDON			
AGRICULTURAL RESEARCH COUNCIL			
SETCHELL, BRIAN P.....	FUNCTION OF THE BLOOD-TESTIS BARRIER.....	5R01 HD12312-02	38,551
ORGANIZATION TOTAL	1	38,551	
UNIVERSITY OF LONDON			
BIRD, ALAN C.....	DISCIFORM MACULAR DISEASE: CONTROLLED TREATMENT TRIAL.....	5R01 EY02168-02	34,937
BROOKES, PETER.....	BIOLOGICAL RESULT OF CARCINOGEN INDUCED DAMAGE TO DNA.....	5R01 CA25807-02	116,280
FELDMANN, MARC.....	IMMUNOGENETIC REGULATION OF T-MACROPHAGE INTERACTION.....	5R01 AI15636-02	54,244
FELDMANN, MARC.....	REGULATION OF IMMUNE RESPONSES BY SPECIFIC FACTORS.....	5R01 AI15653-02	27,644
PAULING, PETER J.....	THE THREE-DIMENSIONAL STRUCTURE OF PROTEIN MOLECULES.....	5R01 GM25435-03	20,162
SIMS, PETER.....	METABOLIC ACTIVATION OF THE POLYCYCLIC HYDROCARBONS.....	5R01 CA21959-03	27,695
SIMS, PETER.....	MECHANISMS OF ACTIVATION OF POLYCYCLIC HYDROCARBONS.....	2R01 CA21959-04	72,903
STEEL, G GORDON.....	THERAPEUTIC RESPONSE OF HUMAN TUMOR XENOGRAFTS.....	5R01 CA26059-02	103,950
WALL, PATRICK D.....	CONTROL OF SOMATOSENSORY TRANSMISSION.....	2R01 NS07710-10A1	17,120
WILLIAMSON, ROBERT.....	GENE SEQUENCES ACTIVATING GAMMA-GLOBIN GENE TRANSCRIPTON.....	5R01 AM20125-03	65,592
ORGANIZATION TOTAL	10	540,527	
OXFORD			
UNIVERSITY OF OXFORD			
BALDWIN, JACK E.....	CHELATING AGENTS AS BLOOD SUBSTITUTES.....	5R01 HL23120-03	56,696
CRABBE, M JAMES.....	ENZYME MECHANISMS IN OCULAR DIABETIC DISEASES.....	1R01 EY03440-01	40,094
KREBS, HANS A.....	ASPECTS OF THE REGULATION OF METABOLIC PROCESSES.....	2R01 AM11748-12	38,700
PIRIE, ANTOINETTE.....	STUDIES OF SERIOUS CORNEAL XEROPHTHALMIA.....	3R01 EY01937-03S1	3,995
ORGANIZATION TOTAL	4	139,485	
COUNTRY TOTAL	20	939,654	
YUGOSLAVIA			
BELGRADE			
UNIVERSITY OF BELGRADE			
LUKATELA, GEORGIJE L.....	PROCESSES BASIC TO READING IN SERBO-CROATIAN.....	5R01 HD08495-05	40,324
ORGANIZATION TOTAL	1	40,324	
COUNTRY TOTAL	1	40,324	

**Table 3.—NIH Research Career Program Awards by Area,
Organization, and Awardee, Fiscal Year 1980**

Awardee	Project title	Grant number
ALABAMA		
BIRMINGHAM		
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294		
CASSELL, GAIL H.....	MURINE CRD: A MODEL OF CHRONIC PULMONARY INFLAMMATION.....	5K04 HL00387-04
GRIFFIN, FRANK M, JR.....	FUNCTIONS OF PHAGOCYTIC RECEPTORS OF MACROPHAGES.....	5K04 AI00135-02
HUNTER, ERIC.....	GENETICS OF PRIMATE 'D' TYPE RETROVIRUSES.....	1K04 CA00685-01
KEARNEY, JOHN F.....	REGULATION OF B CELL CLONAL DIVERSITY.....	5K04 AI00338-02
KIM, HYUN D.....	MEMBRANE-LIMITED METABOLISM IN MAMMALIAN RED CELLS.....	5K04 AM00820-05
MICHALEK, SUZANNE M.....	CELLULAR BASIS OF IMMUNITY TO DENTAL CARIES.....	1K04 DE00092-01
PACE, CAROLINE S.....	ELECTROPHYSIOLOGICAL STUDIES OF CULTURED ISLET CELLS.....	5K04 AM00499-03
REYNERTSON, RICHARD H.....	GLOMERULAR B.M. GLYCOSYLTRANSFERASE RADIOIMMUNOASSAY.....	5K08 AM00465-03
SCHUTZBACH, JOHN S.....	BIOCHEMISTRY—SYNTHESIS OF CELL SURFACE GLYCOCONJUGATION.....	5K04 CA00526-02
SNEAD, ORLANDO C, III.....	HYDROXYBUTYRATE IN CNS: FUNCTIONAL CONSIDERATIONS.....	1K07 NS00484-01
WINTERNITZ, SHERRY R.....	PULMONARY MEDICINE.....	1K08 HL00707-01
MOBILE		
UNIVERSITY OF SOUTH ALABAMA ZIP CODE 36688		
FUNKHOUSER, JANE D.....	FETAL LUNG DEV. & DIFFERENTIATION IN ORGAN CULTURE.....	5K04 HD00210-03
GREENBERG, STANLEY.....	VASCULAR SMOOTH MUSCLE MECHANISMS IN HYPERTENSION.....	5K04 HL00428-04
KIRKPATRICK, MICHAEL B.....	MEDICAL SCHOOL PULMONARY FACULTY TRAINING AWARD.....	5K08 HL00543-02
MC CORD, JOE M.....	SUPEROXIDE AND SUPEROXIDE DISMUTASE IN HUMAN DISEASE.....	5K04 AM00595-02
OAKES, JOHN E.....	PATHOGENESIS OF HERPESVIRUS INFECTIONS.....	1K04 AI00403-01
ARIZONA		
TUCSON		
UNIVERSITY OF ARIZONA ZIP CODE 85721		
HALONEN, MARILYN J.....	ANIMAL MODEL OF IGE-INDUCED PULMONARY DISEASE.....	5K04 HL00463-03
PUTNAM, ANNE H.....	BIOMECHANICS OF NORMAL & DISORDERED SPEECH PRODUCTION.....	5K07 NS00303-03
REST, RICHARD F.....	MECHANISMS OF INTRACELLULAR PATHOGENESIS.....	1K04 AI00382-01
ROESKE, WILLIAM R.....	MYOCARDIAL RECEPTOR REGULATION.....	1K04 HL00776-01
RUSSELL, DIANE H.....	PREVENTIVE ONCOLOGY ACADEMIC AWARD.....	1K07 CA00732-01

NOTE: Grants are listed according to the State or Country and City of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
ARKANSAS		
FAYETTEVILLE		
UNIVERSITY OF ARKANSAS AT FAYETTEVILLE ZIP CODE 72701		
GEREN, COLLIS R.....	VENOM COMPONENTS: ISOLATION, CHARACTERIZATION AND USE.....	5K04 ES00052-02
LITTLE ROCK		
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES AT LITTLE ROCK ZIP CODE 72201		
BONE, ROGER C.....	PULMONARY MEDICINE.....	5K07 HL00518-02
FEWELL, JAMES E.....	PULMONARY MEDICINE.....	5K08 HL00445-03
JONES, JOE M.....	GENETIC CONTROL OF NEOPLASIA IN RATS.....	1K04 CA00630-01
CALIFORNIA		
BERKELEY		
UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720		
FREEMAN, RALPH D.....	VISUAL DEVELOPMENT & DEPRIVATION IN HUMANS & ANIMALS.....	5K04 EY00092-04
PERELSON, ALAN S.....	MEDICAL SCIENCES.....	7K04 AI00450-02
WILSON, MARTIN C.....	SYNAPTIC TRANSMISSION IN THE OUTER PLEXIFORM LAYER.....	3K07 EY00159-01S1
WILSON, MARTIN C.....	SYNAPTIC TRANSMISSION IN THE OUTER PLEXIFORM LAYER.....	5K07 EY00159-02
DAVIS		
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616		
CHOLE, RICHARD A.....	VITAMIN A ROLE IN INNER EAR PRESBYCUSIN-AGING.....	5K07 NS00396-02
GERSHWIN, M. ERIC.....	THE PATHOGENESIS OF AUTOIMMUNITY IN NEW ZEALAND MICE.....	5K04 AI00193-04
JOHNSON, CHRIS A.....	PSYCHOPHYSICAL EXAMINATION OF THE VISUAL FIELDS.....	5K07 EY00095-03
LEONARD, REBECCA J.....	ARTICULATORY DYNAMICS IN NORMAL AND DISORDERED SPEECH.....	1K07 NS00469-01
LEWIS, ALVIN E.....	ANALYTIC PATHOLOGY.....	3K10 LM00007-02S1
MEARES, CLAUDE F.....	BIFUNCTIONAL CHELATING AGENTS IN TUMOR LOCALIZATION.....	5K04 CA00462-02
OVERSTREET, JAMES W.....	SPEERM MOTILITY, TRANSPORT AND FERTILITY IN MAMMALS.....	5K04 HD00224-03
IRVINE		
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717		
BENNETT, ALBERT F.....	PHYSIOLOGICAL BASIS OF METABOLISM AND ACTIVITY.....	5K04 AM00351-03
BLANKS, ROBERT H.....	EYE MOVEMENT—PHYSIOLOGICAL/ANATOMICAL ORGANIZATION.....	5K04 EY00160-02
CUNNINGHAM, DENNIS D.....	INITIATION OF FIBROBLAST DIVISION BY GLUCOCORTICOIDS.....	5K04 CA00171-05
GUTMAN, GEORGE A.....	SEROLOGICAL AND STRUCTURAL STUDIES ON RAT KAPPA CHAINS.....	5K04 AI00286-03
HALL, JAMES E.....	MOLECULAR MECHANISMS OF EXCITABILITY.....	5K04 HL00579-02
HAMKALO, BARBARA A.....	ULTRASTRUCTURAL ASPECTS OF GENE REGULATION.....	5K04 GM00233-05
LONGMUIR, KENNETH J.....	PULMONARY MEDICINE.....	5K08 HL00456-03
MANNING, JERRY E.....	ORGANIZATION OF MRNA CODING SEQUENCES IN DROSOPHILA.....	5K04 CA00522-02
MURLAS, CHRISTOPHER G.....	PULMONARY MEDICINE.....	1K08 HL00624-01
STANBRIDGE, ERIC J.....	GENETIC ANALYSIS OF HUMAN MALIGNANCY.....	5K04 CA00271-03
WATSON, JAMES D.....	MECHANISM REGULATING INDUCTION OF ANTIBODY SYNTHESIS.....	5K04 AI00182-05
WHITE, STEPHEN H.....	MODEL STUDIES OF MYELIN STABILITY.....	5K04 NS00146-05
LA JOLLA		
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037		
CHISARI, FRANCIS V.....	IMMUNOBIOLOGY AND PATHOGENESIS OF HEPATITIS B.....	5K04 AI00174-05
CURD, JOHN G.....	ACTIVATION OF TERMINAL COMPLEMENT COMPONENTS IN DISEASE.....	5K08 AM00543-02
GINSBERG, MARK H.....	THE ROLE OF PLATELETS IN RHEUMATIC DISEASES.....	1K04 AM00720-01
GOODMAN, MICHAEL G.....	REGULATION OF NONSPECIFIC LYMPHOCYTE ACTIVATION.....	1K04 AI00374-01
GRIFFIN, JOHN H.....	BIOCHEMISTRY AND REGULATION OF HUMAN FACTOR XII.....	5K04 HL00192-05

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
CALIFORNIA—Continued		
PAINTER, RICHARD G	THE ROLE OF MECHANOCHEMICAL PROTEINS IN SECRETION	5K04 AM00437-03
PELLEGRINO, MICHELE A	URINE AS SOURCE OF HUMAN HISTOCOMPATIBILITY ANTIGENS	5K04 CA00246-03
THEOFILOPOULOS, ARGYRIOS N	CIRCULATING IMMUNE COMPLEXES—CANCER/IMMUNOLOGIC DIS.	5K04 CA00303-04
ULEVITCH, RICHARD J	THE MOLECULAR PATHOLOGY OF ENDOTOXIN SHOCK	1K04 AI00391-01
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093		
ALHADEFF, JACK A	HUMAN LIVER SIALYLTRANSFERASES AND ALPHA-L-FUCOSIDASE	5K04 AM00257-03
BARNHART, JAMES L	BILIARY RADIOGRAPHIC CONTRAST MATERIAL	1K04 AM00680-01
BAUGH, ROBERT F	BIOCHEMICAL CHARACTERIZATION OF HEMOPHILIA	5K04 HL00271-04
DILLMANN, WOLFGANG H	CARDIAC EFFECTS OF THYROID HORMONES & PROTEIN SYNTHESIS	5K04 HL00583-05
HARGENS, ALAN R	EFFECTS OF TOURNIQUET ISCHEMIA ON SKELETAL MUSCLE	5K04 AM00602-02
HIGGINS, CHARLES B	EFFECTS OF CONTRAST MEDIA & HEART FAILURE ON CHEMOREFLEX	5K04 HL00201-05
HILL, ESTHER P	KINETICS OF CO ₂ AND CO EXCHANGE	5K04 HL00418-02
KOZIOL, JAMES A	TOPICS IN BIOSTATISTICS	1K04 CA00687-01
KYTE, JACK E	MOLECULAR STRUCTURE OF THE OUABAIN SENSITIVE ATPASE	5K04 HL00206-05
LEIBOWITZ, JULIAN L	PERSISTENCE AND GENETICS OF A NEUROTROPIC MHV	5K07 NS00418-02
NINNEMANN, JOHN L	IMMUNE RESPONSE DURING THERMAL INJURY	3K04 GM00264-04S1
NINNEMANN, JOHN L	IMMUNE RESPONSE DURING THERMAL INJURY	5K04 GM00264-05
RYAN, ALLEN F	AUDITORY DEVELOPMENT—NORMAL & ABNORMAL ENVIRONMENTS	5K04 NS00176-03
WASSERMAN, STEPHEN I	RELEASE AND EFFECTS OF MAST CELL/BASOPHIL MEDIATORS	7K07 AI00431-03
WOO, SAVIO L	BIOMECHANICS OF NORMAL & REPAIRED LIGAMENTS AND TENDONS	5K04 AM00304-04
LOMA LINDA		
LOMA LINDA UNIVERSITY ZIP CODE 92354		
FRASER, GARY E	PREVENTIVE CARDIOLOGY	1K07 HL00663-01
KISSINGER, DAVID G	DIET AND ETIOLOGY OF BREAST CANCER	5K04 HD00188-03
QUILLIGAN, JAMES J, JR	VIRUSES, VACCINATION AND ANTIVIRAL IMMUNITY	5K06 AI20517-18
ROOS, PHILIP J	PULMONARY MEDICINE	5K08 HL00536-02
LOS ANGELES		
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048		
NEUFELD, NAOMI D	EFFECTS OF INSULIN ON FETAL LUNG CHO METABOLISM	5K08 AM00758-03
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027		
ETTENGER, ROBERT B	IMMUNOLOGIC EFFECT OF TRANSFUSION ON RENAL TRANSPLANTS	5K08 AM00597-02
ESTELLE DOHENY EYE FOUNDATION ZIP CODE 90033		
BLANKS, JANET C	RETINAL DIFFERENTIATION, CELL INTERACTIONS, & PLASTICITY	1K04 EY00188-01
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024		
CAHAN, LESLIE D	POLYOMA BINDING TO SURFACE SIALYLLOIGOSACCHARIDES	1K07 NS00544-01
FARBER, DEBORA A	CYCLIC NUCLEOTIDES IN CONE METABOLISM AND DISEASE	5K04 EY00144-02
FINE, LEON G	FUNCTIONAL PROFILE OF THE ISOLATED UREMIC NEPHRON	5K04 AM00585-04
FOGELMAN, ALAN M	CHOLESTEROL METABOLISM AND ATHEROSCLEROSIS	5K04 HL00426-03
GONG, HENRY, JR	PULMONARY MEDICINE	5K07 HL00340-04
HEIDNER, ELIZABETH G	X-RAY & EM STUDIES—RNA-POLYMERASE & GLYCOGEN SYNTHESIS	5K04 GM00085-05
HOLLISTER, DAVID W	BIOCHEMICAL STUDIES OF THE CHONDRODYSSTROPHIES	5K04 AM00293-04
HORWITZ, JOSEPH	HUMAN LENS, BIOCHEMICAL AND BIOPHYSICAL PROPERTIES	5K04 EY00058-04
IRIE, REIKO F	HUMORAL IMMUNE RESPONSES TO HUMAN CANCER	5K04 CA00543-02
JENKINS, HERMAN A	OPTOKINETIC AND VESTIBULAR INTERACTIONS	5K07 NS00294-04
JORDAN, STANLEY C	IMMUNO-PATHOLOGY	1K08 AM00942-01
KANE, ROBERT L	GERIATRIC MEDICINE	5K07 AG00045-02
KLEIN, ALAN H	DEVELOPMENT AND CONTROL OF NEONATAL THERMOGENESIS	5K04 HD00293-02
LANGE, KENNETH L	GENETIC EPIDEMIOLOGY & HUMAN POPULATION BIOLOGY	5K04 HD00307-02
LETINSKY, MICHAEL S	STRUCTURE AND FUNCTION OF DEVELOPING SYNAPSES	5K04 NS00282-04
MEAD, JAMES F	METABOLISM OF BRAIN FATTY ACIDS	5K06 GM19177-18
MUSTAFA, MOHAMMAD G	PULMONARY OXIDANT INJURY AND METABOLIC ADAPTATION	5K04 HL00301-05
NUWAYHD, BAHJ S	NEUROHUMORAL CONTROL OF THE CIRCULATION	5K04 HD00253-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
CALIFORNIA—Continued		
PARDRIDGE, WILLIAM M.	MUSCLE AMINO ACID METABOLISM AND HEPATIC GLUCONEOGENESIS	3K08 AM00409-02S1
PARDRIDGE, WILLIAM M.	ENDOCRINOLOGY OF THE BLOOD-BRAIN BARRIER	1K04 AM00783-01
PECKOFF, ARTHUR.	MATH DESCRIPTION OF ELECTRICAL PROPERTIES OF CELLS.	5K04 GM00222-05
RIVIERE, GEORGE R.	TOOTH TRANSPLANTATION GENETICS AND IMMUNOLOGY	5K04 DE00044-04
SAXON, ANDREW.	REGULATION OF THE IMMUNE SYSTEM IN HUMANS.	5K07 AI00326-02
STRELIOFF, DAVID.	NEURAL EXCITATION IN THE COCHLEA	5K04 NS00255-04
VALENTINE, JOAN S.	THE CHEMISTRY AND BIOCHEMISTRY OF SUPEROXIDE ANION	7K04 AM00822-04
VALENTINE, JOAN S.	THE CHEMISTRY AND BIOCHEMISTRY OF SUPEROXIDE ANION	5K04 AM00822-05
WISNIESKI, BERNADINE J.	PHYSICAL STRUCTURE OF ANIMAL CELL MEMBRANES	5K04 GM00228-05
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007		
CLOUGH, WENDY G.	EBV DNA SYNTHESIS IN TRANSFORMED LYMPHOCYTES	1K04 CA00707-01
HSUEH, WILLA A.	BIG RENIN: PHYSIOLOGIC AND BIOCHEMICAL PROPERTIES	5K08 AM00759-02
MELNICK, MICHAEL	H-2 ROLE IN TERATOGEN-INDUCED CRANIOFACIAL MALFORMATION	1K04 DE00083-01
REDDY, K NAGENDRA.	MECHANISM OF ACTIVATION OF PLASMINOGEN BY SK	7K04 HL00869-03
ROSS, RONALD K.	AN EPIDEMIOLOGICAL APPROACH TO CANCER ETIOLOGY	1K04 CA00652-01
RUDE, ROBERT K.	MINERAL METABOLISM IN MAGNESIUM DEFICIENCY	5K08 AM00371-02
SOBIN, SIDNEY S.	STUDIES OF THE MICROCIRCULATION	5K06 HL07064-20
WALSH, DAVID A.	AGE-RELATED DIFFERENCES IN HUMAN COGNITION	5K04 AG00017-03
PASADENA		
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125		
ALLMAN, JOHN M.	FUNCTIONAL ORGANIZATION OF VISUAL CORTEX	5K04 NS00178-05
CAMPBELL, JUDITH L.	ENZYMATIC MECHANISMS OF DNA REPLICATION	5K04 CA00544-02
LAZARIDES, ELIAS	ROLE OF INTERMEDIATE FILAMENTS IN MUSCLE STRUCTURE	1K04 AM00685-01
LESTER, H ALLEN	NICOTINIC SYNAPSES	5K04 NS00272-04
RIVERSIDE		
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521		
HAMMOCK, BRUCE D.	DEVELOPMENT OF ENVIRONMENTALLY SAFE INSECTICIDES	5K04 ES00046-02
HENRY, HELEN L.	KIDNEY CELL CULTURE: REGULATION OF CALCIUM METABOLISM	5K04 AM00412-03
LUBEN, RICHARD A.	NORMAL AND PATHOLOGIC INFLUENCES ON BONE METABOLISM	5K04 DE00057-03
OLSEN, RICHARD W.	BIOCHEMISTRY OF NEUROTRANSMITTER RECEPTOR MECHANISMS	5K04 NS00224-04
QUINTON, PAUL M.	PHYSIOLOGY OF ISOLATED SWEAT GLANDS: CYSTIC FIBROSIS	5K04 AM00708-04
TALBOT, PRUDENCE	MECHANISMS OF OVULATION AND FERTILIZATION	5K04 HD00279-02
SAN FRANCISCO		
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN FRANCISCO STATE UNIVERSITY ZIP CODE 94132		
WALKER, FRANCES A.	HEME & HEMOPROTEIN MODELS—SPECTRA & REDOX STUDIES	3K04 GM00227-04S1
WALKER, FRANCES A.	HEME & HEMOPROTEIN MODELS—SPECTRA & REDOX STUDIES	5K04 GM00227-05
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143		
BASBAUM, ALLAN I.	ANATOMICAL SUBSTRATES OF PAIN CONTROL MECHANISMS	3K04 NS00364-02S1
BASBAUM, ALLAN I.	ANATOMICAL SUBSTRATES OF PAIN CONTROL MECHANISMS	5K04 NS00364-03
BERRY, CHRISTINE A.	WATER TRANSPORT IN PROXIMAL CONVOLUTED TUBULE	1K04 AM00728-01
CALARCO, PATRICIA G.	CELL SURFACE ANTIGENS IN EARLY MOUSE DEVELOPMENT	5K04 HD00244-02
CHAR, DEVRON H.	UVEITIS AND EYE TUMORS: IMMUNODIAGNOSIS AND MONITORING	5K04 EY00117-03
COFFINO, PHILIP	GENETIC ANALYSIS OF C-AMP ACTION IN LYMPHOMA CELLS	5K04 GM00308-04
COOKE, ROGER	CONTRACTION IN SKELETAL AND CARDIAC MUSCLE	5K04 AM00479-03
FEINGOLD, KENNETH R.	SERCA—DIABETES MELLITUS—CARDIOVASCULAR	5K01 AM00633-02
GARDNER, DAVID G.	REGULATION OF EXPRESSION OF THE GROWTH HORMONE GENE	5K08 AM00671-02
GLANTZ, STANTON A.	EXTERNAL CONSTRAINTS EFFECTS ON LEFT VENTRICLE MECHANICS	3K04 HL00345-03S1
GLANTZ, STANTON A.	EXTERNAL CONSTRAINTS EFFECTS ON LEFT VENTRICLE MECHANICS	5K04 HL00345-04
GOLDYNE, MARC E.	INVESTIGATION OF PROSTAGLANDINS IN MACROPHAGES	5K08 AM00576-02
HOLTZMAN, MICHAEL J.	MECHANISMS OF AIRWAY HYPERREACTIVITY	1K08 HL00797-01
JAMES, THOMAS L.	NMR STUDIES OF BIOMOLECULAR INTERACTIONS AND DYNAMICS	5K04 AM00291-02
KORENBROT, JUAN I.	RHODOPSIN AND TRANSDUCTION IN ROD PHOTORECEPTORS	5K04 EY00050-03

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
CALIFORNIA—Continued		
KUN, ERNEST	BIOCHEMICAL REGULATORY MECHANISMS	5K06 GM04615-17
LIPTON, MARTIN J.	CARDIAC RECONSTRUCTION USING COMPUTERIZED TOMOGRAPHY	5K04 HL00360-04
MESCHER, EDWARD J.	CONTROL OF LIPID SECRETION BY ISOLATED TYPE II CELLS	1K08 HL00706-01
MILLER, WALTER L.	ISOLATION OF THE GENE FOR HUMAN GROWTH HORMONE	5K08 AM00422-03
NICHOLS, BARBARA A.	THE DEFENSE OF THE LUNG BY ALVEOLAR MACROPHAGES	5K04 AI00294-03
NICOLL, ROGER A.	BARBITURATES: ACUTE AND CHRONIC SYNAPTIC EFFECTS	5K04 NS00287-04
NYDEGGER, CORINNE N.	FATHER-CHILD RELATIONS IN LATE LIFE	1K04 AG00097-01
OPPENHEIMER, NORMAN J.	STRUCTURE/FUNCTION RELATIONSHIPS OF PYRIDINE COENZYMES	5K04 CA00587-02
OSTWALD, THOMAS J.	ION TRANSPORT AND NA-K ATPASE OF PIGMENT EPITHELIUM	5K07 EY00131-03
PAWSON, IVAN G.	BIOCULTURAL RISKS IN LONGEVITY: SAMOANS IN CALIFORNIA	5K04 AG00022-02
PERMAN, JAY A.	CARBOHYDRATE ABSORPTION IN NEONATES—BREATH ANALYSIS	5K04 HD00297-02
PITTS, LAWRENCE H.	TRAUMATIC CEREBRAL EDEMA	5K07 NS00436-02
RAPOPORT, BASIL	THYROID STIMULATORS IN HEALTH AND DISEASE	5K04 AM00500-03
ROBERTS, JAMES M.	HORMONAL MODULATION OF ADRENORECEPTORS AND RESPONSE	5K04 HD00267-02
ROSEN, STEVEN D.	BIOCHEMISTRY OF CELL ADHESION	3K04 GM00322-03S1
ROSEN, STEVEN D.	BIOCHEMISTRY OF CELL ADHESION	5K04 GM00322-04
SANDHAUS, ROBERT A.	REGULATION OF ELASTASE AND OTHER PHAGOCYTE PROTEASES	1K08 HL00710-01
SCHARSCHMIDT, BRUCE F.	MECHANISM OF BILE FORMATION AND ORGANIC ANION EXCRETION	5K04 AM00323-04
SCHINDLER, ROBERT A.	PROJECTION ORGANIZATION TO/FROM SUPERIOR OLIVARY COMPLEX	5K07 NS00175-05
SEVERINGHAUS, JOHN W.	RESPIRATORY CHEMORECEPTOR SENSITIVITY CONTROL MECHANISMS	5K06 HL19412-18
SHILLITOE, EDWARD J.	CANCER OF THE MOUTH AND HERPES SIMPLEX VIRUS	1K04 DE00088-01
WARA, DIANE W.	EFFECTS OF THYMIC HORMONE (THYMOSIN) IN MAN	5K04 HD00170-03
WARNOCK, DAVID G.	NA/ION REABSORPTION/H/ION SECRETION RENAL MECHANISMS	5K04 AM00668-02
WIKMAN-COFFETT, JOAN	CONTRACTILE PROTEINS IN ISCHEMIA	5K04 HL00466-04
WILLIAMS, MARY C.	LUNG SURFACTANT: SYNTHESIS, SECRETION, AND STRUCTURE	3K04 HL00221-04S1
WILLIAMS, MARY C.	LUNG SURFACTANT: SYNTHESIS, SECRETION, AND STRUCTURE	5K04 HL00221-05
YAMAMOTO, KEITH R.	MECHANISM OF GENE REGULATION BY STEROID RECEPTOR PROTEIN	5K04 CA00347-04
UNIVERSITY OF THE PACIFIC ZIP CODE 94115		
HIGHSMITH, STEFAN	SEGMENTAL MOTION OF CA ²⁺ /MG ²⁺ +ATPASE IN SR VESICLES	5K04 AM00509-02
SANTA BARBARA		
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA ZIP CODE 93106		
ANDERSON, DON H.	STUDIES ON THE DEVELOPING AND ADULT VISUAL SYSTEMS	1K04 EY00174-01
PURICH, DANIEL L.	ENZYME REGULATION BY COVALENT MODIFICATION	3K04 GM00250-03S1
PURICH, DANIEL L.	ENZYME REGULATION BY COVALENT MODIFICATION	5K04 GM00250-04
SAMUEL, CHARLES E.	MECHANISM OF INTERFERON ACTION	5K04 AI00340-02
SANTA CRUZ		
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064		
MC MURRY, JOHN E.	TOTAL SYNTHESIS OF CARDIAC AGLYCONES	5K04 CA00163-05
STANFORD		
STANFORD UNIVERSITY ZIP CODE 94305		
BLASCHKE, TERRENCE F.	KINETICS OF DRUG-DISEASE AND DRUG-DRUG INTERACTIONS	5K04 GM00407-03
CHOW, KAO L.	NEUROBIOLOGY OF LEARNING AND VISION	5K06 NS18512-19
COOPER, ALLEN D.	REGULATION OF HEPATIC CHOLESTEROL SYNTHESIS	5K04 AM00503-03
CRAPPO, LAWRENCE M.	GERIATRIC MEDICINE	1K07 AG00086-01
GLADER, BERTIL E.	PATHOPHYSIOLOGY OF HEMOLYSIS: ROLE OF RBC DEHYDRATION	5K04 AM00435-05
HUESTIS, WRAY H.	NEUROTRANSMITTER RECEPTORS IN HUMAN ERYTHROCYTES	5K04 HL00258-04
LUETSCHER, JOHN A. JR.	SECRETION AND METABOLISM OF ADRENAL HORMONES	5K06 AM14176-18
MERRELL, RONALD C.	CELL SURFACE BIOCHEMISTRY	5K04 AM00748-02
PERKINS, DAVID D.	GENETICS OF NEUROSPORA	5K06 GM04899-17
RANSOM, BRUCE R.	CELLULAR PHYSIOLOGY OF CNS IN VITRO	1K04 NS00473-01
SHORTLIFF, EDWARD H.	SYMBOLIC COMPUTATION METHODS FOR CLINICAL REASONING	5K04 LM00048-02
SIMONI, ROBERT D.	STRUCTURE-FUNCTION RELATIONSHIPS IN MEMBRANES	5K04 GM00225-05
WHITTEMORE, ALICE S.	EFFECTS OF MULTIPLE EXPOSURES, QUANTITATIVE ASPECTS	1K04 ES00070-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
CALIFORNIA—Continued		
TORRANCE		
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER		ZIP CODE 90509
JOBE, ALAN H.....	LUNG PHOSPHOLIPID METABOLISM DURING DEVELOPMENT.....	5K04 HD00252-03
ROTTER, JEROME I.....	GENETICS OF PEPTIC ULCER DISEASE.....	5K08 AM00523-02
SHAPIRO, LARRY J.....	STEROID SULFATASE BIOCHEMICAL AND GENETIC STUDIES.....	1K04 HD00300-01
UITTO, JOUNI J.....	BIOSYNTHESIS OF COLLAGEN BY HUMAN SKIN FIBROBLASTS.....	3K04 AM00897-02S1
UITTO, JOUNI J.....	BIOSYNTHESIS OF COLLAGEN BY HUMAN SKIN FIBROBLASTS.....	5K04 AM00897-03
COLORADO		
BOULDER		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO AT BOULDER		ZIP CODE 80309
CARLSON, LAWRENCE E.....	MULTI-MODE CONTROL OF UPPER-LIMB PROSTHESES.....	5K04 AM00166-05
CECH, THOMAS R.....	TRANSCRIPTION AND SPLICING OF A EUKARYOTIC RRNA.....	1K04 CA00700-01
HALLICK, RICHARD B.....	GENE EXPRESSION IN ORGANELLES DURING CELL DEVELOPMENT.....	5K04 GM00372-04
DENVER		
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER		ZIP CODE 80206
CHILLER, JACQUES M.....	CELLULAR BASIS OF IMMUNOREGULATORY MECHANISMS.....	5K04 AI00133-05
PACE, NORMAN R.....	SYNTHESIS AND REGULATION OF RIBOSOMAL RNA.....	5K04 GM00189-05
UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER		ZIP CODE 80262
ANDERSON, ROBERT J.....	WATER METABOLISM IN HEART FAILURE AND EDEMATOUS STATES.....	5K04 HL00316-04
ARMSTRONG, DONALD.....	PEROXIDASE DEFICIENCY, AND PEROXIDE REGULATING ENZYMES.....	5K04 EY00130-02
FOX, RICHARD B.....	ROLE OF PHAGOCYTES IN BRONCHOPULMONARY DYSPLASIA.....	1K08 HL00743-01
FREED, CURT R.....	BRAIN CATECHOLAMINES AND REGULATION OF BLOOD PRESSURE.....	1K04 HL00782-01
GAENSBauer, THEODORE J.....	REGULATION OF AFFECT EXPRESSION IN INFANCY.....	5K04 HD00214-04
HAY, WILLIAM W, JR.....	DIABETES MELLITUS: PEDIATRIC ASPECTS.....	1K01 AM00879-01
KOLTERMAN, ORVILLE G.....	MECHANISM OF INSULIN RESISTANCE IN OBESITY.....	5K08 AM00580-02
LEVINE, JOEL S.....	THE CELLULAR BIOLOGY OF G. I. HORMONE SECRETION.....	5K08 AM00484-03
LEVINSON, SIMON R.....	MECHANISMS OF THE VOLTAGE-DEPENDENT SODIUM CHANNEL.....	1K04 NS00529-01
MOORHEAD, JOHN W.....	INTERACTION OF T-CELLS IN IMMUNITY AND TOLERANCE.....	5K04 AI00125-05
MURPHY, ROBERT C.....	APPLICATION OF MASS SPECTROMETRY TO BIOMEDICAL RESEARCH.....	5K04 HD00128-05
ROPER, STEPHEN D.....	SPROUTING OF SYNAPTIC TERMINALS.....	5K04 NS00257-03
WENGER, DAVID A.....	BETA-GALACTOSIDASE DEFICIENCY NEURODEGENERATIVE DISEASE.....	5K04 NS00108-05
ZWILLICH, CLIFFORD W.....	VENTILATORY CONTROL AND RESPIRATORY FAILURE.....	5K04 HL00225-05
UNIVERSITY OF DENVER		ZIP CODE 80210
REUSCH, VICTOR M, JR.....	CELL SURFACE PHYSIOLOGY OF ORAL BACTERIA.....	1K04 DE00087-01
CONNECTICUT		
FARMINGTON		
UNIVERSITY OF CONNECTICUT HEALTH CENTER		ZIP CODE 06032
HOCK, JANET M.....	MICROCIRCULATORY FUNCTION IN EARLY GINGIVAL INFLAMMATION.....	5K04 DE00035-05
HOLMES, GREGORY L.....	NEONATAL NEUROLOGY, CHILDHOOD EPILEPSY.....	1K07 NS00538-01
KAPLAN, JERRY.....	ANALYSIS OF ALVEOLAR MACROPHAGE SURFACE RECEPTORS.....	1K04 HL00598-01
ROWE, DAVID W.....	HORMONE AND GENETIC REGULATION OF THE COLLAGEN GENE.....	1K04 HD00330-01
SHERLINE, PETER.....	MICROTUBULES AND THE MECHANISM OF INSULIN SECRETION.....	5K04 AM00456-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
CONNECTICUT—Continued		
MIDDLETOWN		
WESLEYAN UNIVERSITY ZIP CODE 06457		
ALLEWELL, NORMA M.....	THERMODYNAMICS OF MEMBRANE-LIGAND INTERACTIONS.....	5K04 AM00283-04
LYNCH, CAROL B.....	GENETIC ANALYSIS OF BEHAVIORAL THERMOREGULATION.....	3K04 ES00042-01S1
LYNCH, CAROL B.....	GENETIC ANALYSIS OF BEHAVIORAL THERMOREGULATION.....	5K04 ES00042-03
PRATT, REX F.....	BETA-LACTAMASES AND BACTERIAL PENICILLIN RESISTANCE.....	3K04 AI00331-01S1
PRATT, REX F.....	BETA-LACTAMASES AND BACTERIAL PENICILLIN RESISTANCE.....	5K04 AI00331-02
NEW HAVEN		
YALE UNIVERSITY ZIP CODE 06520		
BARRETT, EUGENE J.....	SERCA - DIABETES MELLITUS: CARDIOVASCULAR.....	1K01 AM00888-01
BLITZER, BENNETT L.....	MECHANISMS OF BILE FORMATION.....	5K08 AM00661-02
CANELAKIS, EVANGELO S.....	BIOCHEMICAL CONTROL MECHANISMS.....	5K06 GM03070-17
COHEN, STEVEN R.....	BIOLOGIC EFFECTS OF ENVIRONMENTAL FACTORS ON THE SKIN.....	5K08 AM00511-03
COLE, PATRICIA E.....	BIOPHYSICAL STUDIES OF GENE EXPRESSION.....	5K04 GM00471-05
DANNIES, PRISCILLA S.....	CONTROL OF PITUITARY HORMONE RELEASE.....	1K04 HD00272-01A1
DE LORENZO, ROBERT J.....	PROTEIN PHOSPHORYLATION, ANTICONVULSANTS, & EPILEPSY.....	5K04 NS00245-04
DOBBINS, JOHN W.....	MECHANISM(S) OF ACTION OF INTESTINAL ABSORPTAGOGUES.....	1K04 AM00647-01A1
FLECKMAN, PHILIP H.....	THE INFLUENCE OF AGE ON PHOSPHATIDYLINOSITOL TURNOVER.....	1K08 AM00797-01
GERLT, JOHN A.....	THE INTERACTIONS OF CYCLIC NUCLEOTIDES WITH ENZYMES.....	5K04 CA00499-03
GORELICK, FRED S.....	OPIATES & OPIOID PEPTIDES & PANCREATIC EXOCRINE FUNCTION.....	5K08 AM00659-02
GROSZMANN, ROBERTO J.....	MEDICAL TREATMENT OF PORTAL HYPERTENSION.....	5K04 AM00670-02
HIRSCH, JOY.....	PATTERN RECOGNITION MECHANISMS IN AMBLYOPIA.....	1K07 EY00167-01
HOCHBERG, RICHARD B.....	MECHANISMS IN STEROID HORMONE BIOSYNTHESIS.....	7K04 CA00752-05
HOFFMAN, RONALD.....	REGULATION OF HUMAN ERYTHROPOIESIS AT THE CELLULAR LEVEL.....	5K04 AM00638-02
HOWARD-FLANDERS, PAUL.....	MECHANISMS FOR THE PERSERVATION OF THE GENOME.....	5K06 AM09397-18
JAFFE, CONRADE C.....	ALTERED IMAGE DISPLAY IN DIAGNOSTIC RADIOLOGY.....	5K04 CA00567-02
LWEBUGA-MUKASA, JAMSON S.....	THE ROLE OF FIBRONECTIN IN IDIOPATHIC LUNG FIBROSIS.....	1K08 HL00784-01
MILLER, DENIS J.....	NATURE OF IMMUNE MECHANISMS IN PATHOGENESIS OF HEPATITIS.....	5K08 AM00488-03
OGDEN, JOHN A.....	ANALYSIS OF POST-NATAL SKELETAL DEVELOPMENT.....	5K04 AM00300-03
PANJABI, MANOHAR M.....	MEASUREMENT OF HUMAN SPINE MOTION SEGMENT BEHAVIOR.....	5K04 AM00299-03
PILLSBURY, HAROLD R, III.....	HYPERTENSION & HYPERLIPOPROTEINEMIA EFFECTS ON COCHLEA.....	5K07 NS00441-02
SEYFRIED, THOMAS N.....	DEVELOPMENTAL GENETICS OF BRAIN GLYCOLIPIDS.....	5K04 NS00459-02
SHERWIN, ROBERT S.....	INSULIN, GLUCAGON, SOMATOSTATIN AND BODY FUEL METABOLISM.....	5K04 AM00334-04
SLIGAR, STEPHEN G.....	MECHANISMS OF ADRENAL STEROID & HEPATIC DRUG METABOLISM.....	1K04 AM00778-01
TAMBORLANE, WILLIAM V, JR.....	EFFECTS OF HGH & OPEN-LOOP INSULIN DELIVERY IN DIABETES.....	5K08 AM00621-02
TRITTON, THOMAS R.....	MEMBRANES AND CANCER CHEMOTHERAPY.....	1K04 CA00684-01
VARGA, JANOS M.....	SPECIFICITY AND EXPRESSION OF CELL SURFACE RECEPTORS.....	5K04 AI00154-05
WADE, JAMES B.....	PHYSIOLOGY OF EPITHELIA AND MEMBRANE STRUCTURE.....	5K04 AM00217-05
ZAWALICH, WALTER S.....	CARBOHYDRATE REGULATION OF INSULIN SECRETION.....	1K04 AM00944-01
STORRS		
UNIVERSITY OF CONNECTICUT STORRS ZIP CODE 06268		
GOULD, STEVEN J.....	BIOORGANIC STUDY WITH STABLE AND RADIOACTIVE ISOTOPES.....	5K04 CA00627-02
HALL, BARRY G.....	EXPERIMENTAL EVOLUTION OF LACTOSE UTILIZATION.....	1K04 AI00366-01
ROTH, JAY S.....	NUCLEASES AND DNA METABOLISM STUDIES.....	5K06 CA18379-19
ZEAMAN, DAVID.....	RETARDATE DISCRIMINATION LEARNING AND ATTENTION.....	5K06 HD20325-18
DELAWARE		
NEWARK		
UNIVERSITY OF DELAWARE ZIP CODE 19711		
ROSE, GEORGE D.....	PROTEIN FOLDING BY HIERARCHIC CONDENSATION.....	1K04 AG00088-01
WAGNER, ROGER C.....	MICROPINOCTIC TRANSPORT IN CAPILLARY ENDOTHELIUM.....	5K04 HL00270-04

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
DELAWARE—Continued		
WHITE, HAROLD B. III	GLYCEROL 3-P DEHYDROGENASE AND EGG YOLK AVIDIN	5K04 AM00152-04
DIST OF COL		
WASHINGTON		
AMERICAN NATIONAL RED CROSS ZIP CODE 20006		
INGHAM, KENNETH C	PRECIPITATION OF PROTEINS WITH POLYETHYLENE GLYCOL	5K04 HL00325-04
GEORGETOWN UNIVERSITY ZIP CODE 20057		
BEAUCHAMP, TOM L	SPECIAL SCIENTIFIC PROJECT: INFORMED CONSENT	3K10 LM00032-01S1
FOX, SAMUEL M.	PREVENTIVE CARDIOLOGY	1K07 HL00660-01
POPPER, ARTHUR N	PHYSIOLOGICAL DETERMINATIONS OF INNER EAR FUNCTION	5K04 NS00312-03
FLORIDA		
CORAL GABLES		
UNIVERSITY OF MIAMI ZIP CODE 33124		
CORBETT, MICHAEL D	FORMATION AND FATE OF HYDROXAMATES IN THE ENVIRONMENT	5K04 ES00038-03
GAINESVILLE		
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611		
BIRDSSELL, DALE C	PATHOGENICITY OF BACTERIAL TEICHOIC ACIDS	5K04 DE00030-05
BOROVSKY, DOV	VITELLOGENIN SYNTHESIS IN BITING DIPTERA	5K04 AI00429-03
DUCKWORTH, DONNA H	BACTERIOPHAGE AND CELL SURFACE PHENOMENON	5K04 AI00054-05
DUNN, BEN M	CONTROL OF PEPSIN BY ACTIVATION PEPTIDE ANALOGS	5K04 AM00303-04
FELDMAN, ROBERT L	CRITICAL CORONARY STENOSIS: AORTIC VALVE ABNORMALITIES	1K04 HL00741-01
GARNICA, ADOLFO D	PRENATAL TREATMENT OF MENKES KINKY HAIR SYNDROME	5K04 NS00409-02
HOWARD, RICHARD J	VIRUS-IMMUNE INTERACTION IN MICE AND TRANSPLANT PATIENTS	5K04 AI00394-05
KARLAN, MARC S	PHYSIOLOGY & PATHOPHYSIOLOGY OF HEARING	5K07 NS00281-04
MANSHEIM, BERNARD J	IMMUNOCHEMICAL STUDIES OF PERIODONTAL DISEASE	1K04 DE00090-01
MISBIN, ROBERT I	SERCA-DIABETES MELLITUS: CARDIOVASCULAR	5K01 AM00561-03
ROSS, WARREN E	DNA DAMAGE AND REPAIR BY ANTITUMOR AGENTS	5K04 CA00527-02
WYNN, JAMES W	PULMONARY MEDICINE	5K07 HL00122-05
MIAMI		
UNIVERSITY OF MIAMI ZIP CODE 33101		
HINKLEY, ROBERT E. JR	VOLATILE ANESTHETICS ON NERVE CELL STRUCTURE & FUNCTION	5K04 GM00454-05
LA MANNA, JOSEPH C	BRAIN WORK: MECHANISMS OF METABOLIC CONTROL	5K04 NS00399-02
PALMBERG, PAUL F	STUDIES IN GLAUCOMA AND RELATED DISEASES	7K04 EY00225-02
PENNEYS, NEAL S	INHIBITOR(S) OF PROSTAGLANDIN BIOSYNTHESIS OF SKIN	5K04 AM00203-05
RABINOVITCH, ALEXANDER	FUNCTIONS OF PANCREATIC ISLET CELLS CULTURED IN VITRO	5K04 AM00552-03
SCOTT, WALTER A	SV40 TRANSFORMED ENDOCRINE CELLS/SV40 CHROMATIN	5K04 AM00549-03
THET, LYN A	PULMONARY MEDICINE	5K07 HL00374-04
WU, MING-CHI	COLONY STIMULATING FACTOR & CONTROL OF GRANULOPOIESIS	1K04 CA00686-01
TALLAHASSEE		
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306		
FREEMAN, MARC E	HYPOTHALAMIC CONTROL OF PITUITARY FUNCTION	5K04 HD00231-03
MARZLUFF, WILLIAM F. JR	SPECIFIC GENE EXPRESSION IN ANIMAL CELLS IN VITRO	5K04 CA00178-05
SCHATTEN, GERALD P	MOVEMENTS DURING FERTILIZATION	1K04 HD00363-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
FLORIDA—Continued		
TAMPA		
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA ZIP CODE 33620		
ADAIR, WINSTON L. JR.	BIOSYNTHESIS OF DOLICHYL PHOSPHATE	1K04 AM00737-01
GOMEZ-SANCHEZ, CELSO E.	ADRENAL HYPERTENSION	7K04 HL00921-04
KELLER, RONALD K.	REGULATION OF GLYCOPROTEIN BIOSYNTHESIS	1K04 AM00804-01
GEORGIA		
ATHENS		
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602		
MARTIN, ROY J.	METABOLISM AND ENDOCRINOLOGY OF OBESITY	1K04 AM00818-01
PROENZA, LUIS M.	ELECTROPHYSIOLOGY OF RETINAL CELLS IN VISION	7K04 EY00218-03
SUMMERS, ANNE O.	REGULATION AND STRUCTURE OF THE MER OPERON	1K04 AI00413-01
ATLANTA		
EMORY UNIVERSITY ZIP CODE 30322		
BESHARSE, JOSEPH C.	THE VISUAL CELL—PIGMENT CELL COMPLEX AND OUTER SEGMENT	5K04 EY00169-02
GOODING, LINDA R.	MEMBRANE ANTIGEN ORGANIZATION IN TUMOR IMMUNITY	1K04 CA00672-01
HARTZELL, H. CRISS, JR.	ACETYLCHOLINE RECEPTORS IN FROG CARDIAC MUSCLE	5K04 HL00435-03
HONIG, ERIC G.	PULMONARY MEDICINE	5K08 HL00314-04
MUSEY, VICTORIA C.	ENDOCRINE EVENTS AT TIME OF FIRST PREGNANCY	5K08 AM00654-02
NOE, BRYAN D.	ROLE OF PROGLUCAGON IN GLUCAGON BIOSYNTHESIS	5K04 AM00142-04
WHITE, JOHN F.	MECHANISMS OF INTESTINAL C1 ABSORPTION AND SECRETION	5K04 AM00367-03
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY ZIP CODE 30332		
WARTELL, ROGER M.	INTERACTION OF RNA POLYMERASE WITH DNA SITES	5K04 AI00332-02
YU, NAI-TENG.	NEW METHODS FOR BIOMEDICAL RESEARCH	5K04 EY00073-05
AUGUSTA		
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901		
ANUSAVICE, KENNETH J.	OPTIMIZATION OF METAL-CERAMIC RESTORATION DESIGN	1K04 DE00086-01
HAMILTON, WILLIAM J.	GERIATRIC MEDICINE	1K07 AG00103-01
OKABE, TORU.	DIFFUSION IN AMALGAM-AMALGAMATION ON AG-SN (TX) ALLOYS	5K04 DE00039-05
STRONG, WILLIAM B.	PREVENTIVE CARDIOLOGY	5K07 HL00621-02
HAWAII		
HONOLULU		
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822		
FURUIKE, ALVIN N.	PULMONARY MEDICINE	5K08 HL00451-03
HALLENBORG, CARL P.	PULMONARY MEDICINE	5K08 HL00312-05
MORISHIGE, WALTER K.	HORMONAL REGULATION OF LUNG FUNCTION	5K04 HL00216-05
SMITH, RICHARD M.	PULMONARY MEDICINE	5K08 HL00303-04

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
ILLINOIS		
CHICAGO		
LOYOLA UNIVERSITY OF CHICAGO ZIP CODE 60611		
FAY, RICHARD R.....	BEHAVIORAL & NEUROPHYSIOLOGICAL HEARING MECHANISMS.....	1K04 NS00479-01
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616		
HOFFMAN, WILLIAM E.....	AGING AND HYPERTENSION.....	1K04 HL00672-01
SCHNEIDER, ARTHUR B.....	HORMONE STRUCTURE & SECRETION: NORMAL GLANDS & TUMORS.....	5K04 AM00103-05
STACHURA, MAXIMILLIAN E.....	SYNTHESIS STORAGE AND RELEASE OF PITUITARY GH AND PRL.....	5K04 AM00288-04
WOHL, ROBERT C.....	FIBRINOLYTIC SYSTEM IN THROMBOEMBOLIC DISEASES.....	1K04 HL00686-01
NORTHWESTERN UNIVERSITY ZIP CODE 60611		
CHILDS, GWEN V.....	THE MULTIPOTENTIAL GONADOTROPE.....	5K04 HD00306-02
FELDMAN, JACK L.....	NEURAL BASIS OF RESPIRATORY RHYTHM.....	5K04 HL00554-02
HAZINSKI, THOMAS A.....	PULMONARY MEDICINE.....	1K08 HL00637-01
HUNZICKER-DUNN, MARY E.....	GONADOTROPHIN ACTION IN FOLLICLES AND CORPORA LUTEA.....	5K04 HD00292-02
LIPTON, HOWARD L.....	THEILER'S VIRUS-INDUCED DEMYELINATION.....	5K04 AI00228-04
LIU, KIANG J.....	STATISTICAL METHODOLOGY & CARDIOVASCULAR EPIDEMIOLOGY.....	5K04 HL00577-02
PONZIO, NICHOLAS M.....	LYMPHOCYTE RESPONSES TO SYNGENEIC ANTIGENS.....	5K04 CA00612-02
RUBIN, DAVID B.....	PULMONARY MEDICINE.....	5K08 HL00310-04
YEH, JAY Z.....	MOLECULAR MECHANISM OF LOCAL ANESTHETIC ACTION.....	5K04 GM00442-03
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER ZIP CODE 60612		
FIEDEL, BARRY A.....	REGULATION OF PLATELET FUNCTION IN THE ACUTE PHASE.....	1K04 HL00614-01
GOETZ, CHRISTOPHER G.....	NEUROPHARMACOLOGY OF CHOREA.....	5K07 NS00347-02
LINT, THOMAS F.....	CONTROL OF COMPLEMENT-MEDIATED TUMOR CELL CYTOLYSIS.....	5K04 CA00558-02
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612		
ANDRIACCHI, THOMAS P.....	BIOMECHANICAL STUDY OF TOTAL KNEE REPLACEMENT.....	5K04 AM00493-03
GOTTLIEB, GERALD L.....	EXPERIMENTAL INVESTIGATION OF HUMAN MOTOR MECHANISMS.....	5K04 NS00196-05
UNIVERSITY OF CHICAGO ZIP CODE 60637		
AGARWAL, KAN L.....	NUCLEIC ACID-PROTEIN INTERACTIONS.....	5K04 GM00224-05
ARNSDORF, MORTON F.....	ELECTROPHARMACOLOGY OF ANTIARRHYTHMIC DRUGS.....	5K04 HL00196-05
BANNER, ARTHUR S.....	PULMONARY MEDICINE.....	1K07 HL00627-01
FRIED, JOSEF.....	CHEMISTRY OF PROSTAGLANDINS AND ANTITUMOR AGENTS.....	5K06 AM21846-17
GEPPERT, EUGENE F.....	PULMONARY MEDICINE.....	5K08 HL00252-05
GROBSTEIN, PAUL.....	DEVELOPMENT OF CONNECTIVITY IN ANURAN VISUAL SYSTEMS.....	5K04 EY00057-04
GUNN, ROBERT B.....	MOLECULAR MECHANISMS OF ION TRANSPORT IN HUMAN RBC.....	5K04 HL00208-05
JOSEPHS, ROBERT.....	MOLECULAR STRUCTURE OF SICKLE CELL FIBERS.....	5K04 HL00434-03
LOKEN, MICHAEL R.....	LYMPHOCYTE DIFFERENTIATION AND IMMUNITY.....	5K04 AI00348-02
PETES, THOMAS D.....	GENETIC & STRUCTURAL ANALYSIS OF YEAST CHROMOSOME XII.....	1K04 AG00077-01
QUINTANS, JOSE.....	IDIOTYPES, LYMPHOCYTES AND MACROPHAGES.....	5K04 AI00268-03
SCHERBERG, NEAL H.....	VARIATIONS IN MESSENGER RNA IN ENDOCRINE TISSUES.....	5K04 AM00179-04
SCHREIBER, HANS.....	PATHOBIOLOGY OF MULTIPLE MYELOMA.....	5K04 CA00432-03
SCHWARTZ, NANCY B.....	REGULATION OF PROTEOGLYCAN SYNTHESIS AND FUNCTION.....	5K04 AM00603-02
SPARGO, BENJAMIN H.....	ULTRASTRUCTURAL RENAL CHANGES—CLINICAL/EXPERIMENTAL.....	5K06 HL04418-17
TAGER, HOWARD S.....	BIOSYNTHESIS AND SECRETION OF PEPTIDE HORMONES.....	5K04 AM00145-05
WILSON, HUGH R.....	SIGNIFICANCE OF SPATIAL INHOMOGENEITY AND HYSTERESIS.....	5K04 EY00062-03
UNIVERSITY OF ILLINOIS AT CHICAGO CIRCLE ZIP CODE 60680		
OSCAI, LAWRENCE B.....	EXERCISE AND LIPID METABOLISM.....	5K04 AM00216-05
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612		
CHRISTOFFEL, TOM H.....	HEALTH AND THE LAW.....	5K10 LM00027-02
FRIEDENSON, BERNARD A.....	IGG ANTIBODIES WITH THE SAME HEAVY OR LIGHT CHAIN.....	5K04 AI00147-05
HORWITZ, DAVID L.....	RESIDUAL BETA CELL FUNCTION IN DIABETES MELLITUS.....	5K04 AM00721-05

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
ILLINOIS—Continued		
DE KALB		
NORTHERN ILLINOIS UNIVERSITY ZIP CODE 60115		
ERMAN, JAMES E	ELECTRON TRANSFER AND HEME PROTEIN REACTIVITY	5K04 GM00249-05
EVANSTON		
NORTHWESTERN UNIVERSITY ZIP CODE 60201		
BLAKE, R RANDOLPH	SPATIAL VISION IN NORMAL AND VISUALLY DEPRIVED ANIMALS	5K04 EY00106-03
LORAND, LASZLO	BLOOD, MUSCLE AND PROSTATE CHEMISTRY	5K06 HL03512-18
TUREK, FRED W	PHOTOPERIODIC REGULATION OF REPRODUCTION IN MAMMALS	5K04 HD00249-03
MAYWOOD		
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153		
MILLER, ROBERT V	BIOCHEMISTRY	7K04 AI00449-03
URBANA		
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801		
BROWN, ANN L	CHILDREN'S MEMORY FOR STORIES	5K04 HD00111-05
GLASER, MICHAEL	ROLE OF PHOSPHOLIPIDS IN MEMBRANES AND CELL GROWTH	5K04 GM00193-05
OLDFIELD, ERIC	NMR AND NEUTRON STUDY OF MEMBRANES AND CELL SURFACES	5K04 CA00595-02
ORDAL, GEORGE W	CHEMOTAXIS AND PHOTOTAXIS IN BACTERIA	5K04 GM00160-05
SHAPIRO, DAVID J	REGULATION OF DEVELOPMENT AND CHOLESTEROL SYNTHESIS	5K04 HL00482-03
SHERWOOD, ORRIN D	RELAXIN: STRUCTURAL AND PHYSIOLOGICAL STUDIES	5K04 HD00019-05
INDIANA		
BLOOMINGTON		
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401		
ASLIN, RICHARD N	EFFECTS OF EXPERIENCE ON INFANT PERCEPTUAL DEVELOPMENT	5K04 HD00309-02
JASKUNAS, S RICHARD	REGULATION OF RIBOSOME BIOSYNTHESIS	5K04 GM00401-03
MAHLER, HENRY R	RESPIRATORY ENZYMES—STRUCTURE, FUNCTION, BIOSYNTHESIS	5K06 GM05060-19
POLISKY, BARRY A	MOLECULAR BASIS OF UNCONTROLLED REPLICATION	1K04 AI00407-01
WIGHTMAN, R MARK	ELECTROCHEMICAL DETECTION OF NEUROTRANSMITTER RELEASE	5K04 NS00356-02
INDIANAPOLIS		
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202		
BEN-JONATHAN, NIRA	HORMONAL FUNCTIONS OF CATECHOLAMINES	5K04 NS00219-03
BENSON, MERRILL D	IMMUNOBIOLOGY OF THE SERUM FACTOR OF SECONDARY AMYLOID	5K04 AM00352-03
HATHAWAY, DAVID R	MYOSIN-SPECIFIC PROTEASES FROM SMOOTH MUSCLE	1K08 HL00752-01
KARN, ROBERT C	AMYLASE LOC: BIOCHEMICAL AND GENETIC DIFFERENTIATION	5K04 AM00284-04
RHOADES, RODNEY A	SUBSTRATE METABOLISM AND LUNG FUNCTION	5K04 HL00317-05
NOTRE DAME		
UNIVERSITY OF NOTRE DAME ZIP CODE 46556		
NOWAK, THOMAS L	INFORMATION TRANSFER—ENZYME ACTIVATION AND REGULATION	5K04 AM00486-02
WEST LAFAYETTE		
PURDUE UNIVERSITY WEST LAFAYETTE ZIP CODE 47907		
BABBS, CHARLES F	PHYSIOLOGY OF BLOOD FLOW DURING CPR	1K04 HL00587-01
BRENCHLEY, JEAN E	ROLE OF T-RNA IN REGULATING ENZYME SYNTHESIS	5K04 GM00449-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
INDIANA—Continued		
CRANE, FREDERICK L	ORGANIZATION AND FUNCTION OF SUBCELLULAR PARTICLES	5K06 GM21839-17
DIXON, JACK E	THYROTROPIN RELEASING HORMONE BIOSYNTHESIS; DEGRADATION	5K04 AM00218-05
FETH, LAWRENCE L	AUDITORY SPECTRAL RESOLUTION	5K04 NS00267-03
PEPPERBERG, DAVID R	VISUAL PIGMENT AND PHOTORECEPTOR ADAPTATION	1K04 EY00198-01
POWLEY, TERRY L	HYPOTHALAMIC CONTROL OF BODY WEIGHT AND FEEDING	5K04 AM00898-04
WEITH, H LEE	SEQUENCE ANALYSIS OF TUMOR VIRUS RNA	5K04 CA00447-03

IOWA

IOWA CITY

UNIVERSITY OF IOWA ZIP CODE 52242

BROWN, BRUCE P	HEMODYNAMICS IN IN VITRO AND IN VIVO INJURED LIVER	1K08 HL00795-01
BURNS, CHARLES P	LEUKEMIC LEUKOCYTES; LIPIDS AND MEMBRANE STRUCTURE	5K04 CA00324-03
CLARK, EDWARD B	ROLE OF BLOOD IN AORTIC ARCH DEVELOPMENT	5K04 HD00376-02
CROWNSHIELD, ROY D	AN ENGINEERING ANALYSIS OF TOTAL JOINT ARTHROPLASTY	1K04 AM00712-01
DAWSON, DAVID C	TRANSPORT PROPERTIES OF COLONIC CELL MEMBRANES	1K04 AM00702-01
DENBURG, JEFFREY L	FORMATION OF SPECIFIC SYNAPTIC CONNECTIONS	5K04 NS00422-02
ERENBERG, ALLEN P	THYROID HORMONES AND THE FETAL AND NEONATAL LUNG	5K04 HD00155-04
HALMI, NICHOLAS S	INVESTIGATION OF THE THYROID AND PITUITARY	5K06 AM13576-19
MARCUS, MELVIN L	MYOCARDIAL PERFUSION AND CARDIAC HYPERTROPHY	5K04 HL00328-04
MARVIN, WILLIAM J, JR	CLINICAL INVESTIGATION	1K08 HL00755-01
NEWLON, CAROL S	YEAST DNA REPLICATION	5K04 GM00265-05
ONOFRIO, JOHN M	PULMONARY MEDICINE	5K08 HL00453-03
OWEN, WHYTE G	BIOCHEMISTRY OF ANTIHEMOPHILIC FACTOR & HEPARIN COFACTOR	5K04 HL00348-04
ROBILLARD, JEAN E	MATURATION OF THE RENAL FUNCTION DURING FETAL LIFE	5K04 HD00254-03
SCHULZE, KONRAD S	ESOPHAGEAL AND GASTROINTESTINAL MOTILITY CHANGES	5K08 AM00519-02
SMITH, IAN M	GERIATRIC MEDICINE	1K07 AG00090-01
SPANHEIMER, ROBERT G	SERCA - DIABETES MELLITUS: CARDIOVASCULAR	1K01 AM00850-01A1
STINSKI, MARK F	CYTOMEGALOVIRUS TRANSCRIPTION AND TRANSLATION	1K04 AI00373-01
STOLTZFUS, CONRAD M	SUBUNIT STRUCTURE AND FUNCTION OF ONCORNAVIRUS RNA	5K04 CA00659-05
STRAUSS, RONALD G	NEUTROPHIL FUNCTIONS IN THE NEONATE	5K04 HD00255-03
THAMES, MARC D	CARDIAC RECEPTORS WITH VAGAL C-FIBER AFFERENTS	5K04 HL00402-03
WEISMANN, DOUGLAS N	HYPOXEMIA AND NEONATAL KIDNEY FUNCTION	5K08 AM00656-02
WELSH, MICHAEL J	PULMONARY MEDICINE	5K08 HL00362-04

KANSAS

KANSAS CITY

UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOSPITAL ZIP CODE 66103

LIU, CHIEN	PATHOGENETIC STUDY & DIAGNOSIS OF INFECTIOUS DISEASES	5K06 AI01826-18
MINER, PHILIP B, JR	GLUCOCORTICOID EFFECTS ON THE LIVER SURFACE MEMBRANE	5K08 AM00487-03
MOORE, WAYNE V	MECHANISM OF GROWTH HORMONE ACTION	1K04 AM00309-01A1
PARK, CHAN H	CELL-CULTURE STUDIES OF HUMAN LEUKEMIA AND CANCERS	5K04 CA00534-02
ROWE, VERNON D	PINEAL EFFECTS ON NEURONAL DEVELOPMENT	5K07 NS00439-02

LAWRENCE

UNIVERSITY OF KANSAS LAWRENCE ZIP CODE 66045

BELL, WILLIAM J	BEHAVIORAL MECHANISMS IN CHEMO-ORIENTATION	5K04 NS00190-05
CRAWFORD, MICHAEL H	DENTITION GENETIC ANALYSES OF ESKIMOS AND MEXICANS	5K04 DE00028-05

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
KANSAS—Continued		
MANHATTAN		
KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE ZIP CODE 66506		
REECK, GERALD R.....	NONHISTONE CHROMATIN PROTEINS FROM HEPATOMA CELLS.....	5K04 CA00425-03
ROCHE, THOMAS E.....	ENZYME CONVERSION & RELATED MITOCHONDRIAL TRANSITIONS.....	5K04 AM00460-03
RODKEY, I. SCOTT.....	AUTOREGULATION OF IMMUNE PROCESSES.....	5K04 AI00217-04
ROUFA, DONALD J.....	GENETICS OF DNA REPLICATION IN ANIMAL CELLS.....	5K04 GM00245-05
KENTUCKY		
LEXINGTON		
UNIVERSITY OF KENTUCKY ZIP CODE 40506		
COLEMAN, MARY S.....	TERMINAL TRANSFERASE IN MAMMALIAN HEMOPOIETIC TISSUE.....	5K04 CA00494-03
DE KOSKY, STEVEN T.....	MICROCHEMICAL DEVELOPMENT OF RAT HIPPOCAMPAL FORMATION.....	1K07 NS00444-01A1
PRIOR, DAVID J.....	NEURAL CONTROL OF BEHAVIORAL RESPONSIVENESS.....	1K04 NS00490-01
RAWLS, JOHN M, JR.....	GENETIC ANALYSIS OF PYRIMIDINE BIOSYNTHESIS.....	5K04 AM00676-02
WYATT, ROBERT J.....	COMPLEMENT CONTROL PROTEINS IN GLOMERULONEPHRITIS.....	1K08 AM00777-01
LOUISIANA		
NEW ORLEANS		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70112		
MORGAN, WILLIAM T.....	PROTEIN.....	7K04 AM00813-05
RAWLS, HENRY R.....	ANTICARIES THERAPIES—POLYMER & PHYSICAL CHEMISTRY.....	5K04 DE00050-04
REEVES, RICHARD E.....	THE NUTRITION & METABOLISM OF ANAEROBIC ORGANISMS.....	4K06 GM14023-17
ZIMMERMAN, THOMAS J.....	TREATMENT OF GLAUCOMA.....	5K04 EY00115-02
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70118		
KLAWITTER, JEROME J.....	DESIGN CRITERIA FOR DENTAL IMPLANTS.....	5K04 DE00041-04
MALEK, EMILE A.....	EPIDEMIOLOGY AND CONTROL OF SCHISTOSOMIASIS.....	5K06 AI18424-18
WEINSTEIN, ALLAN M.....	IMPLANT PERFORMANCE EVALUATION AND ATTACHMENT TO BONE.....	5K04 AM00222-05
SHREVEPORT		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT SHREVEPORT ZIP CODE 71130		
SAHA, SUBRATA.....	EVALUATION AND MODELING OF MECHANICAL PROPERTIES OF BONE.....	5K04 AM00756-03
MAINE		
PORTLAND		
MAINE MEDICAL CENTER ZIP CODE 04102		
NELSON, CLIFFORD V.....	ACCURATE MEASUREMENTS OF HEART DIPOLE MOMENT.....	5K06 HL01932-19
MARYLAND		
BALTIMORE		
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218		
ANDREW, CLIFFORD G.....	COXSACKIEVIRUS SUSCEPTIBILITY IN DEVELOPING MUSCLE.....	1K07 NS00531-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MARYLAND—Continued		
BATSHAW, MARK L.....	GENETICS AND METABOLISM OF UREA CYCLE ENZYMOPATHIES.....	5K07 NS00342-03
BENBOW, ROBERT M.....	CONTROL OF DNA REPLICATION IN XENOPUS LAEVIS EMBRYOS.....	3K04 GM00366-03S1
BENBOW, ROBERT M.....	CONTROL OF DNA REPLICATION IN XENOPUS LAEVIS EMBRYOS.....	5K04 GM00366-04
BROOKS, BENJAMIN R.....	PATHOGENESIS OF NEUROTROPIC RETROVIRUS INFECTIONS.....	5K07 NS00385-02
CAMPBELL, JAMES N.....	NEUROPHYSIOLOGICAL AND PSYCHOPHYSICAL STUDIES OF PAIN.....	1K07 NS00519-01
CHILDS, BARTON.....	HUMAN GENETICS.....	5K06 HD01104-19
COMSTOCK, GEORGE W.....	FOLLOW-UP STUDIES OF CARDIORESPIRATORY DISEASE.....	5K06 HL21670-17
CORK, LINDA C.....	MODELS OF DEGENERATIVE AND DEMYELINATING DISEASE.....	1K04 NS00488-01
CUTILLETIA, ANTHONY F.....	TRANSCRIPTIONAL REGULATION OF MYOCARDIAL HYPERTROPHY.....	5K04 HL00521-03
DOVER, GEORGE J.....	SINGLE CELL ASSAYS OF ERYTHROCYTES.....	1K04 AM00689-01
GAFFNEY, BETTY J.....	PHYSICAL PROPERTIES OF MEMBRANE PROTEINS.....	5K04 CA00168-05
GORDIS, LEON.....	MONOGRAPH: EPIDEMIOLOGY OF CANCER IN CHILDREN.....	5K10 LM00030-02
GRIFFIN, JOHN W.....	PATHOGENESIS OF MOTOR NEURON AND AXONAL DEGENERATIONS.....	5K04 NS00450-02
JAKAB, GEORGE J.....	BRONCHOPULMONARY RESISTANCE TO BACTERIAL INFECTIONS.....	5K04 HL00415-04
KRAG, SHARON S.....	MUTANTS ALTERED IN GLYCOSYLATION OF MEMBRANE PROTEINS.....	1K04 CA00640-01
KRISTT, DONALD A.....	BIRTH DEFECTS OF THE CEREBRAL CORTEX.....	5K07 NS00279-04
LATTMAN, EATON E.....	X-RAY DIFFRACTION STUDIES OF SV-40 AND POLYOMAVIRUS.....	5K04 AI00271-05
LEIGH, RICHARD J.....	NEURAL REPAIR IN THE AGING BRAIN.....	5K08 AG00061-02
LEVIN, LESLIE S.....	LINKAGE AND HERITABLE DISORDERS OF CONNECTIVE TISSUE.....	5K04 DE00021-05
LILIENTHAL, ABRAHAM M.....	RESEARCH IN PUBLIC HEALTH ASPECTS OF CHRONIC DISEASES.....	5K06 GM13901-19
LIN, SHIN.....	SUGAR TRANSPORT AND CELL MOVEMENT IN MAMMALIAN CELLS.....	5K04 GM00241-05
LIU, SAMMY H.....	IMMUNOLOGY OF UVEITIS.....	5K07 EY00155-02
LUK, GORDON D.....	POLYAMINES AND DIAMINE OXIDASE IN MUCOSAL MATURATION.....	1K08 AM00774-01
MICEON, CLAUDE J.....	RELATION OF HORMONES TO GROWTH AND DEVELOPMENT.....	5K06 AM21855-17
MITZNER, WAYNE A.....	PULMONARY INTERSTITIAL PRESSURES AND EDEMA FORMATION.....	5K04 HL00347-03
MOXON, E RICHARD.....	PATHOPHYSIOLOGY OF BACTERIAL INDUCED CNS INJURY.....	1K04 AI00300-01A1
MURPHY, DOUGLAS B.....	MICROTUBULE ASSOCIATED PROTEINS IN MITOSIS/CELL MOVEMENT.....	1K04 CA00645-01
PESTRONK, ALAN.....	TROPIC CONTROL OF NERVE SPROUTING AND ACH RECEPTORS.....	5K07 NS00310-03
PHILLIPS, JOHN A. III.....	REGULATION OF GLOBIN GENE EXPRESSION.....	5K08 AM00423-03
PLAUT, MARSHALL.....	CELL-MEDIATED IMMUNITY: MODULATION BY HISTAMINE.....	5K04 AI00231-04
PROVOST, THOMAS T.....	IMMUNOLOGICAL BASIS OF CUTANEOUS LUPUS ERYTHEMATOSUS.....	5K04 AM00524-02
ROTH, STEPHEN A.....	MORPHOGENESIS IN EMBRYONIC AND MALIGNANT SYSTEMS.....	3K04 HD00148-04S1
SHOUKAS, ARTIN A.....	SYSTEMIC CIRCULATION: CAPACITY AND RESISTIVE PROPERTY.....	5K04 HL00219-05
SINGER, HARVEY S.....	SPINAL SYNAPTIC CIRCUITRY IN DEVELOPMENT AND DISEASE.....	1K07 NS00506-01
SORENSEN, ANN W.....	HEXOSAMINIDASE LEVELS AND DIET.....	7K04 CA00764-02
SPIVAK, JERRY L.....	PURIFICATION OF ERYTHROPOIETIN.....	5K04 HL00480-02
SUN, TUNG-TIEN.....	STUDIES OF CORNEAL EPITHELIAL DIFFERENTIATION.....	5K04 EY00125-03
TSAN, MIN-FU.....	STUDY OF NEUTROPHIL METABOLISM AND FUNCTION.....	5K04 AI00194-04
WOLINSKY, JERRY S.....	PATHOGENESIS OF VIRAL DISORDERS OF THE CNS.....	5K04 NS00443-02
YOUNG, ERIC D.....	COCHLEAR NERVE & NUCLEI AND INFERIOR COLLICULUS STUDY.....	5K04 NS00381-02
ZEE, DAVID S.....	MECHANISMS OF NORMAL AND ABNORMAL OCULAR MOTOR CONTROL.....	1K04 EY00158-01
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201		
KOSKI, CAROL L.....	GLYCOPROTEINS AND NEUROMUSCULAR INTERACTIONS.....	5K07 NS00172-05
REGGIA, JAMES A.....	ARTIFICIAL INTELLIGENCE SYSTEM IN STROKE DIAGNOSIS.....	5K07 NS00348-03
TELFORD, GORDON L.....	CONTROL OF SMALL INTESTINAL MOTILITY.....	1K08 AM00741-01
CATONSVILLE		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS ZIP CODE 21228		
LOVETT, PAUL S.....	CONSTRUCTION OF PLASMIDS FOR BACILLUS SUBTILIS.....	5K04 AI00119-05
COLLEGE PARK		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742		
PENNER, MERRILYNN J.....	TEMPORAL ANALYSIS OF AUDITORY STIMULI.....	5K04 NS00241-04
VIJAY, INDER K.....	BIOSYNTHESIS OF MAMMARY GLYCOPROTEINS.....	5K04 AM00452-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MASSACHUSETTS		
BELMONT		
MASSACHUSETTS GENERAL HOSPITAL—MCLEAN HOSPITAL DIVISION ZIP CODE 02178		
MAROTTA, CHARLES A.....	AGE-RELATED CHANGES IN CNS FIBROUS PROTEINS AND MRNAS.....	1K04 AG00084-01
BOSTON		
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115		
HOSTETTER, THOMAS H.....	RENAL AND PERIPHERAL MICROCIRCULATION IN DIABETES.....	1K08 AM00767-01
MARSH, JAMES D.....	REGULATION OF THE CARDIAC BETA ADRENERGIC RECEPTOR.....	1K08 HL00691-01
MITCH, WILLIAM E.....	PROTEIN NUTRITION IN EXPERIMENTAL UREMIA.....	5K04 AM00750-02
MOORE, THOMAS J.....	SODIUM BALANCE & HORMONAL & VASCULAR RESPONSES TO A H.....	5K08 AM00594-02
SZABO, SANDOR.....	PATHOPHYSIOLOGY OF EXPERIMENTAL DUODENAL ULCER.....	1K04 AM00600-01A1
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120		
CAULFIELD, JOHN P.....	PATHOLOGY OF BASEMENT MEMBRANE-LIKE COLLAGEN.....	1K04 AM00775-01
GLASS, DAVID N.....	RHEUMATIC DISEASE, COMPLEMENT AND CHROMOSOME SIX.....	5K08 AM00449-03
LEWIS, ROBERT A.....	REGULATION OF MAST CELL-ASSOCIATED MEDIATOR RELEASE.....	1K07 AI00399-01
LIPSON, STEPHEN J.....	INVESTIGATIONS IN INTERVERTEBRAL DISC DISEASE.....	5K08 AM00411-03
WINTROUB, BRUCE U.....	NEUTRAL PEPTIDE AND BULLOUS PEMPHIGOID.....	5K08 AM00430-03
BETH ISRAEL HOSPITAL ZIP CODE 02215		
BLUME, HOWARD W.....	NEURAL PEPTIDE RELEASE, TRANSPORT AND ACTION IN CNS.....	5K07 NS00461-02
DE WOLF, WILLIAM C.....	IA-LIKE ALLOANTIGENS ON HUMAN T CELLS.....	1K04 AI00406-01
GLASS, JONATHAN.....	IRON METABOLISM IN ERYTHROID PRECURSOR CELLS.....	5K04 AM00513-03
HAYES, WILSON C.....	MATERIAL AND STRUCTURAL PROPERTIES OF THE KNEE.....	5K04 AM00749-03
STEER, MICHAEL L.....	REGULATION OF ADENYLATE CYCLASE AND CELL FUNCTION.....	5K04 NS00160-05
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114		
LU, RENNE C.....	STRUCTURE-FUNCTION RELATIONS IN MYOSINS.....	5K04 AM00485-03
BOSTON UNIVERSITY ZIP CODE 02215		
APSTEIN, CARL S.....	PATHOPHYSIOLOGY OF MYOCARDIAL ISCHEMIA.....	5K04 HL00425-03
BERMAN, MARLENE O.....	NORMAL AND PATHOLOGICAL HUMAN BRAIN FUNCTION.....	5K04 NS00161-05
CLARK, ROBERT A.....	ANTITUMOR ACTIVITY OF PHAGOCYTIC CELLS.....	5K04 CA00441-05
FELDMAN, MARTIN L.....	NEURONAL AGING IN THE AUDITORY AND VISUAL SYSTEMS.....	5K04 AG00016-04
GAENSLER, EDWARD A.....	APPLIED PULMONARY PHYSIOLOGY.....	5K06 HL01173-17
GOLDSTEIN, RONALD H.....	CONNECTIVE TISSUE RESPONSES OF THE AGING HAMSTER LUNG.....	5K08 AG00038-02
GOODMAN, MICHAEL N.....	METABOLIC ADAPTATION TO STARVATION: AN ANIMAL MODEL.....	5K04 AM00652-02
LANGE, YVONNE.....	CHOLESTEROL IN ERYTHROCYTE MEMBRANES.....	5K04 HL00481-03
MAKE, BARRY J.....	PULMONARY MEDICINE.....	5K07 HL00246-05
MONETTE, FRANCIS C.....	REGULATION OF STEM CELL PROLIFERATION/DIFFERENTIATION.....	5K04 AM00200-04
SALANT, DAVID J.....	IMMUNOLOGIC MECHANISMS OF GLOMERULAR INJURY.....	1K08 AM00742-01
STEEL, R KNIGHT.....	GERIATRIC MEDICINE.....	5K07 AG00060-02
TOSELLI, PAUL A.....	STUDIES OF MUSCLE Z-DISCS.....	5K04 HL00243-03
CENTER FOR BLOOD RESEARCH ZIP CODE 02115		
REMOLD-O'DONNELL, EILEEN.....	SURFACE PROTEINS OF ACTIVATED MACROPHAGES.....	5K04 CA00620-02
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115		
COHEN, HARVEY J.....	OXIDATIVE METABOLISM IN PHAGOCYTIC CELLS.....	5K04 AI00311-03
EDELSON, PAUL J.....	MECHANISMS OF MACROPHAGE ANTITUMOR ACTIVATION.....	5K04 CA00464-03
ELLISON, ROBERT C.....	PRIMARY PREVENTION OF HYPERTENSION AND ATHEROSCLEROSIS.....	5K04 HL00265-04
FOX, THOMAS O.....	STERIOD RECEPTOR MECHANISMS IN DEVELOPING MOUSE BRAIN.....	5K04 HD00221-04
FULTON, ANNE B.....	SIGNAL PROCESSING IN NORMAL AND ABNORMAL RETINA.....	5K07 EY00107-03
KATZ, AUBREY J.....	IMMUNOLOGIC BASIS OF INTESTINAL DISEASE IN CHILDHOOD.....	5K08 AM00234-03
ORKIN, STUART H.....	MOLECULAR ANALYSIS OF NORMAL AND THALASSEMIC DNA.....	5K04 HL00553-02
SELKOE, DENNIS J.....	NEURONAL PROTEINS IN HUMAN DEMENTIA.....	5K07 NS00289-03
SHAPIRO, FREDERIC D.....	LIMB-VERTEBRAL MORPHOGENESIS.....	1K08 AM00805-01
SMITH, HOWARD G.....	IMMUNOLOGY AND TREATMENT OF RESPIRATORY PAPILLOMATOSIS.....	5K07 NS00405-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION ZIP CODE 02114		
CHAKRABARTI, BIRESWAR	THE STRUCTURE AND INTERACTION OF VITREOUS COMPONENTS	5K04 EY00070-04
ELIASON, JOSEPH A.	ISOLATION OF CORNEAL EPITHELIAL ANGIOGENIC FACTORS	5K07 EY00154-02
GIPSON, ILENE K.	CELL MOTILITY AND ADHESION DURING CORNEAL WOUND HEALING	5K04 EY00192-02
KENYON, KENNETH R.	PATHOLOGICAL STUDIES OF OCULAR SURFACE DISORDERS	5K07 EY00156-02
NEUFELD, ARTHUR H.	REGULATION OF AQUEOUS HUMOR DYNAMICS	5K04 EY00114-05
FORSYTH DENTAL CENTER ZIP CODE 02115		
EBERSOLE, JEFFREY L.	RELATIONSHIP OF SECRETORY IMMUNITY TO DENTAL CARIES	5K04 DE00075-02
SKOBE, ZIEDONIS	ULTRASTRUCTURE OF AMELOGENESIS & ODONTOPATHIC BACTERIA	5K04 DE00018-05
SMITH, DANIEL J.	EFFECTS OF IMMUNIZATION ON EXPERIMENTAL DENTAL CARIES	5K04 DE00024-05
HARVARD UNIVERSITY ZIP CODE 02115		
ALEXANDER, R WAYNE	VASCULAR SMOOTH MUSCLE: RECEPTORS AND PROSTAGLANDINS	5K04 HL00332-04
AULT, KENNETH A.	THE FUNCTION OF NORMAL AND ABNORMAL B LYMPHOCYTES	1K04 CA00605-01
BARBER, FRANK E.	A SCANNING ACOUSTIC MICROPROBE FOR CANCER DIAGNOSIS	1K04 CA00690-01
BEEUWKES, REINIER, III	RENAL MECHANISMS OF SALT AND WATER BALANCE	5K04 AM00224-05
BLUMBERG, PETER M.	MECHANISM OF ACTION OF PHORBOL DIESTERS IN VITRO	5K04 CA00547-02
BROWN, EDWARD M.	REGULATION OF NORMAL AND ABNORMAL PARATHYROID TISSUE	5K04 AM00627-02
CAREY, MARTIN C.	ALIMENTARY TRACT LIPIDS IN HEALTH AND DISEASE	5K04 AM00195-05
CHERNIN, ELI	STUDY OF PATHOGENS BY IN VITRO AND RELATED METHODS	5K06 AI02455-17
COHEN, JONATHAN B.	MECHANISM OF CHOLINERGIC POSTSYNAPTIC RESPONSE	5K04 NS00155-05
DORF, MARTIN E.	COMPLEMENTATION STUDIES ON H-LINKED IR GENES	5K04 AI00152-05
DRAZEN, JEFFREY M.	INTERACTION OF BRONCHOCONSTRICTORS AND THE AIRWAYS	5K04 HL00549-02
DZAU, VICTOR J.	RENIN ANTIBODY FOR STUDY OF CARDIOVASCULAR CONTROL	1K08 HL00750-01
EVANS, CARLA A.	EXPERIMENTAL FACIAL GROWTH	5K04 DE00051-04
FALCHUK, Z MYRON	GASTROINTESTINAL IMMUNOLOGY AND FUNCTION	5K04 AM00210-05
FEARON, DOUGLAS T.	ALTERNATIVE COMPLEMENT PATHWAY	5K04 AI00245-04
FRANK, ERIC	DEVELOPMENT OF IA SYNAPSES IN THE SPINAL CORD	5K07 NS00212-04
GOODENOUGH, DANIEL A.	STRUCTURE & FUNCTION OF LIVER & HEART GAP JUNCTIONS	5K04 GM00231-05
GRIFFISS, JOHN M.	ROLE OF SERUM IGA IN SUSCEPTIBILITY TO BACTERIAL DISEASE	5K04 AI00328-02
HAMMER, ROBERT A.	PLASMA NEUTROPHIL RELEASE FROM INTESTINAL EPITHELIUM	5K08 AM00532-02
HANDIN, ROBERT L.	ROLE OF PLATELET PROTEINS IN DEVELOPMENT OF THROMBOSIS	5K04 HL00236-03
HAUSCHKA, PETER V.	CONTROL OF CALCIUM BINDING BY PROTEIN CARBOXYLATION	5K04 DE00049-05
HENNEKENS, CHARLES H.	RISK FACTORS FOR CORONARY HEART DISEASE	5K04 HL00286-04
KAPLAN, MICHAEL M.	CONTROL OF THYROID HORMONE PRODUCTION	1K04 AM00727-01
KASPER, DENNIS L.	IMMUNOCHEMISTRY OF BACTERIAL ANTIGENS	5K04 AI00126-05
KUSHMERICK, MARTIN J.	MUSCLE ENERGY METABOLISM	5K04 AM00178-05
LE VAY, SIMON	DEVELOPMENT AND PLASTICITY OF THE VISUAL SYSTEM	5K04 EY00090-04
MACLEISH, PETER R.	PHOTORECEPTOR TRANSDUCTION AND RETINAL SYNAPSE FORMATION	1K07 EY00189-01
MARTZ, ERIC	T LYMPHOCYTE DIFFERENTIATION AND EFFECTOR FUNCTION	5K04 AI00233-04
MC NEIL, BARBARA J.	MEASURES OF EFFICACY IN RADIOLOGY AND NUCLEAR MEDICINE	5K04 GM00194-05
MOORE-EDD, MARTIN C.	ORGANIZATION OF CIRCADIAN TIMING SYSTEM	5K04 NS00247-04
MURPHY, JOHN R.	VIRULENCE FACTORS OF CORYNEBACTERIUM DIPHTHERIAE	5K04 AI00146-05
MURPHY, RICHARD A.	A NEW NERVE GROWTH FACTOR: ISOLATION AND FUNCTION	5K04 NS00311-03
NEUTRA, MARIAN R.	MUCUS SECRETION IN CYSTIC FIBROSIS & NORMAL INTESTINE	5K04 AM00407-03
PARKER, JOHN A.	RADIONUCLIDE STUDIES OF REGIONAL MYOCARDIAL FUNCTION	5K04 HL00465-03
RENNKE, HELMUT G.	GLOMERULAR AND VASCULAR PERMEABILITY TO MACROMOLECULES	5K04 HL00646-02
ROBERTS, BRYAN E.	GENOME ORGANIZATION OF VIRAL DNAs	3K04 CA00606-01S1
ROBERTS, BRYAN E.	GENOME ORGANIZATION OF VIRAL DNAs	5K04 CA00606-02
ROWE, JOHN W.	GERIATRIC MEDICINE	5K07 AG00056-02
RUDERMAN, JOAN V.	DIFFERENTIAL GENE EXPRESSION IN DEVELOPMENT	1K04 HD00349-01
SAKAMOTO, SEIZABURO	COLLAGENASE IN THE DEGRADATION OF BONE COLLAGEN	5K04 DE00048-04
SCHMIDT, SUSAN Y.	BIOCHEMICAL STUDIES OF RETINAL DEGENERATIONS	5K04 EY00148-02
SHAW, JAMES H.	BIOCHEMISTRY OF ORAL TISSUES, SECRETIONS AND DISEASES	5K06 DE22634-17
SOLT, DENNIS B.	ORAL CARCINOGENESIS—EARLY DETECTION AND ANALYSIS	1K04 CA00673-01
STROM, TERRY B.	REGULATION OF THE CELLULAR EVENTS IN TRANSPLANT IMMUNITY	5K04 AI00155-05
VEATCH, WILLIAM R.	MEMBRANE CHANNEL STRUCTURE: SPECTROSCOPIC APPROACHES	5K04 AI00320-03
WEINER, HOWARD L.	IMMUNOLOGY OF MEASLES VIRUS	5K07 NS00237-04
WEISS, SCOTT T.	CLINICAL MEDICINE	1K08 HL00740-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114		
NADOL, JOSEPH B, JR	STUDY OF SENSORINEURAL HEARING LOSS	5K07 NS00174-05
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114		
AUSIELLO, DENNIS A	PROTEIN PHOSPHORYLATION AND HORMONE ACTION	5K04 AM00342-04
BEITINS, INESE Z	GONADOTROPIN HETEROGENEITY	5K04 HD00132-05
CROWLEY, WILLIAM F, JR	THERAPEUTIC USE OF LRF AND ITS LONG-ACTING ANALOGUE	5K08 AM00573-02
GOITEIN, MICHAEL	DOSE AND TUMOR LOCALIZATION PROTONS THERAPY	5K04 CA00251-05
HAUPERT, GARNER T, JR	CHARACTERIZATION OF A HYPOTHALAMIC NATRIURETIC FACTOR	1K08 HL00689-01
MASLAND, RICHARD H	NEUROTRANSMISSION IN MAMMALIAN RETINA	5K04 EY00072-04
MAY, ROGER J	INTRINSIC REGULATION OF INTESTINAL GROWTH	1K08 AM00780-01
MILLER, KEITH W	MOLECULAR PHARMACOLOGY OF GENERAL ANESTHETIC ACTION	5K04 GM00199-05
POLETTI, CHARLES E	LIMBIC MODULATION OF MIDBRAIN ANALGESIC SYSTEM	1K07 NS00514-01
SEGRE, GINO V	PHYSIOLOGY AND METABOLISM OF PARATHYROID HORMONE	5K04 AM00070-04
WITTERS, LEE A	HORMONAL REGULATION OF LIPID METABOLISM	5K04 AM00520-02
WOLFE, ROBERT R	METABOLIC EFFECTS OF BURN INJURY AND SEPSIS	5K04 GM00455-03
NEW ENGLAND DEACONESS HOSPITAL ZIP CODE 02215		
KNOX, W EUGENE	CONTROL OF ENZYME CONCENTRATIONS IN ANIMAL CELLS	5K06 AM02018-18
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111		
DONOWITZ, MARK	ABSORPTION AND SECRETION IN DIARRHEAL DISEASES	5K04 AM00588-02
DWYER, JOHANNA T	EVALUATION OF DIETARY ALTERATIONS AND TREATMENTS	5K04 AM00272-04
FURIE, BARBARA C	METAL-DEPENDENT COMPLEX FORMATION IN BLOOD COAGULATION	5K04 HL00235-05
PAUKER, STEPHEN G	CLINICAL DECISION MAKING	5K04 GM00349-04
PINCUS, STEPHANIE H	THE BIOLOGY OF EOSINOPHILS	5K08 AM00538-02
NORTHEASTERN UNIVERSITY ZIP CODE 02115		
STRAUSS, PHYLLIS R	THYMIDINE TRANSPORT IN NORMAL AND LEUKEMIC LYMPHOCYTES	5K04 CA00460-03
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115		
LAGAKOS, STEPHEN W	STATISTICAL PROBLEMS IN CANCER RESEARCH	5K04 CA00505-03
TUFTS UNIVERSITY ZIP CODE 02111		
DINARELLO, CHARLES A	THE PATHOGENESIS OF FEVER IN HUMANS	1K04 AI00387-01
KING, JOAN C	LH-RH LOCALIZATION AND DYNAMICS	5K04 HD00352-02
CAMBRIDGE		
HARVARD UNIVERSITY ZIP CODE 02138		
ELGIN, SARAH C	CHROMOSOMAL PROTEINS AND GENE EXPRESSION IN DROSOPHILA	5K04 GM00234-05
GELBART, WILLIAM M	GENE REGULATION AND ORGANIZATION IN DROSOPHILA	5K04 CA00588-02
KESSIN, RICHARD H	CONTROL OF AGGREGATION IN D. DISCOIDEUM	5K04 HD00220-04
SATO, VICKI L	IMMUNOBIOLOGY OF EARLY LYMPHOCYTE DEVELOPMENT	5K04 CA00512-02
TAYLOR, D LANSING	MUSCLE CONTRACTION AND CYTOPLASMIC STREAMING	5K04 AM00292-04
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139		
HYNES, RICHARD O	CELL SURFACE PROTEINS AND CELLULAR BEHAVIOR	5K04 CA00382-03
PETSKO, GREGORY A	X-RAY CRYOENZYMOLGY	5K04 GM00478-03
SOLOMONS, NOEL W	TRACE MINERAL BIOAVAILABILITY AND METABOLISM STUDIES	1K08 AM00715-01
SHREWSBURY		
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY ZIP CODE 01545		
CHANG, MIN C	FERTILIZABILITY OF MAMMALIAN EGGS	5K06 HD18334-19
WALTHAM		
BRANDEIS UNIVERSITY ZIP CODE 02154		
HALL, JEFFREY C	DEVELOPMENT AND BEHAVIOR OF NEUROLOGICAL MUTANTS	5K04 GM00297-04

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MASSACHUSETTS—Continued		
HUDSON, ROBERT B.....	AGING AND HEALTH POLICY: CRITICAL POLICY LINKAGES.....	5K04 AG00005-04
MILLER, CHRISTOPHER.....	IONOPHORES OF THE SARCOPLASMIC RETICULUM MEMBRANE.....	5K04 AM00354-03
PRESS, JOAN L.....	IMMUNOGENETIC ANALYSIS OF B CELL DIFFERENTIATION.....	5K04 AI00266-03
ROSBASH, MICHAEL M.....	MACROMOLECULES IN OOGENESIS AND DEVELOPMENT.....	5K04 HD00134-05
VAN VUNAKIS, HELEN.....	STRUCTURE & ACTIVITY OF BIOLOGICALLY IMPORTANT MOLECULES.....	5K05 AI02372-18
WENSINK, PIETER C.....	SEQUENCE ARRANGEMENT IN EUKARYOTIC DNA AND CHROMOSOMES.....	5K04 GM00212-05
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154		
LANDIS, DENNIS M.....	MEMBRANE STRUCTURE DURING SYNAPTOGENESIS.....	5K07 NS00353-03
WORCESTER		
CLARK UNIVERSITY ZIP CODE 01610		
HAREVEN, TAMARA K.....	AGING AND THE LIFE COURSE: COHORT CHANGE.....	5K04 AG00026-02
ELM PARK CENTER FOR EARLY CHILDHOOD EDUCATION ZIP CODE 01602		
KANE, DOROTHY N.....	ENVIRONMENTAL HAZARDS OF SMALL CHILDREN.....	5K10 LM00038-02
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER ZIP CODE 01605		
DOBSON, JAMES G, JR.....	REGULATION OF MYOCARDIAL CONTRACTILITY AND METABOLISM.....	1K04 HL00602-01
FRAY, JOHN C.....	MECHANISMS CONTROLLING RENIN SECRETION.....	1K04 HL00764-01
HICKLER, ROGER B.....	GERIATRIC MEDICINE.....	5K07 AG00057-02
PRATTER, MELVIN R.....	PULMONARY MEDICINE.....	1K07 HL00612-01
SINGER, ROBERT H.....	MRNA CONTROL IN DIFFERENTIATING MUSCLE CELLS.....	5K04 NS00288-03
WELSH, RAYMOND M, JR.....	MAINTENANCE OF CHRONIC VIRUS DISEASE.....	7K04 AI00432-03
ZIVIN, JUSTIN A.....	BIOCHEMICAL CORRELATES OF CNS INFARCTION.....	5K07 NS00456-02
MICHIGAN		
ANN ARBOR		
UNIVERSITY OF MICHIGAN AT ANN ARBOR ZIP CODE 48109		
CAREY, THOMAS E.....	SEROLOGY OF HUMAN SQUAMOUS CELL CARCINOMA.....	1K04 CA00621-01
EDWARDS, N LAWRENCE.....	METABOLIC ROLE OF LYMPHOCYTE 5'-NUCLEOTIDASE.....	1K08 AM00817-01
KNIGHT, PAUL R, III.....	ANESTHETIC EFFECTS ON VIRAL REPLICATION OR PATHOGENESIS.....	1K04 GM00477-01
MACDONALD, ROBERT L.....	ANTICONVULSANT-CONVULSANT ACTIONS IN CULTURED NEURONS.....	1K04 NS00408-01A1
MISTRETTA, CHARLOTTE M.....	TASTE RECEPTORS IN ORAL FACIAL DEVELOPMENT.....	5K04 DE00066-03
MITCHELL, BEVERLY S.....	REGULATION OF ADENOSINE DEAMINASE ACTIVITY.....	5K08 AM00442-03
OLSON, GARY M.....	INFANT MEMORY PROCESSES.....	5K04 HD00169-04
PENNEY, JOHN B, JR.....	FUNCTIONAL ANATOMY OF THE BASAL GANGLIA.....	1K07 NS00464-01
RICHARDS, JOANNE S.....	HORMONE ACTION IN OVARIAN CELL DIFFERENTIATION.....	5K04 HD00174-03
YOUNG, ANNE B.....	SPINAL CORD NEUROTRANSMITTERS IN SPASTICITY.....	5K07 NS00420-02
DETROIT		
HENRY FORD HOSPITAL ZIP CODE 48202		
SCICLI, ALFONSO G.....	KININS AND BLOOD PRESSURE REGULATION.....	1K04 HL00682-01
WAYNE STATE UNIVERSITY ZIP CODE 48202		
BENJAMINS, JOYCE A.....	ASSEMBLY OF MYELIN AND OTHER NEURAL MEMBRANES.....	5K04 NS00220-04
ENJETI, SURESH.....	PULMONARY MEDICINE.....	5K08 HL00306-04
KAPLAN, JOSEPH.....	TUMOR IMMUNOLOGY OF CHILDHOOD LEUKEMIA AND LYMPHOMA.....	5K04 CA00188-05
LEWIS, BENJAMIN M.....	PHYSIOL & PATHOL REACTIONS OF PULMONARY CAPILLARY BED.....	5K06 HL02182-18
VIEF, GISELA L.....	CONTEXTUAL APPROACH TO ADULT COGNITIVE DEVELOPMENT.....	5K04 AG00018-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MICHIGAN—Continued		
EAST LANSING		
MICHIGAN STATE UNIVERSITY	ZIP CODE 48824	
HONICKY, RICHARD E.....	INTEGRATED DEVELOPMENTAL PULMONARY CURRICULUM.....	5K07 HL00526-02
SPARROW, ALBERT W.....	PREVENTIVE CARDIOLOGY.....	5K07 HL00613-02
WEAVER, LYNNE C.....	REFLEX CONTROL OF RENAL CIRCULATION AND FUNCTION.....	5K04 HL00501-02
ROCHESTER		
OAKLAND UNIVERSITY	ZIP CODE 48063	
CALLEWAERT, DENIS M.....	MECHANISM FOR HUMAN NATURAL CYTOTOXICITY.....	1K04 CA00744-01
ROY, ARUN K.....	REGULATION OF ALPHA 2 MU GLOBULIN IN THE RAT.....	5K04 AM00141-05
MINNESOTA		
MINNEAPOLIS		
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL	ZIP CODE 55455	
ACKERMAN, SAMUEL K.....	PROTEIN CATABOLISM IN AGING CULTURED HUMAN MONOCYTES.....	1K08 AG00070-01
ANDERSON, JOHN H.....	CENTRAL MECHANISMS OF VESTIBULAR REFLEX FUNCTIONS.....	5K04 NS00395-02
AZAR, SILVIA H.....	GENETIC PREHYPERTENSION, NA/ION, PRENATAL BP MATURATION.....	5K04 HL00431-03
BACHE, ROBERT J.....	THE RESPONSE OF THE CORONARY VASCULATURE TO ISCHEMIA.....	5K04 HL00367-05
BIRNBAUM, GARY.....	MULTIPLE SCLEROSIS.....	5K04 NS00412-05
BRANDA, RICHARD F.....	FOLATE METABOLISM IN REFRACTORY ANEMIAS.....	1K04 CA00657-01
CRADDOCK, PHILIP R.....	GRANULOCYTES, COMPLEMENT, AND VASCULAR ENDOTHELIUM.....	5K04 HL00479-03
EATON, JOHN W.....	MECHANISMS OF ERYTHROCYTE DESTRUCTION.....	5K04 AM00403-03
FRIEND, PETER S.....	INJURY TO GLOMERULAR FILTER: IMMUNOGENETIC DETERMINANTS.....	5K08 AM00445-03
FURCHT, LEO T.....	STEROID CORRECTION OF THE CELL MATRIX IN NEOPLASIA.....	1K04 CA00651-01
GILLUM, RICHARD F.....	SODIUM INTAKE AND HYPERTENSION.....	5K04 HL00329-04
HALBERG, FRANZ.....	TEMPORAL PARAMETERS OF PHYSIOL FUNCTIONS IN HLTH/DISEASE.....	5K06 GM13981-19
IRVINE, PATRICK W.....	GERIATRIC MEDICINE.....	5K07 AG00078-02
JACOBS, DAVID R, JR.....	EPIDEMIOLOGY AND PREVENTION OF CARDIOVASCULAR DISEASE.....	5K04 HL00287-04
MARIASH, CARY N.....	T3 AND HEXOSE REGULATION OF HEPATOCYTE MALIC ENZYME.....	1K08 AM00800-01
NELSON, ROBERT D.....	HUMAN MONOCYTE FUNCTION IN CANCER AND INFECTION.....	5K04 AI00212-03
O'DEA, ROBERT F, JR.....	BIOCHEMICAL REGULATION OF RENAL B-ADRENERGIC FUNCTION.....	5K04 HL00565-02
ROBINSON, HARRY J, JR.....	PATHOGENESIS OF DEGENERATIVE HIP AND KNEE DISEASE.....	5K08 AM00466-03
RYBAK, LEONARD P.....	OTOTOXIC DRUG EFFECT ON COCHLEAR STRUCTURE & FUNCTION.....	1K07 NS00492-01
SCHWARTZ, SAMUEL.....	BIOLOGICAL AND BIOCHEMICAL EFFECTS OF PORPHYRINS.....	5K06 GM14086-18
ROCHESTER		
MAYO FOUNDATION	ZIP CODE 55901	
DEWALD, GORDON W.....	MALIGNANT PLEURAL EFFUSIONS DIAG. BY CHROMOSOME ANALYSIS.....	5K04 CA00440-03
FATHMAN, C GARRISON.....	CHARACTERIZATION OF HYBRID HISTOCOMPATIBILITY ANTIGENS.....	5K04 AI00333-02
GILLESPIE, DELMAR J.....	CLINICAL MEDICINE.....	1K08 HL00708-01
LAI-FOOK, STEPHEN J.....	PERIBRONCHOVASCULAR INTERSTITIAL PRESSURE IN THE LUNG.....	1K04 HL00674-01
MALAGELADA, JUAN R.....	HUMAN GASTRIC RESPONSES TO MEALS AND THEIR REGULATION.....	5K04 AM00330-03
MC KEAN, DAVID J.....	PRIMARY STRUCTURE OF MHC I-REGION GENE PRODUCTS.....	5K04 CA00586-02
MISSISSIPPI		
JACKSON		
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER	ZIP CODE 39216	
HALL, JOHN E.....	HORMONAL CONTROL OF RENAL FUNCTION.....	5K04 HL00502-02
HUTCHINSON, RICHARD G.....	PREVENTIVE CARDIOLOGY.....	5K07 HL00641-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MISSISSIPPI—Continued		
YOUNG, DAVID B.....	CONTROL, CARDIOVASCULAR AND RENAL EFFECTS OF POTASSIUM.....	5K04 HL00373-04
MISSOURI		
COLUMBIA		
UNIVERSITY OF MISSOURI-COLUMBIA ZIP CODE 65201		
FREEMAN, RONALD H.....	EXPERIMENTAL TWO-KIDNEY RENOVASCULAR HYPERTENSION.....	5K04 HL00257-04
GERHARDT, H CARL.....	ACOUSTIC PATTERN RECOGNITION.....	5K04 NS00217-04
JEN, PHILIP H.....	VOCAL-AUDITORY INTERACTION IN ECHOLOCATION.....	1K04 NS00433-01
MULLEN, HELEN B.....	CELLULAR MECHANISMS REGULATING ANTIBODY PRODUCTION.....	5K04 AI00322-02
PINGLETON, SUSAN K.....	PULMONARY MEDICINE.....	5K07 HL00519-02
ROVETTO, MICHAEL J.....	MYOCARDIAL ENERGY AND ADENINE NUCLEOTIDE METABOLISM.....	7K04 HL00922-05
SAINT LOUIS		
JEWISH HOSPITAL OF ST. LOUIS ZIP CODE 63110		
KAPP-PIERCE, JUDITH A.....	CONTROL OF IMMUNE RESPONSES BY IR AND IG GENES.....	5K04 AI00361-02
THOMAS, DAVID W.....	T LYMPHOCYTE AND MACROPHAGE INTERACTIONS.....	5K04 AI00352-02
ST. LOUIS UNIVERSITY ZIP CODE 63103		
BARISAS, B GEORGE.....	LATERAL DYNAMICS OF MEMBRANE COMPONENTS.....	5K04 AI00291-03
GREEN, MAURICE.....	BIOCHEMISTRY OF VIRAL REPLICATION.....	5K06 AI04739-19
MOORE, TERRY L.....	HIDDEN 19S IGM RHEUMATOID FACTOR IN JUVENILE ARTHRITIS.....	5K08 AM00364-02
SECKER-WALKER, ROGER H.....	PULMONARY MEDICINE.....	5K07 HL00251-05
WOLD, WILLIAM S.....	ADENOVIRUS 2 EARLY GENE FUNCTION.....	1K04 CA00650-01
WASHINGTON UNIVERSITY ZIP CODE 63130		
BAENZIGER, JACQUES U.....	OLIGOSACCHARIDE STRUCTURE AND FUNCTION IN RECOGNITION.....	1K04 CA00671-01
BOIME, IRVING.....	BIOSYNTHESIS OF PROTEIN HORMONES.....	5K04 AM00174-04
CARROLL, JAMES E.....	PROVOCATIVE TESTING IN NEUROMUSCULAR DISEASES.....	5K07 NS00386-02
COLE, BARBARA R.....	HISTOCHEMICAL ANALYSIS OF RENAL AMINO ACID TRANSPORT.....	5K08 AM00669-02
CSAPO, ARPAD I.....	PHYSIOLOGY OF PREGNANCY AND PARTURITION STUDIES.....	4K06 HD20169-16
CULLEN, SUSAN E.....	STRUCTURAL & SEROLOGICAL STUDIES OF IA & H-2 ANTIGENS.....	5K04 CA00348-04
GOTTLIEB, DAVID I.....	MOLECULAR BASIS OF MEMBRANE RECOGNITION.....	5K04 NS00185-05
JENNY, ARTHUR B, II.....	ANATOMICAL ORGANIZATION OF THE HAND MOTOR SYSTEM.....	1K07 NS00470-01
KIM, DUCK O.....	INNER EAR AND COCHLEAR NUCLEUS MECHANISMS.....	5K04 NS00162-05
KRUPIN, THEODORE.....	CENTRAL NERVOUS SYSTEM INFLUENCE ON OCULAR DYNAMICS.....	5K04 EY00082-04
MC KEEL, DANIEL W, JR.....	HORMONE SECRETION BY NORMAL AND NEOPLASTIC HYPOPHYSIS.....	5K04 AM00184-05
NAKEFF, ALEXANDER N.....	MEGAKARYOCYTE PROLIFERATION AND ITS CONTROL.....	5K04 HL00440-03
OSTLUND, RICHARD E, JR.....	REGULATION OF CHOLESTEROL METABOLISM IN CULTURED CELLS.....	1K04 HL00766-01
PERMUTT, MARSHALL A.....	STUDIES OF INSULIN BIOSYNTHESIS.....	5K04 AM00333-04
PERRAULT, JACQUES.....	VSV POLYMERASE REGULATION AND DI REPLICATION.....	1K04 AI00401-01
POLAKOSKI, KENNETH L.....	INHIBITION PROACROSIN-ACROSIN IN MAMMALIAN SPERM.....	5K04 HD00296-02
ROOS, ALBERT.....	PULMONARY BLOOD FLOW & TRANSMEMBRANE IONIC FLUX.....	5K06 HL19608-18
SCHARP, DAVID W.....	ISLET TRANSPLANTATION IN DIABETES MELLITUS.....	5K04 AM00318-04
SHIELDS, HELEN M.....	ULTRASTRUCTURAL LOCALIZATION OF RAT ALKALINE PHOSPHATASE.....	1K08 AM00709-01
TROTTER, JOHN L.....	ISOLATION AND IMMUNOLOGY OF MYELIN PROTEINS.....	5K07 NS00221-03
WILLARD, MARK B.....	AXONALLY TRANSPORTED PROTEINS IN THE VISUAL SYSTEM.....	5K04 NS00170-05
ZAHALAK, GEORGE I.....	THE DYNAMICS OF HUMAN SKELETAL MUSCLE IN-VIVO.....	5K04 AM00541-02
MONTANA		
BOZEMAN		
MONTANA UNIVERSITY SYSTEM—MONTANA STATE UNIVERSITY ZIP CODE 59715		
CUTLER, JIMMY E.....	HOST DEFENSE AGAINST C. ALBICANS AND DIMORPHIC CONTROL.....	1K04 AI00367-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
MONTANA—Continued		
HAMILTON, MARTIN A	STATISTICAL METHODS IN TOXICOLOGY & EPIDEMIOLOGY	5K04 ES00063-02
NEBRASKA		
LINCOLN		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA AT LINCOLN ZIP CODE 68588		
NICKERSON, KENNETH W	MICROBIAL BIOCHEMISTRY AND FUNGAL POLYAMINES	5K04 AI00327-02
SCHUSTER, SHELDON M	ASPARAGINE BIOSYNTHESIS IN NORMAL AND TUMOR CELLS	5K04 CA00628-02
OMAHA		
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105		
GOODRICH, PAUL D	PULMONARY MEDICINE	1K08 HL00643-01
NEW HAMPSHIRE		
HANOVER		
DARTMOUTH COLLEGE ZIP CODE 03755		
ADLER, ROBERT A	PROLACTIN EFFECTS IN NONLACTATING ANIMALS	1K08 AM00707-01
CULP, WILLIAM J	SODIUM CHANNEL COMPONENTS OF EXCITABLE MEMBRANES	5K04 NS00058-05
DAUBENSPECK, JOHN A	DYNAMICS OF BREATHING PATTERN RESPONSES TO LOADING	5K04 HL00280-04
NATTIE, EUGENE E	BRAIN METABOLISM/ACID-BASE BALANCE/RESPIRATION CONTROL	5K04 HL00364-04
NORTH, WILLIAM G	NORMAL AND ECTOPIC PRODUCTION OF ADH AND OXYTOCIN	5K04 CA00552-02
ST JOHN, WALTER M	BRAINSTEM INTEGRATION OF CHEMORECEPTOR ACTIVITY	5K04 HL00346-04
NEW JERSEY		
NEWARK		
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103		
LASSER, NORMAN L	PREVENTIVE CARDIOLOGY	5K07 HL00610-02
NEW BRUNSWICK		
RUTGERS THE STATE UNIVERSITY NEW BRUNSWICK ZIP CODE 08903		
ISIED, STEPHAN S	INERT METAL ION PROTECTING GROUPS IN PEPTIDE SYNTHESIS	1K04 AM00735-01
OLSON, WILMA K	NUCLEIC ACID CONFORMATION AND PROPERTIES	5K04 GM00155-05
PIECZENIK, GEORGE	GENOTYPIC SELECTION: SYNTAX AND STRUCTURE	5K04 GM00281-04
PISCATAWAY		
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL ZIP CODE 08854		
BRODSKY, BARBARA	X-RAY DIFFRACTION OF CONNECTIVE TISSUE	5K04 AM00168-05
RILEY, DAVID J	PULMONARY MEDICINE	5K07 HL00443-02
PRINCETON		
PRINCETON UNIVERSITY ZIP CODE 08540		
SCHEDL, PAUL	GENE EXPRESSION DURING D MELANOGASTER EMBRYOGENESIS	1K04 HD00321-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
NEW MEXICO		
ALBUQUERQUE		
UNIVERSITY OF NEW MEXICO ALBUQUERQUE ZIP CODE 87131		
GOLDBERG, ELLEN H.....	IMMUNOBIOLOGY OF THE H-Y (MALE) ANTIGENIC SYSTEM.....	5K04 AI00353-02
RADA, RICHARD T.....	THE MURDERER: A MULTIDISCIPLINARY ANALYSIS.....	1K10 LM00051-01
SCHADE, DAVID S.....	COUNTER REGULATORY HORMONES IN DIABETIC KETOACIDOSIS.....	5K04 AM00260-04
SEARLES, ROBERT P.....	ANTILYMPHOCYTE ANTIBODIES IN AUTOIMMUNE DISEASES.....	1K08 AM00793-01
NEW YORK		
ALBANY		
STATE UNIVERSITY OF NEW YORK AT ALBANY ZIP CODE 12222		
SCHOLES, CHARLES P.....	PROBING HEME AND HEMOPROTEINS.....	5K04 AM00274-04
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE ZIP CODE 12208		
GOLDFARB, ROY D.....	GENESIS OF SHOCK BY PANCREATIC PEPTIDES.....	5K04 HL00497-02
KAPLAN, JOHN E.....	PHAGOCYTIC CONTROL OF THROMBOSIS DURING SEPSIS.....	1K04 GM00488-01
MALIK, ASRAR B.....	PULMONARY VASCULAR ADJUSTMENTS IN CIRCULATORY COLLAPSE.....	5K04 HL00363-04
BINGHAMTON		
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON ZIP CODE 13901		
LOEW, LESLIE M.....	MOLECULAR PROBES OF CELL SURFACE PHENOMENA.....	1K04 CA00677-01
BUFFALO		
CHILDREN'S HOSPITAL ZIP CODE 14222		
VLADUTIU, GEORGIRENE D.....	ENDOCYTOSIS AND EXOCYTOSIS OF LYSOSOMAL ENZYMES.....	1K04 HD00312-01A1
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263		
GUTAI, MARY W.....	THE SV40 REPLICATION ORIGIN, AND RECOMBINATION WITH HOST.....	5K04 CA00449-03
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260		
ALTSCHULER, MARTIN D.....	DIVERGING-BEAM 3-D IMAGE RECONSTRUCTION.....	5K04 GM00381-04
CALKINS, EVAN.....	GERIATRIC MEDICINE.....	5K07 AG00080-02
DZIAK, ROSE M.....	BONE CELL CALCIUM.....	1K04 AM00726-01
FOURTNER, CHARLES R.....	NEURAL CONTROL OF RHYTHMIC BEHAVIOR PATTERNS.....	5K04 NS00141-05
HUDECKI, MICHAEL S.....	DRUG THERAPY STUDIES IN THE GENETICALLY DYSTROPHIC.....	1K04 NS00517-01
NATHANSON, IAN T.....	PULMONARY MEDICINE.....	1K08 HL00609-01
SALTZMAN, ALAN R.....	PULMONARY MEDICINE.....	5K07 HL00342-04
ITHACA		
CORNELL UNIVERSITY ITHACA ZIP CODE 14853		
HAUSFATER, GLENN.....	LONGITUDINAL STUDIES OF PRIMATE SOCIOBIOLOGY.....	5K04 HD00261-04
HOY, RONALD R.....	GENETIC & DEVELOPMENTAL ANALYSES OF NERVOUS SYSTEMS.....	5K04 NS00309-03
MOFFAT, JOHN K.....	CALCIUM TRANSPORT AND BINDING.....	5K04 AM00322-03
ROBERTS, JEFFREY W.....	GENE CONTROL IN INFECTION & LYSOGENY BY PHAGE LAMBDA.....	5K04 GM00185-05
LAKE PLACID		
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER ZIP CODE 12946		
CHURCH, ROBERT L.....	BIOLOGY AND GENETICS OF PROCOLLAGEN FROM THE CORNEA.....	7K04 EY00220-04

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
NEW YORK—Continued		
NEW YORK		
CITY UNIVERSITY OF NEW YORK—HUNTER COLLEGE ZIP CODE 10021		
CHAPPELL, RICHARD L.....	STUDY OF NEURAL INTERACTIONS OF THE RETINA.....	5K04 EY00040-05
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029		
AARONSON, ROBERT P.....	STRUCTURE AND FUNCTION OF THE NUCLEAR ENVELOPE.....	5K04 GM00278-04
BARKER, LOUIS A.....	REGULATION OF ACH SYNTHESIS IN THE CNS.....	5K04 NS00274-03
BENDER, ADAM N.....	LOCALIZATION OF NICOTINIC ACETYLCHOLINE RECEPTOR.....	5K07 NS00207-04
LEO, MARIA A.....	ROLE OF MICROTUBULAR ALTERATIONS IN LIVER DISEASES.....	1K08 AM00698-01
LORIMER, WILLIAM V.....	METHODOLOGICAL APPROACHES TO STUDY OF TOXIC AGENTS.....	5K04 ES00035-03
MASUR, SANDRA K.....	EXOCYTOSIS AND ENDOCYTOSIS INDUCED BY VASOPRESSIN.....	5K04 AM00547-02
MC EVOY, ROBERT C.....	DEVELOPMENTAL INTERACTION/GEP SYSTEM/IN VIVO/IN VITRO.....	5K04 HD00285-02
RAPHAN, THEODORE.....	CENTRAL MECHANISMS FOR SUPPRESSION OF NYSTAGMUS.....	5K07 EY00157-02
RITCH, ROBERT H.....	(NA+ + K+)-ATPASE IN AQUEOUS HUMOR DYNAMICS.....	5K07 EY00133-03
SHERMAN, FREDRICK T.....	GERIATRIC MEDICINE.....	1K07 AG00091-01
SMITH-WRIGHT, MOYRA.....	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN CELL HYBRIDS.....	5K04 AI00249-04
COLUMBIA UNIVERSITY ZIP CODE 10027		
ABRAMS, GARY M.....	NEUROENDOCRINOLOGIC PAIN.....	1K07 NS00478-01
AMBRON, RICHARD T.....	PROCESSING OF MEMBRANE GLYCOPROTEIN IN SINGLE NEURONS.....	5K04 NS00350-02
BENESCH, REINHOLD.....	RELATION BETWEEN STRUCTURE & FUNCTION IN PROTEINS.....	5K06 HL01137-19
BILEZIKIAN, JOHN P.....	THE BETA ADRENERGIC CATECHOLAMINE RECEPTOR.....	5K04 HL00383-04
BLITZER, ANDREW.....	LARYNGEAL CONNECTIVE TISSUE RESPONSE TO CANCER.....	5K07 NS00392-02
BRASITUS, THOMAS A.....	PATHOPHYSIOLOGY OF INTESTINAL MICROVILLUS MEMBRANES.....	5K08 AM00386-03
BRAUN, NORMA M.....	PULMONARY MEDICINE.....	3K07 HL00371-03S1
BRAUN, NORMA M.....	PULMONARY MEDICINE.....	5K07 HL00371-04
DAVIDSON, DENNIS.....	ROLE OF CIRCULATING VASOACTIVE MEDIATORS AT BIRTH.....	1K08 HL00754-01
EGGERS, ARNOLD E.....	CHEMICAL ENHANCEMENT OF TUMOR IMMUNOGENICITY.....	5K07 NS00419-02
FENOGUO, JOHN J, JR.....	GENESIS OF ARRHYTHMIAS FOLLOWING MYOCARDIAL INFARCTION.....	5K04 HL00185-04
GUNTAKA, RAMAREDDY V.....	SYNTHESIS, INTEGRATION AND EXPRESSION OF ASV GENOME.....	5K04 CA00540-02
HARVEY, REJANE M.....	CONTROL OF PULMONARY CIRCULATION.....	5K06 HL16603-18
HOCHBERG, RICHARD B.....	MECHANISMS IN STEROID HORMONE BIOSYNTHESIS.....	5K04 CA00174-05
ISHII, DOUGLAS N.....	NGF AND DIFFERENTIATION OF NEURONAL TUMOR II.....	5K04 NS00375-03
JAN, KUNG-MING.....	RHEOLOGY OF RBC INTERACTION IN HEALTH AND DISEASE.....	5K04 HL00036-05
KHANNA, SHYAM M.....	PERIPHERAL AUDITORY FUNCTION.....	5K04 NS00292-04
KOOPMANS, HENRY S.....	THE REGULATION OF FOOD INTAKE AND BODY FAT.....	5K04 AM00198-05
LIM, JONG J.....	ENDOTHELIAL CELL ADHESION AND DIELECTRIC PROPERTIES.....	5K07 EY00105-03
LIPOWSKY, HERBERT H.....	MICROVASCULAR BLOOD RHEOLOGY IN HEALTH AND DISEASE.....	1K04 HL00594-01
LO GERFO, PAUL.....	IMMUNOLOGICAL APPROACHES TO THE DIAGNOSIS OF CANCER.....	5K04 CA00192-05
MORRISON, SHERIE L.....	GENETICS AND BIOCHEMISTRY OF IG PRODUCTION.....	1K04 AI00408-01
SILVERSTEIN, SAUL J.....	REGULATION OF VIRAL GENES IN TRANSFORMED CELLS.....	5K04 CA00491-03
STELLMAN, JEANNE M.....	PREVENTIVE ONCOLOGY.....	1K07 CA00730-01
TONNDORF, JUERGEN.....	PHYSIOLOGY OF THE EAR.....	5K06 NS21691-17
WEBER, COLLIN J.....	PANCREATIC ISLET PRESERVATION AND TRANSPLANTATION.....	1K04 AM00806-01
WILLNER, JOSEPH H.....	CYCLIC NUCLEOTIDE METABOLISM IN HUMAN MUSCLE DISEASE.....	1K07 NS00477-01
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021		
ATLAS, STEVEN A.....	IDENTIFICATION OF RENIN PRECURSORS IN HUMAN SUBJECTS.....	5K04 HL00570-02
COOPER, ARTHUR.....	AMMONIA METABOLISM IN LIVER DISEASE.....	5K04 NS00343-03
FRIEDMAN, JEFFREY.....	HORMONAL EFFECTS ON RENAL FN IN RIGHT HYDRONEPHROSIS.....	1K08 AM00747-01
HAMILL, ROBERT W.....	DEVELOPMENTAL NEUROLOGY: BIRTH DEFECTS.....	5K07 NS00383-02
IMPERATO-MC GINLEY, JULIANNE.....	ABNORMALITIES OF SEXUAL DIFFERENTIATION IN MAN.....	5K08 AM00615-02
JAFFE, ERIC A.....	BIOLOGY OF ENDOTHELIAL CELLS.....	5K04 AI00237-05
KESSLER, JOHN A.....	TRANS-SYNAPTIC REGULATION OF NEURONAL FUNCTION.....	5K07 NS00351-03
LA GAMMA, EDMUND F.....	ONTOGENY OF FETAL AUTONOMIC CARDIOVASCULAR REGULATION.....	1K08 HL00756-01
PETERSON, RALPH E.....	METABOLISM AND REGULATION OF ADRENOCORTICAL SECRETIONS.....	5K06 AM14241-19
PULSINELLI, WILLIAM A.....	BARBITURATE PROTECTION AGAINST CEREBRAL ISCHEMIA.....	5K07 NS00406-02
RABELLINO, ENRIQUE M.....	MEMBRANE MARKER ANALYSIS OF LEUKOCYTE DIFFERENTIATION.....	5K04 CA00518-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
NEW YORK—Continued		
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021		
GIBOFSKY, ALLAN	B-CELL ALLOANTIGENS IN THE RHEUMATIC DISEASES	5K08 AM00673-02
LANE, JOSEPH M.	MOLECULAR BIOLOGY OF FRACTURE HEALING	5K04 AM00295-04
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021		
PASTERNAK, GAVRIL W.	BIOCHEMICAL CHARACTERIZATION OF THE OPIATE RECEPTOR	5K07 NS00415-02
ROTTENBERG, DAVID A.	INVESTIGATION OF CSF DYNAMICS IN MAN	5K07 NS00286-04
SCHOTTENFELD, DAVID	PREVENTIVE ONCOLOGY	1K07 CA00727-01
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467		
BURNS, MARGARET S.	ION LOCALIZATION IN EYE PHYSIOLOGY: NEW TECHNIQUES	5K04 EY00104-03
COHEN, MICHAEL V.	EFFECT OF EXERCISE ON CORONARY COLLATERAL FUNCTION	5K04 HL00281-04
NEW YORK BLOOD CENTER ZIP CODE 10021		
STEVENS, CLADD E.	POST-TRANSFUSION HEPATITIS IN CHILDREN	5K04 HL00261-04
NEW YORK UNIVERSITY ZIP CODE 10003		
BERNHEIMER, ALAN W.	STAPHYLOCOCCAL AND STREPTOCOCCAL PROTEINS	5K06 AI14198-19
BONDI, ARDITH Y.	ELECTROPHYSIOLOGY OF OCULOMOTOR MUSCLES	5K07 EY00165-02
FINLAY, THOMAS H.	STRUCTURE-FUNCTION STUDIES OF AHF, VWF AND AT III	5K04 HL00277-04
GARAY, STUART M.	PULMONARY MEDICINE	1K07 HL00634-01
GARDNER, ESTHER P.	NEURAL MECHANISMS OF CUTANEOUS SPATIAL INTEGRATION	5K04 NS00142-05
GERSHENGORN, MARVIN C.	REGULATION OF TSH SYNTHESIS AND SECRETION	5K04 AM00566-02
HOFFSTEIN, SYLVIA T.	LYSOSOMAL ENZYME RELEASE AND TISSUE INJURY	5K04 HL00356-04
JAECER, RUDOLPH J.	PULMONARY TOXICITY OF INHALED PYROLYSIS PRODUCTS	5K04 ES00081-04
KREIBICH, GERT	ORGANIZATION AND BIOSYNTHESIS OF ER MEMBRANE PROTEINS	5K04 GM00232-05
LEVIN, RICHARD I.	CLINICAL MEDICINE	1K08 HL00748-01
LIEM, RONALD K.	BIOCHEMICAL STUDIES OF THE NEUROFILAMENT TRIPLET	1K04 NS00487-01
MAAS, WERNER K.	ENZYME REPRESSION, PLASMIDS GENETICS, E COLI ENTEROTOXIN	5K06 GM15129-17
MOVSHON, J ANTHONY	QUANTITATIVE STUDIES OF THE CENTRAL VISUAL SYSTEM	1K04 EY00187-01
OLESHANSKY, MARVIN A.	SERUM DBH AND ORGANIC BRAIN SYNDROMES OF THE ELDERLY	1K08 AG00065-01
SCHAEFFER, HELENE E.	TRANSCORNEAL PILOCARPINE FLUX ENHANCEMENT VIA LIPOSOMES	5K07 EY00138-03
SHAK, STEVEN	PULMONARY MEDICINE	1K08 HL00650-01
POPULATION COUNCIL ZIP CODE 10017		
BONGAARTS, JOHN P.	DEMOGRAPHIC MODELS OF THE NUCLEAR FAMILY	1K04 HD00327-01
ROCKEFELLER UNIVERSITY ZIP CODE 10021		
ANDERSON, KARL E.	NUTRITION AND DRUG METABOLISM IN MAN	5K04 GM00330-04
BROWNLEE, MICHAEL A.	SERCA-DIABETES MELLITUS: CARDIOVASCULAR	5K01 AM00589-03
CHUA, NAM-HAI	STRUCTURE AND BIOGENESIS OF THYLAKOID MEMBRANE	5K04 GM00223-05
FISCHETTI, VINCENT A.	PROPERTIES OF STREPTOCOCCAL M PROTEIN	5K04 AI00259-04
JONES, ROBERT L.	SERCA-DIABETES MELLITUS: CARDIOVASCULAR	5K01 AM00590-03
KAPLAN, EHUD	EFFECT OF CORTICAL FEEDBACK ON THE LGN	5K07 EY00108-03
LIZARDI, PAUL M.	BIOGENESIS OF SILK FIBROIN MESSENGER RNA	3K04 GM00316-03S1
LIZARDI, PAUL M.	BIOGENESIS OF SILK FIBROIN MESSENGER RNA	5K04 GM00316-04
NEVINS, JOSEPH R.	REGULATION OF ADENOVIRUS GENE EXPRESSION	1K04 CA00666-01
PETERSON, BARRY W.	PROPERTIES OF PREMOTOR NEURONS IN GAZE CONTROL SYSTEM	5K04 EY00100-03
SHAPLEY, ROBERT M.	SPATIAL INTERACTIONS IN VISUAL NEURONS	5K04 EY00087-04
VALINSKY, JAY E.	APPLICATION OF FLUORESCENT PROBES TO CANCER DIAGNOSIS	5K04 CA00633-02
WANG, LU-HAI	SARCOMAGENICITY & LEUKEMOGENICITY OF RNA TUMOR VIRUS	5K04 CA00574-02
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021		
ARTZT, KAREN	TERATOCARCINOMA AND EMBRYONAL TUMORS: SURFACE ANTIGENS	5K04 CA00276-05
CHIAO, JEN W.	DIFFERENTIATION AND T CELL DEVELOPMENT IN LEUKEMIA	1K04 CA00674-01
KINCADE, PAUL W.	DEVELOPMENT OF B-CELL FUNCTIONAL HETEROGENEITY	5K04 AI00265-03
KOURIDES, IONE A.	BIOSYNTHESIS AND REGULATION OF GLYCOPROTEIN HORMONES	5K04 AM00679-02
MODAK, MUKUND J.	MOLECULAR EFFECTORS OF ENZYMATIC DNA SYNTHESIS	5K04 CA00545-02
SCHIED, MARGRIT P.	IMMUNOGENETICS OF LYMPHOCYTES IN HEALTH AND DISEASE	5K04 AI00270-03
SHEN, FUNG-WIN	THE IMMUNOGENETICS OF LYMPHOCYTE POPULATIONS	5K04 AI00329-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
NEW YORK—Continued		
STEWART, WILLIAM E. II	CHARACTERIZATIONS OF INTERFERONS AND THEIR ACTIONS	5K04 AI00219-04
WACHTEL, STEPHEN S.	SEROLOGY OF HY & SK ANTIGENS	5K04 HD00171-04
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203		
BIANCO, CELSO	TUMOR RECOGNITION BY NORMAL AND ACTIVATED MACROPHAGES	5K04 CA00463-04
DAVID, OLIVER J.	EFFECTS OF ENVIRONMENTAL POLLUTANTS (LEAD) ON BEHAVIOR	1K04 ES00083-01
FEINMAN, RICHARD D.	HEPARIN AND PLASMA COAGULATION INHIBITORS	5K04 HL00406-03
YESHIVA UNIVERSITY ZIP CODE 10033		
CHOWDHURY, JAYANTA R.	BILIRUBIN METABOLISM AND EXCRETION	5K08 AM00569-02
FEIN, FREDERICK S.	MYOCARDIAL FUNCTION IN EXPERIMENTAL DIABETES MELLITUS	5K01 AM00593-03
FEIN, JACK M.	OXIDATIVE METABOLISM IN CEREBRAL ISCHEMIA	5K04 NS00198-05
FRISHMAN, WILLIAM H.	PREVENTIVE CARDIOLOGY	1K07 HL00653-01
GOLDMAN, JAMES E.	CELLULAR AND BIOCHEMICAL MECHANISMS OF CNS GLIOSIS	1K07 NS00524-01
KATZ, IRA R.	HYPOXIA AND NEUROTRANSMITTERS: RELEVANCE TO AGING	1K04 AG00085-01
LEVENSON, STANLEY M.	PROBLEMS OF SURGICAL METABOLISM	5K06 GM14208-19
MILLER, AARON E.	EA ENCEPHALOMYELITIS—IMMUNOREGULATION/VIRAL INTERACTION	5K07 NS00421-02
MOSHE, SOLOMON	NEONATAL DEVELOPMENT	1K07 NS00482-01
MOSS, IMMANUELA R.	GENERATION AND REGULATION OF BREATHING	1K04 HL00688-01
NOVIKOFF, ALEX B.	BIOCHEMICAL CYTOLOGY OF NORMAL AND MALIGNANT CELLS	5K06 CA14923-19
ROBINSON, THOMAS F.	STRUCTURE-FUNCTION OF LINKS AMONG HEART MUSCLE CELLS	5K04 HL00568-02
RUBIN, CHARLES S.	CYCIC AMP AND PROTEIN KINASES IN CELL REGULATION	5K04 AM00190-05
WITTENBERG, JONATHAN B.	OXYGEN METABOLISM	5K06 HL00733-17
YEN, SHU-HUI C.	THE AGING BRAIN: IMMUNOHISTOLOGY AND BIOCHEMISTRY	5K04 AG00028-02
POUGHKEEPSIE		
VASSAR COLLEGE ZIP CODE 12601		
GREENWOOD, MARY R.	NUTRITION AND DEVELOPMENT OF ADIPOSE TISSUE	5K04 HD00283-03
ROCHESTER		
UNIVERSITY OF ROCHESTER ZIP CODE 14627		
AMATRUDA, JOHN M.	INSULIN ACTION IN LIVER TISSUE AND ADIPOSE TISSUE	5K04 AM00366-03
ANDERSON, CLARK L.	FC RECEPTOR STRUCTURE AND FUNCTION	5K04 AI00363-02
BEGENISICH, TED B.	ION MOVEMENTS AND DRUG INTERACTIONS IN GIANT AXONS	5K04 NS00322-03
BOECKMAN, ROBERT K. JR.	SYNTHESIS OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS	7K04 CA00702-05
BOSMANN, H BRUCE	GERIATRIC MEDICINE	5K07 AG00048-02
CONNETT, RICHARD J.	CONTROL OF ENERGY TURNOVER IN SKELETAL MUSCLE	5K04 AM00155-05
DRlica, KARL A.	GYRASE ROLE IN E. COLI CHROMOSOME STRUCTURE/FUNCTION	5K04 CA00562-02
EMERSON, ROBERT C.	IMAGE MOVEMENT: NEURAL PROCESSING MECHANISMS	5K04 EY00081-04
FORBES, GILBERT B.	CHEMICAL STUDIES IN GROWTH AND DEVELOPMENT	5K06 HD18454-19
FRANCIS, CHARLES W.	STRUCTURAL AND CLINICAL STUDIES OF CROSSLINKED FIBRIN	1K08 HL00733-01
GOROVSKY, MARTIN A.	ORGANIZATION AND FUNCTION OF THE EUKARYOTIC GENOME	5K04 GM00238-05
HINKLE, DAVID C.	ENZYMATIC MECHANISM OF DNA REPLICATION	5K04 GM00221-05
HOFFMAN, GLORIA E.	IMMUNOCYTOCHEMISTRY OF LHRH AND OTHER NEUROPEPTIDES	5K04 NS00321-03
JOSEPH, SHIRLEY A.	DEVELOPMENT OF BRAIN-PITUITARY HORMONE SYSTEMS	5K04 HD00230-02
KASS, ROBERT S.	TRANSIENT CURRENTS INDUCED BY DIGITALIS IN THE HEART	5K04 HL00556-02
KRUGH, THOMAS R.	PHYSICO-CHEMICAL STUDIES OF INTERCALATION DRUGS	5K04 CA00257-05
LIVINGSTON, JAMES N.	INSULIN ACTION IN ADIPOSE TISSUE	5K04 AM00470-02
SHOULSON, IRA	HUNTINGTON'S DISEASE: CLINICAL/NEUROCHEMICAL STUDIES	5K07 NS00397-02
SHRAGER, PETER G.	BIOCHEMICAL PROBES OF EXCITABLE MEMBRANES	5K04 NS00133-04
SLADEK, CELIA D.	MECHANISMS CONTROLLING VASOPRESSIN SECRETION	5K04 NS00259-04
TANG, LORETTA K.	REGULATION OF PITUITARY FUNCTION	5K04 HD00288-02
THOMPSON, DEAN A.	SERCA-DIABETES MELLITUS AND CARDIOVASCULAR	5K01 AM00564-03
STONY BROOK		
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794		
COHEN, IRA S.	CARDIAC ELECTROPHYSIOLOGY EFFECTS OF IONS AND DRUGS	5K04 HL00395-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
NEW YORK—Continued		
DALTON, LARRY R.....	NEW INSTRUMENTAL TECHNIQUES FOR BIOMEDICAL RESEARCH.....	5K04 GM00374-05
FRIEDMAN, RICHARD.....	BEHAVIORAL AND CARDIOVASCULAR RESPONSE TO STRESS.....	5K04 HL00552-02
HUREWITZ, ADAM.....	PULMONARY MEDICINE.....	5K07 HL00439-03
JESTY, JOLYON.....	CONTROL MECHANISMS IN COAGULATION.....	5K04 HL00477-03
MALBON, CRAIG C.....	HORMONE REGULATION OF HEPATOCYTE CARBOHYDRATE METABOLISM.....	1K04 AM00786-01
MORRISON, SIDONIE A.....	KINETICS OF PROTHROMBIN ACTIVATION.....	5K04 HL00478-02
OWEN, WILLIAM G.....	SIGNAL TRANSFER BETWEEN RETINAL CELLS.....	5K04 EY00113-03
SMALDONE, GERALD C.....	PULMONARY MEDICINE.....	5K08 HL00461-03
SYRACUSE		
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210		
COULSON, RICHARD.....	CYCLIC NUCLEOTIDES AND KIDNEY METABOLISM AND FUNCTION.....	5K04 AM00326-03
RAY, TUSHAR K.....	MEMBRANE BIOLOGY AND CELLULAR PHYSIOLOGY.....	5K04 AM00623-04
TERJUNG, RONALD L.....	SKELETAL MUSCLE AND CARDIAC ADAPTATIONS TO TRAINING.....	1K04 AM00681-01
SYRACUSE UNIVERSITY SYRACUSE ZIP CODE 13210		
SMITH, ROBERT L.....	NEUROPHYSIOLOGY OF AUDITORY HAIR CELLS AND NEURONS.....	1K04 NS00388-01A1
UPTON		
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY ZIP CODE 11973		
SUTHERLAND, JOHN C.....	PHYSICAL STUDIES OF THE PHOTOREACTIVATING ENZYME.....	5K04 CA00465-04
VALHALLA		
NEW YORK MEDICAL COLLEGE ZIP CODE 10595		
EISENBERG, HARVEY.....	PULMONARY MEDICINE.....	1K07 HL00640-01
SHARMA, SANSAR C.....	THE FORMATION OF VISUAL NEURONAL CONNECTIONS.....	5K04 EY00101-03
NORTH CAROLINA		
CHAPEL HILL		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514		
ARENDSHORST, WILLIAM J.....	RENAL HEMODYNAMICS IN HEALTH AND DISEASE.....	1K04 AM00808-01
BASEMAN, JOEL B.....	METABOLISM OF TREPENEMES: PATHOGENESIS OF RESP DISEASE.....	5K04 AI00178-05
CARDENAS, JANET M.....	PYRUVATE AND PROTEIN KINASES IN METABOLIC REGULATION.....	5K04 AM00529-04
DAVIS, JOSH D.....	CLINICAL MEDICINE.....	1K08 HL00721-01
DONOHUE, JAMES F.....	PULMONARY MEDICINE.....	5K07 HL00449-03
HASSELL, THOMAS M.....	DILANTIN GINGIVAL OVERGROWTH: IN VIVO & IN VITRO STUDY.....	1K04 DE00084-01
HUANG, ENG-SHANG.....	THE BIOLOGY AND GENETICS OF HUMAN CYTOMEGALOVIRUS.....	5K04 AI00229-03
KAER, ENID R.....	NEURAL AND VENTILATORY RESPONSES TO MECHANICAL LOADS.....	5K04 HL00218-05
KAUFMAN, DAVID G.....	CHEMICAL CARCINOGENESIS AND CELL PROLIFERATION.....	5K04 CA00431-03
KUSY, ROBERT P.....	NOVEL USES OF MATERIALS FOR HEALTH RESEARCH.....	5K04 DE00052-04
LAUDER, JEAN M.....	HORMONAL AND HUMORAL INFLUENCES ON BRAIN DEVELOPMENT.....	1K04 NS00507-01
LIGHT, ALAN R.....	BRAIN STEM MODULATION OF SPINAL SUBSTANTIA GELATINOSA.....	1K04 NS00534-01
MANN, JOHN D.....	METABOLIC ENCEPHALOPATHY BRAIN BARRIER SYSTEMS—UREMIA.....	5K07 NS00244-05
PIMMEL, RUSSELL L.....	ANALYSIS OF RESPIRATORY MECHANICS AND SOUNDS.....	5K04 HL00207-05
RUDNICK, SETH A.....	PREVENTIVE ONCOLOGY.....	1K07 CA00722-01
RUSSELL, STEPHEN W.....	CAUSES OF SPONTANEOUS TUMOR REGRESSION.....	5K04 CA00497-05
SOBSEY, MARK D.....	ENTERIC VIRUS CONTAMINATION OF WATER AND SHELLFISH.....	5K04 ES00026-04
VAN WYK, JUDSON J.....	ENDOCRINOLOGIC AND METABOLIC PROBLEMS IN CHILDREN.....	5K06 AM14115-19
DURHAM		
DUKE UNIVERSITY ZIP CODE 27706		
AMOS, D BERNARD.....	FUNDAMENTALS OF THE MECHANISMS OF HOMOGRAFT IMMUNITY.....	5K06 AI18399-19

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
NORTH CAROLINA—Continued		
ANDERSON, PAGE A.....	DEVELOPING MYOCARDIUM: BIOPHYSICAL ASPECTS.....	5K04 HL00500-02
ARMSTRONG, BRENDA E.....	CLINICAL MEDICINE.....	1K08 HL00718-01
BIGNER, SANDRA H.....	CYTOPATHOLOGY AND CYTOGENETICS OF CNS TUMORS.....	1K07 NS00549-01
CAMBIER, JOHN C.....	THE MOLECULAR BIOLOGY OF B CELL TOLERANCE.....	1K04 AI00371-01
CONN, PAUL M.....	GONADOTROPIN RELEASING HORMONE MECHANISM.....	1K04 HD00337-01
CORLESS, JOSEPH M.....	X-RAY, EM AND FREEZE-FRACTURE STUDIES ON DISK MEMBRANES.....	5K04 EY00016-05
DAVIES, ALBERT O.....	MODULATION OF ADRENERGIC RECEPTOR SENSITIVITY IN MAN.....	1K08 HL00729-01
DENNIS, VINCENT W.....	RENAL HANDLING OF INORGANIC PHOSPHATE.....	5K04 AM00384-03
DREZNER, MARC K.....	PATHOGENESIS OF VITAMIN D REFRACTORY OSTEOMALACIAS.....	5K04 AM00643-02
GERMAN, VICTOR F.....	PATHOGENESIS OF ACUTE AND CHRONIC CHEMICAL PNEUMONITIS.....	5K08 HL00309-04
GRUFFERMAN, SEYMOUR.....	PREVENTIVE ONCOLOGY.....	1K07 CA00726-01
HACKEL, DONALD B.....	PATHOLOGIC, PHYSIOLOGIC, AND METABOLIC HEART STUDIES.....	5K06 HL14188-19
HERSHFIELD, MICHAEL S.....	A LYMPHOBLAST MODEL FOR DISEASE OF PURINE METABOLISM.....	5K04 AM00434-03
HEYMAN, ALBERT.....	CIRCULATORY CHANGES IN CEREBROVASCULAR DISEASE.....	5K06 NS16677-18
HYLANDER, WILLIAM L.....	BIOMECHANICS OF THE PRIMATE CRANIOFACIAL REGION.....	5K04 DE00027-05
IDEKER, RAYMOND E.....	COMPUTERIZED STUDY OF ARRHYTHMIAS DUE TO ISCHEMIA.....	5K04 HL00546-02
KIMM, SUE Y.....	PREVENTIVE CARDIOLOGY.....	5K07 HL00633-02
KOREN, HILLEL S.....	HUMAN NK: EFFECTORS & SPECIFICITY IN OVARIAN CANCER.....	5K04 CA00581-02
LEE, KERRY L.....	DATA ANALYSIS OF CARDIOVASCULAR INFORMATION SYSTEMS.....	5K04 LM00042-02
LEIGHT, GEORGE S, JR.....	SURGICAL TRANSPLANTATION OF PARATHYROID GLANDS.....	5K04 AM00655-02
MC CLAY, DAVID R, JR.....	EMBRYONIC CELLULAR RECOGNITION.....	5K04 HD00259-03
MODRICH, PAUL L.....	MOLECULAR BASIS OF ECORI DNA RESTRICTION MODIFICATION.....	5K04 CA00495-03
MOORE, JAMES T.....	GERIATRIC MEDICINE.....	1K07 AG00102-01
NADLER, J VICTOR.....	PLASTICITY OF TRANSMITTER OF BIOCHEMISTRY IN CNS.....	5K04 NS00447-02
PORTER, NED A.....	LIPID OXIDATION IN PG SYNTHESIS AND MEMBRANE DAMAGE.....	5K04 HL00324-04
SCHMIDT-NIELSEN, KNUT.....	COMP. PHYSIOLOGY OF HEAT, WATER METABOLISM, & EXCRETION.....	5K06 GM21522-17
STRAUSS, HAROLD C.....	CHARACTERIZATION OF CARDIAC PACEMAKER ACTIVITY.....	5K04 HL00268-04
TANFORD, CHARLES.....	THE STRUCTURE OF PROTEINS.....	5K06 GM14222-19
RALEIGH		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH ZIP CODE 27607		
UNDERWOOD, HERBERT A, JR.....	CIRCADIAN RHYTHMS, THERMOREGULATION AND PHOTOPERIODISM.....	5K04 HD00276-02
WINSTON-SALEM		
WAKE FOREST UNIVERSITY ZIP CODE 27109		
HALE, ARTHUR H.....	MODEL FOR IDENTIFICATION OF ANTIGEN-CTL INTERACTIONS.....	1K04 AI00383-01
SMITH, PETER B.....	BIOCHEMICAL DEVELOPMENT OF SARCOLEMMA MEMBRANES.....	5K07 NS00330-03
TURNER, JAMES E.....	NERVE GROWTH FACTOR: ROLE IN CNS REGENERATION.....	5K04 NS00338-03
NORTH DAKOTA		
GRAND FORKS		
UNIVERSITY OF NORTH DAKOTA ZIP CODE 58201		
GREENE, JERRY G.....	PULMONARY MEDICINE.....	5K07 HL00534-02
OHIO		
BOWLING GREEN		
BOWLING GREEN STATE UNIVERSITY AT BOWLING GREEN ZIP CODE 43403		
FIORAVANTI, CARMEN F.....	METABOLISM OF HELMINTHIC PARASITES.....	1K04 AI00389-01
WOODRUFF, RONNY C.....	INFLUENCE OF MUTATORS ON GENETICS AND DEVELOPMENT.....	1K04 ES00087-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
OHIO—Continued		
CINCINNATI		
UNIVERSITY OF CINCINNATI AT CINCINNATI ZIP CODE 45221		
ASHRAF, MUHAMMAD	ISCHEMIC HEART ULTRASTRUCTURE: MODIFICATION BY THERAPY	5K04 HL00540-05
BLUMENTHAL, KENNETH M.	STRUCTURE AND FUNCTION OF POLYPEPTIDE NEUROTOXINS	5K04 NS00304-03
BROWN, RONALD D.	GENERATION OF ANTIBODY DIVERSITY DURING DEVELOPMENT	5K04 AI00321-02
COLLINS, JOHN H.	STRUCTURE AND FUNCTION OF Na^+ , K^+ -ATPASE	5K04 HL00555-03
JOHNSON, CARL L.	HISTAMINE AND CARDIAC ADENYL CYCLASE	5K04 HL00414-03
KNOWLES, HARVEY C, JR.	CARBOHYDRATES & MINERAL METABOLISM GENERAL STUDIES	5K06 AM02364-19
KRANIAS, EVANGELIA G.	CAMP AND MYOCARDIAL SARCOPLASMIC RETICULUM FUNCTION	1K04 HL00775-01
MANDEL, FREDERIC	CALCIUM REGULATION IN CARDIAC AND SKELETAL MUSCLE	1K04 HL00789-01
MARTIN, ANNE F.	PROTEIN METABOLISM CONTROL IN HYPERTROPHIED HEART MUSCLE	5K04 HL00487-03
SOLARO, R JOHN	CONTROL OF MYOFIBRILS IN NORMAL AND O ₂ DEPRIVED HEARTS	5K04 HL00464-03
CLEVELAND		
CASE WESTERN RESERVE UNIVERSITY ZIP CODE 44106		
ALLEY, KEITH E.	ONTOGENESIS OF BRAIN STEM VISUO-MOTOR SYSTEMS	5K04 NS00147-05
ANDERSON, JAMES M.	HUMAN VASCULAR GRAFTS—THE BLOOD MATERIALS INTERACTION	1K04 HL00779-01
ANDORN, ANNE C.	BUTYROPHENONE RECEPTORS—DELERIUM/DEMENCIA PSYCHOSIS	1K07 NS00468-01
CHISOLM, GUY M, III.	MACROMOLECULAR TRANSPORT IN ARTERIAL TISSUE	5K04 HL00359-04
DOUGLAS, JANICE G.	ANGIOTENSIN: METABOLISM, RECEPTOR CONTROL AND FUNCTION	5K04 HL00399-03
GOLDTHWAIT, DAVID A.	NUCLEIC ACIDS STUDIES	5K06 GM21444-17
HARRIS, JOHN W.	A STUDY OF NUTRITIONAL AND HEMOLYTIC ANEMIAS	5K06 AM14370-19
HOPFER, ULRICH	INTESTINAL TRANSPORTS OF NUTRIENTS AND ELECTROLYTES	5K04 AM00199-05
KALHAN, SATISH C.	GLUCOSE AND UREA METABOLISM	1K04 AM00801-01
KELSEN, STEVEN G.	PULMONARY MEDICINE	5K07 HL00450-03
MC LAREN, GORDON D.	CELLULAR IRON METABOLISM IN HEMOCHROMATOSIS	1K08 AM00665-01A1
PECKHAM, PAUL H.	ELECTRICAL ACTIVATION OF PARALYZED SKELETAL MUSCLE	5K04 NS00363-03
ROSNER, ITZHAK A.	EFFECTS OF HORMONES ON OSTEOARTHRITIS AND CARTILAGE	1K08 AM00773-01
SMITH, MICHAEL C.	PLATELET TXA ₂ AND VASCULAR PG ₁₂ IN RENAL DISEASE	1K08 HL00762-01
SPECK, WILLIAM T.	CARCINOGENIC POTENTIAL OF PHOTOTHERAPY	5K04 CA00443-03
COLUMBUS		
OHIO STATE UNIVERSITY ZIP CODE 43210		
FLORANCE, CHERI L.	EXPERIM MANIPULATION CLINICAL INTERVENTION VARIABLES	5K07 NS00359-02
GAGINELLA, TIMOTHY S.	INTESTINAL SECRETION: RECEPTOR MECHANISMS	5K04 AM00471-03
RALL, JACK A.	ENERGETICS OF Ca^{2+} CYCLING DURING MUSCLE CONTRACTION	5K04 NS00324-03
SCHULLER, DAVID E.	SURVIVAL (NODES, HISTOLOGY), E-B VIRUS-NASOPHARYNGEAL CA	5K07 NS00417-02
KENT		
KENT STATE UNIVERSITY AT KENT ZIP CODE 44242		
ROE, BRUCE A.	THE ROLE OF MODIFIED NUCLEOTIDES IN HUMAN tRNA	5K04 GM00178-05
TOLEDO		
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43699		
HORTON, FRANK O, III.	PULMONARY MEDICINE	5K08 HL00244-05
REIMANN, ERWIN M.	PHYSIOLOGICAL ROLE OF PROTEIN KINASES	5K04 AM00446-03
SCHLENDER, KEITH K.	REGULATION OF THE GLYCOGEN SYNTHASE SYSTEM	5K04 AM00337-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
OKLAHOMA		
OKLAHOMA CITY		
OKLAHOMA MEDICAL RESEARCH FOUNDATION ZIP CODE 73104		
SCHMIDT, PAUL G.....	NMR OF ACID PROTEASES AND NUCLEIC ACIDS.....	5K04 AM00525-02
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190		
DONALDSON, DAVID L.....	SERCA - DIABETES MELLITUS: CARDIOVASCULAR.....	1K01 AM00891-01
FARBER, JAY P.....	DEVELOPMENT OF EXPIRATORY MOTOR RESPONSES.....	1K04 HL00619-01
FOREMAN, ROBERT D.....	CARDIAC AFFERENT INPUTS TO CENTRAL ASCENDING PATHWAYS.....	5K04 HL00557-02
REDDY, YERRADHODDI S.....	ROLE OF PHOSPHORYLATION IN MYOCARDIAL CONTRACTION.....	5K04 HL00652-04
TULSA		
ORAL ROBERTS UNIVERSITY ZIP CODE 74102		
PETERSON, DONALD F.....	BEAT-TO-BEAT REGULATION OF THE CIRCULATION.....	5K04 HL00542-05
OREGON		
BEAVERTON		
OREGON GRADUATE CENTER FOR STUDY AND RESEARCH ZIP CODE 97005		
HAUSER, FRANK M.....	SYNTHESES OF SELECTED ANTICANCER ANTIBIOTICS.....	5K04 CA00486-03
CORVALLIS		
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY ZIP CODE 97331		
FERRO, ADOLPH J.....	REGULATION OF CELL GROWTH BY 5' METHYLTHIOADENOSINE.....	5K04 CA00617-02
SCHIMERLIK, MICHAEL I.....	CHARACTERIZATION OF HEART ATRIAL MUSCARINIC RECEPTOR.....	1K04 HL00796-01
WHITE, JAMES D.....	SYNTHESIS OF MACROLIDE ANTIBIOTICS.....	5K04 AI00180-05
EUGENE		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON ZIP CODE 97403		
HERSKOWITZ, IRA.....	GENE REGULATORY MECHANISMS IN YEAST AND PHAGE LAMBDA.....	5K04 AI00163-05
HUDSON, BRUCE S.....	MEMBRANES: NEW TECHNIQUES.....	5K04 GM00476-04
SMITH, GERALD R.....	MOLECULAR ANALYSIS OF HOTSPOTS OF GENETIC RECOMBINATION.....	1K04 AI00385-01
PORTLAND		
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER ZIP CODE 97210		
NASHNER, LEWIS M.....	STUDIES OF CONTROL OF HUMAN POSTURE.....	5K04 NS00148-05
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER ZIP CODE 97201		
BISSONNETTE, JOHN M.....	MECHANISMS OF PLACENTAL TRANSFER.....	5K04 HD00139-05
BUIST, A SONIA.....	PULMONARY MEDICINE.....	1K07 HL00517-01
BUXMAN, MELODIE M.....	EPIDERMAL TRANSGLUTAMINASE—ROLE IN KERATINIZATION.....	3K08 AM00391-03S1
GREER, MONTE A.....	NEUROENDOCRINOLOGY & THYROID PHYSIOLOGY.....	5K06 AM02122-19
HOLDEN, WILLIAM E.....	PULMONARY MEDICINE.....	5K08 HL00304-05
KABAT, DAVID.....	CONTROL OF GENE EXPRESSION IN DIFFERENTIATING CELLS.....	5K04 CA00264-05
MORSE, STEPHEN A.....	PHYSIOLOGY OF NEISSERIA GONORRHOEAE.....	5K04 AI00140-05
U'REN, RICHARD C.....	GERIATRIC MEDICINE.....	5K07 AG00058-02
VAN BUSKIRK, E MICHAEL.....	THE VERTEBRATE EYE: STUDIES IN AQUEOUS OUTFLOW.....	5K04 EY00183-05

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
PENNSYLVANIA		
HERSHEY		
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER ZIP CODE 17033		
BULLOCK, LESLIE P.....	ANIMAL MODELS OF GENETIC REPRODUCTIVE ABNORMALITIES.....	5K04 HD00137-05
HUGHES, HOWARD C.....	ELIMINATION OF REOPERATIVE CARDIAC PACEMAKER SURGERY.....	1K04 HL00586-01
LADDA, ROGER L.....	GROWTH FACTORS: CONTROL OF ANIMAL CELL PROLIFERATION.....	5K04 AG00006-04
PAGE, ROBERT B.....	VASCULAR/VENTRICULAR RELATIONS OF THE MEDIAN EMINENCE.....	5K07 NS00179-05
RANNELS, D EUGENE, JR.....	REGULATION OF PROTEIN TURNOVER IN LUNG TISSUE.....	5K04 HL00294-04
ROSE, KATHLEEN M.....	REGULATION OF RNA POLYMERASE I GENE EXPRESSION.....	1K04 CA00665-01
TAYLOR, JOHN M.....	CONTROL OF ALBUMIN SYNTHESIS IN LIVER AND HEPATOMAS.....	5K04 CA00393-03
TENSER, RICHARD B.....	LATENT VIRUS INFECTIONS OF THE TRIGEMINAL GANGLION.....	5K07 NS00248-04
WERNER, JOHN C.....	ENERGY METABOLISM OF THE FETAL HEART.....	1K08 HL00768-01
PHILADELPHIA		
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104		
ADACHI, KAZUHIKO.....	GELATION STUDIES OF SICKLE AND NONSICKLE HEMOGLOBINS.....	1K04 HL00774-01
ROTH, KARL S.....	BIOCHEMICAL BASIS FOR EXPTL. FANCONI SYNDROME.....	5K04 HD00257-03
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102		
SMITH, CECILIA M.....	PULMONARY MEDICINE.....	1K08 HL00642-01
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111		
GUPTA, RAJ K.....	SPECTRAL STUDIES OF HEME- AND METAL PROTEINS.....	5K04 AM00231-05
LANKENAU HOSPITAL ZIP CODE 19151		
MICHELSON, ERIC L.....	CLINICAL MEDICINE.....	1K08 HL00709-01
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129		
CULPEPPER, ROBERT L.....	PULMONARY MEDICINE.....	5K08 HL00349-04
GREENSPON, LEE W.....	PULMONARY MEDICINE.....	5K08 HL00535-02
PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE ZIP CODE 19104		
HEYNER, SUSAN.....	ANTIGEN EXPRESSION ON EARLY MOUSE EMBRYOS.....	5K04 HD00223-03
TEMPLE UNIVERSITY ZIP CODE 19122		
DANIEL, JAMES L.....	CONTRACTILE PROTEINS IN PLATELET RESPONSE.....	1K04 HL00794-01
FIEL, STANLEY B.....	PULMONARY MEDICINE.....	5K07 HL00446-03
KIRBY, EDWARD P.....	STRUCTURE AND FUNCTION OF FACTORS VIII AND XII.....	5K04 HL00275-04
ORDAHL, CHARLES P.....	TRANSCRIPTION OF MUSCLE-SPECIFIC GENES IN MYOGENESIS.....	5K04 HD00290-02
SCHMAIER, ALVIN H.....	INTERACTION OF PLATELETS WITH EARLY BLOOD COAGULATION.....	1K08 HL00694-01
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107		
FRASCA, PETER.....	ULTRASTRUCTURE OF NORMAL AND DISEASED BONE.....	5K04 AM00504-02
GEE, MARLYS H.....	PATHOPHYSIOLOGY OF PULMONARY EDEMA.....	1K04 HL00601-01
LUBLIN, FRED D.....	STUDY OF THE CELLULAR IMMUNE RESPONSE WITHIN THE CNS.....	5K07 NS00271-03
OWEN, CHARLES S.....	BIOPHYSICAL PROBES OF IMMUNE RESPONSE AND HEMEPROTEINS.....	5K04 GM00484-04
ROVETTO, MICHAEL J.....	MYOCARDIAL ENERGY AND ADENINE NUCLEOTIDE METABOLISM.....	5K04 HL00289-04
SCHULMAN, EDWARD S.....	PULMONARY MEDICINE.....	5K08 HL00462-03
WESSON, LAURENCE G.....	RENAL RESEARCH.....	5K06 HL15447-19
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19104		
AGUS, ZALMAN S.....	REGULATION OF RENAL CALCIUM AND PHOSPHATE TRANSPORT.....	5K04 AM00258-04
BARCHI, ROBERT L.....	STRUCTURE AND FUNCTION OF MUSCLE MEMBRANE ION CHANNELS.....	5K04 NS00112-04
DANIELE, RONALD P.....	STRUCTURE AND FUNCTION OF THE LUNG'S IMMUNE SYSTEM.....	5K04 HL00210-05
DAS, MANJUSRI.....	RECEPTORS FOR EPIDERMAL GROWTH FACTOR AND INSULIN.....	1K04 AM00693-01
DORIO, RAYMOND J.....	CLINICAL MEDICINE.....	1K08 HL00772-01
GIL, JUAN.....	PINOCYTOTIC VESICLES AND PULMONARY EDEMA.....	5K04 HL00436-04
GOLDFARB, STANLEY.....	REGULATION OF RENAL PHOSPHATE AND CALICIUM EXCRETION.....	5K08 AM00414-03
GOLDMAN, YALE E.....	KINETICS OF THE CROSSBRIDGE CYCLE IN WORKING MUSCLE.....	1K04 AM00745-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
PENNSYLVANIA—Continued		
HENLE, WERNER	ANTIGENIC STRUCTURE HOST-VIRUS INTERACTIONS	5K06 AI22683-17
HOGUE-ANGELETTI, RUTH A	STUDY PROTEINS OF THE CATECHOLAMINE STORAGE VESICLES	5K04 NS00201-04
JANICKI, JOSEPH S	WALL DYNAMICS & SHAPE ANALYSIS OF ABNORMAL HEARTS	5K04 HL00411-03
JOSEPHSON, MARK E	ELECTROPHYSIOLOGY OF ARRHYTHMIAS AND THEIR TREATMENT	5K04 HL00361-03
KARUSH, FRED	IMMUNOLOGY AND IMMUNOCHEMISTRY	5K06 AI14012-19
KIM, SEUNG U	EXPERIMENTAL NEUROPATHOLOGY IN TISSUE CULTURE	5K04 NS00151-05
LU, PONZY	MECHANISM OF GENE REGULATION	5K04 GM00354-04
MC ARTHUR, WILLIAM P	CELLULAR INTERACTIONS IN PERIODONTAL DISEASE	5K04 DE00070-03
MILLER, MICHAEL F	ORAL DISEASE LONGITUDINAL STUDY/RECURRENT APHTHOUS ULCER	5K04 DE00025-05
PALMER, LARRY A	FUNCTIONAL CONNECTIVITY IN VISUAL CORTEX	5K04 EY00060-04
PUGH, EDWARD N, JR	MECHANISMS OF VISUAL ADAPTATION	3K04 EY00102-02S1
PUGH, EDWARD N, JR	MECHANISMS OF VISUAL ADAPTATION	5K04 EY00102-03
RIVA, CHARLES E	BLOOD FLOW AND TRANSCAPILLARY EXCHANGE IN EYE FUNDUS	5K04 EY00184-03
ROTH, STEPHEN A	MORPHOGENESIS IN EMBRYONIC AND PATHOLOGIC SYSTEMS	7K04 HD00377-05
SCHERER, PETER W	FLOW OF AEROSOLS, MUCUS AND HEAT IN BRONCHIAL TREE	5K04 HL00424-03
SHAPIRO, BERNARD H	PERINATAL IMPRINTING OF BRAIN AND SEXUAL FUNCTION	5K04 HD00260-05
SMITH, AMOS B, III	NATURAL PRODUCT CHEMISTRY AND ORGANIC PHOTO CHEMISTRY	1K04 CA00634-01
STERLING, PETER	MICROCIRCUITRY OF THE VISUAL SYSTEM	5K04 EY00080-04
WEBER, KARL T	MECHANICS OF RIGHT AND LEFT VENTRICULAR CONTRACTION	5K04 HL00187-05
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104		
ADEN, DAVID P	TUMORIGENICITY AND ANTIGENS OF HUMAN CELLS	5K04 CA00510-02
KRITCHEVSKY, DAVID	CHOLESTEROL METABOLISM	5K06 HL00734-19
PITTSBURGH		
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213		
JAIN, RAKESH K	TUMOR THERMAL/MICROCIRCULATORY RESPONSES—HYPERTHERMIA	1K04 CA00643-01
JARVIK, JONATHAN W	GENE CONTROL OF FLAGELLAR ASSEMBLY IN CHLAMYDOMONAS	1K04 AM00710-01
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213		
CHURCH, ROBERT L	BIOLOGY AND GENETICS OF PROCOLLAGEN	5K04 EY00071-04
MONTEFIORE HOSPITAL ZIP CODE 15213		
FROMM, HANS	BILE ACID METABOLISM IN GALLSTONE DISEASE	5K04 AM00290-04
UNIVERSITY OF PITTSBURGH ZIP CODE 15260		
BYRNE, JOHN H	ANALYSIS OF THE NEURAL CONTROL OF BEHAVIOR	5K04 NS00200-03
CRAMER, DONALD V	MAJOR HISTOCOMPATIBILITY COMPLEX OF THE RAT	5K04 AI00314-03
CURTHOYS, NORMAN P	GLUTAMINASE ISOENZYMES AND RAT RENAL AMMONIAGENESIS	5K04 AM00068-05
KOZAK, MARILYN S	ANALYSIS OF TRANSLATION INITIATION USING REOVIRUS RNA	5K04 AI00380-02
MC KELVY, JEFFREY F	CONTROL OF HYPOTHALAMIC RELEASING FACTOR METABOLISM	5K04 AM00751-04
MERLIE, JOHN P	THE MOLECULAR AND CELLULAR BIOLOGY OF ACH-RECEPTOR	5K04 NS00394-02
NELSON, PAUL B	ANTI-DIURETIC HORMONE IN INTRACRANIAL DISEASE	1K07 NS00480-01
ORCHARD, TREVOR J	SERCA - DIABETES MELLITUS: CARDIOVASCULAR	1K01 AM00885-01
SMITH, M SUSAN	CONTROL OF GONADOTROPIN SECRETION DURING LACTATION	7K04 HD00362-02
TROY, WILLIAM C	MATHEMATICAL MODELLING OF EXCITABLE SYSTEMS	5K04 NS00306-03
UNIVERSITY PARK		
PENNSYLVANIA STATE UNIVERSITY AT UNIVERSITY PARK ZIP CODE 16802		
GAY, CAROL V	BONE STUDIES RELEVANT TO ORAL BIOLOGY	5K04 AM00617-02
RHEUBEN, MARY B	SYNAPSE FUNCTION DURING GROWTH AND DEGENERATION	5K04 NS00301-03
TURPEN, JAMES B	EMBRYONIC DIFFERENTIATION OF HEMATOPOIETIC CELLS	1K04 HD00319-01

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
RHODE ISLAND		
PAWTUCKET		
MEMORIAL HOSPITAL ZIP CODE 02860		
THOMPSON, PAUL D.....	PREVENTIVE CARDIOLOGY.....	1K07 HL00644-01
PROVIDENCE		
BROWN UNIVERSITY ZIP CODE 02912		
CANE, DAVID E.....	BIOSYNTHESIS OF NATURAL PRODUCTS.....	5K04 AI00318-03
CZECH, MICHAEL P.....	INSULIN ACTION ON FAT CELL METABOLISM.....	5K04 AM00249-05
LUSK, JOAN E.....	MEMBRANE PERMEABILITY AND TRANSPORT.....	5K04 GM00257-05
WOMEN AND INFANTS HOSPITAL OF RHODE ISLAND ZIP CODE 02908		
COWETT, RICHARD M.....	MATURATION OF NEONATAL CARBOHYDRATE HOMEOSTASIS.....	1K04 HD00308-01
SOUTH CAROLINA		
CHARLESTON		
MEDICAL UNIVERSITY OF SOUTH CAROLINA ZIP CODE 29403		
CHAO, JULIE.....	BIOCHEMISTRY AND CELL BIOLOGY OF RENAL KALLIKREIN.....	3K04 HL00547-01S1
CHAO, JULIE.....	BIOCHEMISTRY AND CELL BIOLOGY OF RENAL KALLIKREIN.....	5K04 HL00547-02
LOPES-VIRELLA, MARIA F.....	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00591-03
MAYFIELD, RONALD K.....	SERCA-DIABETES MELLITUS: CARDIOVASCULAR.....	1K01 AM00892-01
ONDO, JEROME G.....	AMINO ACID NEUROTRANSMITTERS AND REPRODUCTION.....	5K04 HD00248-03
SPECTOR, MYRON.....	DENTAL IMPLANTS WITH POROUS ROOTS AND CALCIFICATION.....	5K04 DE00067-03
COLUMBIA		
UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA ZIP CODE 29208		
MIRKES, PHILIP E.....	ROLE OF RNA SPECIES IN MECHANISMS OF TERATOGENESIS.....	3K07 ES00059-01S1
MIRKES, PHILIP E.....	ROLE OF RNA SPECIES IN MECHANISMS OF TERATOGENESIS.....	5K07 ES00059-02
SOUTH DAKOTA		
VERMILLION		
UNIVERSITY OF SOUTH DAKOTA ZIP CODE 57069		
BRADY, FRANK O.....	METALLOENZYMES: IN VIVO REGULATION IN RAT ORGANS.....	5K04 ES00022-05
PARRY, RODNEY R.....	PULMONARY MEDICINE.....	5K07 HL00454-03
WINDER, WILLIAM W.....	EFFECT OF EXERCISE/AND AGING ON ENDOCRINE FUNCTION.....	5K04 AM00757-03
TENNESSEE		
KNOXVILLE		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE ZIP CODE 37916		
FUHR, JOSEPH E.....	CONTROL OF PROTEIN BIOSYNTHESIS.....	5K04 AM00085-05
MACCABE, JEFFREY A.....	THE EARLY MORPHOGENESIS OF THE VERTEBRATE LIMB.....	5K04 HD00228-03
SAYLER, GARY S.....	BACTERIAL DEGRADATION OF PCB: CONSEQUENCES AND EFFECTS.....	1K04 ES00075-01

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
TENNESSEE—Continued		
MEMPHIS		
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101		
PHILLIPS, DAVID R.	PLATELET MEMBRANE PROTEINS IN AGGREGATION	5K04 HL00080-05
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163		
DISMUKE, STEWART E.	PREVENTIVE CARDIOLOGY	5K07 HL00600-02
EISENSTEIN, BARRY I.	MECHANISM OF GONOCOCCAL BINDING TO HUMAN SYNOVIAL CELLS	1K08 AM00686-01
GOLDEN, EMMEL B. JR.	PULMONARY MEDICINE	5K08 HL00530-02
MIRVIS, DAVID M.	ELECTROPHYSIOLOGIC EFFECTS OF MYOCARDIAL ISCHEMIA	5K04 HL00560-02
STUART, JOHN M.	IMMUNE REACTION INVOLVED IN COLLAGEN INDUCED ARTHRITIS	5K08 AM00650-02
VAN MIDDLESWORTH, LESTER V.	IODINE METABOLISM AND THE BASIC CAUSE OF GOITER	5K06 AM00040-19
NASHVILLE		
MEHARRY MEDICAL COLLEGE ZIP CODE 37208		
ANDERSON, ROBERT S.	GERIATRIC MEDICINE	1K07 AG00093-01
ARINZE, IFEANYI J.	DEVELOPMENT & CONTROL OF HEPATIC & RENAL GLUCONEOGENESIS	5K04 HD00226-03
JACKSON, JULIUS H.	CONTROL OF RELATED DISPERSED GENES AND GENE PRODUCTS	5K04 CA00533-02
STINSON, JOSEPH M.	PULMONARY MEDICINE	5K07 HL00341-04
VANDERBILT UNIVERSITY ZIP CODE 37240		
CHERRINGTON, ALAN D.	GLUCONEOGENESIS AND GLYCOGENOLYSIS: ROLE AND REGULATION	5K04 AM00480-03
FRANCIS, SHARRON H.	HORMONAL REGULATION OF HEPATIC PHOSPHODIESTERASE	5K04 AM00205-05
GUENGERICH, F. PETER	ENZYMIC ACTIVATION OF ENVIRONMENTAL TOXINS	3K04 ES00041-02S1
GUENGERICH, F. PETER	ENZYMIC ACTIVATION OF ENVIRONMENTAL TOXINS	5K04 ES00041-03
KIRSHNER, HOWARD S.	MODALITY ANALYSIS OF APHASIC DEFICITS AFTER STROKE	5K07 NS00429-02
LIMBIRD, LEE E.	MOLECULAR BASIS OF HORMONE ACTION	1K04 HL00648-01
MANN, GEORGE V.	MECHANISM OF ATHEROGENESIS	5K06 HL08288-19
NEWMAN, JOHN H.	ARACHIDONATE PRODUCTS IN PULMONARY VASCULAR TOXICITY	1K08 HL00702-01
TEXAS		
AUSTIN		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN ZIP CODE 78712		
BITTNER, GEORGE D.	REGENERATION IN INVERTEBRATE NERVOUS SYSTEMS	5K04 NS00070-05
MARTIN, STEPHEN F.	GENERAL METHODOLOGY FOR NATURAL PRODUCT SYNTHESIS	1K04 CA00616-01A1
MYERS, JACK E.	PHYSIOLOGY AND BIOCHEMISTRY OF ALGAE	3K06 GM18373-18S1
PEREZ-POLO, JOSE R.	NEURAL DIFFERENTIATION: NERVE GROWTH FACTOR PROTEIN	5K04 NS00213-04
POLLAKE, GEORGE D.	NEUROPHYSIOLOGICAL BASIS OF ECHOLOCATION	3K04 NS00367-02S1
POLLAKE, GEORGE D.	NEUROPHYSIOLOGICAL BASIS OF ECHOLOCATION	5K04 NS00367-03
COLLEGE STATION		
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS A & M UNIVERSITY ZIP CODE 77843		
GRANGER, HARRIS J.	TRANSCAPILLARY FLUID BALANCE AND EDEMA	5K04 HL00409-03
DALLAS		
BISHOP COLLEGE ZIP CODE 75241		
FOWLKS, EDISON R.	STRUCTURE-FUNCTION OF MULTIPLE COMPONENT VIRAL RNA	5K04 AI00175-05
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS ZIP CODE 75235		
ANDERSEN, JOHN M.	REGULATION OF CHOLESTEROL SYNTHESIS IN THE GI TRACT	5K08 AM00475-03
GILLIAM, JAMES N.	IMMUNOLOGIC INVESTIGATION OF SLE SKIN DISEASE	5K04 AM00278-04
GOMEZ-SANCHEZ, CELSO E.	NEW MINERALOCORTICOIDS IN LOW RENIN HYPERTENSION	5K04 HL00429-03
JACOBSON, HARRY R.	TRANSPORT HETEROGENEITY IN MAMMALIAN PROXIMAL TUBULES	5K04 AM00537-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
TEXAS—Continued		
KAPLAN, NORMAN M.....	PREVENTIVE CARDIOLOGY.....	5K07 HL00596-02
LIPSKY, PETER E.....	HUMORAL IMMUNITY IN SLE & ACTION OF GOLD & PENICILLAMINE.....	5K04 AM00599-02
MOSS, ROBERT L.....	NEURAL CONTROL OF HORMONE RELEASE AND SEX BEHAVIOR.....	5K04 HD00146-05
PROUGH, RUSSELL A.....	METABOLISM OF FOREIGN COMPOUNDS IN LIVER AND LUNG.....	5K04 HL00255-05
QUIRK, J GERALD.....	SERCA - DIABETES MELLITUS: PEDIATRIC ASPECTS.....	1K01 AM00883-01
SHAY, JERRY W.....	ANALYSIS OF HEART CELL CONTRACTION.....	5K04 HL00422-03
SILVER, RICHARD B.....	NONRESPIRATORY LUNG FUNCTIONS IN FULMINANT INFECTION.....	1K08 HL00701-01
SONTHEIMER, RICHARD D.....	LYMPHOCYTE MEDIATED INJURY IN LICHENOID SKIN DISEASES.....	1K08 AM00730-01
SULLIVAN, TIMOTHY J.....	BIOCHEMISTRY OF MAST CELL SECRETION.....	3K07 AI00414-04S1
TAUROG, ALVIN M.....	BIOSYNTHESIS AND MECHANISM OF ACTION OF THYROXINE.....	5K06 AM15276-18
TIGELAAR, ROBERT E.....	IMMUNOBIOLOGY OF CUTANEOUS LYMPHOID INFILTRATES.....	7K04 AM00940-01
WRIGHT, WOODRING E.....	CONTROL OF GENE EXPRESSION IN HETEROKARYONS.....	5K04 AG00030-02
ZIFF, MORRIS.....	CLINICAL AND BASIC IMMUNOLOGY.....	5K06 AM14155-19
DENTON		
NORTH TEXAS STATE UNIVERSITY	ZIP CODE 76203	
HARRIS, BEN G.....	PROTEIN STRUCTURE AND FUNCTION IN PARASITIC HELMINTHS.....	5K04 AI00057-05
FORT WORTH		
TEXAS CHRISTIAN UNIVERSITY	ZIP CODE 76129	
BABITCH, JOSEPH A.....	MECHANISM OF SYNAPTIC NEUROTRANSMITTER RELEASE.....	5K04 NS00233-03
GALVESTON		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON	ZIP CODE 77550	
CHAN, LEE-NIEN L.....	CHICK ERYTHROID CELL DIFFERENTIATION.....	5K04 AM00625-04
CHILDS, GWEN V.....	THE MULTIPOTENTIAL GONADOTROPE.....	7K04 HD00395-02
EATON, DOUGLAS C.....	NA — TRANSPORT MECHANISMS IN MAMMALIAN URINARY BLADDER.....	5K04 AM00432-03
FULLER, GERALD M.....	REGULATION OF FIBRINOGEN BIOSYNTHESIS.....	3K04 HL00162-05S1
HOUSTON		
BAYLOR COLLEGE OF MEDICINE	ZIP CODE 77030	
BAKER, CAROL J.....	PATHOGENESIS/PREVENTION OF GROUP B STREPTOCOCCAL DISEASE.....	5K04 AI00323-02
BASINGER, SCOTT F.....	PHOTORECEPTOR-PIGMENT EPITHELIUM INTERACTION.....	5K04 EY00119-03
DEDMAN, JOHN R.....	BIOLOGICAL ROLE OF INTRACELLULAR CA2+ BINDING PROTEINS.....	5K04 AM00609-02
ELIAS, STANTON B.....	EFFECTS OF THYROID HORMONE ON ACH RECEPTOR TURNOVER.....	1K07 NS00483-01
EPSTEIN, HENRY F.....	GENETIC AND MOLECULAR BASIS OF MUSCLE DEVELOPMENT.....	5K04 HD00277-04
GILLETTE, PAUL C.....	DEVELOPMENTAL CARDIAC ELECTROPHYSIOLOGY AND PHARMACOLOGY.....	5K04 HL00571-02
GOLDSTEIN, MARGARET A.....	Z BANDS, MICROTUBULES AND RELATED HEART STRUCTURES.....	5K04 HL00321-04
HANSEN, THOMAS N.....	PULMONARY MEDICINE.....	5K08 HL00460-03
HARTLEY, CRAIG J.....	CARDIOVASCULAR APPLICATIONS—PULSED DOPPLER TECHNIQUES.....	5K04 HL00181-05
HOLMQUIST, GERALD P.....	MECHANISM OF CHROMOSOME BANDING TECHNIQUES.....	1K04 HD00323-01
JOSHI, VASUDEV C.....	ROLE OF INSULIN IN REGULATION OF FATTY ACID SYNTHESIS.....	5K04 AM00397-03
KIRKLAND, JOHN L.....	REGULATION OF THE UTERINE RESPONSE TO E2 BY INSULIN.....	1K08 AM00811-01
KIT, SAUL.....	BIOCHEMICAL ASPECTS OF VIROLOGY.....	5K06 AI02352-18
LAM, DOMINIC M.....	SYNAPTIC CHEMISTRY IN THE VISUAL SYSTEM.....	5K04 EY00123-04
NG, ROLAND C.....	CALCIUM TRANSPORT IN THE PARS RECTA.....	1K08 AM00770-01
PECK, ERNEST J. JR.....	NEUROENDOCRINE CONTROL OF REPRODUCTION.....	5K04 HD00022-05
PERAINO, ROBERT A.....	PHOSPHATE TRANSPORT BY THE RABBIT NEPHRON.....	5K08 AM00424-02
ROSEN, JEFFREY M.....	HORMONAL REGULATION OF BREAST CANCER.....	5K04 CA00154-05
SCHWARTZ, ROBERT J.....	DIFFERENTIATION OF ACTIN AND TROPOMYOSIN IN MYOGENESIS.....	5K04 AM00637-02
STRITTMATTER, WARREN J.....	PHOSPHOLIPID METHYLATION IN DENERVATION.....	1K07 NS00497-01
TERMAN, DAVID S.....	EXTRACORPOREAL IMMUNOADSORBENTS FOR SPEC IMMUNOTHERAPY.....	5K04 AI00302-03
TINDALL, DONALD J.....	PURIFICATION OF BINDING PROTEINS FOR ANDROGENS.....	1K04 HD00318-01
TRENTIN, JOHN J.....	TISSUE TRANSPLANTATION, RADIOBIOLOGY, AND CANCER BIOLOGY.....	5K06 CA14219-19
WRAY, GRANVILLE W.....	METAPHASE CHROMOSOME BIOCHEMISTRY.....	5K04 CA00532-02

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
TEXAS—Continued		
RICE UNIVERSITY ZIP CODE 77001		
MARSH, MARY E.....	STRUCTURAL AND CHEMICAL STUDY OF TISSUE CALCIFICATION.....	5K04 DE00078-02
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON AT HOUSTON ZIP CODE 77004		
MC CAMMON, JAMES A.....	DYNAMICS OF HEME PROTEINS.....	1K04 HL00664-01
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025		
BENSON, GEORGE S.....	GENITOURINARY SMOOTH MUSCLE: ANATOMY AND PHARMACOLOGY.....	1K08 AM00824-01
BOYAN-SALYERS, BARBARA D.....	PROTEOLIPID AND CALCIFICATION OF BONES AND TEETH.....	5K04 DE00056-03
ENNA, SALVATORE J.....	NEUROBIOLOGY AND PHARMACOLOGY OF GABA.....	3K04 NS00335-02S1
ENNA, SALVATORE J.....	NEUROBIOLOGY AND PHARMACOLOGY OF GABA.....	5K04 NS00335-03
FRIZZELL, RAYMOND A.....	ION TRANSPORT BY MAMMALIAN COLON, IN VITRO.....	5K04 AM00724-05
MILLER, WARREN C.....	PULMONARY MEDICINE.....	3K07 HL00245-04S1
MILLER, WARREN C.....	PULMONARY MEDICINE.....	5K07 HL00245-05
MOORHEAD, LOUISE C.....	VITRECTOMY: EFFECTS ON RETINAL FUNCTION AND STRUCTURE.....	5K07 EY00140-02
REDBURN, DIANNA A.....	CHARACTERIZATION OF NEUROTRANSMITTERS IN RETINA.....	3K04 EY00088-03S1
REDBURN, DIANNA A.....	CHARACTERIZATION OF NEUROTRANSMITTERS IN RETINA.....	5K04 EY00088-04
ROSENFELD, GARY C.....	FUNCTION AND HUMORAL CONTROL OF PARIETAL CELLS.....	3K04 AM00457-02S1
ROSENFELD, GARY C.....	FUNCTION AND HUMORAL CONTROL OF PARIETAL CELLS.....	5K04 AM00457-03
SANBORN, BARBARA M.....	MOLECULAR ACTIONS OF STEROID AND POLYPEPTIDE HORMONES.....	5K04 HD00126-05
SMALLING, RICHARD W.....	CLINICAL MEDICINE.....	1K08 HL00840-01
STANCEL, GEORGE M.....	ESTROGEN CONTROL OF UTERUS AND PITUITARY FUNCTION.....	5K04 HD00099-05
STROBEL, HENRY W.....	DRUG CARCINOGEN METABOLISM IN HEPATOMAS.....	5K04 CA00311-03
TOM, BALDWIN H.....	DISSECTION OF IMMUNE RESPONSIVENESS—HUMAN COLON CANCER.....	5K04 CA00579-02
WEEMS, WILLIAM A.....	RENAL AND VASCULAR CONTROL BY SYMPATHETIC GANGLIA.....	1K04 HL00791-01
WEISS, KENNETH M.....	EVOLUTIONARY MODELS OF HUMAN HEALTH PATTERNS.....	3K04 GM00230-04S1
WEISS, KENNETH M.....	EVOLUTIONARY MODELS OF HUMAN HEALTH PATTERNS.....	5K04 GM00230-05
WIGGINS, RICHARD C.....	METABOLIC STUDIES OF ABNORMAL BRAIN MYELINATION.....	1K04 NS00474-01
LUBBOCK		
TEXAS TECH UNIVERSITY ZIP CODE 79409		
MARKWALD, ROGER R.....	MATRICAL MACROMOLECULAR EFFECTS ON CARDIOGENESIS.....	3K04 HL00228-04S1
MARKWALD, ROGER R.....	MATRICAL MACROMOLECULAR EFFECTS ON CARDIOGENESIS.....	5K04 HL00228-05
RICHARDSON		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT DALLAS ZIP CODE 75080		
HAMERNIK, ROGER P.....	NOISE EXPOSURE: AUDIOMETRIC AND ULTRACELLULAR CORRELATE.....	7K04 ES00090-04
MARSH, ROBERT C.....	ORIGINS OF DNA REPLICATION: STRUCTURE AND FUNCTION.....	5K04 CA00490-03
SYRDAL-LASKY, ANN K.....	PSYCHOACOUSTIC BASES OF SPEECH PERCEPTION.....	1K04 NS00548-01
SAN ANTONIO		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284		
BELL, RODNEY D.....	QUANTIFY CEREBRAL INFARCTION BY CREATINE KINASE BB.....	1K07 NS00463-01
BERTONI, JOHN M.....	CATION PUMP IN BRAIN: BASIC AND APPLIED INVESTIGATION.....	1K07 NS00555-01
HANSEN, JOHN T.....	ARTERIAL CHEMORECEPTOR FUNCTION.....	1K04 HL00680-01
MATTOX, DOUGLAS E.....	EFFECT OF SOUND DEPRIVATION ON THE COCHLEAR NUCLEUS.....	1K07 NS00476-01A1
NATHAN, MARC A.....	A MODEL OF SUSTAINED ARTERIAL HYPERTENSION.....	5K04 HL00558-06
SHERIDAN, PETER J.....	ANDROGEN RECEPTORS IN THE BRAIN.....	5K04 NS00164-05
SMITH, JAN D.....	PULMONARY MEDICINE.....	5K07 HL00384-04

**Table 3.—NIH Research Career Program Awards by Area, Organization,
and Awardee, Fiscal Year 1980—Continued**

Awardee	Project title	Grant number
UTAH		
SALT LAKE CITY		
INTERMOUNTAIN HEALTH CARE—LDS HOSPITAL ZIP CODE 84143		
CLAYTON, PAUL D.....	MEDICAL DECISION-MAKING WITH COMPUTER ASSISTANCE.....	5K04 LM00044-02
WARNER, HOMER R.....	MATHEMATICAL ANALYSIS OF THE CIRCULATION.....	5K06 HL00575-19
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112		
CASJENS, SHERWOOD R.....	BACTERIOPHAGE P22 ASSEMBLY AND ITS GENETIC CONTROL.....	5K04 GM00237-05
JOHANSON, CONRAD E.....	ONTOGENY OF HOMEOSTATIC SYSTEMS IN CHOROID PLEXUS.....	5K04 NS00302-04
KAPLAN, JERRY.....	ANALYSIS OF ALVEOLAR MACROPHAGE SURFACE RECEPTORS.....	7K04 HL00841-01
KIM, SUNG-WAN.....	PLATELET INTERACTIONS/INTERFACE INDUCED THROMBOSIS.....	5K04 HL00272-04
MARCUS, STANLEY.....	RESISTANCE TO INFECTIOUS AND NEOPLASTIC DISEASE.....	5K06 AI14924-19
NELSON, JAMES A.....	FACTORS INFLUENCING HEPATIC CONTRAST MEDIA KINETICS.....	5K04 GM00164-05
NICHOLS, WILLIAM K.....	INSULIN AND IMMUNE RESPONSES.....	5K04 AM00528-03
NIELSON, DENNIS W.....	PULMONARY MEDICINE.....	5K08 HL00452-03
NINNEMANN, JOHN L.....	IMMUNE RESPONSE DURING THERMAL INJURY.....	7K04 GM00496-06
ROTI ROTI, JOSEPH L.....	MITOTIC DELAY MECHANISMS AND CELL KINETICS MODELS.....	5K04 CA00234-05
SEAY, ALAN R.....	IMMUNE RESPONSE IN VIRUS-INDUCED MYOSITIS.....	5K07 NS00458-02
SORENSEN, ANN W.....	HEXOSAMINIDASE LEVELS AND DIET.....	3K04 CA00629-01S1
SOSKEL, NORMAN T.....	PULMONARY ACADEMIC AWARD.....	1K07 HL00617-01
TYLER, FRANK H.....	MUSCLE, STEROID, AND CARBOHYDRATE METABOLISM.....	5K06 AM14913-19
WILLIAMS, ROGER R.....	GENETICS AND EPIDEMIOLOGY OF CORONARY ARTERY DISEASES.....	5K04 HL00379-04
WOODBURY, DIXON M.....	PHARMACOLOGY AND CELLULAR BIOCHEMISTRY OF THE CNS.....	5K06 NS13838-19
YOSHIKAMI, DOJU.....	IONIC SELECTIVITY OF SYNAPTIC CHANNELS IN NEURONS.....	1K04 NS00465-01
ZIMMERMAN, GUY A.....	CLINICAL INVESTIGATOR AWARD.....	1K08 HL00696-01
VERMONT		
BURLINGTON		
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05405		
CLAPP, JAMES F. III.....	PHYSIOLOGY OF MATERNAL-FETAL INTERACTION.....	5K04 HD00213-03
GUITAR, BARRY E.....	A STUTTERERS' PERCEPTION & PRODUCTION CAPABILITIES.....	1K07 NS00528-01
LEPESCHKIN, EUGENE.....	BASIC STUDIES IN CARDIAC ELECTROPHYSIOLOGY.....	5K06 HL00440-19
TISDALE, WILLIAM A.....	GERIATRIC MEDICINE.....	5K07 AG00036-02
YATES, JEROME W.....	PREVENTIVE ONCOLOGY.....	1K07 CA00743-01
VIRGINIA		
CHARLOTTESVILLE		
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE ZIP CODE 22903		
ADLER, PAUL N.....	DETERMINATION AND POSITIONAL INFORMATION IN DEVELOPMENT.....	1K04 HD00361-01
CURNOW, RANDALL T.....	PROTEIN PHOSPHATASE IN NORMAL AND DIABETIC LIVER.....	5K04 AM00477-03
DAMMANN, JOHN F.....	CARDIOPULMONARY PHYSIOLOGY IN CRITICALLY ILL PATIENTS.....	5K06 HL14213-19
EMERSON, CHARLES P, JR.....	PROTEINS SYNTHESIS IN DEVELOPING AND DYSTROPHIC MUSCLE.....	5K04 HD00177-04
FAGER, ROGER S.....	CONE CELL METABOLISM, VISUAL TRANSDUCTION.....	5K04 EY00142-02
FORBES, MICHAEL S.....	DEVELOPMENTAL CYTOLOGY OF MYOCARDIAL MEMBRANE SYSTEMS.....	5K04 HL00550-02
GARRISON, JAMES C, II.....	HORMONAL CONTROL OF GLUCONEOGENIC ENZYMES.....	5K04 AM00491-03
GRAINGER, ROBERT M.....	ROLE OF OOCYTE PROTEINS AND RNAS IN DEVELOPMENT.....	5K04 HD00289-02
GREENLEE, JOHN E.....	PATHOGENESIS OF PAPPOVIRUS INFECTIONS.....	5K07 NS00317-03
GRISHAM, CHARLES M.....	STRUCTURE AND MECHANISM OF MEMBRANE TRANSPORT SYSTEMS.....	5K04 AM00613-02
HOWARDS, STUART S.....	MICROPUNCTURE STUDIES OF TESTIS AND EPIDIDYMIS.....	5K04 HD00108-05
HUANG, LAURA C.....	STRUCTURE & REGULATION OF PROTEIN KINASES.....	5K04 AM00212-04
KEEFER, DONALD A.....	MORPHOLOGY AND CONNECTIVITY OF SEX-HORMONE NEURONS.....	5K04 HD00243-02
KUEHL, W MICHAEL.....	CONTROL OF IMMUNOGLOBULIN SYNTHESIS IN MYELOMA CELLS.....	5K04 AI00293-03

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
VIRGINIA—Continued		
LINDSAY, RICHARD W	GERIATRIC MEDICINE	5K07 AG00039-02
LOGIN, IVAN S	A STUDY OF HYPERTHALAMIC PITUITARY RELATIONSHIPS	5K07 NS00454-02
MILLER, EDWARD D, JR	ANESTHETICS INTERACTION WITH RENIN/SYMPATHETIC NERV. SYS	5K04 GM00457-03
ROGOL, ALAN D	HETEROGENEITY OF PLASMA HORMONES	5K04 AM00153-05
RUBEL, EDWIN W	ACOUSTIC EXPERIENCE AND BRAIN DEVELOPMENT	5K04 NS00305-03
STEWART, OSWALD	POST-LESION PLASTICITY OF NEURONAL CIRCUITRY	5K04 NS00325-03
WILEY, LYNN M	MORPHOGENESIS IN EARLY MAMMALIAN EMBRYOS	5K04 HD00284-02
WINN, H RICHARD	ROLE OF ADENOSINE IN CEREBRAL BLOOD FLOW AND METABOLISM	5K07 NS00404-02
RICHMOND		
VIRGINIA COMMONWEALTH UNIVERSITY	ZIP CODE 23284	
ARCHER, GORDON L	ENDOCARDITIS ON PROSTHETIC CARDIAC VALVES	5K04 HL00285-04
BOND, JUDITH S	HORMONAL CONTROL OF PROTEIN TURNOVER	5K04 AM00427-03
FAIRMAN, R PAUL	CLINICAL INVESTIGATOR AWARD	1K08 HL00720-01
FRANSON, RICHARD C	MECHANISMS OF MEMBRANE AND TISSUE DAMAGE IN LUNG	1K04 HL00561-01
GREENBERG, RICHARD P	TRAUMA—BRAIN DYSFUNCTION LOCALIZATION/EVOKED POTENTIALS	5K07 NS00346-03
GUZELIAN, PHILIP S, JR	REGULATION OF DRUG METABOLISM IN THE LIVER	5K04 AM00570-02
KALIMI, MOHAMMED Y	GLUCOCORTICOID ACTION IN DEVELOPING RAT LIVER	1K04 AM00731-01
LITTMAN, BRUCE H	REGULATION OF CELLULAR COOPERATION BY SOLUBLE FACTORS	5K04 AM00336-04
MACRINA, FRANCIS L	PLASMIDS OF ORAL BACTERIA—BIOMEDICAL IMPLICATIONS	5K04 DE00081-02
MATHERS, JAMES A	PULMONARY MEDICINE	1K07 HL00606-01
MAY, JAMES M	THE ROLE OF HYDROGEN PEROXIDE IN INSULIN ACTION	5K08 AM00651-02
MURRAY, BYRON K	BIOLOGY OF ORAL HERPES SIMPLEX VIRUS INFECTIONS	5K04 DE00079-02
PANG, DAVID C	EXCITATION-CONTRACTION COUPLING IN CARDIAC FAILURE	5K04 HL00488-03
PATTERSON, JOHN L, JR	NORMAL & PATHOPHYSIOLOGY OF CIRCULATION & RESPIRATION	5K06 HL18678-19
VAN TUYLE, GLENN C	MOLECULAR PACKAGING OF MITOCHONDRIAL DNA	1K04 CA00676-01
WEIR, GORDON C	STUDIES OF GLUCAGON AND SOMATOSTATIN SECRETION	5K04 AM00255-04
WOLF, BARRY	DISORDERS OF PROPIONATE AND BIOTIN METABOLISM	5K04 AM00677-02
WASHINGTON		
PULLMAN		
WASHINGTON STATE UNIVERSITY	ZIP CODE 99163	
GRISWOLD, MICHAEL D	SERTOLI CELLS—SECRETORY PROTEINS AND CELL LINES	5K04 HD00263-02
PRIEUR, DAVID J	CHARACTERIZATION OF NEW GENETIC ANIMAL DISEASE MODELS	5K04 RR00003-05
SANDER, CHRISTIAN	TOXICODYNAMICS OF CYANIDE AND ALKYLPHOSPHATE ANTAGONISTS	5K07 ES00055-02
SEATTLE		
UNIVERSITY OF WASHINGTON	ZIP CODE 98195	
AFROMOWITZ, MARTIN A	IMPLANTABLE SOLID-STATE HYBRID ION-SENSITIVE DEVICE	5K04 GM00323-04
ALVARES, OLAV F	NUTRITION AND THE ORAL MUCOUS MEMBRANES	5K04 DE00037-05
BERGER, ALBERT J	NEURAL REGULATION OF RESPIRATION	5K04 NS00378-04
BINDER, MARC D	SEGMENTAL CONTROL OF INTACT AND RE-INNERVATED MUSCLES	5K07 NS00345-02
BRESLOW, NORMAN E	PREVENTIVE ONCOLOGY ACADEMIC AWARD	1K07 CA00723-01
BUFFINGTON, CHARLES W	CORONARY HEMODYNAMICS	1K08 HL00695-01
CHAIT, ALAN	SERCA-DIABETES MELLITUS: CARDIOVASCULAR	5K01 AM00592-03
CULVER, BRUCE H	PULMONARY MEDICINE	5K07 HL00248-05
DE HAEN, CHRISTOPH A	MECHANISM OF ACTION OF INSULIN	1K04 AM00682-01
DOBIE, ROBERT A	BINAURAL INTERACTION IN AUDITORY EVOKED RESPONSES	1K07 NS00432-01A1
FOSTER, DAVID M	LIPOPROTEIN KINETIC BIOMETRY: ATHEROSCLEROSIS	1K04 HL00576-01
GARTLER, STANLEY M	MAMMALIAN SOMATIC CELL GENETICS	5K06 GM03874-17
HAZZARD, WILLIAM R	GERIATRIC MEDICINE	1K07 AG00105-01
HLASTALA, MICHAEL P	TOTAL BODY GAS EXCHANGE	5K04 HL00182-05
HOHL, THOMAS H	SURGICAL EFFECTS ON GROWTH OF CRANIOFACIAL COMPLEX	5K04 DE00040-05
HUNTSMAN, LEE L	MECHANICAL PROPERTIES OF ISOLATED MYOCARDIUM	5K04 HL00344-04

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
WASHINGTON—Continued		
JOHNSON, DALE E.....	MYOCARDIAL CATIONS—ELECTRON ENERGY LOSS MICROANALYSIS.....	5K04 HL00472-03
KANEKO, CHRIS R.....	PREMOTONEURONAL CONTROL OF FAST EYE MOVEMENTS.....	5K07 EY00096-03
KURACHI, KOTOKU.....	STRUCTURE AND FUNCTION OF BLOOD COAGULATION FACTORS.....	5K04 HL00404-03
LANDESMAN-DWYER, SHARON J.....	RESIDENTIAL ENVIRONMENTS AND BEHAVIOR.....	1K04 HD00346-01
LARSON, CHARLES R.....	NEURAL CONTROL OF JAW FORCE: IMPLICATIONS FOR SPEECH.....	5K07 NS00382-02
MATEER, CATHERINE A.....	CORTICAL REP OF SPEECH MOTOR AND PERCEPTUAL FUNCTION.....	1K07 NS00505-01
MC CLEAN, MICHAEL H.....	AFFERENT FUNCTION IN LIP MOTOR CONTROL FOR SPEECH.....	5K04 NS00291-03
MINSHEW, BARBARA H.....	GENETICS OF ESCHERICHIA COLI VIRULENCE FACTORS.....	5K04 AI00290-03
PALMER, JERRY P.....	BASAL GLUCOSE, GLUCAGON-INSULIN SECRETION IN DIABETES.....	5K04 AM00535-02
PFEIFER, MICHAEL A.....	SERCA—DIABETES MELLITUS: CARDIOVASCULAR.....	5K01 AM00738-02
ROSEN, HENRY.....	NEUTROPHIL MICROBICIDAL MECHANISMS.....	1K04 AI00368-01
RUBIN, CYRUS E.....	HUMAN MUCOSAL STRUCTURE AND FUNCTION.....	5K06 CA03449-19
RUFF, ROBERT L.....	PHYSIOLOGIC CHANGES ASSOCIATED WITH METABOLIC MYOPATHY.....	1K07 NS00498-01
SCHWARTZKROIN, PHILIP A.....	HIPPOCAMPAL DEVELOPMENT AND EPILEPTOGENESIS.....	5K04 NS00413-02
STORM, DANIEL R.....	FUNCTIONAL ASPECTS OF BACTERIAL AND MAMMALIAN MEMBRANES.....	5K04 AI00310-04
THOMAS, E DONNALL.....	TRANSPLANTATION OF MARROW AND MARROW METABOLISM.....	5K06 AI02425-17
TRUMAN, JAMES W.....	HORMONE ACTION ON THE CENTRAL NERVOUS SYSTEM.....	5K04 NS00193-05
VOGEL, ARTHUR M.....	EFFECTS OF MITOGENS ON NORMAL AND NEOPLASTIC CELLS.....	1K04 CA00679-01
WHITELEY, HELEN R.....	METABOLISM OF ANAEROBIC MICROCOCCI.....	5K06 GM00442-18
WIER, CRAIG C.....	BEHAVIORAL AND ELECTROPHYSIOLOGICAL MEASURES OF HEARING.....	1K07 NS00516-01
WILLSON, RICHARD A.....	ACUTE LIVER INJURY AND FAILURE.....	5K04 AM00151-05
WYLER, ALLEN R.....	SINGLE NEURON NEUROPHYSIOLOGY IN CHRONIC EPILEPTIC FOCI.....	5K07 NS00195-03
WEST VIRGINIA		
MORGANTOWN		
WEST VIRGINIA UNIVERSITY ZIP CODE 26506		
ALBRINK, MARGARET J.....	SERUM TRIGLYCERIDES AND VASCULAR DISEASE.....	5K06 HL00486-18
BLAIR, JAMES B.....	HORMONAL REGULATION OF GLUCONEOGENESIS.....	5K04 AM00428-03
KLETZLIEN, ROLF F.....	GLUCOCORTICOID PERMISSIVE EFFECTS ON GLUCONEOGENESIS.....	1K04 AM00733-01
WISCONSIN		
MADISON		
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706		
BALL, LAURENCE A.....	THE CONTROL OF VIRAL GENE EXPRESSION.....	5K04 AI00378-03
BEINERT, HANS H.....	BASIC MECHANISMS IN BIOLOGICAL OXIDATIONS.....	5K06 GM18442-19
BUSSE, WILLIAM W.....	MECHANISM OF VIRUS INDUCED ASTHMA.....	5K07 AI00343-02
CHESNEY, RUSSELL W.....	DEVELOPMENT OF RENAL AMINO ACID TRANSPORT MECHANISMS.....	5K04 AM00421-02
ENGLE, MICHAEL J.....	FETAL LUNG METABOLISM IN THE DIABETIC PREGNANCY.....	1K04 HD00350-01
HOWE, MARTHA M.....	INTEGRATION, REGULATION, AND GROWTH OF PHAGE MU.....	5K04 AI00274-03
HUTCHINSON, C RICHARD.....	METABOLISM OF NATURALLY OCCURRING ANTITUMOR COMPOUNDS.....	5K04 CA00253-05
JEFCOATE, COLIN R.....	CYTCHROME P450 CARCINOGENESIS AND STEROID SYNTHESIS.....	5K04 CA00250-05
KAESBERG, PAUL J.....	STRUCTURE AND SYNTHESIS OF VIRUSES.....	5K06 AI21942-17
KAUFMAN, PAUL L.....	ANTERIOR OCULAR SEGMENT PHYSIOLOGY AND PHARMACOLOGY.....	5K04 EY00137-02
KLEIN, RONALD.....	BLOOD-OCULAR BARRIERS UNDER STRESS—EXPERI. DIABETES.....	5K07 EY00136-02
LOVE, RICHARD R.....	PREVENTIVE ONCOLOGY.....	1K07 CA00721-01
MUELLER, GERALD C.....	GROWTH REGULATING MECHANISMS.....	5K06 CA00685-20
NICKLES, ROBERT J.....	RADIOTRACER DEVELOPMENT FOR CARDIOVASCULAR STUDIES.....	5K04 HL00217-05
NORTHROP, DEXTER B.....	MECHANISMS OF DEHYDROGENASES/ANTIBIOTIC INACTIVATION.....	5K04 GM00254-05
OLSON, EARL B, JR.....	METABOLISM IN PERFUSED FETAL & NEWBORN RABBIT LUNGS.....	5K04 HL00438-04
RAETZ, CHRISTIAN R.....	BIOGENESIS OF MEMBRANE PHOSPHOLIPIDS.....	5K04 AM00584-03
RIS, HANS.....	STRUCTURE & MOLECULAR ORGANIZATION OF GENETIC SYSTEMS.....	5K06 GM21948-17
RUOHO, ARNOLD E.....	MOLECULAR CHARACTERIZATION OF ADRENERGIC RECEPTORS.....	5K04 NS00158-05
SMITH, DEAN O.....	MECHANISMS OF NERVE IMPULSE PROPAGATION FAILURES.....	5K04 NS00380-02

Table 3.—NIH Research Career Program Awards by Area, Organization, and Awardee, Fiscal Year 1980—Continued

Awardee	Project title	Grant number
WISCONSIN—Continued		
SPEAR, PETER D.....	VISUAL INTEGRATION IN THE BRAIN.....	5K04 EY00089-04
TOMPKINS, WILLIS J.....	ANALYSIS OF THE HIGH FREQUENCY ECG AND ARRHYTHMIAS.....	1K04 HL00765-01
VIDRUK, EDWARD H.....	AUTONOMIC CONTROL OF VENTILATION AND AIRWAY CALIBRE.....	1K04 HL00780-01
WALLOW, INGOLF H.....	BLOOD-RETINAL BARRIER IN DIABETIC RETINOPATHY.....	5K04 EY00135-02
MILWAUKEE		
MARQUETTE UNIVERSITY ZIP CODE 53233		
FITTS, ROBERT H.....	ALTERATIONS IN SKELETAL MUSCLE WITH USE AND DISUSE.....	1K04 AM00810-01
MEDICAL COLLEGE OF WISCONSIN ZIP CODE 53226		
GHAZARIAN, JACOB G.....	CONTROL OF ENZYMES IN THE VITAMIN D3 ENDOCRINE COMPLEX.....	5K04 AM00220-05
HOPWOOD, LARRY E.....	CELL KILLING AND MUTATION BY COMBINED HEAT AND X-RAYS.....	5K04 CA00283-04
KOZIN, FRANKLIN.....	MECHANISMS OF CRYSTAL-INDUCED INFLAMMATION.....	5K08 AM00483-03
MIZIORKO, HENRY M.....	HMG-COA CYCLE CONTROL IN NORMAL AND DIABETIC LIVER.....	5K04 AM00645-02
WYOMING		
LARAMIE		
UNIVERSITY OF WYOMING ZIP CODE 82071		
HALEY, BOYD E.....	SYNTHESIS/DEVELOPMENT OF NUCLEOTIDE PHOTOAFFINITY PROBES.....	5K04 CA00563-02
SMITH, DAVID V.....	ADAPTATION AND TASTE QUALITY CODING.....	5K04 NS00168-04
PUERTO RICO		
SAN JUAN		
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES ZIP CODE 00936		
DEL CASTILLO, JOSE.....	PHYSIOLOGY AND PHARMACOLOGY OF EXCITATION.....	5K06 NS14938-19

APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetical sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization. The tables in which the organizations may be found are shown in parentheses following their locations.

United States

- Affiliated Hospitals Center--Boston (3 units), Mass. (2,3)
American Health Foundation--New York, Valhalla, N.Y. (2)
Associated Universities--Washington, D.C.; Upton N.Y. (2,3)
Battelle Memorial Institute--Columbus, Ohio; Richland, Seattle, Wash. (2)
Boston Health and Hospitals Department (may include awards to Mallory Institute of Pathology Foundation)--Boston, Mass. (2)
California State Health and Welfare Agency--Berkeley, Sacramento, Calif. (2)
California State University and Colleges System--Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Diego, San Francisco, San Jose, Calif. (2,3)
Center for Neurologic Study--San Diego, Calif. Formerly shown in La Jolla. (2)
City University of New York--New York (11 units), N.Y. (2,3)
Claremont University Center System--Claremont (3 units), Calif. (2)
College of Medicine and Dentistry of New Jersey--Newark, Piscataway (2 units), N.J. (2,3)
Cornell University--Ithaca, New York, N.Y. (2,3)
Denver Health and Hospitals Department (may include awards to Denver Health Research Foundation)--Denver, Colo. (2)
Georgia Department of Human Resources--Evans County Health Department--Claxton, Ga. Formerly shown as Evans County Health Department. (2)
Harvard University--Boston, Cambridge, Mass. (2,3)
Indiana University--Bloomington, Indianapolis, Ind. (2,3)
Intermountain Health Care--Salt Lake City (2 units), Utah. (2,3)
Joint Diseases North General Hospital--New York, N.Y. Formerly shown as Hospital for Joint Diseases and Medical Center. (2)
Kaiser Foundation Hospitals--Los Angeles, Oakland, Calif. (2)
Long Island University--Greenvale, New York, N.Y. (2)
Los Angeles County Health Services Department--Downey, Los Angeles, Torrance, Calif. (2,3)
Louisiana State University--Baton Rouge, New Orleans (2 units), Shreveport, La. (2,3)
Loyola University of Chicago--Chicago, Maywood, Ill. (2,3)
Massachusetts General Hospital--Belmont, Boston, Mass. (2,3)
Massachusetts Office of Human Services (may include awards to Massachusetts Mental Health Research Corporation)--Boston, Mass. (2)
Montana University System--Bozeman, Missoula, Mt. (2,3)

New York City Health Services Administration (includes awards to Medical and Health Research Association of New York City)--New York (2 units), N.Y. (2)

New York State Department of Health (may include awards to Health Research Inc.)--Albany, Buffalo, N.Y. (2,3)

New York State Department of Mental Hygiene (may include awards to New York State Research Foundation for Mental Hygiene, Inc.)--New York (3 units), Orangeburg, Stony Brook, N.Y. (2)

North Carolina Department of Human Resources (may include awards to North Carolina Foundation for Mental Health Research, Inc.)--Raleigh (2 units), N.C. (2)

Northwestern University--Chicago, Evanston, Ill. (2,3)

Oregon State Higher Education System--Corvallis, Eugene, Portland (2 units), Oreg. (2,3)

Pennsylvania State University--Hershey, University Park, Pa. (2,3)

Providence Medical Center--Portland, Oreg.; Seattle, Wash. (2)

Rush-Presbyterian-St. Luke's Medical Center--Chicago (2 units), Ill. (2,3)

Rutgers The State University--New Brunswick, Newark, N.J. (2,3)

Southern Illinois University System--Carbondale, Edwardsville, Springfield, Ill. (2)

State University and Community College System of Tennessee--Cookeville, Johnson City, Memphis, Nashville, Tenn. (2)

State University of New York--Albany, Binghamton, Brockport, Buffalo, New York (2 units), Old Westbury, Plattsburgh, Stony Brook, Syracuse (2 units), N.Y. (2,3)

State University System of Florida--Gainesville, Jacksonville, Orlando, Tallahassee (2 units), Tampa, Fla. (2,3)

Texas Agricultural and Mechanical University System--College Station, Prairie View, Tex. (2,3)

Tufts University--Boston, Medford, Mass. (2,3)

Tulane University of Louisiana--Covington, New Orleans, La. (2,3)

U.S. Department of Energy--Kirtland AFB, N.M.; Aiken, S.C.; Oak Ridge, Tenn. (2)

U.S. Department of Health and Human Services--San Francisco, Calif.; New York, N.Y.; Seattle, Wash. (2)

U.S. Department of the Army--Washington, D.C.; San Antonio, Tex. (2)

U.S. Veterans Administration--Palo Alto, Sepulveda, Calif.; Boise, Idaho; Hines, North Chicago, Ill.; Shreveport, La.; Minneapolis, Minn.; Pittsburgh, Pa.; Providence, R.I.; Columbia, S.C.; White River Junction, Vt. (2)

Union College and University--Albany, Schenectady, N.Y. (2,3)

University of Alabama System--Birmingham, University, Ala. (2,3)

University of Alaska System--Anchorage, College, Alaska (2)

University of Arkansas--Fayetteville, Little Rock, Ark. (2,3)

University of California--Berkeley, Davis, Irvine, La Jolla, Los Angeles, Riverside, San Francisco, Santa Barbara, Santa Cruz, Calif. The unit in La Jolla may include awards to Friends of Psychiatric Research of San Diego. (2,3)

University of Colorado System--Boulder, Colorado Springs, Denver, Colo. (2,3)

University of Connecticut--Farmington, Storrs, Conn. (2,3)

University of Illinois--Chicago (2 units), Peoria, Urbana, Ill. (2,3)

University of Kansas--Kansas City, Lawrence, Ks. (2,3)

University of Maryland System--Baltimore, Catonsville, College Park (2 units), Princess Anne, Md. (2,3)

University of Massachusetts--Amherst, Boston, Worcester, Mass. (2,3)

University of Miami--Coral Gables, Miami, Fla. (2,3)

University of Minnesota--Duluth, Minneapolis, Minn. (2,3)

University of Mississippi--Jackson, University, Miss. (2,3)
 University of Missouri--Columbia, Kansas City, Normandy, Rolla, Mo.
 (2,3)
 University of Nebraska System--Lincoln, Omaha, Nebr. (2,3)
 University of Nevada System--Las Vegas, Reno, Nev. (2)
 University of North Carolina System--Chapel Hill, Charlotte, Durham,
 Elizabeth City, Greensboro, Greenville, Raleigh, Winston-Salem,
 N.C. (2,3)
 University of Oklahoma--Norman, Oklahoma City Okla. (2,3)
 University of Puerto Rico--Mayaguez, San Juan (2 units), P.R. (2,3)
 University of Tennessee System--Knoxville, Memphis, Tenn. (2,3)
 University of Texas System--Arlington, Austin, Dallas, El Paso,
 Galveston, Houston (2 units), Richardson, San Antonio (2 units),
 Tex. (2,3)
 University of the Pacific--San Francisco, Stockton, Calif. (2,3)
 University of Wisconsin System--Green Bay, Kenosha, Madison, Milwaukee,
 Wisc. (2,3)
 University System of Georgia--Athens, Atlanta (2 units), Augusta,
 Fort Valley, Savannah, Statesboro, Ga. (2,3)
 Utah State Higher Education System--Logan, Salt Lake City, Utah (2,3)

Other Countries

Agricultural Research Council--Cambridge, London, United Kingdom (2)
 Catholic University of Louvain--Louvain, Louvain-la-neuve, Belgium (2)

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NIH Publication No. 81-1042

NATIONAL INSTITUTES OF HEALTH

Grants
for
Training
Construction
Cancer Control
Medical Libraries

Fiscal Year 1980 Funds



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service National Institutes of Health

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NATIONAL INSTITUTES OF HEALTH

Grants for Training Construction Cancer Control Medical Libraries

Fiscal Year 1980 Funds

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

National Institutes of Health

NIH Publication No. 81-1043

Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the research contract mechanism is used under appropriate circumstances.

Listings of NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents listings of fellowships, training, cancer research facilities, cancer control, and medical library grants. Awards made under the newly initiated cooperative agreements program are also included. Awards for cooperative agreements, training, and construction made by other constituent agencies of the Public Health Service are not included in this volume.

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TECHNICAL NOTE

Cancer Control Grants

The research demonstration and dissemination projects of the National Cancer Institute, formerly presented in the volume listing NIH Research Grants, are being shown in this volume effective with fiscal year 1978 funds. These grants, commonly referred to as cancer control grants, are shown separately from research grants in the budget, and their exclusion from the volume on research grants was for the purpose of conforming with their treatment in the budgetary process. To reflect their uniqueness, the cancer control grants are shown in a separate table in this volume.

Cooperative Agreements

Cooperative agreements reflect an assistance relationship between NIH and the recipient. Substantial programmatic involvement is anticipated between NIH and the recipient during performance of the contemplated activity. NIH assists, supports or stimulates, and participates substantially with recipients in conducting projects similar in program intent to those for grants. To reflect this uniqueness, cooperative agreements are shown in a separate table in this volume.

Organization Identification

In the presentation of grants made from fiscal year 1980 funds, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the principal investigator lies. Study of the structure of grantee organizations in the United States (primarily universities and colleges, and State Departments of Mental Health or their equivalents) has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education is comprised of two or more campuses reporting directly to the central administration, each campus is listed separately.

2. If a foundation has been established for the purpose of receiving and administering funds, the name and location of the organization having professional responsibility for the grant is shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
3. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and the organization is listed as many times within a given city as there are components of the organization receiving grants.
4. If an association receiving a grant has a fixed national headquarters, the grants are listed at the headquarters location. If, however, the association does not have a fixed headquarters, the grants are listed in the city shown for this organization in either the Encyclopedia of Associations (1) or the Research Centers Directory (2).

These qualifications do not apply to foreign institutions or to some domestic organizations, because a systematic study of their organizational structure has not been made. Organizations which require a clarifying comment, or which appear in more than one geographical location, are listed alphabetically in the Appendix.

Supplemental Awards

In this publication, supplemental awards are combined with the parent grant, or with other supplements, when both awards are made from the same fiscal year funds. Supplemental grants awarded in fiscal year 1980 to parent grants awarded in a previous fiscal year are shown separately; if two or more such supplements were made during fiscal year 1980, these supplements are combined.

- (1) Fiske, M. (Ed.): Encyclopedia of Associations. Gale Research Co., Detroit, Mich., 13 ed., Vol. 1 and supplements, 1979.
- (2) Palmer, A.M. (Ed.): Research Centers Directory. Gale Research Co., Detroit, Mich., 6 ed. and supplements, 1978.

ABBREVIATIONS

The NIH component supporting a grant is indicated by the code letters in the left-hand column. These code letters form part of the identification of the grant number.

<i>Code for supporting component</i>		<i>Abbreviation of supporting component</i>
	Institutes and Research Divisions.....	IRD
AG	National Institute on Aging.....	NIA
AI	National Institute of Allergy and Infectious Diseases.....	NIAID
AM	National Institute of Arthritis, Metabolism, and Digestive Diseases.....	NIAMDD
CA	National Cancer Institute.....	NCI
DE	National Institute of Dental Research.....	NIDR
ES	National Institute of Environmental Health Sciences.....	NIEHS
EY	National Eye Institute.....	NEI
GM	National Institute of General Medical Sciences.....	NIGMS
HD	National Institute of Child Health and Human Development.....	NICHD
HL	National Heart, Lung, and Blood Institute.....	NHLBI
NS	National Institute of Neurological and Communicative Disorders and Stroke.....	NINCDS
RR	Division of Research Resources.....	DRR
TW	Fogarty International Center.....	FIC
LM	National Library of Medicine.....	NLM
	National Institutes of Health.....	NIH

Supporting Component	Total Training		Research Training Grants		Training		Fellowships and Nat'l. Research Service Awards*		Construction Grants		Cancer Control Grants		Medical Library Grants	
	Dollars		No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
Total National Institutes of Health.....	182,750,478		1,515	143,885,160		1,973	38,865,318		10	10,813,603		119	22,886,530	74 1,595,552
Institutes and Research Divisions.....	181,112,531		1,505	142,247,213		1,973	38,865,318		10	10,813,603		119	22,886,530	..
Division of Research Resources..	656,000		9	634,618		1	21,382		..	...		..	...	..
Fogarty International Center....	4,256,497		..	...		204	4,256,497		..	...		..	...	..
National Cancer Institute.....	27,826,677		178	23,810,115		219	4,016,562		10	10,813,603		119	22,886,530	..
National Eye Institute.....	4,509,717		42	2,737,846		92	1,771,871		..	...		..	...	..
National Heart, Lung, and Blood Institute.....	31,798,346		353	27,073,878		237	4,724,468		..	...		..	...	..
National Institute of Allergy and Infectious Diseases.....	9,510,716		87	7,351,736		111	2,158,980		..	...		..	...	..
National Institute of Arthritis, Metabolism, and Digestive Diseases.....	21,728,331		251	16,424,874		262	5,303,457		..	...		..	...	..
National Institute of Child Health and Human Development...	10,805,944		99	8,201,596		134	2,604,348		..	...		..	...	..
National Institute of Dental Research.....	3,889,998		36	2,726,440		65	1,163,558		..	...		..	...	..
National Institute of Environmental Health Sciences..	6,513,000		46	5,852,197		32	660,803		..	...		..	...	..
National Institute of General Medical Sciences.....	47,932,115		287	39,961,081		397	7,971,034		..	...		..	...	..
National Institute of Neurological and Communicative Disorders and Stroke.....	8,909,648		86	5,242,256		193	3,667,392		..	...		..	...	..
National Institute on Aging.....	2,775,542		31	2,230,576		26	544,966		..	...		..	...	..
National Library of Medicine.....	1,637,947		10	1,637,947		..	...		..	...		..	...	74 1,595,552

*Supplemental allowances for an award made in a previous year are not included in the count, although dollars are included. Thus, an organization receiving only a supplement will have an entry under dollars but no entry under number.

NOTE 1: One Cooperative Agreement for \$800,000 awarded by NIEHS is not shown separately in this table. See Table 7 for details.

NOTE 2: For information as to how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see Appendix.

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
GRAND TOTAL	1,973	38,865,318	1,733	33,788,240	36	820,581	204	4,256,497
UNITED STATES*	1,919	37,775,753	1,679	32,698,675	36	820,581	204	4,256,497
OTHER COUNTRIES	54	1,089,565	54	1,089,565				
UNITED STATES								
ALABAMA								
AUBURN								
AUBURN UNIVERSITY AT AUBURN	2	31,597			2	31,597		
BIRMINGHAM								
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM	16	347,631	13	278,959		8,800	3	59,872
MOBILE								
UNIVERSITY OF SOUTH ALABAMA		7,000		7,000				
STATE TOTAL	18	386,228	13	285,959	2	40,397	3	59,872
ARIZONA								
PHOENIX								
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—NIAMDD EPIDEMIOLOGY AND FIELD STUDIES BRANCH		3,085		3,085				
TUCSON								
UNIVERSITY OF ARIZONA	11	227,271	9	183,674			2	43,597
STATE TOTAL	11	230,356	9	186,759			2	43,597
ARKANSAS								
LITTLE ROCK								
UNIVERSITY OF ARKANSAS MEDICAL SCIENCES AT LITTLE ROCK	1	21,236	1	21,236				
STATE TOTAL	1	21,236	1	21,236				

*Includes Puerto Rico.

NOTE 1: Supplements for an award made in a previous year are not included in the count, although dollars are included. Thus, an organization receiving only a supplement will have an entry under dollars but no entry under number.

NOTE 2: For information as to how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see Appendix.

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
CALIFORNIA								
BERKELEY								
UNIVERSITY OF CALIFORNIA AT BERKELEY	42	801,016	42	801,016				
CLAREMONT								
CLAREMONT UNIVERSITY CENTER SYSTEM--PITZER COLLEGE	1	20,343	1	20,343				
DAVIS								
UNIVERSITY OF CALIFORNIA AT DAVIS	7	150,249	6	121,794			1	28,455
DUARTE								
CITY OF HOPE NATIONAL MEDICAL CENTER	2	39,529	2	39,529				
IRVINE								
UNIVERSITY OF CALIFORNIA AT IRVINE	17	309,494	16	296,962			1	12,532
LA JOLLA								
LA JOLLA CANCER RESEARCH FOUNDATION	2	35,173	2	35,173				
SALK INSTITUTE FOR BIOLOGICAL STUDIES	4	88,147	4	88,147				
SCRIPPS CLINIC AND RESEARCH FOUNDATION	19	394,175	16	327,135	1	27,700	2	39,340
UNIVERSITY OF CALIFORNIA AT SAN DIEGO	46	983,816	35	725,042	1	24,334	10	234,440
LOMA LINDA								
LOMA LINDA UNIVERSITY	1	22,899	1	22,899				
LONG BEACH								
U.S. VETERANS ADMINISTRATION MEDICAL CENTER	1	17,372					1	17,372
LOS ANGELES								
CHILDREN'S HOSPITAL OF LOS ANGELES	1	19,736	1	19,736				
ESTELLE DOHENY EYE FOUNDATION		1,280		1,280				
U.S. VETERANS ADMINISTRATION WADSWORTH MEDICAL CENTER	1	18,985					1	18,985
UNIVERSITY OF CALIFORNIA AT LOS ANGELES	41	785,300	32	620,692			9	164,608
UNIVERSITY OF SOUTHERN CALIFORNIA	6	118,197	5	88,515	1	29,682		
NORTHRIDGE								
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM--CALIFOR- NIA STATE UNIVERSITY AT NORTHRIDGE		564		564				
OAKLAND								
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFOR- NIA	1	17,155	1	17,155				
PALO ALTO								
PALO ALTO MEDICAL RESEARCH FOUNDATION		1,073		1,073				
PASADENA								
CALIFORNIA INSTITUTE OF TECHNOLOGY	29	551,440	26	498,567			3	52,873
RIVERSIDE								
UNIVERSITY OF CALIFORNIA AT RIVERSIDE	1	19,603	1	19,603				
SAN FRANCISCO								
PACIFIC MEDICAL CENTER		270		270				
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO	68	1,296,746	64	1,229,845			4	66,901
SANTA BARBARA								
UNIVERSITY OF CALIFORNIA AT SANTA BARBARA	3	72,396	3	72,396				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
CALIFORNIA—Continued								
SANTA CRUZ								
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ.....	1	21,152	1	21,152				
STANFORD								
STANFORD UNIVERSITY.....	47	933,574	44	876,694			3	56,880
TORRANCE								
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS AN- GELES COUNTY HARBOR-UCLA MEDICAL CENTER.....	3	50,266	3	50,266				
STATE TOTAL.....	344	6,769,950	306	5,995,848	3	81,716	35	692,386
COLORADO								
BOULDER								
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO AT BOULDER.....	11	217,147	11	217,147				
DENVER								
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER.....	4	79,973	4	79,973				
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO HEALTH SCIENCE CENTER.....	22	429,774	20	381,304			2	48,470
UNIVERSITY OF DENVER.....		230		230				
FORT COLLINS								
COLORADO STATE UNIVERSITY.....	8	141,064	6	107,847			2	33,217
STATE TOTAL.....	45	868,188	41	786,501			4	81,687
CONNECTICUT								
FARMINGTON								
UNIVERSITY OF CONNECTICUT HEALTH CENTER.....	10	184,947	9	171,861			1	13,086
NEW HAVEN								
HASKINS LABORATORIES.....	1	12,260	1	12,260				
JOHN B. PIERCE FOUNDATION OF CONNECTICUT.....	1	23,946	1	23,946				
YALE UNIVERSITY.....	61	1,139,727	54	1,047,799	1	14,074	6	77,854
STORRS								
UNIVERSITY OF CONNECTICUT STORRS.....		5,240		5,240				
STATE TOTAL.....	73	1,366,120	65	1,261,106	1	14,074	7	90,940
DELAWARE								
NEWARK								
UNIVERSITY OF DELAWARE.....	1	22,040	1	22,040				
STATE TOTAL.....	1	22,040	1	22,040				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
DIST OF COL								
WASHINGTON								
AMERICAN NATIONAL RED CROSS	1	11,559					1	11,559
AMERICAN UNIVERSITY	1	18,380	1	18,380				
CATHOLIC UNIVERSITY OF AMERICA	1	7,000			1	7,000		
GALLAUDET COLLEGE	1	22,828	1	22,828				
GEORGETOWN UNIVERSITY	2	38,540	2	38,540				
HOWARD UNIVERSITY	1	37,382			1	37,382		
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES--ST. ELIZABETH'S HOSPITAL	1	18,426					1	18,426
STATE TOTAL	8	154,115	4	79,748	2	44,382	2	29,985
FLORIDA								
CORAL GABLES								
UNIVERSITY OF MIAMI	1	17,873	1	17,873				
GAINESVILLE								
STATE UNIVERSITY SYSTEM OF FLORIDA--UNIVERSITY OF FLORIDA ..	10	208,646	9	182,090			1	26,556
MIAMI								
UNIVERSITY OF MIAMI	4	64,462	3	62,271			1	2,191
TALLAHASSEE								
STATE UNIVERSITY SYSTEM OF FLORIDA--FLORIDA STATE UNIVERSITY	2	33,654	2	33,654				
STATE TOTAL	17	324,635	15	295,888			2	28,747
GEORGIA								
ATHENS								
UNIVERSITY SYSTEM OF GEORGIA--UNIVERSITY OF GEORGIA	4	78,219	4	78,219				
ATLANTA								
ATLANTA UNIVERSITY	1	21,059			1	21,059		
EMORY UNIVERSITY	9	172,402	7	139,502			2	32,900
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES--CENTER FOR DISEASE CONTROL	2	32,413	1	15,041			1	17,372
UNIVERSITY SYSTEM OF GEORGIA		5,380		5,380				
AUGUSTA								
UNIVERSITY SYSTEM OF GEORGIA--MEDICAL COLLEGE OF GEORGIA ..	4	78,849	2	43,794			2	35,055
STATE TOTAL	20	388,322	14	281,936	1	21,059	5	85,327
HAWAII								
HONOLULU								
UNIVERSITY OF HAWAII SYSTEM--UNIVERSITY OF HAWAII AT MANOA	5	99,418	5	99,418				
STATE TOTAL	5	99,418	5	99,418				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
IDAHO								
MOSCOW								
UNIVERSITY OF IDAHO	1	18,380	1	18,380				
STATE TOTAL	1	18,380	1	18,380				
ILLINOIS								
CHICAGO								
NORTHWESTERN UNIVERSITY	6	114,791	5	102,071			1	12,720
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVER- SITY	2	42,388	2	42,388				
UNIVERSITY OF CHICAGO	23	473,482	20	406,497			3	66,985
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER	6	118,185	5	96,756			1	21,429
EVANSTON								
NORTHWESTERN UNIVERSITY	13	241,503	13	241,503				
URBANA								
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	9	152,198	9	152,198				
STATE TOTAL	59	1,142,547	54	1,041,413			5	101,134
INDIANA								
BLOOMINGTON								
INDIANA UNIVERSITY AT BLOOMINGTON	7	126,260	5	78,255	1	20,289	1	27,716
INDIANAPOLIS								
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS	3	67,352	3	67,352				
INDIANAPOLIS CENTER FOR ADVANCED RESEARCH		1,972		1,972				
NOTRE DAME								
UNIVERSITY OF NOTRE DAME	4	76,304	4	76,304				
WEST LAFAYETTE								
PURDUE UNIVERSITY WEST LAFAYETTE	2	45,124	1	17,115			1	28,009
STATE TOTAL	16	317,012	13	240,998	1	20,289	2	55,725
IOWA								
AMES								
IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY	3	43,826	2	38,926			1	4,900
IOWA CITY								
UNIVERSITY OF IOWA	7	142,226	6	124,258			1	17,968
STATE TOTAL	10	186,052	8	163,184			2	22,868
KANSAS								
KANSAS CITY								
UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOS- PITAL	3	60,103	2	42,303			1	17,800

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
KANSAS—Continued								
LAWRENCE								
UNIVERSITY OF KANSAS LAWRENCE.....	1	20,699	1	20,699				
MANHATTAN								
KANSAS STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCI- ENCE.....	1	20,541	1	20,541				
STATE TOTAL.....	5	101,343	4	83,543			1	17,800
KENTUCKY								
LEXINGTON								
UNIVERSITY OF KENTUCKY.....	3	56,996	2	36,427			1	20,569
LOUISVILLE								
UNIVERSITY OF LOUISVILLE.....	1	20,546	1	20,546				
STATE TOTAL.....	4	77,542	3	56,973			1	20,569
LOUISIANA								
BATON ROUGE								
LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHAN- ICAL COLLEGE AT BATON ROUGE.....	1	20,954			1	20,954		
NEW ORLEANS								
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS.....	2	41,776	2	41,776				
TULANE UNIVERSITY OF LOUISIANA.....	2	45,590	1	18,650	1	26,940		
RUSTON								
LOUISIANA TECHNOLOGICAL UNIVERSITY.....	1	19,736	1	19,736				
STATE TOTAL.....	6	128,056	4	80,162	2	47,894		
MAINE								
BAR HARBOR								
JACKSON LABORATORY.....	2	49,040	1	19,040	1	30,000		
SALSBURY COVE								
MOUNT DESERT ISLAND BIOLOGICAL LABORATORY.....		1,620		1,620				
STATE TOTAL.....	2	50,660	1	20,660	1	30,000		
MARYLAND								
BALTIMORE								
BALTIMORE CITY HOSPITALS.....		7,962		7,962				
CARNEGIE INSTITUTION OF WASHINGTON, D. C.....	6	101,680	6	101,680				
JOHNS HOPKINS HOSPITAL.....	1	19,860					1	19,860
JOHNS HOPKINS UNIVERSITY.....	43	802,846	39	752,621			4	50,225
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—BALTIMORE CANCER RESEARCH CENTER.....	1	16,684	1	16,684				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
MARYLAND—Continued								
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE.....	4	78,322	2	35,251	1	25,796	1	17,275
BELTSVILLE								
U.S. DEPARTMENT OF AGRICULTURE—AGRICULTURAL RESEARCH CENTER.....		1,155						1,155
BETHESDA								
NATIONAL FOUNDATION FOR CANCER RESEARCH.....	1	13,886	1	13,886				
U.S. DEPARTMENT OF DEFENSE—ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE.....	1	16,507	1	16,507				
U.S. DEPARTMENT OF DEFENSE—UNIFORMED SERVICES UNIVERS- ITY OF THE HEALTH SCIENCES.....		5,189		5,189				
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—NATIONAL INSTITUTES OF HEALTH.....	103	2,057,857	67	1,026,243	1	29,608	35	1,002,006
CATONSVILLE								
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS.....	1	25,728					1	25,728
COLLEGE PARK								
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS.....	2	46,593	1	20,469	1	26,124		
FREDERICK								
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—FREDERICK CANCER RESEARCH CENTER.....	2	32,452	1	13,380			1	19,072
ROCKVILLE								
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—ALCOHOL, DRUG ABUSE, AND MENTAL HLTH ADMIN.....	4	52,448	3	36,625			1	15,823
STATE TOTAL.....	169	3,279,169	122	2,046,497	3	81,528	44	1,151,144
MASSACHUSETTS								
AMHERST								
UNIVERSITY OF MASSACHUSETTS AT AMHERST.....	2	38,721	2	38,721				
BOSTON								
AFFILIATED HOSPITALS CENTER—BOSTON HOSPITAL FOR WOMEN...	1	22,040	1	22,040				
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL...	19	378,775	17	341,922			2	36,853
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPI- TAL.....	1	18,380	1	18,380				
BETH ISRAEL HOSPITAL.....	6	122,556	6	122,556				
BOSTON BIOMEDICAL RESEARCH INSTITUTE.....	2	37,126	2	37,126				
BOSTON UNIVERSITY.....	8	179,805	6	126,185	1	24,990	1	28,630
CHILDREN'S HOSPITAL MEDICAL CENTER.....	12	254,329	12	254,329				
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION.....	4	77,651	4	77,651				
FORSYTH DENTAL CENTER.....	1	15,768	1	15,768				
HARVARD UNIVERSITY.....	55	1,029,137	53	984,812			2	44,325
MASSACHUSETTS EYE AND EAR INFIRMARY.....	1	22,892	1	22,892				
MASSACHUSETTS GENERAL HOSPITAL.....	17	368,527	15	328,767			2	39,760
NEW ENGLAND DEACONESS HOSPITAL.....	1	20,468	1	20,468				
NEW ENGLAND MEDICAL CENTER HOSPITAL.....	4	84,088	4	84,088				
NORTHEASTERN UNIVERSITY.....		5,380		5,380				
SIDNEY FARBER CANCER INSTITUTE.....	22	415,826	21	399,226			1	16,600
ST. ELIZABETH'S HOSPITAL OF BOSTON.....	1	22,777	1	22,777				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
MASSACHUSETTS—Continued								
TUFTS UNIVERSITY.....	8	144,276	8	144,276				
CAMBRIDGE								
HARVARD UNIVERSITY.....	36	692,106	35	674,246			1	17,860
MASSACHUSETTS INSTITUTE OF TECHNOLOGY.....	39	798,580	36	741,527			3	57,053
SHREWSBURY								
WORCESTER FOUNDATION FOR EXPERIMENTAL BIOLOGY.....	2	45,140	1	24,640			1	20,500
WALTHAM								
BRANDEIS UNIVERSITY.....	9	172,631	7	143,171			2	29,460
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION.....	1	17,441	1	17,441				
WOODS HOLE								
MARINE BIOLOGICAL LABORATORY.....	2	30,728	2	30,728				
WORCESTER								
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCES- TER.....	8	153,137	8	153,137				
STATE TOTAL.....	262	5,168,285	246	4,852,254	1	24,990	15	291,041
MICHIGAN								
ANN ARBOR								
UNIVERSITY OF MICHIGAN AT ANN ARBOR.....	24	473,688	22	432,816			2	40,872
DETROIT								
HENRY FORD HOSPITAL.....	2	42,820	2	42,820				
MICHIGAN CANCER FOUNDATION.....	2	27,302	1	16,852			1	10,450
WAYNE STATE UNIVERSITY.....	3	70,660	1	25,159			2	45,501
EAST LANSING								
MICHIGAN STATE UNIVERSITY.....	11	189,817	9	149,150			2	40,667
ROCHESTER								
OAKLAND UNIVERSITY.....	1	21,500	1	21,500				
STATE TOTAL.....	43	825,787	36	688,297			7	137,490
MINNESOTA								
MINNEAPOLIS								
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL.....	31	628,816	30	607,740			1	21,076
ROCHESTER								
MAYO FOUNDATION.....	9	139,549	6	92,149			3	47,400
SAINT PAUL								
UNITED HOSPITALS.....	1	13,945	1	13,945				
STATE TOTAL.....	41	782,310	37	713,834			4	68,476

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
MISSISSIPPI								
HATTIESBURG								
UNIVERSITY OF SOUTHERN MISSISSIPPI.....	1	20,100			1	20,100		
JACKSON								
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER.....	1	25,036	1	25,036				
STATE TOTAL.....	2	45,136	1	25,036	1	20,100		
MISSOURI								
COLUMBIA								
UNIVERSITY OF MISSOURI-COLUMBIA.....	10	189,462	9	166,138			1	23,324
SAINT LOUIS								
ST. LOUIS UNIVERSITY.....	1	16,230	1	16,230				
WASHINGTON UNIVERSITY.....	28	556,678	26	516,103			2	40,575
STATE TOTAL.....	39	762,370	36	698,471			3	63,899
NEBRASKA								
BOYS TOWN								
FATHER FLANAGAN'S BOYS' HOME.....	1	23,367	1	23,367				
LINCOLN								
UNIVERSITY OF NEBRASKA SYSTEM--UNIVERSITY OF NEBRASKA AT LINCOLN.....		5,236		5,236				
OMAHA								
UNIVERSITY OF NEBRASKA SYSTEM--UNIVERSITY OF NEBRASKA MEDICAL CENTER.....	1	20,928	1	20,928				
STATE TOTAL.....	2	49,531	2	49,531				
NEW HAMPSHIRE								
HANOVER								
DARTMOUTH COLLEGE.....	4	61,939	4	61,939				
STATE TOTAL.....	4	61,939	4	61,939				
NEW JERSEY								
NEWARK								
RUTGERS THE STATE UNIVERSITY NEWARK.....		3,098		3,098				
PISCATAWAY								
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY--RUTGERS MEDICAL SCHOOL.....	3	64,802	3	64,802				
PRINCETON								
PRINCETON UNIVERSITY.....	8	141,848	6	114,464			2	27,384
STATE TOTAL.....	11	209,748	9	182,364			2	27,384

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
NEW MEXICO								
ALBUQUERQUE								
UNIVERSITY OF NEW MEXICO ALBUQUERQUE.....	4	79,496	3	59,994	1	19,502		
STATE TOTAL.....	4	79,496	3	59,994	1	19,502		
NEW YORK								
ALBANY								
NEW YORK STATE DEPARTMENT OF HEALTH.....	1	18,380	1	18,380				
UNION COLLEGE AND UNIVERSITY—ALBANY MEDICAL COLLEGE.....		7,633		7,633				
BINGHAMTON								
STATE UNIVERSITY OF NEW YORK AT BINGHAMTON.....	1	18,380	1	18,380				
BUFFALO								
MEDICAL FOUNDATION OF BUFFALO.....	1	20,039	1	20,039				
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK ME- MORIAL INSTITUTE.....	7	137,823	6	117,158			1	20,665
STATE UNIVERSITY OF NEW YORK AT BUFFALO.....	6	122,150	5	115,351			1	6,799
COLD SPRING HARBOR								
COLD SPRING HARBOR LABORATORY.....	1	26,170	1	26,170				
ITHACA								
CORNELL UNIVERSITY ITHACA.....	19	382,538	18	353,817			1	28,721
NEW YORK								
ANIMAL MEDICAL CENTER.....	1	21,799	1	21,799				
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDI- CINE.....	7	137,383	7	137,283				100
COLUMBIA UNIVERSITY.....	31	584,633	29	545,343			2	39,290
CORNELL UNIVERSITY MEDICAL CENTER.....	18	364,392	17	346,582			1	17,810
MONTEFIORE HOSPITAL AND MEDICAL CENTER.....	1	16,851	1	16,851				
MOUNT SINAI MEDICAL CENTER.....	1	19,040	1	19,040				
NEW YORK CITY HEALTH SERVICES ADMINISTRATION—PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N.Y.....	2	44,013	2	44,013				
NEW YORK UNIVERSITY.....	19	369,951	18	350,321			1	19,630
POPULATION COUNCIL.....	3	54,959	2	38,144			1	16,815
ROCKEFELLER UNIVERSITY.....	42	813,356	40	772,771			2	40,585
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH.....	2	43,908	1	21,408	1	22,500		
ST. LUKE'S-ROOSEVELT HOSPITAL CENTER.....	1	16,184	1	16,184				
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER.....	2	47,211	1	19,736			1	27,475
YESHIVA UNIVERSITY.....	13	270,123	10	210,920			3	59,203
POUGHKEEPSIE								
VASSAR COLLEGE.....	2	38,266	2	38,266				
ROCHESTER								
EASTMAN DENTAL CENTER.....	1	18,327	1	18,327				
UNIVERSITY OF ROCHESTER.....	17	333,569	16	323,769			1	9,800
STONY BROOK								
STATE UNIVERSITY OF NEW YORK AT STONY BROOK.....	6	121,207	5	102,777			1	18,430
SYRACUSE								
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER.....	2	40,382	2	40,382				
SYRACUSE UNIVERSITY SYRACUSE.....		5,380		5,380				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
NEW YORK—Continued								
UPTON								
ASSOCIATED UNIVERSITIES—BROOKHAVEN NATIONAL LABORATORY	4	76,170	4	76,170				
VALHALLA								
AMERICAN HEALTH FOUNDATION	1	19,600					1	19,600
NEW YORK MEDICAL COLLEGE	2	40,308	2	40,308				
STATE TOTAL	214	4,230,125	196	3,882,702	1	22,500	17	324,923
NORTH CAROLINA								
CHAPEL HILL								
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES—DIVISION OF HEALTH SERVICES	1	20,672	1	20,672				
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	28	549,330	26	499,501			2	49,829
DURHAM								
DUKE UNIVERSITY	32	675,496	30	625,743	1	30,000	1	19,753
WHITEHEAD MEDICAL RESEARCH INSTITUTE	1	20,006	1	20,006				
GREENVILLE								
UNIVERSITY OF NORTH CAROLINA SYSTEM—EAST CAROLINA UNI- VERSITY	1	19,736	1	19,736				
RALEIGH								
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH	1	20,006	1	20,006				
RESEARCH TRIANGLE PARK								
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES—NIEHS EN- VIRONMENTAL HEALTH SCIENCES CENTER		6,086		6,086				
U.S. ENVIRONMENTAL PROTECTION AGENCY—NATIONAL ENVIRON- MENTAL RESEARCH CENTER	1	13,380	1	13,380				
WINSTON-SALEM								
WAKE FOREST UNIVERSITY	2	32,620	2	32,620				
STATE TOTAL	67	1,357,332	63	1,257,750	1	30,000	3	69,582
OHIO								
CINCINNATI								
CHILDREN'S HOSPITAL MEDICAL CENTER	1	16,791	1	16,791				
UNIVERSITY OF CINCINNATI AT CINCINNATI	12	245,130	11	217,290			1	27,840
CLEVELAND								
CASE WESTERN RESERVE UNIVERSITY	10	176,052	7	139,838			3	36,214
UNIVERSITY HOSPITALS OF CLEVELAND	1	22,040	1	22,040				
COLUMBUS								
OHIO STATE UNIVERSITY	4	70,361	4	70,361				
ROOTSTOWN								
NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE	2	34,888	2	34,888				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
OHIO—Continued								
TOLEDO								
MEDICAL COLLEGE OF OHIO AT TOLEDO.....	2	48,685	1	20,605			1	28,080
STATE TOTAL.....	32	613,947	27	521,813			5	92,134
OKLAHOMA								
OKLAHOMA CITY								
OKLAHOMA MEDICAL RESEARCH FOUNDATION.....	1	35,000	1	35,000				
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER.....	1	19,379	1	19,379				
STATE TOTAL.....	2	54,379	2	54,379				
OREGON								
CORVALLIS								
OREGON STATE HIGHER EDUCATION SYSTEM--OREGON STATE UNI- VERSITY.....	7	132,367	6	114,697			1	17,670
EUGENE								
OREGON STATE HIGHER EDUCATION SYSTEM--UNIVERSITY OF OREGON.....	9	178,759	9	178,759				
PORTLAND								
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER.....	1	20,357	1	20,357				
MEDICAL RESEARCH FOUNDATION OF OREGON.....	2	46,378	1	20,000			1	26,378
OREGON STATE HIGHER EDUCATION SYSTEM--UNIVERSITY OF OREGON HEALTH SCIENCES CENTER.....	4	87,489	3	60,203			1	27,286
STATE TOTAL.....	23	465,350	20	394,016			3	71,334
PENNSYLVANIA								
BETHLEHEM								
LEHIGH UNIVERSITY.....	1	27,962					1	27,962
HERSHEY								
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER.....	15	306,302	13	259,660			2	46,642
PHILADELPHIA								
DREXEL UNIVERSITY.....	1	20,277	1	20,277				
INSTITUTE FOR CANCER RESEARCH.....	3	61,215	3	60,835				380
LANKENAU HOSPITAL.....		772		772				
MEDICAL COLLEGE OF PENNSYLVANIA.....	7	164,828	5	115,151	1	22,000	1	27,677
MONELL CHEMICAL SENSES CENTER.....	2	40,431	2	40,431				
TEMPLE UNIVERSITY.....	11	213,409	11	213,409				
THOMAS JEFFERSON UNIVERSITY.....	1	18,380	1	18,380				
UNIVERSITY OF PENNSYLVANIA.....	40	779,700	31	580,607	2	50,702	7	148,391
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY.....	3	53,678	2	35,113			1	18,565
PITTSBURGH								
CARNEGIE-MELLON UNIVERSITY.....	3	41,157	3	41,157				
EYE AND EAR HOSPITAL OF PITTSBURGH.....		2,760		2,760				
UNIVERSITY OF PITTSBURGH.....	5	97,483	5	97,483				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
PENNSYLVANIA—Continued								
UNIVERSITY PARK								
PENNSYLVANIA STATE UNIVERSITY AT UNIVERSITY PARK	4	78,902	4	78,902				
STATE TOTAL	96	1,907,256	81	1,564,937	3	72,702	12	269,617
RHODE ISLAND								
PROVIDENCE								
BROWN UNIVERSITY	3	77,743	2	50,276			1	27,467
STATE TOTAL	3	77,743	2	50,276			1	27,467
SOUTH CAROLINA								
CHARLESTON								
MEDICAL UNIVERSITY OF SOUTH CAROLINA	2	32,595	2	32,595				
COLUMBIA								
UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA	1	31,098		3,098	1	28,000		
STATE TOTAL	3	63,693	2	35,693	1	28,000		
TENNESSEE								
KNOXVILLE								
UNIVERSITY OF TENNESSEE SYSTEM--UNIVERSITY OF TENNESSEE AT KNOXVILLE	2	42,740	2	42,740				
MEMPHIS								
ST. JUDE CHILDREN'S RESEARCH HOSPITAL	1	14,918	1	14,918				
UNIVERSITY OF TENNESSEE SYSTEM--UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES	4	86,931	3	65,431	1	21,500		
NASHVILLE								
MEHARRY MEDICAL COLLEGE	1	19,928			1	19,928		
VANDERBILT UNIVERSITY	12	227,727	7	137,132			5	90,595
OAK RIDGE								
UNION CARBIDE CORPORATION--OAK RIDGE NATIONAL LABORA- TORY	1	14,785	1	14,785				
STATE TOTAL	21	407,029	14	275,006	2	41,428	5	90,595
TEXAS								
AUSTIN								
UNIVERSITY OF TEXAS SYSTEM--UNIVERSITY OF TEXAS AT AUSTIN ..	3	59,079	3	59,079				
COLLEGE STATION								
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM-- TEXAS A & M UNIVERSITY	1	19,386	1	19,386				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
TEXAS—Continued								
DALLAS								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS.....	11	208,925	11	208,925				
DENTON								
NORTH TEXAS STATE UNIVERSITY.....	1	15,673	1	15,673				
GALVESTON								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON.....	7	138,771	6	120,923			1	17,848
HOUSTON								
BAYLOR COLLEGE OF MEDICINE.....	26	488,946	25	481,396			1	7,550
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON AT HOUSTON.....	1	21,080	1	21,080				
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON.....	8	150,787	7	129,540	1	21,247		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER.....	3	60,472	3	60,472				
LUBBOCK								
TEXAS TECH UNIVERSITY.....	1	21,236	1	21,236				
SAN ANTONIO								
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO.....	3	83,944	3	83,944				
STATE TOTAL.....	65	1,268,299	62	1,221,654	1	21,247	2	25,398
UTAH								
SALT LAKE CITY								
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ..	8	159,158	8	159,158				
STATE TOTAL.....	8	159,158	8	159,158				
VERMONT								
BURLINGTON								
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE	5	101,122	5	100,822				300
STATE TOTAL.....	5	101,122	5	100,822				300
VIRGINIA								
BLACKSBURG								
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	1	19,885	1	19,885				
CHARLOTTESVILLE								
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE.....	28	560,460	25	502,220			3	58,240
RICHMOND								
VIRGINIA COMMONWEALTH UNIVERSITY.....	4	65,195	4	65,195				
STATE TOTAL.....	33	645,540	30	587,300			3	58,240

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
WASHINGTON								
SEATTLE								
FRED HUTCHINSON CANCER RESEARCH CENTER	6	125,823	5	108,023			1	17,800
UNIVERSITY OF WASHINGTON	56	1,132,518	55	1,112,918			1	19,600
VIRGINIA MASON RESEARCH CENTER	1	22,158	1	22,158				
STATE TOTAL	63	1,280,499	61	1,243,099			2	37,400
WEST VIRGINIA								
MORGANTOWN								
WEST VIRGINIA UNIVERSITY	3	62,615	2	39,508			1	23,107
STATE TOTAL	3	62,615	2	39,508			1	23,107
WISCONSIN								
MADISON								
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN— MADISON	45	897,037	42	828,636			3	68,401
MILWAUKEE								
BLOOD CENTER OF SOUTHEASTERN WISCONSIN	1	19,736	1	19,736				
MEDICAL COLLEGE OF WISCONSIN	4	90,149	3	62,221			1	27,928
STATE TOTAL	50	1,006,922	46	910,593			4	96,329
PUERTO RICO								
SAN JUAN								
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES	4	81,361			4	81,361		
UNIVERSITY OF PUERTO RICO RIO PIEDRAS	4	77,412			4	77,412		
STATE TOTAL	8	158,773			8	158,773		
OTHER COUNTRIES								
AUSTRALIA								
CANBERRA								
AUSTRALIAN NATIONAL UNIVERSITY		739		739				
KENSINGTON								
UNIVERSITY OF NEW SOUTH WALES		5,380		5,380				
COUNTRY TOTAL		6,119		6,119				
BELGIUM								
LIEGE								
UNIVERSITY OF LIEGE		578		578				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
BELGIUM—Continued								
LOUVAIN-LA-NEUVE								
CATHOLIC UNIVERSITY OF LOUVAIN.....	1	15,968	1	15,968				
COUNTRY TOTAL	1	16,546	1	16,546				
CANADA								
CALGARY								
UNIVERSITY OF CALGARY.....	3	60,132	3	60,132				
HALIFAX								
DALHOUSIE UNIVERSITY.....	1	26,760	1	26,760				
LONDON								
UNIVERSITY OF WESTERN ONTARIO.....	1	19,040	1	19,040				
MONTREAL								
JEWISH GENERAL HOSPITAL.....		748		748				
MC GILL UNIVERSITY.....		698		698				
TORONTO								
HOSPITAL FOR SICK CHILDREN.....	1	18,048	1	18,048				
UNIVERSITY OF TORONTO.....	2	34,085	2	34,085				
VANCOUVER								
UNIVERSITY OF BRITISH COLUMBIA.....	1	23,760	1	23,760				
COUNTRY TOTAL	9	183,271	9	183,271				
DENMARK								
AARHUS								
UNIVERSITY OF AARHUS.....		1,812		1,812				
COUNTRY TOTAL		1,812		1,812				
FRANCE								
GIF-SUR-YVETTE								
NATIONAL CENTER FOR SCIENTIFIC RESEARCH--GIF-SUR-YVETTE LABORATORIES	1	14,917	1	14,917				
PARIS								
LARIBOSIERE HOSPITAL.....		43		43				
NATIONAL INSTITUTE OF HEALTH AND MEDICAL RESEARCH		5,054		5,054				
PASTEUR INSTITUTE.....	3	64,561	3	64,561				
VERSAILLES								
NATIONAL AGRONOMY RESEARCH CENTER.....	1	22,858	1	22,858				
COUNTRY TOTAL	5	107,433	5	107,433				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
GERMANY FED R								
DUSSELDORF								
UNIVERSITY OF DUSSELDORF		1,850		1,850				
GIESSEN								
JUSTUS LIEBIG UNIVERSITY OF GIESSEN		5,240		5,240				
HEIDELBERG								
EUROPEAN MOLECULAR BIOLOGY ORGANIZATION	1	14,594	1	14,594				
RUPERT CHARLES UNIVERSITY OF HEIDELBERG	1	18,968	1	18,968				
MUNICH								
LUDWIG MAXIMILIAN UNIVERSITY OF MUNICH		1,765		1,765				
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE-INSTI- TUTE FOR BIOCHEMISTRY	1	19,736	1	19,736				
TUBINGEN								
MAX PLANCK SOCIETY FOR THE ADVANCEMENT OF SCIENCE-INSTI- TUTE FOR BIOLOGY		535		535				
COUNTRY TOTAL	3	62,688	3	62,688				
ISRAEL								
JERUSALEM								
HEBREW UNIVERSITY OF JERUSALEM	1	18,521	1	18,521				
REHOVOT								
WEIZMANN INSTITUTE OF SCIENCE	1	20,768	1	20,768				
TEL AVIV								
TEL AVIV UNIVERSITY	2	37,747	2	37,747				
COUNTRY TOTAL	4	77,036	4	77,036				
JAPAN								
OKAZAKI								
NATIONAL INSTITUTE FOR PHYSIOLOGICAL SCIENCES	1	18,380	1	18,380				
TOKYO								
UNIVERSITY OF TOKYO		4,974		4,974				
COUNTRY TOTAL	1	23,354	1	23,354				
NETHERLANDS								
GRONINGEN								
STATE UNIVERSITY AT GRONINGEN		428		428				
RIJSWIJK								
NETHERLANDS CENTRAL ORGANIZATION TNO		540		540				
UTRECHT								
STATE UNIVERSITY OF UTRECHT	1	12,379	1	12,379				
COUNTRY TOTAL	1	13,347	1	13,347				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
NORWAY								
OSLO								
UNIVERSITY OF OSLO	1	16,105	1	16,105				
COUNTRY TOTAL	1	16,105	1	16,105				
SWEDEN								
LUND								
UNIVERSITY OF LUND	2	34,475	2	34,475				
STOCKHOLM								
CAROLINE INSTITUTE	1	28,931	1	28,931				
COUNTRY TOTAL	3	63,406	3	63,406				
SWITZERLAND								
GENEVA								
UNIVERSITY OF GENEVA	3	56,617	3	56,617				
ZURICH								
UNIVERSITY OF ZURICH		2,430		2,430				
COUNTRY TOTAL	3	59,047	3	59,047				
UNITED KINGDOM								
BRIGHTON								
UNIVERSITY OF SUSSEX	1	16,777	1	16,777				
BUCKSBURN								
ROWETT RESEARCH INSTITUTE	1	14,462	1	14,462				
CAMBRIDGE								
MEDICAL RESEARCH COUNCIL	5	96,801	5	96,801				
UNIVERSITY OF CAMBRIDGE	4	74,679	4	74,679				
DUNDEE								
UNIVERSITY OF DUNDEE		8,380		8,380				
EDINBURGH								
UNIVERSITY OF EDINBURGH	1	14,917	1	14,917				
GLASGOW								
UNIVERSITY OF GLASGOW	1	16,131	1	16,131				
LEEDS								
UNIVERSITY OF LEEDS	1	18,944	1	18,944				
LONDON								
IMPERIAL CANCER RESEARCH FUND	3	51,112	3	51,112				
MEDICAL RESEARCH COUNCIL	1	21,746	1	21,746				
ROYAL COLLEGE OF SURGEONS OF ENGLAND		4,936		4,936				
UNIVERSITY OF LONDON	1	33,645	1	33,645				

Table 2.—Summary of NIH Fellowships by Area, Organization, and Activity, Fiscal Year 1980—Continued

Area and organization	Total		Postdoctoral indiv. nat'l res. serv. awards		Minority fellowship awards		International fellowship awards	
	No	Dollars	No	Dollars	No	Dollars	No	Dollars
UNITED KINGDOM—Continued								
OXFORD								
UNIVERSITY OF OXFORD	4	78,491	4	78,491				
PLYMOUTH								
MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM		8,380		8,380				
COUNTRY TOTAL	23	459,401	23	459,401				

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980

Program director	General area of training	Grant number	Dollars
TOTAL, 1,515 GRANTS.....			143,885,160

ALABAMA

AUBURN

AUBURN UNIVERSITY AT AUBURN ZIP CODE 36830

BAILEY, WILFORD S.....	VETERINARY AND COMPARATIVE PATHOLOGY.....	1T15 CA09407-01	134,175
ORGANIZATION TOTAL	1	134,175	

BIRMINGHAM

MILES COLLEGE ZIP CODE 35208

MC PHERSON, JONATHAN.....	GENERAL MEDICINE AND BIOLOGICAL SCIENCES.....	5T32 GM07726-02	67,238
ORGANIZATION TOTAL	1	67,238	

UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294

ACTON, RONALD T.....	TUMOR BIOLOGY—MULTIDISCIPLINARY.....	5T32 CA09128-04	257,395
ALFORD, CHARLES A, JR.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07473-01	43,146
COMPANS, RICHARD W.....	VIRAL ONCOLOGY.....	5T32 CA09202-03	125,724
COMPANS, RICHARD W.....	BASIC MECHANISMS IN VIROLOGY.....	5T32 AI07150-03	86,480
CONRAD, MARCEL E.....	CLINICAL AND BASIC STUDIES OF ONCOLOGIC DISORDERS.....	5T32 CA09293-03	64,538
CURTISS, ROY, III.....	INFECTIOUS DISEASES.....	5T32 AI07041-05	135,365
CURTISS, ROY, III.....	MOLECULAR, CELLULAR AND MEDICAL GENETICS.....	2T32 GM07090-06	86,772
DUSTAN, HARRIET P.....	MECHANISMS OF HYPERTENSION.....	1T32 HL07457-01	141,251
HALSEY, JAMES H, JR.....	CEREBROVASCULAR DISEASE.....	5T32 NS07123-03	70,755
HIRAMOTO, RAYMOND N.....	MOLECULAR AND CELLULAR AGING.....	5T32 AG00042-04	86,939
HURST, DAVID C.....	COMPUTER APPLICATIONS FOR HEALTH PROFESSIONALS.....	5T15 LM07015-04	168,914
JAMES, THOMAS N.....	CARDIOLOGY.....	5T32 HL07327-03	151,867
LINDSEY, J RUSSELL.....	LABORATORY ANIMAL MEDICINE/COMPARATIVE PATHOLOGY.....	5T32 RR07003-04	71,259
NAVAR, LUIS G.....	MINORITY HYPERTENSION.....	5T35 HL07395-03	60,417
NAVIA, JUAN M.....	NUTRITION AND ORAL HEALTH.....	2T32 DE07020-06	99,747
RETFEF, HUGO.....	CARIES RESEARCH.....	5T32 DE07026-04	137,260
RODEN, LENNART.....	BIOCHEMISTRY AND IMMUNOLOGY OF JOINTS, BONE AND SKIN.....	5T32 AM07069-06	16,910
VOLANAKIS, JOHN E.....	ALLERGIC AND IMMUNOLOGIC DISEASES AND BASIC IMMUNITY.....	5T32 AI07051-05	128,108
WILSON, GRAEME S.....	VISUAL SCIENCES.....	5T32 EY07033-05	70,803
ORGANIZATION TOTAL	19	2,003,650	

TALLADEGA

TALLADEGA COLLEGE ZIP CODE 35160

BACON, ARTHUR I.....	BIOMEDICAL SCIENCES.....	5T32 GM07660-04	84,017
ORGANIZATION TOTAL	1	84,017	

NOTE: Grants are listed according to the State or Country and City of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
ALABAMA—Continued				
TUSKEGEE INSTITUTE				
TUSKEGEE INSTITUTE	ZIP CODE 36088			
THOMAS, JULIAN E.....	CAREER ACCESS TO RESEARCH VOCATIONS.....		1T32 GM07691-01A2	105,208
ORGANIZATION TOTAL	1	105,208		
STATE TOTAL	23	2,394,288		
ARIZONA				
TUCSON				
UNIVERSITY OF ARIZONA	ZIP CODE 85721			
BRESSLER, RUBIN.....	CLINICAL PHARMACOLOGY.....		5T32 GM07533-04	70,097
CLAYTON, JOHN W. JR.....	ENVIRONMENTAL TOXICOLOGY.....		5T32 ES07091-02	106,352
GERNER, EUGENE W.....	CANCER BIOLOGY.....		5T32 CA09213-03	105,475
JOHNSON, PAUL C.....	PHYSIOLOGY.....		3T32 HL07249-03S1	6,071
JOHNSON, PAUL C.....	PHYSIOLOGY.....		5T32 HL07249-04	125,773
KNUDSON, RONALD J.....	RESPIRATORY DISEASES.....		5T32 HL07243-04	93,722
ORGANIZATION TOTAL	6	507,490		
STATE TOTAL	6	507,490		
CALIFORNIA				
BERKELEY				
UNIVERSITY OF CALIFORNIA AT BERKELEY	ZIP CODE 94720			
BUDINGER, THOMAS F.....	QUANTITATIVE CARDIOVASCULAR RESEARCH.....		3T32 HL07367-02S1	691
BUDINGER, THOMAS F.....	QUANTITATIVE CARDIOVASCULAR RESEARCH.....		5T32 HL07367-03	98,465
CARPENTER, KENNETH J.....	NUTRITIONAL SCIENCES.....		5T32 AM07291-03	79,611
EBBE, SHIRLEY N.....	HEMOPOIETIC CELLULAR PROLIFERATION AND ITS REGULATION.....		5T32 AM07349-02	92,284
ENOCH, JAY M.....	VISUAL SCIENCES—CLINICAL.....		3T32 EY07076-01S1	28,901
FORTE, GERTRUDE M.....	LIPOPROTEIN METHODOLOGY, STRUCTURE AND FUNCTION.....		3T32 HL07279-03S1	7,636
FORTE, GERTRUDE M.....	LIPOPROTEIN METHODOLOGY, STRUCTURE AND FUNCTION.....		5T32 HL07279-04	71,425
FRISTROM, JAMES W.....	GENETICS.....		2T32 GM07127-06	155,421
GRAY, JOE W.....	CELL CYCLE ANALYSIS: NORMAL AND MALIGNANT CELLS.....		5T32 CA09133-05	19,662
LANGER, JONAS.....	DEVELOPMENTAL PSYCHOLOGY.....		5T32 HD07181-02	100,453
LINN, STUART M.....	ENVIRONMENTAL MUTAGENS AND CARCINOGENS.....		5T32 ES07075-03	129,409
MARGEN, SHELDON.....	HUMAN NUTRITION.....		5T32 AM07155-04	48,025
MEL, HOWARD C.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....		5T32 GM07379-04	363,251
MISHELL, ROBERT I.....	IMMUNOLOGY.....		3T32 CA09179-05S1	91,868
MISHELL, ROBERT I.....	IMMUNOLOGY.....		2T32 CA09179-06A1	164,050
MORTIMER, ROBERT K.....	RADIATION BIOPHYSICS.....		5T32 CA09272-05	90,080
NANDI, SATYABRATA.....	EXPERIMENTAL BIOLOGY OF CANCER AND ALLIED AREAS.....		2T32 CA09041-06	211,660
STARK, LAWRENCE.....	PHYSIOLOGICAL OPTICS.....		5T32 EY07043-04	54,649
STENT, GUNTHER S.....	CELLULAR AND MOLECULAR BIOLOGY.....		5T32 GM07232-04	386,896
SYME, S LEONARD.....	BEHAVIORAL FACTORS IN CARDIOVASCULAR DISEASE ETIOLOGY.....		5T32 HL07365-03	115,908
WERBLIN, FRANK S.....	NEUROBIOLOGY.....		2T32 GM07048-06	94,592
WINKELSTEIN, WARREN, JR.....	CANCER EPIDEMIOLOGY.....		5T32 CA09348-02	92,580
ORGANIZATION TOTAL	22	2,497,517		
DAVIS				
UNIVERSITY OF CALIFORNIA AT DAVIS	ZIP CODE 95616			
BLAISDELL, F WILLIAM.....	TRAUMATOLOGY.....		1T32 GM07860-01	46,526
CROSS, CARROLL E.....	PULMONARY DISEASES—INTERDISCIPLINARY.....		2T32 HL07013-06	97,305

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
DUNGWORTH, DONALD L	VETERINARY PATHOLOGY	1T15 CA09396-01	116,707
DUNGWORTH, DONALD L	ENVIRONMENTAL PATHOLOGY	5T32 ES07055-04	132,429
ENDERS, ALLEN C	REPRODUCTIVE BIOLOGY	5T32 HD07131-03	28,675
HANSCH, PAUL	GENETICS	5T32 GM07467-04	138,552
PREISS, JACK	MOLECULAR AND CELLULAR BIOLOGY	5T32 GM07377-04	176,505
RENKIN, EUGENE M	INTEGRATIVE FUNCTIONS OF HIGHER ORGANISMS	5T32 GM07416-04	124,832
SEIBER, JAMES N	ENVIRONMENTAL TOXICOLOGY	5T32 ES07059-03	128,083
STERN, JUDITH S	FOOD INTAKE CONTROL—FOCUS ON NUTRITION & BEHAVIOR	5T32 AM07355-02	134,445
ORGANIZATION TOTAL	10	1,124,059	
DUARTE			
CITY OF HOPE NATIONAL MEDICAL CENTER ZIP CODE 91010			
RAPPAPORT, HENRY	NEOPLASTIC HEMATOPATHOLOGY	5T32 CA09308-03	50,793
ORGANIZATION TOTAL	1	50,793	
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717			
BRYANT, SUSAN V	DEVELOPMENTAL MECHANISMS UNDERLYING CONGENITAL DEFECTS	5T32 HD07029-06	94,465
GRANGER, GALE A	CARCINOGENESIS	2T32 CA09054-06	150,138
SYMPHER, PAUL S	REGULATION OF BIOLOGICAL PROCESSES	2T32 GM07134-06	106,854
WARNER, ROBERT C	CELLULAR AND MOLECULAR BIOLOGY	2T32 GM07311-06	69,162
ORGANIZATION TOTAL	4	420,619	
LA JOLLA			
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
COHN, MELVIN	ONCOLOGY RESEARCH	5T32 CA09254-05	90,633
ECKHART, WALTER	CELL REGULATION, DIFFERENTIATION AND CANCER	1T32 CA09370-01	65,341
ORGANIZATION TOTAL	2	155,974	
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
BEUTLER, ERNEST	INVESTIGATIVE HEMATOLOGY	5T32 AM07022-02	47,492
DIXON, FRANK J	IMMUNOPATHOLOGY	5T32 GM07437-04	155,615
FELDMAN, JOSEPH D	PATHOGENESIS AND IMMUNOLOGY OF DISEASE	5T32 AI07104-04	79,631
HUENNEKENS, FRANK M	BIOCHEMISTRY	5T32 AM07097-06	39,729
KATZ, DAVID H	IMMUNOLOGIC ASPECTS OF AGING	1T32 AG00080-01	69,024
KATZ, DAVID H	CELLULAR AND CANCER IMMUNOLOGY	5T32 AI07065-04	139,066
MULLER-EBERHARD, HANS J	BLOOD SYSTEMS IN COAGULATION AND VESSEL DISEASE	5T32 HL07195-05	106,728
VAUGHAN, JOHN H	IMMUNOLOGY IN RHEUMATIC DISEASES	5T32 AM07144-06	26,579
VAUGHAN, JOHN H	CLINICAL IMMUNOLOGY	2T32 AM07144-07	89,254
ORGANIZATION TOTAL	9	753,118	
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
BERNSTEIN, EUGENE F	CARDIOVASCULAR SURGERY AND BIOENGINEERING	2T32 HL07089-06	149,953
BLOOR, COLIN M	MULTIDISCIPLINARY RESPIRATORY DISEASES	3T32 HL07104-05S1	27,000
BLOOR, COLIN M	MULTIDISCIPLINARY RESPIRATORY DISEASES	2T32 HL07104-06	52,358
BRAUDE, ABRAHAM I	RESEARCH IN INFECTIOUS DISEASES	5T32 AI07036-05	80,260
COVELL, JAMES W	CARDIOVASCULAR PHYSIOLOGY AND PHARMACOLOGY	5T32 HL07444-02	189,939
FANESTIL, DARRELL D	DISEASES OF BONE AND CALCIUM METABOLISM	5T32 AM07048-06	24,515
DEFLOS, LEONARD J	DISEASES OF BONE AND CALCIUM METABOLISM	2T32 AM07048-07	45,507
DUTTON, RICHARD W	REGULATORY MECHANISMS IN THE IMMUNE RESPONSE	2T32 CA09174-06	173,413
FANESTIL, DARRELL D	HYPERTENSION	5T32 HL07261-04	127,714
FANESTIL, DARRELL D	ACADEMIC NEPHROLOGY	5T32 AM07249-03	42,424
GEIDUSCHEK, E PETER	CELL AND MOLECULAR BIOLOGY	2T32 GM07313-06	290,317
GILL, GORDON N	EXPERIMENTAL ENDOCRINOLOGY AND METABOLISM	5T32 AM07044-03	62,451
GOULIAN, MEHRAN	HEMATOLOGY	3T32 HL07107-05S1	5,818
GOULIAN, MEHRAN	BLOOD AND BLOOD DISEASES	2T32 HL07107-06	73,030
HIGGINS, CHARLES B	CARDIOVASCULAR RADIOLOGY	3T32 HL07447-01S1	8,757
HOFMANN, ALAN F	GASTROENTEROLOGY	5T32 AM07202-05	30,926

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
LAMPERT, PETER W	PATHOGENESIS OF VIRUS INDUCED BRAIN DISEASE	2T32 NS07078-04	91,746
LINDSLEY, DAN L. JR.	GENETIC MECHANISMS AND REGULATION	2T32 GM07240-06	206,409
MAYER, STEVEN E.	PHARMACOLOGY	5T32 GM07752-02	110,930
MENDELSON, JOHN	CANCER RESEARCH	5T32 CA09290-03	204,955
MOSER, KENNETH M.	PULMONARY MEDICINE	2T32 HL07022-06	122,323
NESBITT, MURIEL N.	BASIC AND MEDICAL GENETICS	2T32 GM07199-06	111,027
SATO, GORDON H.	BASIC BIOCHEMICAL AND BIOLOGICAL MECHANISMS IN CANCER	5T32 CA09345-02	151,272
SEEGMILLER, JARVIS E.	GENETIC CONTROL OF HUMAN METABOLISM	5T32 AM07318-03	72,737
STEINBERG, DANIEL	LIPIDS, LIPOPROTEINS AND ATHEROSCLEROSIS	3T32 HL07276-03S1	5,703
STEINBERG, DANIEL	LIPIDS, LIPOPROTEINS AND ATHEROSCLEROSIS	5T32 HL07276-04	114,926
TRAYLOR, TEDDY G.	HEMOGLOBIN AND BLOOD PROTEIN CHEMISTRY	5T32 AM07233-05	98,357
WAHRENBRÖCK, ERIC A.	SHORT-TERM RESEARCH TRAINING	1T35 HL07491-01	43,325
WAHRENBRÖCK, ERIC A.	MEDICAL SCIENTIST	2T32 GM07198-06	270,486
WEST, JOHN B.	PHYSIOLOGICAL BASIS OF PULMONARY DISEASE	5T32 HL07212-05	132,186
YEN, SAMUEL S.	NEUROENDOCRINE CONTROL OF CNS-PITUITARY-GONAD SYSTEM	3T32 HD07203-01S2	2,117
ZVAIFLER, NATHAN J.	RHEUMATIC DISEASES	2T32 AM07062-06	68,032
ORGANIZATION TOTAL	32	3,190,913	
LOMA LINDA			
LOMA LINDA UNIVERSITY ZIP CODE 92354			
KUZMA, JAN W.	CANCER EPIDEMIOLOGY	5T32 CA09175-05	30,020
LONGO, LAWRENCE D.	PERINATAL BIOLOGY	1T32 HD07215-01	48,590
ORGANIZATION TOTAL	2	78,610	
LOS ANGELES			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—CALIFORNIA STATE UNIVERSITY AT LOS ANGELES ZIP CODE 90032			
GUTIERREZ, CARLOS G.	BIOMEDICAL SCIENCES	5T32 GM07646-03	80,148
ORGANIZATION TOTAL	1	80,148	
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048			
SWAN, HAROLD J.	FUNCTIONAL AND METABOLIC EFFECTS OF CARDIAC ISCHEMIA	3T32 HL07380-02S1	3,494
SWAN, HAROLD J.	FUNCTIONAL AND METABOLIC EFFECTS OF CARDIAC ISCHEMIA	5T32 HL07380-03	100,736
ORGANIZATION TOTAL	2	104,230	
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027			
HANSON, VIRGIL	PEDIATRIC RHEUMATOLOGY	5T32 AM07262-04	22,419
ORGANIZATION TOTAL	1	22,419	
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
ALFIN-SLATER, ROSLYN B.	EXPERIMENTAL AND CLINICAL NUTRITION	5T32 AM07154-03	51,770
AMSTUTZ, HARLAN C.	BASIC AND CLINICAL RESEARCH IN JOINT REPLACEMENTS	5T32 AM07207-03	65,760
BRICKER, NEAL S.	SHORT-TERM RESEARCH TRAINING	1T35 HL07505-01	69,466
BROWN, JOSIAH	ENDOCRINOLOGY AND METABOLISM	5T32 AM07094-06	58,054
BUCHWALD, NATHANIEL A.	MENTAL RETARDATION	5T32 HD07032-04	188,395
CLINE, MARTIN J.	ACADEMIC MEDICAL ONCOLOGY	5T32 CA09297-02	94,332
CLINE, MARTIN J.	HEMATOLOGY	5T32 AM07285-03	93,426
COBURN, JACK W.	NEPHROLOGY	3T32 AM07270-01A1S1	432
COBURN, JACK W.	NEPHROLOGY	5T32 AM07270-02	71,785
DETELS, ROGER	CANCER EPIDEMIOLOGY	2T32 CA09142-06	115,948
DETELS, ROGER	ENVIRONMENTAL EPIDEMIOLOGY AND STATISTICS	5T32 ES07050-03	80,698
DETELS, ROGER	NEUROEPIDEMIOLOGY	3T32 NS07145-01S1	275
DETELS, ROGER	NEUROEPIDEMIOLOGY	5T32 NS07145-02	60,606
EISERLING, FREDERICK A.	CELLULAR AND MOLECULAR BIOLOGY	2T32 GM07185-06	320,805
FAHEY, JOHN L.	TUMOR IMMUNOLOGY	2T32 CA09120-06	281,098
FAHEY, JOHN L.	CLINICAL AND FUNDAMENTAL IMMUNOLOGY	5T32 A07126-04	119,741
FOX, C. FRED.	TUMOR CELL BIOLOGY	2T32 CA09056-06	154,052
FOX, C. FRED.	PATHOPHYSIOLOGY OF NEOPLASIA	2T14 CA09353-02	66,726
GORSKI, ROGER A.	SYSTEMS AND INTEGRATIVE PHYSIOLOGICAL SCIENCES	2T32 GM07191-06	54,612
GREENFIELD, MOSES A.	MEDICAL PHYSICS	3T32 CA09092-05S1	46,734

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
GRINNELL, ALAN D.	CELLULAR NEUROBIOLOGY	5T32 NS07101-03	83,860
GROSSMAN, MORTON I.	GASTROENTEROLOGY	5T32 AM07180-05	56,365
HALL, MICHAEL O.	VISION RESEARCH	2T32 EY07026-06	84,594
HONRUBIA, VICENTE	DEVELOPMENTAL NEUROLOGY	5T32 NS07059-05	48,082
MARTINEZ, RAFAEL J.	BIOCHEMISTRY OF HOST-PARASITE INTERACTIONS	5T32 AI07116-03	77,369
MORTON, DONALD L.	SURGICAL ONCOLOGY	5T32 CA09010-06	138,711
NIERLICH, DONALD P.	GENETIC MECHANISMS	2T32 GM07104-06	157,875
SCHUMAKER, VERNE N.	ATHEROSCLEROSIS RESEARCH	3T32 HL07386-02S1	8,286
SCHUMAKER, VERNE N.	ATHEROSCLEROSIS RESEARCH	5T32 HL07386-03	236,488
SHINE, KENNETH I.	PATHOPHYSIOLOGY OF MYOCARDIAL DISEASE	5T32 HL07412-02	147,635
SIMMONS, DANIEL H.	RESPIRATORY DISEASE—BASIC AND CLINICAL RESEARCH	3T32 HL07014-04S1	3,110
SIMMONS, DANIEL H.	RESPIRATORY DISEASE—BASIC AND CLINICAL RESEARCH	5T32 HL07014-05	151,732
SIMMONS, DANIEL H.	PULMONARY MEDICINE	5T17 HL07139-06	37,800
VAN LANCKER, JULIEN L.	MECHANISMS OF CARCINOGENESIS	3T32 CA09030-05S1	183,364
ORGANIZATION TOTAL	34	3,409,986	
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
BESSMAN, SAMUEL P.	CARDIAC NUTRITION AND PHARMACOLOGY	3T32 HL07402-02S1	3,171
BESSMAN, SAMUEL P.	CARDIAC NUTRITION AND PHARMACOLOGY	5T32 HL07402-03	76,951
GORDON, IRVING	VIROLOGY AND IMMUNOLOGY: MECHANISMS BASIC TO DISEASE	5T32 AI07078-03	80,492
GRODINS, FRED S.	CARDIOPULMONARY BIOMEDICAL ENGINEERING	2T32 HL07012-06	55,065
HEIDELBERGER, CHARLES D.	VIRAL AND CHEMICAL CARCINOGENESIS	5T32 CA09320-02	69,376
HORTON, RICHARD	ENDOCRINE HYPERTENSION AND ENDOCRINOLOGY—METABOLISM	5T32 AM07119-06	24,682
HORTON, RICHARD	ENDOCRINE HYPERTENSION AND ENDOCRINOLOGY—METABOLISM	2T32 AM07119-07	72,684
PAUL, RICHARD H.	MATERNAL-FETAL MEDICINE	5T32 HD07086-05	93,766
SCHAIJE, K. WARNER	GERONTOLOGY	5T32 AG00037-04	84,596
SLAVKIN, HAROLD C.	CRANIOFACIAL BIOLOGY	2T32 DE07006-06	202,187
VAN ARSDOL, MAURICE D, JR.	THE DEMOGRAPHY OF AGING	5T32 AG00072-02	48,767
WARNER, NANCY E.	SHORT-TERM RESEARCH TRAINING	1T35 HL07494-01	26,049
WEINER, LESLIE P.	NEUROPATHOLOGY	5T32 NS07149-02	91,096
ORGANIZATION TOTAL	13	928,882	
PASADENA			
CALIFORNIA INSTITUTE OF TECHNOLOGY ZIP CODE 91125			
BROKAW, CHARLES J.	BIOLOGY AND CHEMISTRY	5T32 GM07616-03	506,377
HOROWITZ, NORMAN H.	GENETICS	5T32 GM07401-04	120,739
KONISHI, MASAKAZU	BIOLOGY AND ENGINEERING	5T32 GM07737-02	195,059
ORGANIZATION TOTAL	3	822,175	
RIVERSIDE			
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521			
NORMAN, ANTHONY W.	CELLULAR & MOLECULAR ENDOCRINOLOGY	5T32 AM07310-02	155,793
ORGANIZATION TOTAL	1	155,793	
SAN FRANCISCO			
AMERICAN ACADEMY OF OPHTHALMOLOGY ZIP CODE 94120			
ZIMMERMAN, LORENZ E.	OPHTHALMIC PATHOLOGY	5T32 EY07040-04	11,581
ORGANIZATION TOTAL	1	11,581	
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94115			
SCOTT, ALAN B.	EYE MOVEMENT DISORDERS	3T32 EY07027-05S1	17,801
ORGANIZATION TOTAL	1	17,801	
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
BARINGER, J. RICHARD	NEUROVIROLOGY	3T32 NS07073-04S1	1,270
BARINGER, J. RICHARD	NEUROVIROLOGY	5T32 NS07073-05	39,583
BISHOP, J. MICHAEL	THE MOLECULAR ANALYSIS OF TUMOR VIRUSES	2T32 CA09043-06	314,032
BLOIS, MARSDEN S. JR.	MEDICAL INFORMATION SCIENCES	5T15 LM07000-06	190,408

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
CALIFORNIA—Continued			
BOURNE, HENRY R.....	CLINICAL PHARMACOLOGY--PHARMACOKINETICS.....	5T32 GM07546-04	162,711
BURKHALTER, ALAN.....	PHARMACOLOGY--TOXICOLOGY--PHARMACEUTICAL CHEMISTRY.....	5T32 GM07175-04	135,738
COLERIDGE, JOHN C.....	HEART AND VASCULAR DISEASES.....	3T32 HL07192-03S1	33,732
COLERIDGE, JOHN C.....	HEART AND VASCULAR DISEASES.....	5T32 HL07192-04	359,753
COMROE, JULIUS H, JR.....	PULMONARY MEDICINE.....	5T17 HL07159-06	367,200
EPSTEIN, CHARLES J.....	MEDICAL GENETICS.....	5T32 GM07085-05	86,117
FISKE, MARJORIE E.....	HUMAN DEVELOPMENT AND AGING.....	5T32 AG00041-03	49,074
FUKUYAMA, KIMIE.....	DERMATOLOGY RESEARCH.....	5T32 AM07175-05	82,260
GANONG, WILLIAM F.....	NEURAL REGULATION OF ENDOCRINE FUNCTION.....	5T32 AM07265-04	76,753
GRUMBACH, MELVIN M.....	PEDIATRIC ENDOCRINOLOGY.....	5T32 AM07161-05	88,181
HALL, ZACH W.....	NEUROBIOLOGY.....	5T32 GM07449-04	44,515
HALL, ZACH W.....	NEUROSCIENCES.....	5T32 NS07067-04	85,640
MARTIN, DAVID W, JR.....	MEDICAL SCIENTIST.....	5T32 GM07618-03	153,273
MC CARTHY, BRIAN J.....	MOLECULAR BIOLOGY OF EUKARYOTIC CELLS AND VIRUSES.....	5T32 CA09270-05	218,284
NADEL, JAY A.....	LUNG DISEASES--MULTIDISCIPLINARY.....	3T32 HL07185-03S1	18,075
NADEL, JAY A.....	LUNG DISEASES--MULTIDISCIPLINARY.....	5T32 HL07185-04	380,953
NEWBRUN, ERNEST.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07103-01	13,025
OCKNER, ROBERT K.....	DIGESTIVE DISEASES AND NUTRITION.....	2T32 AM07007-06	124,520
OSTLER, H BRUCE.....	OCULAR INFLAMMATORY DISEASE.....	5T32 EY07058-02	102,562
PHIBBS, RODERIC H.....	PERINATOLOGY.....	5T32 HD07162-02	77,179
PHILLIPS, THEODORE L.....	RADIATION ONCOLOGY.....	5T32 CA09215-03	98,014
RECTOR, FLOYD C, JR.....	ACADEMIC NEPHROLOGY AND ELECTROLYTE METABOLISM.....	5T32 AM07219-05	135,748
SHELDON, GEORGE F.....	TRAUMA CENTER.....	2T32 GM07032-06	93,086
SHOHET, STEPHEN B.....	BLOOD BANKING SCIENCES AND RELATED PROGRAMS.....	2T32 HL07100-06	98,708
SMUCKLER, EDWARD A.....	ENVIRONMENTAL PATHOLOGY.....	5T32 ES07099-02	39,295
TALAL, NORMAN.....	ACADEMIC RHEUMATOLOGY AND CLINICAL IMMUNOLOGY.....	5T32 AM07304-02	71,673
THALER, M MICHAEL.....	PEDIATRIC GASTROENTEROLOGY.....	5T32 AM07179-04	47,124
TODD, HARRY F, JR.....	ANTHROPOLOGICAL GERONTOLOGY.....	5T32 AG00045-04	70,463
WILSON, CHARLES B.....	BRAIN TUMOR BIOLOGY AND THERAPY.....	5T32 CA09291-04	9,516
ORGANIZATION TOTAL	33	3,868,465	

SANTA BARBARA

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA ZIP CODE 93106

CARBON, JOHN A.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07621-02	33,454
HORVATH, STEVEN M.....	PHYSIOLOGY OF EXERCISE AND STRESS.....	5T32 AG00073-02	60,977
ORGANIZATION TOTAL	2	94,431	

SANTA CRUZ

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ ZIP CODE 95064

ROCHA, VICTOR.....	MEDICAL AND BIOMEDICAL SCIENCES.....	1T32 GM07910-01	71,442
ORGANIZATION TOTAL	1	71,442	

STANFORD

STANFORD UNIVERSITY ZIP CODE 94305

BERNFIELD, MERTON R.....	MEMBRANE PATHOBIOLOGY.....	5T32 GM07781-02	157,555
BLASCHKE, TERRENCE F.....	CLINICAL PHARMACOLOGY.....	2T32 GM07065-06	44,863
CLAYTON, DAVID A.....	MEDICAL SCIENTIST.....	5T32 GM07365-05	494,790
COHEN, STANLEY N.....	GENETICS.....	5T32 GM07790-02	121,868
FAROUHAR, JOHN W.....	CARDIOVASCULAR DISEASE PREVENTION.....	2T32 HL07034-06	167,468
FELDMAN, MARCUS W.....	INTEGRATIVE BIOLOGY.....	2T32 GM07181-06	161,542
GRAY, GARY M.....	GASTROENTEROLOGY.....	5T32 AM07056-06	19,485
GRAY, GARY M.....	GASTROENTEROLOGY.....	2T32 AM07056-07	47,647
GRUMET, FRANK C.....	BLOOD BANKING AND TISSUE TYPING.....	5T32 HL07127-05	33,680
HANAWALT, PHILIP C.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07276-06	179,557
HARRISON, DONALD C.....	INVESTIGATIVE CARDIOLOGY.....	5T32 HL07265-03	142,726
JAMISON, REX L.....	NEPHROLOGY.....	1T32 AM07357-01	73,523
KAISER, A DALE.....	BIOCHEMISTRY.....	5T32 GM07599-03	191,379
KALLMAN, ROBERT F.....	CANCER ETIOLOGY, PREVENTION, DETECTION & DIAGNOSIS.....	5T32 CA09302-04	458,667

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
CALIFORNIA—Continued				
KORN, DAVID	TUMOR BIOLOGY	2T32 CA09151-06	111,848	
MANSOUR, TAG E	PHARMACOLOGY	2T32 GM07149-06	132,033	
MERIGAN, THOMAS C	INFECTIOUS DISEASES (MICROBES, DRUGS AND HOST)	5T32 AI07089-04	48,137	
REAVEN, GERALD M	DIABETES, ENDOCRINOLOGY AND METABOLOGY	5T32 AM07217-05	78,435	
ROBIN, EUGENE D	PULMONARY SCIENTIST	3T32 HL07316-02S1	3,704	
ROBIN, EUGENE D	PULMONARY SCIENTIST	5T32 HL07316-03	142,190	
ROSENBERG, SAUL A	INVESTIGATIVE ONCOLOGY	5T32 CA09287-03	91,278	
ROSENTHAL, A RALPH	BASIC SCIENCES	5T32 EY07053-03	49,434	
RUBINSTEIN, LUCIEN J	NEUROPATHOLOGY	5T32 NS07111-03	90,575	
SHOOTER, ERIC M	DEVELOPMENTAL NEUROLOGY	5T32 NS07158-02	102,713	
ORGANIZATION TOTAL	24	3,145,097		
TORRANCE				
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT--LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER			ZIP CODE 90509	
FISHER, DELBERT A	PERINATAL BIOLOGY	5T32 HD07013-04	80,803	
IMAGAWA, DAVID T	PATHOGENESIS AND EPIDEMIOLOGY OF INFECTIOUS DISEASES	5T32 AI07014-05	72,102	
RIMOIN, DAVID L	MEDICAL GENETICS	5T32 GM07414-04	67,175	
STEWART, RAY E	ORALFACIAL GENETICS AND CRANIOFACIAL ANOMALIES	1T32 DE07076-01	89,040	
SWERDLOFF, RONALD S	ENDOCRINOLOGY AND METABOLISM	5T32 AM07214-03	61,134	
WASSERMAN, KARLMAN	BIOLOGICAL BASIS OF RESPIRATORY DISEASE	5T32 HL07388-03	94,127	
ORGANIZATION TOTAL	6	464,381		
STATE TOTAL	205	21,468,434		
COLORADO				
BOULDER				
UNIVERSITY OF COLORADO SYSTEM--UNIVERSITY OF COLORADO AT BOULDER			ZIP CODE 80309	
MC INTOSH, J RICHARD	MOLECULAR AND CELLULAR BIOLOGY	5T32 GM07385-04	62,393	
PORTER, KEITH R	BIOMEDICAL SCIENCES (NORMAL AND ABNORMAL DEVELOPMENT)	5T32 HD07077-04	33,684	
WOOD, WILLIAM B	MOLECULAR BIOLOGY	2T32 GM07135-06	81,986	
ORGANIZATION TOTAL	3	178,063		
DENVER				
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER			ZIP CODE 80206	
FARR, RICHARD S	CLINICAL IMMUNOLOGY	5T32 AI00048-06	81,634	
ORGANIZATION TOTAL	1	81,634		
UNIVERSITY OF COLORADO SYSTEM--UNIVERSITY OF COLORADO HEALTH SCIENCE CENTER			ZIP CODE 80262	
ALFREY, ALLEN C	RENAL AND ELECTROLYTE DISEASE & HYPERTENSION	5T32 AM07135-07	98,251	
BATTAGLIA, FREDERICK C	PERINATAL MEDICINE	5T32 HD07186-02	118,077	
CLAMAN, HENRY N	ALLERGY AND IMMUNOLOGY	5T32 AI07166-03	100,979	
CROWLE, ALFRED J	CELLULAR IMMUNOLOGY	5T32 AI07035-05	137,951	
CUMMINGS, DONALD J	MOLECULAR AND CELLULAR PATHOBIOLOGY	5T32 GM07378-04	74,324	
EICKHOFF, THEODORE C	INFECTIOUS DISEASES	5T32 AI07029-05	104,515	
GROVER, ROBERT F	RESPIRATION AND CIRCULATION DURING HYPOXIA	5T32 HL07171-04	89,869	
HENDEE, WILLIAM R	MEDICAL PHYSICS	2T32 CA09073-06	41,598	
HORWITZ, LAWRENCE D	CARDIOVASCULAR RESEARCH	1T32 HL07459-01	73,030	
KERN, FRED, JR	GASTROINTESTINAL DISEASES	2T32 AM07038-06	58,894	
MARTIN, A ROBERT	NEUROPHYSIOLOGY	5T32 NS07083-02	80,463	
NIES, ALAN S	CLINICAL PHARMACOLOGY	2T32 GM07063-06	40,656	
O'BRIEN, DONOUGH	MENTAL RETARDATION	5T32 HD07096-04	80,162	
PATTERSON, DAVID	CELL BIOLOGY OF DEVELOPMENTAL ANOMALIES	5T32 HD07197-02	65,397	
PETTUJOHN, DAVID E	HUMAN GENETICS	5T32 GM07342-03	61,281	
PETTY, THOMAS L	MULTIDISCIPLINARY RESPIRATORY DISEASES	2T32 HL07085-06	170,402	
PIERCE, G BARRY	TUMOR BIOLOGY--DEVELOPMENT AND NEOPLASIA	3T32 CA09157-05S1	112,164	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
COLORADO—Continued			
PIZER, LEWIS I.....	VIROLOGY.....	1T32 AI07209-01	87,472
VERNADAKIS, ANTONIA O.....	DEVELOPMENTAL PHARMACOLOGY.....	3T32 HD07072-04S1	27,748
VERNADAKIS, ANTONIA O.....	DEVELOPMENTAL PHARMACOLOGY.....	2T32 HD07072-05	19,671
WEINER, NORMAN.....	PHARMACOLOGY.....	5T32 GM07635-03	111,727
ORGANIZATION TOTAL	21 1,754,631		
FORT COLLINS			
COLORADO STATE UNIVERSITY ZIP CODE 80523			
BEDFORD, JOEL S.....	RADIATION BIOLOGY BASIC TO TUMOR THERAPY.....	5T32 CA09236-05	147,997
BENJAMIN, STEPHEN A.....	VETERINARY PATHOLOGY AND COMPARATIVE PATHOLOGY.....	1T15 CA09408-01	139,598
NISWENDER, GORDON D.....	MAMMALIAN REPRODUCTIVE BIOLOGY.....	5T32 HD07031-04	61,387
PAUTLER, EUGENE L.....	OPHTHALMOLOGY.....	5T32 EY07064-02	59,271
ORGANIZATION TOTAL	4 408,253		
STATE TOTAL	29 2,422,581		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
BECKER, ELMER L.....	BASIC IMMUNOLOGY & IMMUNOLOGIC CELL INJURY.....	5T32 AI07080-04	96,620
COHEN, STANLEY.....	IMMUNOPATHOLOGY OF NEOPLASTIC DISEASES.....	5T32 CA09205-05	148,615
HOYER, LEON W.....	HEMATOLOGY.....	3T32 HL07324-02S1	3,656
HOYER, LEON W.....	HEMATOLOGY.....	5T32 HL07324-03	47,018
KATZ, ARNOLD M.....	CARDIAC CELL MEMBRANE PHYSIOLOGY.....	5T32 HL07420-02	72,245
RAISZ, LAWRENCE G.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07290-03	68,053
TANZER, MARVIN L.....	BIOLOGY AND CHEMISTRY OF CONNECTIVE TISSUES.....	5T32 AM07340-02	42,590
TANZER, MARVIN L.....	MOLECULAR BIOLOGY AND BIOCHEMISTRY.....	5T32 GM07407-03	43,091
TRUMMEL, CLARENCE L.....	PERIODONTAL PATHOBIOLOGY.....	1T32 DE07090-01A1	49,320
WEINSTEIN, SAM.....	BIOENGINEERING AND ORTHODONTICS.....	5T32 DE07047-04	75,791
ORGANIZATION TOTAL	10 646,999		
NEW HAVEN			
YALE UNIVERSITY ZIP CODE 06520			
BERTINO, JOSEPH R.....	MEDICAL ONCOLOGY, HEMATOLOGY, AND PHARMACOLOGY.....	5T32 CA09200-05	266,004
BINDER, HENRY J.....	GASTROENTEROLOGY.....	5T32 AM07017-04	45,586
BLACK, FRANCIS L.....	CENTRAL NERVOUS SYSTEM—VIROLOGICAL INFECTIONS.....	2T32 NS07036-06	106,902
BOULPAEP, EMILE L.....	TRANSPORT PROCESSES IN BIOLOGICAL SYSTEMS.....	5T32 AM07259-04	41,385
BOYER, JAMES L.....	INVESTIGATIVE HEPATOLOGY.....	5T32 AM07356-02	99,001
CARTER, DAVID M.....	THE BIOLOGY OF CUTANEOUS AGING.....	1T32 AG00081-01	52,170
CHANDLER, WILLIAM K.....	MEMBRANE BIOPHYSICS AND SENSORY MECHANISMS.....	3T32 NS07102-03S1	1,192
CHANDLER, WILLIAM K.....	MEMBRANE BIOPHYSICS AND SENSORY MECHANISMS.....	5T32 NS07102-04	61,033
COHEN, LAWRENCE B.....	CELLULAR AND PHARMACOLOGICAL BASIS OF ORGAN FUNCTION.....	5T32 GM07527-04	126,996
COOPER, JACK R.....	GENERAL PHARMACOLOGY.....	2T32 GM07324-06A1	28,798
FISCHER, JAMES J.....	RADIATION THERAPY, BIOLOGY, AND PHYSICS.....	5T32 CA09259-03	144,367
FORGET, BERNARD G.....	RED BLOOD CELL DISEASES, HEMOSTASIS AND BLOOD BANKING.....	5T32 HL07262-04	102,013
GALL, JOSEPH G.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07180-02	237,911
GERSHON, RICHARD K.....	INTERDISCIPLINARY IMMUNOLOGY.....	5T32 AI07019-05	132,635
GILLIS, CHARLES N.....	LUNG PHARMACOLOGY AND PATHOPHYSIOLOGY.....	3T32 HL07410-01S1	14,686
HAYSLETT, JOHN P.....	PATHOPHYSIOLOGY OF ACUTE AND CHRONIC RENAL DISEASE.....	5T32 AM07276-03	100,460
HITCHCOCK, MARGARET.....	ENVIRONMENTAL TOXICOLOGY AND PHYSIOLOGY.....	5T32 ES07086-02	116,640
HSIUNG, GUEH-DJEN.....	CLINICAL VIROLOGY.....	5T32 AI07018-05	47,699
HUTCHINSON, FRANKLIN.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07223-06	651,850
JAMIESON, JAMES D.....	MEDICAL SCIENTIST.....	2T32 GM07205-06	502,943
KANTOR, FRED S.....	ALLERGY AND IMMUNOLOGY.....	1T32 AI07174-01A1	78,115
KELSEY, JENNIFER L.....	EPIDEMIOLOGY OF BONE DISEASES.....	5T32 AM07250-04	47,526

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
CONNECTICUT—Continued			
LERNER, AARON B	DERMATOLOGY	5T32 AM07016-06	39,044
LERNER, AARON B	DERMATOLOGY	2T32 AM07016-07	120,810
MALAWISTA, STEPHEN E	INVESTIGATIVE RHEUMATOLOGY	5T32 AM07107-05	47,456
MARCHESI, VINCENT T	EXPERIMENTAL AND HUMAN PATHOBIOLOGY	5T32 GM07562-04	113,119
MILLER, I GEORGE, JR	INFECTIOUS DISEASES	1T32 AI07210-01	46,419
OSTFELD, ADRIAN M	CARDIOVASCULAR DISEASE MEASUREMENT	3T32 HL07428-01S1	410
OSTFELD, ADRIAN M	CARDIOVASCULAR DISEASE MEASUREMENT	5T32 HL07428-02	96,299
PRUSOFF, WILLIAM H	BIOCHEMICAL ASPECTS OF CHEMOTHERAPY	2T32 CA09085-06	198,321
RASMUSSEN, HOWARD	METABOLIC DISEASES AND DIABETES	5T32 AM07058-06	93,282
REID, TED W	VISUAL SCIENCES	2T32 EY07000-06	6,218
RITCHIE, J MURDOCH	NEUROPHARMACOLOGY	3T32 NS07136-01S1	5,517
RITCHIE, J MURDOCH	NEUROPHARMACOLOGY	5T32 NS07136-02	58,541
ROOT, RICHARD K	INFECTIOUS DISEASES MICROBIAL AND IMMUNE MECHANISMS	5T32 AI07033-05	93,628
ROSENBERG, LEON E	GENETICS AND MEDICAL SCIENCES	5T32 GM07439-04	144,817
RUDDLE, FRANK H	GENETICS	5T32 GM07499-04	245,963
SCHULTZ, T PAUL	POPULATION AND LABOR	5T32 HD07146-03	72,148
SHOPE, ROBERT E	VIRAL DISEASE MECHANISMS, EPIDEMIOLOGY, AND CONTROL	5T32 AI07098-04	60,642
SLAYMAN, CAROLYN W	CONGENITAL DEFECTS: STRUCTURAL, METABOLIC, BEHAVIORAL	5T32 HD07149-03	126,157
STOLWIJK, JAN A	ENVIRONMENTAL EPIDEMIOLOGY AND STATISTICS	5T32 ES07085-02	82,915
TALNER, NORMAN S	POSTNATAL DEVELOPMENT OF CARDIOVASCULAR FUNCTION	5T32 HL07272-04	91,481
WARSHAW, JOSEPH B	RESEARCH IN PERINATAL MEDICINE	5T32 HD07094-04	76,773
WEISSMAN, SHERMAN M	MOLECULAR AND ONCOLOGIC VIROLOGY	2T32 CA09159-06	147,316
WHITE, COLIN	CANCER EPIDEMIOLOGY AND BIOSTATISTICS	3T32 CA09279-02S1	2,093
WHITE, COLIN	CANCER EPIDEMIOLOGY AND BIOSTATISTICS	5T32 CA09279-03	162,750
ORGANIZATION TOTAL	46	5,138,031	
STORRS			
UNIVERSITY OF CONNECTICUT STORRS ZIP CODE 06268			
GOETINCK, PAUL F	CONTROL MECHANISMS IN CELLULAR AND MOLECULAR BIOLOGY	5T32 GM07219-04	52,563
SPEYER, JOSEPH F	GENETICS	5T32 GM07584-03	25,126
ORGANIZATION TOTAL	2	77,689	
STATE TOTAL	58	5,862,719	
DIST OF COL			
WASHINGTON			
GEORGE WASHINGTON UNIVERSITY ZIP CODE 20052			
MANDEL, H GEORGE	CANCER PHARMACOLOGY	5T32 CA09223-03	42,155
ORGANIZATION TOTAL	1	42,155	
GEORGETOWN UNIVERSITY ZIP CODE 20057			
BELLANTI, JOSEPH A	DEVELOPMENTAL IMMUNOLOGY	5T32 HD07185-02	64,852
ROSE, JOHN C	VASCULAR CONTROL AND HYPERTENSION	3T32 HL07213-03S1	6,413
ROSE, JOHN C	VASCULAR CONTROL AND HYPERTENSION	5T32 HL07213-04	146,877
STANDAERT, FRANK G	NEUROPHARMACOLOGY	5T32 GM07443-04	70,253
ORGANIZATION TOTAL	4	288,395	
HOWARD UNIVERSITY ZIP CODE 20059			
COLEMAN, BERNELL	PHYSIOLOGY	5T32 GM07800-02	117,682
FREDERICK, LAFAYETTE	INTERDISCIPLINARY SCIENCES	1T32 GM07763-01	147,411
GARVEY, H LLOYD	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	5T35 HL07302-04	47,315
LEAK, LEE V	BIOMEDICAL SCIENCES—MULTIDISCIPLINARY	5T32 GM07803-02	79,644
STORM, CARLYLE B	BIOCHEMISTRY AND BIOPHYSICAL CYTOLOGY	5T32 GM07799-02	123,755
ORGANIZATION TOTAL	5	515,807	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
DIST OF COL—Continued				
UNIVERSITY OF THE DISTRICT OF COLUMBIA		ZIP CODE 20008		
KONDO, NORMAN S.	BIOMEDICAL SCIENCES		1T32 GM07677-01A1	123,547
ORGANIZATION TOTAL	1	123,547		
STATE TOTAL	11	969,904		
FLORIDA				
CORAL GABLES				
UNIVERSITY OF MIAMI		ZIP CODE 33124		
SCHNEIDERMAN, NEIL	BEHAVIORAL MEDICINE RESEARCH IN CARDIOVASCULAR DISEASE		3T32 HL07426-01S1	1,527
SCHNEIDERMAN, NEIL	BEHAVIORAL MEDICINE RESEARCH IN CARDIOVASCULAR DISEASE		5T32 HL07426-02	97,296
ORGANIZATION TOTAL	2	98,823		
DAYTONA BEACH				
BETHUNE-COOKMAN COLLEGE		ZIP CODE 32015		
SEN, SHUKDEB	GENERAL MEDICINE & BIOLOGICAL SCIENCES		1T32 GM07721-01A1	94,170
ORGANIZATION TOTAL	1	94,170		
GAINESVILLE				
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA		ZIP CODE 32611		
BERNS, KENNETH I.	BASIC MICROBIOLOGY AND INFECTIOUS DISEASES		5T32 A07110-03	122,451
ENNEKING, WILLIAM F.	INVESTIGATIVE MUSCULOSKELETAL PATHOLOGY		5T32 AM07141-06	2,897
FREGLY, MELVIN J.	MINORITY HYPERTENSION RESEARCH DEVELOPMENT		5T35 HL07298-04	23,869
FREGLY, MELVIN J.	GENETICS, ENDOCRINOLOGY AND METABOLISM		5T32 AM07164-05	56,146
GELATT, KIRK N.	COMPARATIVE OPHTHALMOLOGY AND VISUAL SCIENCE		5T32 EY07060-02	61,850
HOLLIEN, HARRY	COMMUNICATION SCIENCES		5T32 NS07107-03	43,419
MANGOS, JOHN A.	SHORT-TERM RESEARCH TRAINING		1T35 HL07489-01	36,180
MC GUIGAN, JAMES E.	GASTROENTEROLOGY		5T32 AM07209-04	47,737
MOHAMMED, M HAMDI	RESTORATIVE BIOMATERIALS RESEARCH		5T32 DE07045-05	36,190
MORELAND, ALVIN F.	LABORATORY ANIMAL COMPARATIVE MEDICINE		5T32 RR07001-04	80,363
SMITH, RICHARD T.	CELL BIOLOGY AND IMMUNOBIOLOGY OF CANCER		2T32 CA09126-06	98,984
ORGANIZATION TOTAL	11	610,086		
MIAMI				
UNIVERSITY OF MIAMI		ZIP CODE 33101		
BASSETT, ARTHUR L.	CARDIOVASCULAR PHARMACOLOGY		3T32 HL07188-04S1	11,324
BASSETT, ARTHUR L.	CARDIOVASCULAR PHARMACOLOGY		5T32 HL07188-05	155,462
GELBAND, HENRY	CARDIAC ELECTROPHYSIOLOGY		5T32 HL07436-02	103,664
INGRAM, MARYLOU	BASIC AND CLINICAL CANCER RESEARCH		5T32 CA09212-03	98,436
MARSH, JOHN M.	FERTILIZATION AND REPRODUCTIVE BIOLOGY		5T32 HD07129-02	61,012
MASSARO, DONALD J.	LUNG BIOCHEMISTRY AND ANATOMY		5T32 HL07283-04	149,693
MINTZ, DANIEL H.	DIABETES METABOLISM AND ENDOCRINOLOGY		3T32 AM07346-01S1	9,586
MINTZ, DANIEL H.	DIABETES METABOLISM AND ENDOCRINOLOGY		5T32 AM07346-02	47,818
WHELAN, WILLIAM J.	CELLULAR AND MOLECULAR BIOLOGY		5T32 GM07332-03	77,993
WILSON, DAVID L.	DEVELOPMENTAL NEUROSCIENCES		2T32 NS07044-06	73,820
YUNIS, ADEL A.	INTERNAL MEDICINE—HEMATOLOGY		5T32 AM07114-06	21,557
YUNIS, ADEL A.	INTERNAL MEDICINE—HEMATOLOGY		2T32 AM07114-07	65,361
ORGANIZATION TOTAL	12	875,726		
MIAMI BEACH				
MOUNT SINAI MEDICAL CENTER		ZIP CODE 33140		
SACKNER, MARVIN A.	PULMONARY DISEASE		5T32 HL07358-03	95,256
ORGANIZATION TOTAL	1	95,256		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training		Grant number	Dollars
FLORIDA—Continued				
TALLAHASSEE				
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY		ZIP CODE 32306		
NAM, CHARLES B.....	POPULATION (MULTIDISCIPLINARY).....		5T32 HD07082-04	40,894
ORGANIZATION TOTAL	1	40,894		
STATE TOTAL	28	1,814,955		
GEORGIA				
ATHENS				
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA		ZIP CODE 30602		
GILES, NORMAN H.....	GENETICS.....		2T32 GM07103-06A1	108,611
ORGANIZATION TOTAL	1	108,611		
ATLANTA				
ATLANTA UNIVERSITY		ZIP CODE 30314		
HAMILTON, FRANKLIN D.....	BIOMEDICAL SCIENCES.....		3T32 GM07808-01S1	15,000
HAMILTON, FRANKLIN D.....	BIOMEDICAL SCIENCES.....		5T32 GM07808-02	205,840
ORGANIZATION TOTAL	2	220,840		
ATLANTA UNIVERSITY CENTER		ZIP CODE 30310		
FINKELSTEIN, ISABELLA N.....	BIOMEDICAL SCIENCES.....		5T32 GM07666-04	206,513
ORGANIZATION TOTAL	1	206,513		
EMORY UNIVERSITY		ZIP CODE 30322		
DI GIROLAMO, MARIO.....	ENDOCRINOLOGY, METABOLISM AND DIABETES.....		5T32 AM07298-03	91,879
HUNT, LINDSAY M.....	SHORT-TERM RESEARCH TRAINING.....		1T35 DE07110-01	17,366
MORAN, NEIL C.....	PHARMACOLOGICAL SCIENCES.....		5T32 GM07594-03	69,772
NAHMIAS, ANDRE J.....	BIOLOGY OF OROFACIAL HERPES SIMPLEX VIRUS INFECTION.....		5T32 DE07074-04	90,422
NUTTER, DONALD O.....	MEDICAL SCIENTIST.....		5T32 GM07415-04	97,877
NUTTER, DONALD O.....	SHORT-TERM RESEARCH TRAINING.....		1T35 NS07193-01	43,416
SHULMAN, NEIL B.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....		5T35 HL07305-04	98,363
ORGANIZATION TOTAL	7	509,095		
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA INSTITUTE OF TECHNOLOGY		ZIP CODE 30332		
HOCHMAN, ROBERT F.....	DENTAL MATERIALS SCIENCE.....		5T32 DE07053-05	75,496
ORGANIZATION TOTAL	1	75,496		
AUGUSTA				
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA		ZIP CODE 30901		
MAHESH, VIRENDRA B.....	ENDOCRINE AND POPULATION ASPECTS OF REPRODUCTIVE BIOLOGY.....		5T32 HD07110-03	27,567
ORGANIZATION TOTAL	1	27,567		
SAVANNAH				
UNIVERSITY SYSTEM OF GEORGIA—SAVANNAH STATE COLLEGE		ZIP CODE 31404		
NAMBIAR, GOVINDAN K.....	BIOLOGICAL/PHYSICAL SCIENCES—MATH/PHYSICS.....		5T32 GM07645-02	108,706
ORGANIZATION TOTAL	1	108,706		
STATE TOTAL	14	1,256,828		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
HAWAII			
HONOLULU			
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
GREENWOOD, FREDERICK C.....	BIOMEDICAL SCIENCES.....	5T32 GM07684-03	92,712
ORGANIZATION TOTAL	1 92,712		
STATE TOTAL	1 92,712		
ILLINOIS			
CHICAGO			
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
ATKINSON, ARTHUR J, JR.....	CLINICAL PHARMACOLOGY.....	1T32 GM07842-01	22,624
FREINKEL, NORBERT.....	METABOLOGY.....	5T32 AM07169-05	50,407
GREENER, EVAN H.....	DENTAL MATERIALS SCIENCE.....	5T32 DE07042-05	97,704
NARAHASHI, TOSHIO.....	PHARMACOLOGY.....	2T32 GM07263-06	76,122
PATERSON, PHILIP Y.....	SHORT-TERM RESEARCH TRAINING.....	1T35 AI07224-01	52,099
PATTERSON, ROY.....	ALLERGY AND IMMUNOLOGY.....	5T32 AI07075-04	47,278
STAMLER, JEREMIAH.....	CARDIOVASCULAR EPIDEMIOLOGY, BIOSTATISTICS, NUTRITION.....	3T32 HL07113-05S1	1,760
STAMLER, JEREMIAH.....	CARDIOVASCULAR EPIDEMIOLOGY, BIOSTATISTICS, NUTRITION.....	2T32 HL07113-06A1	74,297
ORGANIZATION TOTAL	8 422,291		
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
GALANTE, JORGE O.....	ORTHOPEDIC BIOMECHANICS AND BIOMATERIALS.....	1T32 AM07375-01	63,849
SCHAUF, CHARLES L.....	BIOPHYSICS AND CARDIOLOGY.....	3T32 HL07320-02S1	5,220
SCHAUF, CHARLES L.....	BIOPHYSICS AND CARDIOLOGY.....	5T32 HL07320-03	93,028
ORGANIZATION TOTAL	3 162,097		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
ARNASON, BARRY G.....	IMMUNOLOGY OF NERVOUS SYSTEM DISEASES.....	3T32 NS07113-03S1	11,269
ARNASON, BARRY G.....	IMMUNOLOGY OF NERVOUS SYSTEM DISEASES.....	5T32 NS07113-04	130,653
BUTLER, ROBERT A.....	PATHOLOGY OF AUDITORY AND VESTIBULAR SYSTEMS.....	3T32 NS07038-02S1	4,272
BUTLER, ROBERT A.....	PATHOLOGY OF AUDITORY AND VESTIBULAR SYSTEMS.....	5T32 NS07038-03	28,913
DORFMAN, ALBERT.....	GROWTH AND DEVELOPMENT.....	3T32 HD07009-05S1	75,097
DORFMAN, ALBERT.....	GROWTH AND DEVELOPMENT.....	2T32 HD07009-06	93,814
EPSTEIN, WOLFGANG.....	GENETICS AND REGULATION.....	2T32 GM07197-06	331,959
EPSTEIN, WOLFGANG.....	HUMAN AND BIOCHEMICAL GENETICS.....	5T32 GM07543-04	86,414
FITCH, FRANK W.....	IMMUNOLOGY—INTERDISCIPLINARY.....	5T32 AI07090-02	65,325
FOZZARD, HARRY A.....	MULTIDISCIPLINARY CARDIAC SCIENCES.....	3T32 HL07381-02S1	49,740
FOZZARD, HARRY A.....	MULTIDISCIPLINARY CARDIAC SCIENCES.....	5T32 HL07381-03	318,619
GOLDBERG, LEON I.....	CLINICAL THERAPEUTICS.....	5T32 GM07019-06	88,167
GOLDWASSER, EUGENE.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07136-03	138,662
GUILLERY, RAINER W.....	NEURAL SYSTEMS.....	1T32 GM07839-01	44,554
HELLER, ALFRED.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07151-06	189,228
JENSEN, ELWOOD V.....	EXPERIMENTAL ONCOLOGY.....	2T32 CA09183-06	170,262
KIEFF, ELLIOTT D.....	INFECTIOUS DISEASES.....	5T32 AI07099-04	141,931
KITAGAWA, EVELYN M.....	SOCIOLOGICAL CONSEQUENCES OF POPULATION.....	5T32 HD07153-03	67,634
KUCHNIR, FRANCA T.....	MEDICAL PHYSICS IN CANCER DIAGNOSIS AND THERAPY.....	5T32 CA09260-02	92,919
LIEBERMAN, MORTON A.....	ADULT DEVELOPMENT AND AGING.....	5T32 AG00039-04	87,129
REFETOFF, SAMUEL.....	INTEGRATED CLINICAL AND BASIC ENDOCRINOLOGY.....	5T32 AM07011-06	44,914
REFETOFF, SAMUEL.....	INTEGRATED CLINICAL AND BASIC ENDOCRINOLOGY.....	2T32 AM07011-07	162,858
ROIZMAN, BERNARD.....	VIRAL ONCOLOGY.....	5T32 CA09241-03	153,259
ROIZMAN, BERNARD.....	VIROLOGY—INTERDEPARTMENTAL.....	5T32 AI07182-02	139,834
ROSENBERG, IRWIN H.....	DIGESTIVE DISEASES.....	5T32 AM07074-06	22,214
ROSENBERG, IRWIN H.....	DIGESTIVE DISEASES.....	2T32 AM07074-07	73,909
STRAUSS, BERNARD S.....	ENVIRONMENTAL BIOLOGY.....	5T32 CA09273-03	95,301
SWIFT, HEWSON H.....	CANCER BIOLOGY.....	5T32 CA09267-03	119,660
TAYLOR, EDWIN W.....	MOLECULAR AND CELLULAR BIOLOGY.....	2T32 GM07183-06	548,396

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
ILLINOIS—Continued			
URETZ, ROBERT B.....	SHORT-TERM RESEARCH TRAINING.....	1T35 CA09377-01	56,441
URETZ, ROBERT B.....	MEDICAL SCIENTIST.....	2T32 GM07281-06	741,559
WISSLER, ROBERT W.....	CARDIOVASCULAR PATHOPHYSIOLOGY AND BIOCHEMISTRY.....	3T32 HL07237-04S1	4,255
WISSLER, ROBERT W.....	CARDIOVASCULAR PATHOPHYSIOLOGY AND BIOCHEMISTRY.....	5T32 HL07237-05	166,342
YACHNIN, STANLEY.....	HEMATOLOGY AND ONCOLOGY.....	2T32 AM07134-06	92,145
ORGANIZATION TOTAL	34 4,637,648		
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
EISENMANN, DALE R.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07114-01	13,025
GOLDBERG, MORTON F.....	OPHTHALMOLOGY.....	5T32 EY07038-04	118,528
LEVY, PAUL S.....	CANCER EPIDEMIOLOGY.....	5T32 ES07077-03	50,730
ROSEN, KENNETH M.....	CARDIOLOGY—ARRHYTHMIA.....	5T32 HL07387-03	48,620
WEINSTEIN, RONALD S.....	SHORT-TERM RESEARCH TRAINING.....	1T35 AM07404-01	13,025
ORGANIZATION TOTAL	5 243,928		
EVANSTON			
NORTHWESTERN UNIVERSITY ZIP CODE 60201			
CANTER, GERALD J.....	SPEECH AND LANGUAGE PATHOLOGY.....	5T32 NS07100-03	98,658
ELLIOTT, LOIS L.....	NEUROBIOLOGY OF HEARING.....	3T32 NS07108-02S1	2,996
ELLIOTT, LOIS L.....	NEUROBIOLOGY OF HEARING.....	5T32 NS07108-03	102,224
JACOBS, JOHN E.....	BIOMEDICAL ENGINEERING.....	5T32 GM07350-04	72,012
SCHWARTZ, NEENA B.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07068-03	70,508
ORGANIZATION TOTAL	5 346,398		
URBANA			
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801			
DUCOFF, HOWARD S.....	RADIATION BIOPHYSICS & BIOENGINEERING IN ONCOLOGY.....	2T32 CA09067-06	74,390
DZIUK, PHILIP J.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07028-05	66,981
EBREY, THOMAS G.....	PHYSIOLOGY AND BIOCHEMISTRY OF VISION.....	2T32 EY07005-06	57,783
HAGER, LOWELL P.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07283-06	332,184
LEVY, ALLAN H.....	COMPUTER SCIENCES (PHYSICIAN).....	5T15 LM07011-04	172,278
PARKE, ROSS D.....	BASIC AND APPLIED CHILD DEVELOPMENT.....	1T32 HD07205-01	115,113
ORGANIZATION TOTAL	6 818,729		
STATE TOTAL	61 6,631,091		
INDIANA			
BLOOMINGTON			
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401			
PISONI, DAVID B.....	SENSORY PHYSIOLOGY & BIOPHYSICS.....	3T32 NS07134-01A1S1	305
PISONI, DAVID B.....	SENSORY PHYSIOLOGY & BIOPHYSICS.....	5T32 NS07134-02	42,742
PUTNAM, FRANK W.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07227-06	77,576
RHOADES, MARCUS M.....	GENETICS.....	5T32 GM07757-02	116,899
ORGANIZATION TOTAL	4 237,522		
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202			
BAEHNER, ROBERT L.....	IMMUNOLOGIC AND MORPHOLOGIC STUDY OF PHAGOCYTES.....	5T32 AM07193-05	72,294
BESCH, HENRY R, JR.....	COMPREHENSIVE PHARMACOLOGY OF SPECIAL SYSTEMS.....	5T32 GM07756-02	43,738
BIXLER, DAVID.....	ORAL-FACIAL GENETICS.....	5T32 DE07043-04	106,630
FISCH, CHARLES.....	CARDIOVASCULAR MEDICINE.....	5T32 HL07182-05	94,768
JOHNSTON, C CONRAD, JR.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07293-03	45,004
PALMER, CATHERINE G.....	MEDICAL GENETICS.....	5T32 GM07468-03	107,275

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
INDIANA—Continued			
WEINBERGER, MYRON H.....	HYPERTENSION.....	5T32 HL07181-04	71,215
ORGANIZATION TOTAL	7. 540,924		
NOTRE DAME			
UNIVERSITY OF NOTRE DAME	ZIP CODE 46556		
BORKOWSKI, JOHN G.....	MENTAL RETARDATION.....	5T32 HD07184-02	58,382
WEINSTEIN, PAUL P.....	EXPERIMENTAL PARASITOLOGY AND VECTOR BIOLOGY.....	5T32 AI07030-05	144,744
ORGANIZATION TOTAL	2 203,126		
WEST LAFAYETTE			
PURDUE UNIVERSITY WEST LAFAYETTE	ZIP CODE 47907		
CHRISTIAN, JOHN E.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07039-02	97,722
GILHAM, PETER T.....	MOLECULAR MECHANISMS OF CELL FUNCTIONS.....	2T32 GM07211-06	134,377
MAICKEL, ROGER P.....	PHARMACOLOGY AND TOXICOLOGY.....	2T32 GM07095-06	59,905
MAICKEL, ROGER P.....	SHORT-TERM RESEARCH TRAINING.....	1T35 GM07886-01	13,025
PAK, WILLIAM L.....	VISUAL PHYSIOLOGY AND CHEMISTRY.....	2T32 EY07008-06	107,706
ORGANIZATION TOTAL	5 412,735		
STATE TOTAL	18 1,394,307		
IOWA			
IOWA CITY			
UNIVERSITY OF IOWA	ZIP CODE 52242		
ABBOUD, FRANCOIS M.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07121-05S1	13,733
ABBOUD, FRANCOIS M.....	INTERDISCIPLINARY CARDIOVASCULAR RESEARCH.....	2T32 HL07121-06	313,959
BRODY, MICHAEL J.....	MECHANISMS OF HYPERTENSION.....	5T35 HL07393-03	32,744
CHRISTENSEN, JAMES.....	GASTROENTEROLOGY.....	5T32 AM07072-06	37,708
CHRISTENSEN, JAMES.....	GASTROENTEROLOGY AND HEPATOLOGY.....	2T32 AM07072-07	46,523
FELLOWS, ROBERT E, JR.....	MEDICAL SCIENTIST.....	5T32 GM07337-04	112,706
GRANNER, DARYL K.....	DIABETES AND ENDOCRINOLOGY.....	5T32 AM07018-07	105,011
GRIGSBY, WILLIAM R.....	PERIODONTOLOGY.....	5T32 DE07007-05	44,994
GUSSIN, GARY N.....	GENETICS.....	2T32 GM07091-06	73,782
HEATH, EDWARD C.....	MOLECULAR BIOLOGY OF TUMOR CELLS.....	2T32 CA09119-06	99,036
HOAK, JOHN C.....	HEMOSTASIS AND THROMBOSIS.....	3T32 HL07344-02S1	5,617
HOAK, JOHN C.....	HEMOSTASIS AND THROMBOSIS.....	5T32 HL07344-03	96,370
LAUER, RONALD M.....	PEDIATRIC CARDIOLOGY.....	5T32 HL07413-03	96,932
LONG, JOHN P.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07069-06	116,996
MARCUS, MELVIN L.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07485-01	60,782
MENNINGER, JOHN R.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07228-06	76,609
OSBORNE, JAMES W.....	BIOMEDICAL RADIOLOGY.....	5T32 CA09125-06	111,342
PONSETI, IGNACIO V.....	SKELETAL DISEASES.....	5T32 AM07075-06	36,426
PONSETI, IGNACIO V.....	SKELETAL DISORDERS.....	2T32 AM07075-07	6,805
ROBERTS, ROBERT J.....	CLINICAL PHARMACOLOGY AND TOXICOLOGY.....	5T32 GM07442-04	45,480
STEINMETZ, PHILIP R.....	EPITHELIAL TRANSPORT AND RENAL PATHOPHYSIOLOGY.....	5T32 AM07140-04	19,947
TIPTON, CHARLES M.....	PHYSICAL EDUCATION SCIENTISTS.....	5T32 GM07045-03	75,062
WALLACE, ROBERT B.....	CANCER EPIDEMIOLOGY.....	3T32 CA09027-05S1	32,500
ORGANIZATION TOTAL	23 1,661,064		
STATE TOTAL	23 1,661,064		

**Table 3.—NIH Training Grants, by Area, Organization, and Program
Director, Fiscal Year 1980—Continued**

Program director	General area of training	Grant number	Dollars
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOSPITAL ZIP CODE 66103			
KLAASSEN, CURTIS D.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07079-02	85,121
ORGANIZATION TOTAL	1 85,121		
LAWRENCE			
UNIVERSITY OF KANSAS LAWRENCE ZIP CODE 66045			
BUTTERFIELD, EARL C.....	MENTAL RETARDATION AND OTHER DEVELOPMENTAL DISABILITIES.....	5T32 HD07066-05	121,600
HOROWITZ, FRANCES D.....	DEVELOPMENTAL AND CHILD PSYCHOLOGY.....	5T32 HD07173-02	162,343
MITSCHER, LESTER A.....	MEDICINAL CHEMISTRY AND PHARMACOLOGY.....	5T32 GM07775-02	112,778
STERNSON, LARRY A.....	CLINICAL DRUG ANALYSIS OF ANTICANCER AGENTS.....	5T32 CA09242-05	98,600
ORGANIZATION TOTAL	4 495,321		
STATE TOTAL	5 580,442		
KENTUCKY			
LEXINGTON			
UNIVERSITY OF KENTUCKY ZIP CODE 40506			
KOTCHEN, THEODORE A.....	MINORITY HYPERTENSION RESEARCH SUMMER PROGRAM.....	5T35 HL07390-03	28,237
MARUYAMA, YOSH.....	RADIATION ONCOLOGY.....	5T32 CA09040-05	58,748
ORGANIZATION TOTAL	2 86,985		
LOUISVILLE			
UNIVERSITY OF LOUISVILLE ZIP CODE 40208			
POTTS, ALBERT M.....	BASIC SCIENCES.....	5T32 EY07049-04	3,009
SUDDICK, RICHARD P.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07104-01	13,025
ORGANIZATION TOTAL	2 16,034		
STATE TOTAL	4 103,019		
LOUISIANA			
COVINGTON			
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70433			
ROBERTS, JAMES A.....	UROLOGY.....	2T32 AM07212-05	19,019
ORGANIZATION TOTAL	1 19,019		
NEW ORLEANS			
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70112			
BERLIN, CHARLES I.....	AUDITORY PHYSIOLOGY AND ANATOMY.....	2T32 NS07058-04	64,645
SPITZER, JOHN J.....	CARDIOVASCULAR DYNAMICS AND METABOLISM.....	2T32 HL07098-06A1	86,129
SPITZER, JOHN J.....	MYCOTIC DISEASES AND BASIC MECHANISMS.....	5T32 AI07152-03	39,560
ORGANIZATION TOTAL	3 208,611		
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70118			
EPPS, ANNA C.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T35 HL07299-04	53,308
FISHER, JAMES W.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07177-06	77,285
FRIEDMAN, LORRAINE.....	PHARMACOLOGICAL SCIENCES.....	5T32 AI07152-03	39,560
SALVAGGIO, JOHN E.....	FIBROTIC AND IMMUNOLOGIC PULMONARY DISEASE.....	3T32 HL07376-02S1	6,225

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
LOUISIANA—Continued			
SALVAGGIO, JOHN E.....	FIBROTIC AND IMMUNOLOGIC PULMONARY DISEASE.....	5T32 HL07376-03	146,454
ORGANIZATION TOTAL	5 322,832		
XAVIER UNIVERSITY OF LOUISIANA ZIP CODE 70125			
MALMSTROM, SISTER MARY C.....	BIOMEDICAL SCIENCES.....	5T32 GM07716-02	72,261
ORGANIZATION TOTAL	1 72,261		
STATE TOTAL	10 622,723		
MAINE			
BAR HARBOR			
JACKSON LABORATORY ZIP CODE 04609			
EICHER, EVA M.....	GENETICS.....	5T32 GM07386-03	42,139
KOZAK, LESLIE P.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07065-03	38,341
PREHN, RICHMOND T.....	CANCER BIOLOGY.....	5T32 CA09217-03	86,481
ORGANIZATION TOTAL	3 166,961		
STATE TOTAL	3 166,961		
MARYLAND			
BALTIMORE			
JOHNS HOPKINS UNIVERSITY ZIP CODE 21218			
ANNAU, ZOLTAN.....	BEHAVIORAL AND ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07094-02	155,638
AUGUST, J THOMAS.....	PHARMACOLOGY.....	5T32 GM07626-03	90,577
BANG, FREDERIK B.....	PARASITOLOGY AND MEDICAL ENTOMOLOGY.....	3T32 AI07168-02S1	2,068
BANG, FREDERIK B.....	PARASITOLOGY AND MEDICAL ENTOMOLOGY.....	5T32 AI07168-03	95,391
FREEDBERG, IRWIN M.....	DERMATOLOGY.....	5T32 AM07324-02	65,400
GORDIS, LEON.....	CANCER EPIDEMIOLOGY.....	1T32 CA09314-01A1	144,112
GORDIS, LEON.....	CARDIOVASCULAR EPIDEMIOLOGY.....	3T32 HL07024-05S1	2,016
GORDIS, LEON.....	CARDIOVASCULAR EPIDEMIOLOGY.....	2T32 HL07024-06	144,156
GREEN, LAWRENCE W.....	BEHAVIORAL RESEARCH IN CARDIOVASCULAR RISK REDUCTION.....	3T32 HL07180-04S1	4,644
GREEN, LAWRENCE W.....	BEHAVIORAL RESEARCH IN CARDIOVASCULAR RISK REDUCTION.....	5T32 HL07180-05	242,374
GURTNER, GAIL H.....	PULMONARY MEDICINE.....	5T17 HL07137-06	4,753
GURTNER, GAIL H.....	PULMONARY MEDICINE.....	3T32 HL07199-03S1	9,414
GURTNER, GAIL H.....	PULMONARY MEDICINE.....	5T32 HL07199-04	285,281
HARRINGTON, WILLIAM F.....	MOLECULAR AND CELLULAR ASPECTS OF DEVELOPMENT.....	5T32 HD07103-04	82,380
HARRINGTON, WILLIAM F.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07231-06	407,578
HENDRIX, THOMAS R.....	DIGESTIVE DISEASES.....	5T32 AM07192-05	43,630
HILLIS, WILLIAM D.....	SHORT-TERM RESEARCH TRAINING.....	1T35 AM07384-01	69,243
HUANG, RU-CHIH C.....	AGE-DEPENDENT NUCLEOCYTOPLASMIC INTERACTION.....	5T32 AG00069-02	81,946
HUGHES, WALTER T.....	MICROBIAL DISEASES OF INFANTS AND CHILDREN.....	3T32 AI07195-01S1	6,376
HUGHES, WALTER T.....	MICROBIAL DISEASES OF INFANTS AND CHILDREN.....	5T32 AI07195-02	78,119
JOHNSON, RICHARD T.....	NEUROVIROLOGY AND IMMUNOLOGY.....	2T32 NS07000-06	93,630
LENNARZ, WILLIAM J.....	BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07445-04	222,215
LEVIN, JACK.....	PATHOPHYSIOLOGY OF HEMOSTASIS.....	3T32 HL07377-01S1	6,890
LEVIN, JACK.....	PATHOPHYSIOLOGY OF HEMOSTASIS.....	5T32 HL07377-02	51,226
LEVY, DAVID A.....	PARASITIC INFECTIONS (IMMUNOLOGY, BIOCHEMISTRY).....	5T32 AI07057-03	33,704
MARGOLIS, SIMEON.....	ENDOCRINOLOGY, DIABETES AND METABOLISM.....	5T32 AM07109-06	36,528
MAYER, MANFRED M.....	MOLECULAR AND CELLULAR MECHANISMS OF INFLAMMATION.....	5T32 AI07147-03	88,717
MIGEON, BARBARA R.....	HUMAN GENETICS.....	1T32 GM07814-01A1	59,889
MIGEON, CLAUDE J.....	PEDIATRIC ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07116-06	28,749
MIGEON, CLAUDE J.....	PEDIATRIC ENDOCRINOLOGY AND METABOLISM.....	2T32 AM07116-07	47,720
MONEY, JOHN.....	EPHEBOLOGY AND EPHEBIATRICS.....	5T32 HD07111-04	45,287
MURPHY, EDMOND A.....	MEDICAL GENETICS.....	5T32 GM07471-04	139,529

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
MARYLAND—Continued				
NATHANS, DANIEL.....		MOLECULAR GENETICS OF TUMOR VIRUSES AND CELLS.....	2T32 CA09139-06	148,433
NORMAN, PHILIP S.....		BASIC AND CLINICAL IMMUNOLOGY.....	5T32 AI07056-05	65,534
OWENS, ALBERT H. JR.....		ONCOLOGY—CHEMOTHERAPY, IMMUNOLOGY, BIOLOGY.....	5T32 CA09071-02	98,237
PRICE, DONALD L.....		EXPERIMENTAL NEUROPATHOLOGY.....	1T32 NS07179-01	49,034
ROBINSON, CECIL H.....		ANTICANCER DRUG DEVELOPMENT.....	5T32 CA09243-03	178,588
ROBINSON, DAVID A.....		VISUAL SCIENCES—MULTIDISCIPLINARY.....	5T32 EY07047-04	99,139
RUBIN, ROBERT J.....		ENVIRONMENTAL BIOLOGY AND TOXICOLOGY.....	5T32 ES07067-03	269,960
SACHS, MURRAY B.....		AUDITORY PHYSIOLOGY.....	3T32 NS07049-04S1	3,603
SCHRAMM, LAWRENCE P.....		BIOMEDICAL ENGINEERING.....	2T32 GM07057-06	101,317
STRANDBERG, JOHN D.....		COMPARATIVE PATHOLOGY.....	1T15 CA09393-01	146,120
STRANDBERG, JOHN D.....		LABORATORY ANIMAL MEDICINE AND PATHOLOGY.....	2T32 RR07002-04	58,867
TALALAY, PAUL.....		MEDICAL SCIENTIST.....	2T32 GM07309-06	581,291
TS'O, PAUL O.....		MOLECULAR AND CELLULAR CHEMICAL CARCINOGENESIS.....	3T32 CA09110-05S1	130,375
WAGNER, HENRY N. JR.....		ONCOLOGY—TRACER PRINCIPLES.....	5T32 CA09199-03	150,630
WALKER, W. GORDON.....		NUTRITIONAL AND METABOLIC ASPECTS OF RENAL DISEASE.....	2T32 AM07145-07	48,198
WEISFELDT, MYRON L.....		PATHOPHYSIOLOGY OF MYOCARDIAL DISEASES.....	5T32 HL07227-05	98,136
WINKELSTEIN, JERRY A.....		PEDIATRIC ALLERGY AND IMMUNOLOGY.....	2T32 AI07007-06	49,799
ORGANIZATION TOTAL	49	5,146,441		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE ZIP CODE 21201				
BARRACLOUGH, CHARLES A.....		REPRODUCTIVE BIOLOGY.....	5T32 HD07170-02	60,098
ORGANIZATION TOTAL	1	60,098		
STATE TOTAL	50	5,206,539		
MASSACHUSETTS				
AMHERST				
UNIVERSITY OF MASSACHUSETTS AT AMHERST ZIP CODE 01003				
FULLER, R. C.....		MOLECULAR AND CELLULAR BIOLOGY.....	5T32 GM07473-04	61,886
HONIGBERG, BRONISLAW M.....		EXPERIMENTAL PARASITOLOGY.....	5T32 AI07109-04	70,895
ORGANIZATION TOTAL	2	132,781		
BOSTON				
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115				
BRENNER, BARRY M.....		NEPHROLOGY.....	5T32 AM07241-04	72,661
BUNN, H. FRANKLIN.....		HEMATOLOGY.....	2T32 HL07142-06	72,913
COTRAN, RAMZI S.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	2T32 HL07066-06	140,209
INGRAM, ROLAND H. JR.....		PULMONARY-RESPIRATORY DISEASES.....	2T32 HL07010-06	142,042
LARSEN, P. REED.....		ACADEMIC ENDOCRINOLOGY.....	5T32 AM07315-02	48,686
TRIER, JERRY S.....		ALIMENTARY TRACT RESEARCH IN HEALTH AND DISEASE.....	5T32 AM07121-06	27,034
TRIER, JERRY S.....		ALIMENTARY TRACT RESEARCH IN HEALTH AND DISEASE.....	2T32 AM07121-07	92,246
WILLIAMS, GORDON H.....		HYPERTENSION.....	3T32 HL07236-04S1	7,603
WILLIAMS, GORDON H.....		HYPERTENSION.....	5T32 HL07236-05	93,278
WILSON, RICHARD E.....		SURGICAL ONCOLOGY.....	5T32 CA09280-03	74,530
ORGANIZATION TOTAL	10	771,202		
AFFILIATED HOSPITALS CENTER—ROBERT BRECK BRIGHAM HOSPITAL ZIP CODE 02120				
AUSTEN, K. FRANK.....		IMMUNOLOGIC BASIS OF RESISTANCE AND HYPERSENSITIVITY.....	5T32 AI07167-03	155,518
AUSTEN, K. FRANK.....		MECHANISMS OF ARTHRITIC AND DERMATOLOGIC DISORDERS.....	2T32 AM07031-06	113,227
ORGANIZATION TOTAL	2	268,745		
BETH ISRAEL HOSPITAL ZIP CODE 02215				
EPSTEIN, FRANKLIN H.....		KIDNEY AND MEMBRANE TRANSPORT AND METABOLISM.....	5T32 AM07199-04	46,120
GESCHWIND, NORMAN.....		BASIC NEUROSCIENCES.....	1T32 NS07211-01	46,862
PEPPERCORN, MARK A.....		GASTROENTEROLOGY.....	5T32 AM07183-05	56,093
ROBINSON, STEPHEN H.....		HEMATOLOGY.....	9T32 HL07516-07	97,420

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS—Continued			
ROBINSON, STEPHEN H.....	HEMATOLOGY.....	5T32 AM07026-06	30,314
SILEN, WILLIAM.....	TRAUMA AND BURNS.....	1T32 GM07806-01	111,003
ORGANIZATION TOTAL	6 387,812		
BOSTON BIOMEDICAL RESEARCH INSTITUTE ZIP CODE 02114			
GERGELY, JOHN.....	ENERGY METABOLISM OF CARDIAC AND SKELETAL MUSCLE.....	5T32 HL07266-04	66,977
ORGANIZATION TOTAL	1 66,977		
BOSTON UNIVERSITY ZIP CODE 02215			
BRECHER, PETER I.....	CARDIOVASCULAR BIOCHEMISTRY.....	3T32 HL07429-01S1	1,231
BRECHER, PETER I.....	CARDIOVASCULAR BIOCHEMISTRY.....	5T32 HL07429-02	116,250
BRODY, JEROME S.....	BIOLOGY OF THE LUNG: A MULTIDISCIPLINARY PROGRAM.....	2T32 HL07035-06	293,099
CHOBANIAN, ARAM V.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T35 HL07308-04	14,453
COHEN, ALAN S.....	RHEUMATOLOGY.....	3T32 AM07014-05S1	38,985
COHEN, ALAN S.....	RHEUMATOLOGY.....	2T32 AM07014-06	91,662
HOOD, WILLIAM B, JR.....	BASIC SCIENCE CARDIOVASOLOGY.....	3T32 HL07224-04S1	5,772
HOOD, WILLIAM B, JR.....	BASIC SCIENCE CARDIOVASOLOGY.....	5T32 HL07224-05	141,225
LEIBOWITZ, HOWARD M.....	VISION RESEARCH—MULTIDISCIPLINARY.....	5T32 EY07054-03	161,483
LEVINSKY, NORMAN G.....	NEPHROLOGY.....	5T32 AM07053-06	31,845
LEVINSKY, NORMAN G.....	NEPHROLOGY.....	2T32 AM07053-07	103,029
MELBY, JAMES C.....	ENDOCRINE AND METABOLIC RESEARCH.....	5T32 AM07201-05	60,646
PETERS, ALAN.....	NEUROANATOMY.....	3T32 NS07152-01S1	3,650
PETERS, ALAN.....	NEUROANATOMY.....	5T32 NS07152-02	54,851
SIMONS, ELIZABETH R.....	BLOOD DISEASES AND RESOURCES.....	1T32 HL07501-01	76,254
SINEX, F MAROTT.....	RESEARCH ON AGING AND THE AGED.....	3T32 AG00059-01S1	3,192
SINEX, F MAROTT.....	RESEARCH ON AGING AND THE AGED.....	5T32 AG00059-02	126,938
SMALL, DONALD M.....	LIPOPROTEINS & ATHEROSCLEROTIC LESIONS PHYSICAL CHEM.....	3T32 HL07291-03S1	6,425
SMALL, DONALD M.....	LIPOPROTEINS & ATHEROSCLEROTIC LESIONS PHYSICAL CHEM.....	5T32 HL07291-04	65,981
ORGANIZATION TOTAL	19 1,396,971		
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
FOX, THOMAS O.....	DEVELOPMENTAL NEUROLOGY.....	3T32 NS07017-04S1	4,338
FYLER, DONALD C.....	CARDIOVASCULAR DISEASE—INFANCY, CHILDHOOD & ADOLESCENCE.....	5T32 HL07193-03	143,006
GRAND, RICHARD J.....	PEDIATRIC GASTROENTEROLOGY.....	5T32 AM07333-02	103,144
NATHAN, DAVID G.....	PATHOPHYSIOLOGY OF HUMAN BLOOD CELLS.....	2T32 HL07146-06	131,507
SIDMAN, RICHARD L.....	DEVELOPMENTAL NEUROLOGY.....	2T32 NS07017-05	62,291
ORGANIZATION TOTAL	5 444,286		
EYE RESEARCH INSTITUTE OF RETINA FOUNDATION ZIP CODE 02114			
DOHLMAN, CLAES H.....	PHYSIOLOGY AND BIOCHEMISTRY OF CORNEAL DISEASE.....	3T32 EY07018-05S1	4,130
SCHEPENS, CHARLES L.....	VISUAL SCIENCES—INTERDISCIPLINARY.....	5T32 EY07028-04	77,568
ORGANIZATION TOTAL	2 81,698		
HARVARD UNIVERSITY ZIP CODE 02115			
ABELMANN, WALTER H.....	CARDIOVASCULAR RESEARCH.....	3T32 HL07374-02S1	11,088
ABELMANN, WALTER H.....	CARDIOVASCULAR RESEARCH.....	5T32 HL07374-03	185,385
ABRAMS, HERBERT L.....	IMAGING METHODS FOR CANCER.....	5T32 CA09341-02	94,212
ABRAMS, HERBERT L.....	CARDIOVASCULAR RADIOLOGY.....	3T32 HL07334-02S1	718
ABRAMS, HERBERT L.....	CARDIOVASCULAR RADIOLOGY.....	5T32 HL07334-03	98,516
ADELSTEIN, S JAMES.....	MEDICAL SCIENTIST.....	5T32 GM07753-02	534,538
BECKWITH, JONATHAN R.....	GENE EXPRESSION REGULATION IN PROKARYOTES & EUKARYOTES.....	2T32 GM07196-06	187,690
BELLVE, ANTHONY R.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	2T32 GM07258-06	126,067
BENACERRAF, BARUJ.....	IMMUNOLOGY.....	2T32 CA09130-06	197,783
BIGGERS, JOHN D.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07130-03	57,740
BJARNGARD, BENGT E.....	MEDICAL RADIOLOGICAL PHYSICS.....	3T32 CA09088-05S1	7,498
BJARNGARD, BENGT E.....	PHYSICS OF RADIATION THERAPY.....	5T32 CA09234-02	44,982
BUNN, H FRANKLIN.....	HEMATOLOGY.....	3T32 HL07142-05S1	12,057
ERBE, RICHARD W.....	GENETICS.....	5T32 GM07748-02	90,206
FISCHBACH, GERALD D.....	DEVELOPMENTAL NEUROBIOLOGY.....	3T32 NS07009-05S1	5,127
FISCHBACH, GERALD D.....	DEVELOPMENTAL NEUROLOGY.....	2T32 NS07009-06	88,175
FITZPATRICK, THOMAS B.....	DERMATOLOGY.....	5T32 AM07098-06	25,631

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS—Continued			
FITZPATRICK, THOMAS B.....	DERMATOLOGY.....	2T32 AM07098-07	90,582
GESCHWIND, NORMAN.....	SENSORY PHYSIOLOGY AND BIOPHYSICS.....	3T32 NS07011-04S1	3,408
GLIMCHER, MELVIN J.....	ACADEMIC ORTHOPEDICS.....	5T32 AM07112-04	45,572
GOLDBERG, IRVING H.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07306-06	98,564
HELLMAN, SAMUEL.....	ACADEMIC RADIOTHERAPY.....	5T32 CA09221-03	97,584
HORTON, JOHN E.....	PERIODONTIA.....	2T32 DE07010-06	205,483
HUANG, ALICE S.....	VIRUS-HOST INTERACTIONS IN CANCER.....	2T32 CA09031-06	207,766
HUTCHISON, GEORGE B.....	CANCER EPIDEMIOLOGY.....	5T32 CA09001-06	79,212
KARNOVSKY, MORRIS J.....	CELLULAR AND DEVELOPMENTAL BIOLOGY.....	2T32 GM07226-06	161,494
KING, NORVAL W, JR.....	VETERINARY AND COMPARATIVE PATHOLOGY.....	5T32 RR07000-06	100,035
LITTLE, JOHN B.....	RADIATION BIOLOGY.....	2T32 CA09078-06	180,919
MEAD, JERE.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	3T32 HL07118-05S1	25,920
MEAD, JERE.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	2T32 HL07118-06	181,522
MOORREES, COENRAAD F.....	CRANIOFACIAL ANOMALIES.....	5T32 DE07008-05	162,981
MOSTELLER, C FREDERICK.....	BIOMETRY/EPIDEMIOLOGY-BIOSTATISTICS.....	5T32 CA09337-02	146,981
O'CONNOR, NICHOLAS E.....	TRAUMA AND BURN RESEARCH.....	5T32 GM07560-04	45,114
PERLMAN, ROBERT L.....	ENDOCRINOLOGY.....	5T32 AM07337-03	124,284
POTTER, DAVID D.....	NEUROBIOLOGY.....	5T32 NS07112-04	191,830
SHAW, JAMES H.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07100-01	8,683
SMITH, THOMAS W.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07049-05S1	25,660
SMITH, THOMAS W.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	2T32 HL07049-06	292,809
SPEIZER, FRANK E.....	CLINICAL EPIDEMIOLOGY OF LUNG AND HEART DISEASE.....	3T32 HL07427-01A1S2	15,880
SPEIZER, FRANK E.....	CLINICAL EPIDEMIOLOGY OF LUNG AND HEART DISEASE.....	5T32 HL07427-02	114,377
SWARTZ, MORTON N.....	INFECTIOUS DISEASE AND BASIC MICROBIOLOGICAL MECHANISMS.....	5T32 AI07061-05	176,927
UNANUE, EMIL R.....	IMMUNOLOGY.....	3T32 CA09141-05S1	75,318
WIESEL, TORSTEN N.....	BASIC NEUROBIOLOGICAL SCIENCES.....	5T32 EY07042-04	75,422
ORGANIZATION TOTAL	43	4,701,740	
JOSLIN DIABETES FOUNDATION ZIP CODE 02215			
CAHILL, GEORGE F, JR.....	DIABETES AND METABOLISM.....	5T32 AM07260-04	65,865
ORGANIZATION TOTAL	1	65,865	
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114			
CHYLACK, LEO T, JR.....	OPHTHALMOLOGY.....	5T32 EY07063-02	141,355
ORGANIZATION TOTAL	1	141,355	
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
BLOCH, KURT J.....	IMMUNOLOGY AND IMMUNOPATHOLOGY.....	5T32 AI07040-05	85,542
BROWNELL, GORDON L.....	RADIOLOGICAL PHYSICS.....	1T32 CA09362-01	87,962
BURKE, JOHN F.....	RESEARCH IN BURNS AND TRAUMA.....	5T32 GM07035-06	60,707
COLVIN, ROBERT B.....	IMMUNOLOGY AND TUMORS.....	5T32 CA09216-03	125,626
ERBE, RICHARD W.....	DEVELOPMENTAL MEDICINE.....	5T32 HD07092-05	126,630
FALLON, JOHN T.....	CARDIOVASCULAR AND PULMONARY PATHOLOGY.....	1T32 HL07469-01	47,751
HABER, EDGAR.....	CARDIOLOGY—MULTIDISCIPLINARY.....	3T32 HL07208-04S1	2,924
HABER, EDGAR.....	CARDIOLOGY—MULTIDISCIPLINARY.....	5T32 HL07208-05	98,416
ISSELBACHER, KURT J.....	GASTROINTESTINAL DISEASE.....	5T32 AM07191-05	126,512
KAZEMI, HOMAYOUN.....	PULMONARY PATHOPHYSIOLOGY.....	5T32 HL07354-03	98,249
KITZ, RICHARD J.....	BASIC SCIENCE RESEARCH—ANESTHESIOLOGY.....	5T32 GM07592-03	97,897
KRANE, STEPHEN M.....	CONNECTIVE TISSUE STRUCTURE, FUNCTION AND DISEASE.....	5T32 AM07258-04	46,315
MARTIN, JOSEPH B.....	NEUROLOGY AND NEUROSURGERY.....	1T32 NS07170-01	81,137
POTTS, JOHN T, JR.....	ENDOCRINOLOGY AND DIABETES.....	2T32 AM07028-06	182,495
RUSSELL, PAUL S.....	IMMUNOGENETICS, TRANSPLANTATION, AND TUMOR IMMUNOLOGY.....	5T32 AI07027-05	22,703
STOSSEL, THOMAS P.....	ONCOLOGY AND HEMATOLOGY.....	5T32 CA09321-03	74,260
STRAUSS, HARRY W.....	CARDIOVASCULAR NUCLEAR MEDICINE.....	5T32 HL07416-03	105,589
ORGANIZATION TOTAL	17	1,470,715	
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111			
COHEN, JORDAN J.....	RENAL AND ELECTROLYTE PHYSIOLOGY.....	5T32 AM07078-05	91,284
DESFORGES, JANE F.....	RESEARCH IN BLOOD COMPONENTS.....	3T32 HL07437-02S1	21,192
DESFORGES, JANE F.....	RESEARCH IN BLOOD COMPONENTS.....	5T32 HL07437-03	92,070
FANBURG, BARRY L.....	MULTIDISCIPLINARY RESPIRATORY DISEASES.....	3T32 HL07053-05S1	3,596

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
MASSACHUSETTS—Continued			
FANBURG, BARRY L.....	BIOCHEMISTRY, METABOLISM, AND IMMUNOLOGY OF THE LUNG.....	2T32 HL07053-06	66,310
KAPLAN, MARSHALL M.....	BIOCHEMISTRY AND IMMUNOLOGY OF DIGESTIVE DISEASES.....	2T32 AM07024-05	62,948
PAUKER, STEPHEN G.....	CLINICAL DECISION-MAKING.....	1T15 LM07027-01	122,784
REICHLIN, SEYMOUR.....	CLINICAL AND BASIC NEUROENDOCRINOLOGY.....	2T32 AM07039-06	92,831
SCHWARTZ, BERNARD.....	VISUAL SCIENCES.....	5T32 EY07045-04	105,850
ORGANIZATION TOTAL	9	658,865	
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115			
FREI, EMIL, III.....	CANCER TREATMENT AND RESTORATIVE CARE.....	5T32 CA09172-06	258,849
PARDEE, ARTHUR B.....	MOLECULAR ANALYSIS OF NEOPLASTIC DISEASE.....	1T32 CA09361-01	215,144
ORGANIZATION TOTAL	2	473,993	
TUFTS UNIVERSITY ZIP CODE 02111			
LESKOWITZ, SIDNEY.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HD07225-01	65,124
PARK, JAMES T.....	MOLECULAR BIOLOGY OF BASIC CELL FUNCTIONS.....	2T32 GM07310-06	58,273
ORGANIZATION TOTAL	2	123,397	
TUFTS-NEW ENGLAND MEDICAL CENTER ZIP CODE 02111			
STERNICK, EDWARD S.....	RADIATION ONCOLOGY.....	3T32 CA09045-05S1	16,334
ORGANIZATION TOTAL	1	16,334	
CAMBRIDGE			
HARVARD UNIVERSITY ZIP CODE 02138			
JENKINS, FARISH A, JR.....	BIOLOGY OF THE MUSCULOSKELETAL SYSTEM.....	2T32 GM07117-06	60,394
LOSICK, RICHARD M.....	GENETICS.....	5T32 GM07620-03	211,939
MESELSON, MATTHEW S.....	BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07598-03	451,701
ORGANIZATION TOTAL	3	724,034	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY ZIP CODE 02139			
BRAIDA, LOUIS D.....	AUDITORY PERCEPTION IN NORMAL AND IMPAIRED LISTENERS.....	3T32 NS07099-03S1	7,471
BROWN, GENE M.....	BIOLOGICAL SCIENCES.....	2T32 GM07287-06	775,251
BUCHI, GEORGE H.....	CARCINOGENESIS AND DRUG DEVELOPMENT.....	2T32 CA09112-06	322,903
EISEN, HERMAN N.....	IMMUNOLOGY.....	5T32 CA09255-03	122,423
HELD, RICHARD M.....	STUDIES OF INTEGRATIVE SYSTEMS.....	5T32 GM07484-04	144,951
MUNRO, HAMISH N.....	BASIC NUTRITION.....	5T32 AM07095-06	46,473
PEAKE, WILLIAM T.....	AUDITORY PHYSIOLOGY.....	3T32 NS07047-03S1	3,767
PEAKE, WILLIAM T.....	AUDITORY PHYSIOLOGY.....	5T32 NS07047-04	74,377
SCRIMSHAW, NEVIN S.....	CLINICAL NUTRITION FOR PHYSICIANS.....	5T32 AM07070-05	190,592
SINSKEY, ANTHONY J.....	MICROBIOLOGY AND BIOTECHNOLOGY IN DRUG DEVELOPMENT.....	5T32 CA09258-03	112,210
STEVENS, KENNETH N.....	SPEECH SCIENCES.....	2T32 NS07040-06	65,691
WOGAN, GERALD N.....	ENVIRONMENTAL TOXICOLOGY.....	2T32 ES07020-06	251,336
ORGANIZATION TOTAL	12	2,117,445	
WALTHAM			
BRANDEIS UNIVERSITY ZIP CODE 02154			
HALVORSON, HARLYN O.....	GENETIC AND BIOCHEMICAL MECHANISMS OF REGULATION.....	2T32 GM07122-06	84,101
JENCKS, WILLIAM P.....	BASIC BIOMEDICAL SCIENCES.....	5T32 AM07251-04	45,831
LOWENSTEIN, JOHN M.....	BIOLOGICAL STRUCTURE AND FUNCTION.....	5T32 GM07596-03	256,249
MACEACHRON, ANN E.....	MENTAL RETARDATION.....	5T32 HD07194-02	126,506
NISONOFF, ALFRED.....	INVESTIGATION OF MECHANISMS IN THE IMMUNE RESPONSE.....	5T32 AI07069-04	57,877
ORGANIZATION TOTAL	5	570,564	
EUNICE KENNEDY SHRIVER CENTER FOR MENTAL RETARDATION ZIP CODE 02154			
MC CLUER, ROBERT H.....	MENTAL RETARDATION AND BIOLOGICAL RESEARCH.....	5T32 HD07164-02	37,912
ORGANIZATION TOTAL	1	37,912	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
MASSACHUSETTS—Continued				
WOODS HOLE				
MARINE BIOLOGICAL LABORATORY		ZIP CODE 02543		
GROSS, PAUL R.	EMBRYOLOGY		5T35 HD07098-04	46,097
GROSS, PAUL R.	PHYSIOLOGY AND MOLECULAR BIOLOGY		5T35 GM07784-02	98,577
GROSS, PAUL R.	NEUROBIOLOGY		5T35 NS07165-02	65,717
ORGANIZATION TOTAL	3	210,391		
WORCESTER				
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER		ZIP CODE 01605		
BRAVERMAN, LEWIS E.	INTERDISCIPLINARY STUDIES OF HORMONE FUNCTION		5T32 AM07302-03	91,041
ORGANIZATION TOTAL	1	91,041		
STATE TOTAL	148	14,954,123		
MICHIGAN				
ANN ARBOR				
UNIVERSITY OF MICHIGAN AT ANN ARBOR		ZIP CODE 48109		
ALPERN, MATHEW	VISION RESEARCH		2T32 EY07022-06	39,628
AVERY, JAMES K.	SHORT-TERM RESEARCH TRAINING		1T35 DE07101-01	19,537
BEIERWALTES, WILLIAM H.	NUCLEAR MEDICINE		5T32 CA09015-06	139,361
BERNSTEIN, ISADORE A.	ENVIRONMENTAL BIOLOGY: EPIDERMAL NEO- AND HYPERPLASIA		5T32 AM07236-05	56,750
BOHR, DAVID F.	SHORT-TERM RESEARCH TRAINING		1T35 NS07197-01	52,099
BOLE, GILES G, JR.	ARTHRITIS		5T32 AM07080-05	90,812
BREWER, GEORGE J.	GENETICS		5T32 GM07544-03	295,232
COHEN, BENNETT J.	LABORATORY ANIMAL SCIENCE AND MEDICINE		5T32 RR07008-04	91,226
CORNISH, HERBERT H.	ENVIRONMENTAL TOXICOLOGY RESEARCH		5T32 ES07062-02	148,822
CRAIG, ROBERT G.	RESTORATIVE DENTAL MATERIALS		5T32 DE07057-05	97,828
DE MUTH, GEORGE R.	BIOMEDICAL SCIENCES		1T32 GM07863-01	39,758
FAJANS, STEFAN S.	ENDOCRINOLOGY AND METABOLISM		3T32 AM07245-03S1	928
FAJANS, STEFAN S.	ENDOCRINOLOGY AND METABOLISM		2T32 AM07245-04	90,854
FOLK, WILLIAM R.	BIOCHEMICAL GENETICS OF TUMOR VIRUS-CELL INTERACTIONS		5T32 CA09281-02	68,376
HAGEN, JOHN W.	DEVELOPMENTAL PSYCHOLOGY		5T32 HD07109-04	150,889
HAWKINS, JOSEPH E, JR.	AUDITORY AND VESTIBULAR MECHANISMS AND DISTURBANCES		5T32 NS07106-04	20,495
HENLEY, KEITH S.	GASTROENTEROLOGY		1T32 AM07367-01	45,507
HERMALIN, ALBERT I.	POPULATION AND HUMAN ECOLOGY		5T32 HD07064-03	105,151
HIGGINS, IAN T.	RESPIRATORY DISEASES—EPIDEMIOLOGY		3T32 HL07337-02S1	5,944
HIGGINS, IAN T.	RESPIRATORY DISEASES—EPIDEMIOLOGY		5T32 HL07337-03	132,351
LEVINE, MYRON	CELLULAR AND MOLECULAR BIOLOGY		2T32 GM07315-06A1	55,597
LO BUGLIO, ALBERT F.	ONCOLOGY		1T32 CA09357-01	71,293
LO BUGLIO, ALBERT F.	HEMATOLOGY		1T32 AM07359-01	66,801
MIDGLEY, A REES, JR.	REPRODUCTIVE ENDOCRINOLOGY		3T32 HD07048-05S1	25,294
MIDGLEY, A REES, JR.	REPRODUCTIVE ENDOCRINOLOGY		2T32 HD07048-06	75,082
MUELLER, EVA L.	ECONOMIC DEMOGRAPHY		5T32 HD07060-05	111,772
NEEL, JAMES V.	GENETICS		2T32 GM07123-06	102,290
SCHORK, MICHAEL A.	HEART AND VASCULAR DISEASES—BIOSTATISTICAL		5T32 HL07082-05	47,618
SUSSMAN, ALFRED S.	MEDICINAL CHEMISTRY—INTERDEPARTMENTAL		5T32 GM07767-03	226,135
TANNEN, RICHARD L.	NEPHROLOGY		1T32 AM07378-01	47,909
VOORHEES, JOHN J.	CELL AND MOLECULAR DERMATOLOGY		5T32 AM07197-04	86,742
ORGANIZATION TOTAL	31	2,608,081		
DETROIT				
WAYNE STATE UNIVERSITY		ZIP CODE 48202		
HARDING, CLIFFORD V.	CELLULAR BASIS OF OCULAR DISORDERS		5T32 EY07034-04	47,974
LEON, MYRON A.	CANCER IMMUNOLOGY AND VIROLOGY		5T32 CA09304-03	124,110

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
MICHIGAN—Continued			
PARRISH, CHARLES J	SOCIAL POLICY AND AGING	5T32 AG00002-04	82,044
POLGAR, GEORGE	RESEARCH TECHNIQUES AND THEIR APPLICATION	5T32 HL07228-04	46,519
SWANBORG, ROBERT H	AUTOIMMUNITY	5T32 AI07118-02	79,105
ORGANIZATION TOTAL	5 379,752		
EAST LANSING			
MICHIGAN STATE UNIVERSITY ZIP CODE 48824			
BRODY, THEODORE M	PHARMACOLOGY AND TOXICOLOGY	5T32 GM07392-04	85,582
CHOU, CHING-CHUNG	SHORT-TERM RESEARCH TRAINING	1T35 HL07507-01	62,424
MC CORMICK, J JUSTIN	ENVIRONMENTAL MUTAGENESIS-CARCINOGENESIS	5T32 ES07076-03	78,240
SCOTT, JERRY B	CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY	5T32 HL07404-03	102,263
TROSKO, JAMES E	CARCINOGENESIS	5T32 CA09284-02	42,530
WILLIAMS, JEFFREY F	EXPERIMENTAL PARASITOLOGY	5T32 AI07203-02	62,484
ORGANIZATION TOTAL	6 433,523		
ROCHESTER			
OAKLAND UNIVERSITY ZIP CODE 48063			
REDDY, VENKAT N	OPHTHALMIC PHYSIOLOGY AND BIOCHEMISTRY	5T32 EY07044-04	14,904
ORGANIZATION TOTAL	1 14,904		
STATE TOTAL	43 3,436,260		
MINNESOTA			
DULUTH			
UNIVERSITY OF MINNESOTA AT DULUTH ZIP CODE 55812			
POZOS, ROBERT S	INDIAN RESEARCH CAREERS—PHYSIOLOGY	5T32 GM07680-03	90,160
ORGANIZATION TOTAL	1 90,160		
MINNEAPOLIS			
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL ZIP CODE 55455			
ACKERMAN, EUGENE	HEALTH COMPUTER SCIENCES	5T15 LM00160-07	192,846
BLACKBURN, HENRY W	PREVENTION OF CARDIOVASCULAR DISEASES	3T32 HL07036-03S1	3,862
BLACKBURN, HENRY W	PREVENTION OF CARDIOVASCULAR DISEASES	5T32 HL07036-04	86,044
CARPENTER, ANNA M	DIABETES RESEARCH	5T32 AM07196-05	39,261
COHN, JAY N	MULTIDISCIPLINARY CARDIOVASCULAR RESEARCH	5T32 HL07184-05	153,044
GOLTZ, ROBERT W	ACADEMIC DERMATOLOGY	5T32 AM07165-05	45,599
HOLMAN, RALPH T	LIPID RESEARCH	3T32 HL07311-02S1	8,789
HOLMAN, RALPH T	LIPID RESEARCH	5T32 HL07311-03	95,446
JACOB, HARRY S	HEMOGLOBIN AND CELL MEMBRANE RESEARCH	5T32 HL07062-04	100,293
KATZ, RALPH V	DENTISTRY	2T32 DE07014-06A1	71,309
KIELSBERG, MARCUS O	BIOMETRY OF CARDIOVASCULAR CLINICAL TRIALS	2T32 HL07023-06	86,304
KRIVIT, WILLIAM	HEMATOLOGY	2T32 HL07145-06A1	71,301
KRONENBERG, RICHARD S	MULTIDISCIPLINARY CARDIOLOGY	5T32 HL07009-05	40,643
LUCAS, RUSSELL V, JR	PEDIATRIC CARDIOLOGY	3T32 HL07359-02S1	1,176
LUCAS, RUSSELL V, JR	PEDIATRIC CARDIOLOGY	5T32 HL07359-03	74,754
LUEPKER, RUSSELL V	BEHAVIORAL ASPECTS OF CARDIOVASCULAR DISEASE	3T32 HL07328-02S1	656
LUEPKER, RUSSELL V	BEHAVIORAL ASPECTS OF CARDIOVASCULAR DISEASE	5T32 HL07328-03	128,703
MIRKIN, BERNARD L	DEVELOPMENTAL AND PEDIATRIC CLINICAL PHARMACOLOGY	5T32 GM07466-04	46,983
NAJARIAN, JOHN S	IMMUNOLOGY AND ITS RELATION TO SURGERY	5T32 CA09024-06	49,921
OPPENHEIMER, JACK H	DIABETES, ENDOCRINOLOGY, AND METABOLISM	2T32 AM07203-04	70,542
PAPARELLA, MICHAEL M	OTOLARYNGOLOGY	5T32 NS07084-04	31,299
PICK, HERBERT L, JR	CENTER FOR RESEARCH IN HUMAN LEARNING	5T32 HD07151-03	193,331
PLAGEMANN, PETER G	MICROBIOLOGY—CANCER	2T32 CA09138-06	179,693
PORTOGHESE, PHILIP S	MEDICINAL CHEMISTRY	5T32 GM07480-04	51,562

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
MINNESOTA—Continued				
QUIE, PAUL G.....		INFECTIOUS DISEASES IN PEDIATRICS.....	5T32 A107054-04	102,575
ROSENBERG, ANDREAS.....		SHORT-TERM RESEARCH TRAINING.....	1T35 HL07480-01	32,562
SAUERBIER, WALTER.....		GENETIC MECHANISMS AND REGULATION.....	2T32 GM07094-06A1	75,159
SHIDEMAN, FREDERICK E.....		PHARMACOLOGY, TOXICOLOGY AND ALLIED SCIENCES.....	5T32 GM07397-04	176,370
SINGER, LEON.....		SHORT-TERM RESEARCH TRAINING.....	1T35 DE07098-01	12,985
VERNIER, ROBERT L.....		PEDIATRIC NEPHROLOGY.....	5T32 AM07087-06	49,688
VERNIER, ROBERT L.....		PEDIATRIC NEPHROLOGY.....	2T32 AM07087-07	123,541
WANNAMAKER, LEWIS W.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07116-05S1	8,510
WANNAMAKER, LEWIS W.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	2T32 HL07116-06	86,119
WARNER, HUBER R.....		CHEMICAL BASES OF CELL AND MOLECULAR BIOLOGY.....	2T32 GM07323-06A1	29,429
WILSON, IVAN D.....		DIGESTIVE AND LIVER DISEASES.....	5T32 AM07177-05	59,717
ORGANIZATION TOTAL	35	2,580,016		
ROCHESTER				
MAYO FOUNDATION ZIP CODE 55901				
BLINKS, JOHN R.....		PHARMACOLOGY.....	5T32 GM07624-02	33,596
FATHMAN, C GARRISON.....		ARTHRITIS.....	5T32 AM07034-06	14,950
GERICH, JOHN E.....		DIABETES AND METABOLISM.....	5T32 AM07352-02	45,604
GLEICH, GERALD J.....		ALLERGIC DISEASES.....	5T32 A107047-05	55,953
GO, VAY L.....		DIGESTIVE DISEASES—MULTIDISCIPLINARY.....	5T32 AM07198-05	77,052
GORMAN, COLUM A.....		ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07147-05	103,019
HYATT, ROBERT E.....		LUNG DISEASES.....	3T32 HL07222-04S1	11,791
HYATT, ROBERT E.....		LUNG DISEASES.....	5T32 HL07222-05	46,448
KNOX, FRANKLYN G.....		KIDNEY DISEASES.....	2T32 AM07013-06	97,949
KOTTKE, BRUCE A.....		ATHEROSCLEROSIS AND NUTRITION.....	5T32 HL07329-03	42,078
MANN, KENNETH G.....		BLOOD BANKING SCIENCES AND RELATING PROGRAMS.....	3T32 HL07069-05S1	11,146
MANN, KENNETH G.....		BLOOD BANKING SCIENCES AND RELATING PROGRAMS.....	2T32 HL07069-06	70,290
ROMERO, JUAN C.....		HYPERTENSION—MULTIDISCIPLINARY.....	1T35 HL07464-01	14,620
RYAN, ROBERT J.....		REPRODUCTIVE BIOLOGY.....	5T32 HD07108-04	51,388
TANCREDI, ROBERT G. *.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07111-05S1	14,009
TANCREDI, ROBERT G.....		CARDIOVASCULOLOGY.....	2T32 HL07111-06	143,897
TOMASI, THOMAS B, JR.....		TUMOR IMMUNOLOGY.....	2T32 CA09127-06	180,883
WEINSHILBOUM, RICHARD M.....		HYPERTENSION (MULTIDISCIPLINARY).....	3T32 HL07269-03S1	15,439
WEINSHILBOUM, RICHARD M.....		HYPERTENSION (MULTIDISCIPLINARY).....	5T32 HL07269-04	138,589
ORGANIZATION TOTAL	19	1,168,701		
STATE TOTAL	55	3,838,877		
MISSISSIPPI				
JACKSON				
JACKSON STATE UNIVERSITY ZIP CODE 39217				
SULLIVAN, RICHARD H.....		BIOMEDICAL SCIENCES.....	5T32 GM07672-04	109,135
ORGANIZATION TOTAL	1	109,135		
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER ZIP CODE 39216				
COLEMAN, THOMAS G.....		SYSTEMS ANALYSIS: THE CIRCULATION AND HYPERTENSION.....	3T32 HL07270-02S1	6,853
COLEMAN, THOMAS G.....		SYSTEMS ANALYSIS: THE CIRCULATION AND HYPERTENSION.....	5T32 HL07270-03	96,376
COLEMAN, THOMAS G.....		SYSTEMS AND INTEGRATIVE BIOLOGY.....	5T32 GM07600-03	43,220
HAYES, A WALLACE.....		TOXICOLOGY.....	5T32 ES07045-04	81,633
KLEIN, RICHARD L.....		HYPERTENSION RESEARCH PROGRAM.....	5T35 HL07392-03	42,626
ORGANIZATION TOTAL	5	270,708		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
MISSISSIPPI—Continued				
TOUGALOO				
TOUGALOO COLLEGE		ZIP CODE 39174		
MEHROTRA, BHARATI	BIOMEDICAL SCIENCES		5T32 GM07651-04	61,287
ORGANIZATION TOTAL	1	61,287		
STATE TOTAL	7	441,130		
MISSOURI				
COLUMBIA				
UNIVERSITY OF MISSOURI-COLUMBIA		ZIP CODE 65201		
DAVIS, JAMES O	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES		3T32 HL07094-05S1	3,708
DAVIS, JAMES O	CARDIOVASCULAR/RENAL PHYSIOL.-PHARMACOL./BIOCHEMISTRY		2T32 HL07094-06	103,988
EISENSTARK, ABRAHAM	GENETICS		5T32 GM07494-04	57,533
HARRIS, PATRICK H	CARDIOVASCULAR CONTROL IN ALTERED METABOLIC STATES		5T32 HL07187-05	41,260
JONES, ALLAN W	GENESIS AND MAINTENANCE OF EXPERIMENTAL HYPERTENSION		5T35 HL07394-03	16,097
LINDBERG, DONALD A	MEDICAL INFORMATION SCIENCES		2T15 LM07006-06	185,211
MIDDLETON, CHARLES C	LABORATORY ANIMAL MEDICINE		5T32 RR07004-04	68,901
SHARP, GORDON C	RHEUMATOLOGY		5T32 AM07242-02	48,902
ORGANIZATION TOTAL	8	525,600		
KANSAS CITY				
UNIVERSITY OF MISSOURI-KANSAS CITY		ZIP CODE 64110		
PETERSON, WARREN A	ADULT DEVELOPMENT AND AGING-INTERUNIVERSITY		5T32 AG00074-02	162,922
ORGANIZATION TOTAL	1	162,922		
SAINT LOUIS				
ST. LOUIS UNIVERSITY		ZIP CODE 63103		
GREEN, MAURICE	MOLECULAR AND TUMOR VIROLOGY		5T32 CA09222-04	108,373
OLSON, ROBERT E	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES		3T32 HL07050-05S1	2,178
OLSON, ROBERT E	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES		2T32 HL07050-06	291,245
ORGANIZATION TOTAL	3	401,796		
WASHINGTON UNIVERSITY		ZIP CODE 63130		
ALPERS, DAVID H	CLINIC/LABORATORY-ACADEMIC GASTROENTEROLOGY		5T32 AM07130-06	19,529
ALPERS, DAVID H	CLINIC/LABORATORY-ACADEMIC GASTROENTEROLOGY		2T32 AM07130-07	69,184
ATKINSON, JOHN P	IMMUNOLOGY OF CONNECTIVE TISSUE DISEASES		3T32 AM07279-03S1	5,227
ATKINSON, JOHN P	IMMUNOLOGY OF CONNECTIVE TISSUE DISEASES		5T32 AM07279-04	23,509
AVIOLI, LOUIS V	MINERAL AND SKELETAL METABOLISM		5T32 AM07033-06	38,403
AVIOLI, LOUIS V	MINERAL AND SKELETAL METABOLISM		2T32 AM07033-07	84,487
BANASZAK, LEONARD J	CELLULAR AND MOLECULAR BIOLOGY		2T32 GM07067-06	320,304
BAUER, WALTER C	TUMOR BIOLOGY-MULTIRESOURCE PROGRAM		2T32 CA09118-06	256,340
BOTWINICK, JACK	AGING AND DEVELOPMENT		5T32 AG00030-04	45,952
BRENNAN, RUTH E	NUTRITION-BEHAVIORAL CARDIOVASCULAR DISEASE PREVENTION		1T32 HL07456-01	64,390
BUNGE, RICHARD P	NEUROBIOLOGY		5T32 NS07071-03	231,127
COWAN, W MAXWELL	VISUAL SCIENCES		5T32 EY07057-02	101,003
DAUGHADAY, WILLIAM H	DIABETES AND RELATED METABOLIC DISEASES		2T32 AM07120-06	183,650
EISEN, ARTHUR Z	DERMATOLOGY		5T32 AM07284-03	66,625
GLASER, LUIS	MEDICAL SCIENTIST		2T32 GM07200-06	574,137
HOLLOSZY, JOHN O	EXERCISE AS PREVENTIVE MEDICINE IN THE AGING PROCESS		1T32 AG00078-01A1	65,274
HUNT, CARLTON C	SENSORY PHYSIOLOGY AND BIOPHYSICS		5T32 NS07057-05	150,250
KLAHR, SAULO	RENAL DISEASES		5T32 AM07126-06	47,636
KLAHR, SAULO	RENAL DISEASES		2T32 AM07126-07	126,282
KOBAYASHI, GEORGE S	FUNGAL DISEASES		5T32 AI07015-05	72,596
LIEBERMAN, MICHAEL W	MECHANISMS OF DISEASE IN ENVIRONMENTAL PATHOLOGY		5T32 ES07066-04	109,914

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
MISSOURI—Continued			
LOWRY, OLIVER H.....	NEUROPHARMACOLOGY RESEARCH.....	5T32 NS07129-03	85,970
LYNCH, RICHARD G.....	IMMUNOLOGY AND MEMBRANES.....	2T32 GM07157-06	76,826
MAJERUS, PHILIP W.....	HEMATOLOGY.....	2T32 HL07088-06	195,293
MEDOFF, GERALD.....	INFECTIOUS DISEASE/BASIC MICROBIOLOGICAL MECHANISMS.....	1T32 AI07172-01A2	95,204
MOLNAR, CHARLES E.....	ANALYTICAL AND COMPUTATIONAL METHODS IN PHYSIOLOGY.....	5T32 GM07564-03	111,798
MONAFO, WILLIAM.....	TRAUMA AND BURNS RESEARCH.....	5T32 GM07602-03	65,228
NEEDLEMAN, PHILIP.....	BLOOD VESSELS & HEART—FUNCTION REGULATION PHARMACOLOGY.....	3T32 HL07275-03S1	23,381
NEEDLEMAN, PHILIP.....	BLOOD VESSELS & HEART—FUNCTION REGULATION PHARMACOLOGY.....	5T32 HL07275-04	173,811
PARKER, CHARLES W.....	ALLERGY AND IMMUNOLOGY.....	5T32 AI00112-06	76,671
PIERCE, JOHN A.....	PULMONARY SCIENTIST.....	3T32 HL07317-02S1	15,958
PIERCE, JOHN A.....	PULMONARY SCIENTIST.....	5T32 HL07317-03	116,504
PRENSKY, ARTHUR L.....	DEVELOPMENTAL NEUROLOGY.....	2T32 NS07027-05	89,989
RASKAS, HESCHEL J.....	MOLECULAR VIROLOGY.....	3T32 CA09129-05S1	116,235
SHANK, ROBERT E.....	NUTRITION.....	5T32 AM07226-04	36,674
SHERMAN, LAURENCE A.....	BLOOD BANKING.....	3T32 HL07038-05S1	4,134
SHERMAN, LAURENCE A.....	BLOOD BANKING.....	2T32 HL07038-06	73,697
SHREFFLER, DONALD C.....	IMMUNOLOGY AND IMMUNOGENETICS.....	5T32 AI07163-03	186,294
SOBEL, BURTON E.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07081-05S1	3,942
SOBEL, BURTON E.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	2T32 HL07081-06	191,399
WILLIAMSON, JOSEPH R.....	CELL BIOLOGIC APPROACHES TO DIABETES RESEARCH.....	5T32 AM07296-03	111,900
ORGANIZATION TOTAL	41 4,506,727		
STATE TOTAL	53 5,597,045		

NEBRASKA

BOYS TOWN

FATHER FLANAGAN'S BOYS' HOME ZIP CODE 68010

WATSON, CHARLES S.....	HUMAN COMMUNICATION AND ITS DISORDERS.....	1T32 NS07147-01A1	69,207
ORGANIZATION TOTAL	1 69,207		

OMAHA

UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105

METCALF, WILLIAM K.....	DEVELOPMENTAL BASIS OF INFANT MORBIDITY AND MORTALITY.....	5T32 HD07097-04	33,528
ORGANIZATION TOTAL	1 33,528		
STATE TOTAL	2 102,735		

NEW HAMPSHIRE

HANOVER

DARTMOUTH COLLEGE ZIP CODE 03755

LONGNECKER, DANIEL S.....	ONCOLOGY.....	1T32 CA09367-01	48,807
SMITH, ROGER P.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07104-02	72,891
TENNEY, STEPHEN M.....	RESPIRATORY PHYSIOLOGY.....	1T32 HL07449-01	73,347
VALTIN, HEINZ.....	RENAL AND NEUROHYPOPHYSICAL FUNCTION AND DISEASE.....	5T32 AM07301-03	38,687
ORGANIZATION TOTAL	4 233,732		
STATE TOTAL	4 233,732		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
NEW JERSEY				
NEWARK				
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY		ZIP CODE 07103		
EDELMAN, NORMAN H	RESPIRATORY BIOLOGY		1T32 HL07467-01	69,896
ORGANIZATION TOTAL	1	69,896		
PISCATAWAY				
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY--RUTGERS MEDICAL SCHOOL		ZIP CODE 08854		
SCHLESINGER, R WALTER	VIRAL AND CELLULAR GENOME FUNCTION IN CANCER		2T32 CA09069-06	190,764
ORGANIZATION TOTAL	1	190,764		
PRINCETON				
PRINCETON UNIVERSITY		ZIP CODE 08540		
COALE, ANSLEY J	DEMOGRAPHY		5T32 HD07163-02	75,784
COX, EDWARD C	CELLULAR AND MOLECULAR BIOLOGY		2T32 GM07312-06	209,645
FRESCO, JACQUES R	CANCER		3T32 CA09167-05S1	438,870
NEWTON, AUSTIN	GENETICS		5T32 GM07388-04	154,103
WORCEL, ABRAHAM	GENETICS		5T32 GM07625-03	98,669
ORGANIZATION TOTAL	5	977,071		
STATE TOTAL	7	1,237,731		
NEW MEXICO				
ALBUQUERQUE				
UNIVERSITY OF NEW MEXICO ALBUQUERQUE		ZIP CODE 87131		
GRIEGO, RICHARD J	MATHEMATICAL MODELS AND CURRICULA IN BIOLOGY		5T32 GM07661-04	91,488
KELSEY, CHARLES A	BIOMEDICAL PHYSICS AND RADIOBIOLOGY		5T32 CA09278-03	41,581
SOLOMON, SIDNEY	HYPERTENSION RESEARCH		5T35 HL07435-02	25,247
WILLIAMS, RALPH C, JR	IMMUNE MECHANISMS IN THE CONNECTIVE TISSUE DISEASES		5T32 AM07173-05	75,058
ORGANIZATION TOTAL	4	233,374		
LAS CRUCES				
NEW MEXICO STATE UNIVERSITY AT LAS CRUCES		ZIP CODE 88003		
BERNSTEIN, MARVIN H	BIOMEDICAL SCIENCES		5T32 GM07667-04	82,282
ORGANIZATION TOTAL	1	82,282		
STATE TOTAL	5	315,656		
NEW YORK				
ALBANY				
NEW YORK STATE DEPARTMENT OF HEALTH		ZIP CODE 12237		
DODDS, W JEAN	COMPARATIVE HEMOSTASIS		3T32 HL07173-03S1	298
DODDS, W JEAN	COMPARATIVE HEMOSTASIS		5T32 HL07173-04	49,084
JANERICH, DWIGHT T	EPIDEMIOLOGY		1T14 CA09354-01A2	20,688
ORGANIZATION TOTAL	3	70,070		
UNION COLLEGE AND UNIVERSITY--ALBANY MEDICAL COLLEGE		ZIP CODE 12208		
ABRAHAM, RAJENDER	COMPARATIVE ENVIRONMENTAL TOXICOLOGY		5T32 ES07058-03	106,203
LEE, KYU T	CARDIOVASCULAR DISEASE RESEARCH		5T32 HL07194-05	144,580
LEE, KYU T	SHORT-TERM RESEARCH TRAINING		1T35 HL07506-01	17,366

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
REINECKE, ROBERT D.....	ACADEMIC OPHTHALMOLOGY.....	5T32 EY07037-05	15,358
SABA, THOMAS M.....	TRAUMATOLOGY.....	2T32 GM07033-06	130,456
ORGANIZATION TOTAL	5 413,963		
BUFFALO			
MEDICAL FOUNDATION OF BUFFALO ZIP CODE 14203			
HAUPTMAN, HERBERT A.....	MOLECULAR ENDOCRINOLOGY.....	1T32 AM07368-01	46,359
ORGANIZATION TOTAL	1 46,359		
NEW YORK STATE DEPARTMENT OF HEALTH—ROSSELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
BOX, HAROLD C.....	MOLECULAR BIOLOGY OF CATASTROPHIC PROCESSES.....	5T32 ES07057-03	71,358
GRAHAM, SAXON.....	MEDICAL SOCIOLOGY, EPIDEMIOLOGY AND CANCER CONTROL.....	3T32 CA09051-05S1	86,171
HIGBY, DONALD J.....	CANCER CHEMOTHERAPY.....	3T32 CA09108-05S1	28,862
MIHICH, ENRICO.....	DRUG DEVELOPMENT AND CANCER THERAPEUTICS.....	5T32 CA09072-06	97,600
PAIGEN, KENNETH.....	MAMMALIAN BIOCHEMICAL GENETICS.....	2T32 GM07093-06	76,477
ORGANIZATION TOTAL	5 360,468		
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
GENCO, ROBERT J.....	PERIODONTAL DISEASES.....	2T32 DE07034-06	221,297
MC CALL, WILLARD D, JR.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07106-01	13,025
MILGROM, FELIX.....	IMMUNOLOGY.....	5T32 AI07088-04	84,118
MOHL, NORMAN D.....	NEUROMUSCULAR RESEARCH IN CLINICAL DENTISTRY.....	1T32 DE07089-01	48,990
MURRAY, DANIEL H.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07145-06	111,221
WEISER, MILTON M.....	GASTROINTESTINAL DISEASES.....	5T32 AM07336-02	46,658
ORGANIZATION TOTAL	6 525,309		
COLD SPRING HARBOR			
COLD SPRING HARBOR LABORATORY ZIP CODE 11724			
HICKS, JAMES B.....	BACTERIAL GENETICS.....	1T14 GM07854-01	30,197
WATSON, JAMES D.....	NEUROBIOLOGY.....	5T35 NS07163-02	86,072
ZIPSER, DAVID.....	CANCER CELL BIOLOGY AND TUMOR VIROLOGY.....	5T32 CA09311-03	186,423
ORGANIZATION TOTAL	3 302,692		
ITHACA			
CORNELL UNIVERSITY ITHACA ZIP CODE 14853			
FINK, GERALD R.....	GENETICS.....	5T32 GM07617-02	84,346
LEWIS, ROBERT M.....	VETERINARY PATHOLOGY.....	1T15 CA09399-01	100,400
LEWIS, ROBERT M.....	PATHOBIOLOGY OF AGING.....	3T32 AG00062-02S1	2,376
LEWIS, ROBERT M.....	PATHOBIOLOGY OF AGING.....	5T32 AG00062-03	99,555
MC CARTY, RICHARD E.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07273-06	382,303
NESHEIM, MALDEN C.....	NUTRITION.....	5T32 AM07158-05	79,774
SALPETER, MIRIAM M.....	CELLULAR AND MOLECULAR NEUROBIOLOGY.....	5T32 GM07459-04	31,527
WILKINSON, CHRISTOPHER F.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07052-04	144,837
ZILVERSMIT, DONALD B.....	NUTRITIONAL ASPECTS OF ARTERIOSCLEROSIS.....	5T32 HL07245-04	64,992
ORGANIZATION TOTAL	9 990,110		
LAKE PLACID			
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER ZIP CODE 12946			
CHAPPLE, PAUL J.....	HISTOPATHOBIOLOGY OF NEOPLASIA.....	1T14 CA09379-01	83,897
CHAPPLE, PAUL J.....	CULTURE OF MACROPHAGES AND HUMAN MONOCYTES.....	1T14 CA09401-01	30,870
CHAPPLE, PAUL J.....	CELLULAR AGING: RELATION OF IN VITRO TO IN VIVO AGING.....	5T32 AG00043-03	52,928
ORGANIZATION TOTAL	3 167,695		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
NEW YORK			
CITY UNIVERSITY OF NEW YORK—CITY COLLEGE OF NEW YORK ZIP CODE 10031			
FISHMAN, MYER M.....	BIOMEDICAL SCIENCES.....	5T32 GM07639-03	83,192
ORGANIZATION TOTAL	1 83,192		
CITY UNIVERSITY OF NEW YORK—GRADUATE SCHOOL AND UNIVERSITY CENTER ZIP CODE 10036			
NELSON, KATHERINE.....	HUMAN DEVELOPMENT.....	5T32 HD07196-02	105,707
ORGANIZATION TOTAL	1 105,707		
CITY UNIVERSITY OF NEW YORK—HUNTER COLLEGE ZIP CODE 10021			
MAWE, RICHARD C.....	BIOMEDICAL SCIENCES.....	1T32 GM07823-01A1	72,408
ORGANIZATION TOTAL	1 72,408		
CITY UNIVERSITY OF NEW YORK—MEDGAR EVERS COLLEGE ZIP CODE 11225			
PAUL, DENIS F.....	SCIENCE CAREER OPPORTUNITIES.....	5T32 GM07641-04	140,172
ORGANIZATION TOTAL	1 140,172		
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE ZIP CODE 10029			
CHALMERS, THOMAS C.....	SHORT-TERM RESEARCH TRAINING.....	1T35 AM07420-01	69,286
DESNICK, ROBERT J.....	MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES.....	5T32 HD07105-04	100,711
FLEISCHMAJER, RAUL.....	BASIC SCIENCES APPLIED TO DERMATOLOGY.....	1T32 AM07376-01	47,543
HERMAN, MICHAEL V.....	CARDIOVASCULOGY.....	5T32 HL07347-03	71,410
HOLLAND, JAMES F.....	CHEMOTHERAPY AND CHEMOIMMUNOTHERAPY.....	2T32 CA09102-06	76,392
KRIEGER, DOROTHY T.....	ENDOCRINOLOGY (INTERDISCIPLINARY).....	5T32 AM07027-04	72,729
KRULWICH, TERRY A.....	MEDICAL SCIENTIST.....	5T32 GM07280-04	142,094
NICHOLSON, WILLIAM J.....	BIOLOGICAL EFFECTS OF ENVIRONMENTAL AGENTS.....	5T32 ES07010-03	80,006
SCOTT, WALTER N.....	MULTIDISCIPLINARY EYE DISEASES.....	2T32 EY07014-06	90,838
ORGANIZATION TOTAL	9 751,009		
COLUMBIA UNIVERSITY ZIP CODE 10027			
BALAZS, ENDRE A.....	OPHTHALMOLOGY.....	2T32 EY07002-06	88,032
BEYCHOK, SHERMAN.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07216-06	163,754
BIGGER, JOHN T, JR.....	CARDIOVASCULAR RESEARCH.....	5T32 HL07406-02	123,256
BLOOM, ARTHUR D.....	SHORT-TERM RESEARCH TRAINING.....	1T35 NS07190-01	52,099
BUTLER, VINCENT P, JR.....	IMMUNOLOGY.....	5T32 AI07132-04	67,170
CALDWELL, PETER R.....	LUNG INJURY AND RESPIRATORY FAILURE.....	2T32 HL07018-06	144,582
CHIEN, SHU.....	RHEOLOGY IN CARDIOVASCULAR DISEASES.....	3T32 HL07114-05S1	4,709
CHIEN, SHU.....	RHEOLOGY IN CARDIOVASCULAR DISEASES.....	2T32 HL07114-06	169,003
EDELMAN, ISIDORE S.....	STEROID HORMONES; BIOCHEMISTRY AND MOLECULAR BIOLOGY.....	5T32 AM07328-03	120,953
FRANTZ, ANDREW G.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07271-04	114,312
GERSHON, MICHAEL D.....	NEUROBIOLOGY.....	5T32 NS07062-05	112,289
GERSONY, WELTON M.....	PEDIATRICS—CARDIOVASCULAR.....	3T32 HL07419-01S1	3,802
GERSONY, WELTON M.....	PEDIATRICS—CARDIOVASCULAR.....	5T32 HL07419-02	93,968
GINSBERG, HAROLD S.....	INFECTIOUS DISEASES—MICROBIOLOGY.....	5T32 AI07161-03	129,030
GLICKMAN, ROBERT M.....	GASTROENTEROLOGY.....	5T32 AM07330-03	150,309
GOODMAN, DE WITT S.....	ARTERIOSCLEROSIS RESEARCH.....	3T32 HL07343-02S1	4,777
GOODMAN, DE WITT S.....	ARTERIOSCLEROSIS RESEARCH.....	5T32 HL07343-03	234,182
HARBER, LEONARD C.....	PHOTOBIOLOGIC & ENVIRONMENTAL FACTORS IN SKIN DISEASE.....	5T32 AM07171-05	24,018
HOFFMAN, BRIAN F.....	CARDIAC ARRHYTHMIAS: MECHANISMS AND TREATMENT.....	5T32 HL07271-04	140,543
JAGIELLO, GEORGIANA M.....	GENETIC AND HORMONE CONTROL OF GAMETOGENESIS.....	5T32 HD07093-05	57,813
JAMES, L STANLEY.....	PERINATAL MEDICINE AND RESEARCH.....	3T32 HD07017-05S1	30,204
KINNEY, JOHN M.....	THE METABOLISM OF TRAUMA.....	5T32 GM07791-02	44,758
LIEBERMAN, SEYMOUR.....	BIOCHEMISTRY OF REPRODUCTIVE ENDOCRINOLOGY.....	5T32 HD07061-05	32,246
MELLINS, ROBERT B.....	PEDIATRIC PULMONARY RESEARCH.....	3T32 HL07421-01S1	8,934
MELLINS, ROBERT B.....	PEDIATRIC PULMONARY RESEARCH.....	5T32 HL07421-02	140,849
NOSSEL, HYMIE L.....	THROMBOSIS AND HEMOSTASIS.....	1T32 HL07461-01	53,391
RIFKIND, RICHARD A.....	HUMAN GENETICS AND DEVELOPMENT.....	2T32 GM07088-06	145,480
RIFKIND, RICHARD A.....	HEMATOLOGY.....	9T32 AM07373-06	114,537
RIFKIND, RICHARD A.....	HEMATOLOGY.....	5T32 GM07419-04	112,791
ROSSI, HAROLD H.....	RADIATION BIOPHYSICS.....	2T32 CA09053-06	20,390

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
NEW YORK—Continued				
ROWLAND, LEWIS P.		CLINICAL NEUROSCIENCES	5T32 NS07155-02	50,350
SCHACHTER, DAVID		MEDICAL SCIENTIST	5T32 GM07367-05	331,469
STEIN, ZENA A.		EPIDEMIOLOGY OF MENTAL RETARDATION RESEARCH	5T32 HD07040-05	125,454
SUSSER, MERVYN W.		NEUROEPIDEMIOLOGY	1T32 NS07153-01A1	108,381
WANG, HSUEH-HWA		PHARMACOLOGICAL SCIENCES	2T32 GM07182-06	136,549
WINICK, MYRON		GROWTH AND DEVELOPMENT	3T32 HD07000-05S1	52,432
WINICK, MYRON		GROWTH AND DEVELOPMENT	2T32 HD07000-06	119,122
WINICK, MYRON		NUTRITION	5T32 AM07268-03	55,842
ORGANIZATION TOTAL	38	3,681,780		
CORNELL UNIVERSITY MEDICAL CENTER ZIP CODE 10021				
BRISCOE, WILLIAM A.		PULMONARY DISEASES	5T32 HL07233-05	51,282
GRAFSTEIN, BERNICE		SHORT-TERM RESEARCH TRAINING	1T35 AG00086-01	57,888
GRAFSTEIN, BERNICE		NEUROPATHOLOGY	3T32 NS07138-01S1	7,862
JAVITT, NORMAN B.		BIOMEDICAL RESEARCH PROGRAM IN HEPATOBILIARY DISEASES	5T32 AM07142-06	26,663
JAVITT, NORMAN B.		BIOMEDICAL RESEARCH PROGRAM IN HEPATOBILIARY DISEASES	2T32 AM07142-07	89,518
LARAGH, JOHN H.		PATHOGENESIS OF HYPERTENSION AND VASCULAR DISEASE	3T32 HL07379-02S1	7,622
LARAGH, JOHN H.		PATHOGENESIS OF HYPERTENSION AND VASCULAR DISEASE	5T32 HL07379-03	212,086
MINICK, CHARLES R.		ARTERIOSCLEROSIS AND MYOCARDIAL DISEASE	5T32 HL07423-02	87,906
NACHMAN, RALPH L.		HEMATOLOGY	3T32 HL07029-05S1	3,819
NACHMAN, RALPH L.		HEMATOLOGY	2T32 HL07029-06	93,537
NACHMAN, RALPH L.		BIOMEDICAL SCIENCES	5T32 GM07739-02	429,337
PLUM, FRED		BRAIN METABOLISM & BLOOD FLOW IN EXPERIMENTAL STROKE	5T32 NS07141-02	84,059
REIDENBERG, MARCUS M.		CLINICAL PHARMACOLOGY	5T32 GM07488-04	44,357
REIS, DONALD J.		CENTRAL NEURAL CONTROL OF THE CIRCULATION	3T32 HL07378-02S1	2,309
REIS, DONALD J.		CENTRAL NEURAL CONTROL OF THE CIRCULATION	5T32 HL07378-03	87,856
RIKER, WALTER F, JR.		PHARMACOLOGICAL SCIENCES	5T32 GM07547-04	86,235
WINDHAGER, ERICH E.		RENAL FUNCTION IN HEALTH AND DISEASE	5T32 AM07152-05	93,513
ORGANIZATION TOTAL	17	1,465,849		
HOSPITAL FOR SPECIAL SURGERY ZIP CODE 10021				
POSNER, AARON S.		ORTHOPEDICS	5T32 AM07281-03	62,175
ORGANIZATION TOTAL	1	62,175		
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021				
SCHOTTENFELD, DAVID		CANCER EPIDEMIOLOGY	5T32 CA09192-02	47,513
ORGANIZATION TOTAL	1	47,513		
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467				
SPAET, THEODORE H.		HEMATOLOGY	2T32 HL07080-06	77,090
SURKS, MARTIN I.		INVESTIGATIVE ENDOCRINOLOGY	5T32 AM07004-06	24,643
SURKS, MARTIN I.		INVESTIGATIVE ENDOCRINOLOGY	2T32 AM07004-07	90,582
ORGANIZATION TOTAL	3	192,315		
NEW YORK BLOOD CENTER ZIP CODE 10021				
MAZUR, ABRAHAM		BLOOD BANKING SCIENCES	5T32 HL07331-03	115,461
ORGANIZATION TOTAL	1	115,461		
NEW YORK UNIVERSITY ZIP CODE 10003				
ALBERT, ROY E.		ENVIRONMENTAL ONCOLOGY	5T32 ES07081-03	73,323
DEFENDI, VITTORIO		CANCER	2T32 CA09161-06	326,845
DEFENDI, VITTORIO		BASIC PATHOBIOLOGY	5T32 GM07552-04	82,012
FRANKLIN, EDWARD C.		ARTHRITIS	5T32 AM07176-05	91,293
GIGLI, IRMA		IMMUNOLOGY, MICROBIOLOGY, DERMATOPATHOLOGY	5T32 AM07190-05	86,899
GOLDSTEIN, IRA M.		SHORT-TERM RESEARCH TRAINING	1T35 AM07421-01	69,466
LIPPMANN, MORTON		PHYSIOLOGY OF LUNG CLEARANCE	5T32 HL07263-04	45,291
LIPPMANN, MORTON		ENVIRONMENTAL TOXICOLOGY	5T32 ES07065-03	170,305
SABATINI, DAVID D.		CELLULAR AND MOLECULAR BIOLOGY	2T32 GM07238-06A1	31,613
SALTON, MILTON R.		INFECTIOUS DISEASES AND BASIC MICROBIOLOGICAL MECHANISMS	5T32 AI07180-02	113,903
SHELANSKI, MICHAEL L.		MEDICAL SCIENTIST	2T32 GM07308-06	520,723
SILBER, ROBERT		HEMATOLOGY	2T32 HL07151-06	149,179

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
NEW YORK—Continued				
ZADUNAISKY, JOSE A	PHYSIOLOGY AND BIOCHEMISTRY OF THE EYE	2T32 EY07009-06	85,330	
ORGANIZATION TOTAL	13 1,846,182			
ROCKEFELLER UNIVERSITY ZIP CODE 10021				
CHOPPIN, PURNELL W	MECHANISMS IN VIRUS INFECTION AND TRANSFORMATION	5T32 CA09256-05	168,489	
COHN, ZANVIL A	BASIC PATHOBIOLOGY	2T32 GM07245-06	83,868	
KILEJIAN, ARAXIE	EXPERIMENTAL PARASITOLOGY	5T32 AI07185-02	63,945	
PFAMMANN, CARL	BIOLOGICAL BASIS OF BEHAVIOR	5T32 GM07524-04	118,523	
ORGANIZATION TOTAL	4 434,825			
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021				
BENNETT, DOROTHEA	DEVELOPMENTAL GENETICS	5T32 GM07718-02	79,661	
BURCHENAL, JOSEPH H	CANCER CHEMOTHERAPY	5T32 CA09207-04	291,563	
CHOI, YONG S	IMMUNOLOGY RESEARCH	5T32 CA09149-05	442,109	
GOOD, ROBERT A	IMMUNOBIOLOGY OF AGING	5T32 AG00054-03	96,063	
LAUGHLIN, JOHN S	RADIATION ONCOLOGY	5T32 CA09022-03	131,706	
MOORE, MALCOLM A	TUMOR BIOLOGY	5T32 CA09190-03	86,692	
MOORE, MALCOLM A	HEMATOLOGY	5T32 AM07266-04	53,178	
SANDERS, F KINGSLEY	MOLECULAR BIOLOGY OF CELL REGULATION	5T32 CA09193-03	67,146	
SONENBERG, MARTIN	ENDOCRINOLOGY	5T32 AM07313-03	89,560	
ORGANIZATION TOTAL	9 1,337,678			
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203				
AMASSIAN, VAHE E	NEUROPHYSIOLOGY	3T32 NS07117-01A1S1	6,769	
AMASSIAN, VAHE E	NEUROPHYSIOLOGY	5T32 NS07117-02	52,069	
DREIZEN, PAUL	SHORT-TERM RESEARCH TRAINING	1T35 HL07493-01	65,124	
FURCHGOTT, ROBERT F	PHARMACOLOGICAL SCIENCES	5T32 GM07615-03	55,374	
MORSE, STEPHEN I	IMMUNOLOGY	5T32 AI07131-04	39,739	
RIEDER, RONALD F	RESEARCH OF BLOOD DISEASES	5T32 AM07289-03	62,277	
ORGANIZATION TOTAL	6 281,352			
YESHIVA UNIVERSITY ZIP CODE 10033				
ARIAS, IRWIN M	GASTROENTEROLOGY-HEPATOLOGY RESEARCH	5T32 AM07218-05	77,916	
BARNETT, HENRY L	HUMAN DEVELOPMENTAL BIOLOGY	3T32 HD07053-05S1	102,514	
BARNETT, HENRY L	HUMAN DEVELOPMENTAL BIOLOGY	2T32 HD07053-06	37,285	
BAUM, STEPHEN G	MEDICAL SCIENTIST	5T32 GM07288-06	672,454	
EDER, HOWARD A	PLASMA LIPOPROTEINS AND APOPROTEINS	5T32 HL07383-03	71,782	
GRAYZEL, ARTHUR	ARTHRITIS & BONE DISEASES	5T32 AM07273-04	47,221	
HAYS, RICHARD M	NEPHROLOGY—MULTIDISCIPLINARY	5T32 AM07089-06	54,616	
HAYS, RICHARD M	NEPHROLOGY—MULTIDISCIPLINARY	2T32 AM07089-07	72,796	
HORWITZ, SUSAN B	PHARMACOLOGICAL SCIENCES	2T32 GM07260-06	101,474	
HURWITZ, JERARD	VIRAL ONCOLOGY AND TUMOR BIOLOGY	2T32 CA09060-06	284,046	
HURWITZ, JERARD	BIOMEDICAL SCIENCES	5T32 GM07491-04	156,693	
JAFFE, ERNST R	RESEARCH IN RED BLOOD CELL DISEASES	5T32 AM07294-03	37,015	
KLINGER, HAROLD P	MEDICAL GENETICS	5T32 GM07001-06	94,498	
LILLY, FRANK	IMMUNOLOGY AND IMMUNOONCOLOGY	2T32 CA09173-06	295,392	
MARMUR, JULIUS	GENETICS AND BIOCHEMISTRY OF CELLULAR REGULATION	2T32 GM07128-06	117,825	
PURPURA, DOMINICK P	NEUROSCIENCES	1T32 NS07183-01	117,952	
RAINE, CEDRIC S	EXPERIMENTAL NEUROPATHOLOGY	5T32 NS07098-03	119,673	
ROSEN, ORA M	DIABETES MELLITUS AND METABOLIC DISEASES	5T32 AM07329-03	121,794	
SCARPELLI, EMILE M	MULTIDISCIPLINARY RESPIRATORY DISEASES	3T32 HL07060-05S1	8,127	
SCARPELLI, EMILE M	RESPIRATORY BIOLOGY	2T32 HL07060-06	206,663	
SCHUEER, JAMES	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	3T32 HL07071-05S1	19,276	
SCHUEER, JAMES	CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY	2T32 HL07071-06A1	104,213	
SEIFTER, SAM	BIOCHEMISTRY OF CELLULAR AGING	5T32 AG00052-03	99,249	
SHAPIRO, LUCILLE	DEVELOPMENTAL BIOLOGY OF HORMONAL RESPONSE SYSTEMS	5T32 HD07154-02	116,367	
SONENBLICK, EDMUND H	SHORT-TERM RESEARCH TRAINING	1T35 HD07220-01	61,700	
SPITZER, ADRIAN	DEVELOPMENTAL RENAL AND ELECTROLYTE PHYSIOLOGY	5T32 AM07110-05	34,033	
STEIGBIGEL, NEAL H	INFECTIOUS DISEASES—MICROBIOLOGY AND IMMUNOLOGY	5T32 AI07183-02	146,189	
ORGANIZATION TOTAL	27 3,378,763			

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
NEW YORK—Continued			
ROCHESTER			
EASTMAN DENTAL CENTER ZIP CODE 14620			
MC HUGH, WILLIAM D.	SHORT-TERM RESEARCH TRAINING	1T35 DE07096-01	13,025
ORGANIZATION TOTAL	1 13,025		
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
HENSHAW, EDGAR C.	EXPERIMENTAL THERAPY MODELS	1T32 CA09363-01	71,088
HOROWICZ, PAUL	INTEGRATIONS AND CONTROLS IN SYSTEMS BIOLOGY	2T32 GM07136-06	152,511
HYDE, RICHARD W.	PULMONARY DISEASES--MULTIDISCIPLINARY	5T32 HL07216-05	90,822
JOSEPH, SHIRLEY A.	NEUROSCIENCES	1T32 NS07184-01	74,940
LATIES, VICTOR G.	ENVIRONMENTAL TOXICOLOGY	5T32 ES07026-03	317,162
LEDDY, JOHN P.	IMMUNOLOGY AND INFECTIOUS DISEASES	5T32 AI07169-02	141,542
LICHTMAN, MARSHALL A.	HEMATOLOGY	3T32 HL07152-05S1	4,363
LICHTMAN, MARSHALL A.	HEMATOLOGY	2T32 HL07152-06	93,537
LOCKWOOD, DEAN H.	INVESTIGATIVE DIABETES, ENDOCRINOLOGY & METABOLISM	2T32 AM07092-06	66,660
ROWLEY, PETER T.	GENETICS	5T32 GM07098-04	78,667
YOUNG, FRANK E.	MOLECULAR BASIS OF HOST PARASITE INTERACTION	5T32 AI07137-04	133,213
YOUNG, FRANK E.	SHORT-TERM RESEARCH TRAINING	1T35 HL07496-01	69,386
YOUNG, FRANK E.	INTERDEPARTMENTAL PROGRAM IN GENETICS AND REGULATION	2T32 GM07102-06	274,154
YOUNG, FRANK E.	MEDICAL SCIENTIST	5T32 GM07356-05	349,545
YU, PAUL N.	CARDIOLOGY	5T32 HL07220-04	71,837
ORGANIZATION TOTAL	15 1,989,427		
STONY BROOK			
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794			
GROLLMAN, ARTHUR P.	PHARMACOLOGICAL SCIENCES	5T32 GM07518-04	52,054
KANE, PHILIP B.	ENVIRONMENTAL PATHOLOGY OF THE RESPIRATORY SYSTEM	5T32 ES07088-02	120,532
LEVINE, ARNOLD J.	VIRAL ONCOLOGY	3T32 CA09176-05S1	174,501
SHERMAN, S MURRAY	SENSORY TRANSDUCTION AND NEURAL PROCESSING IN VISION	5T32 EY07039-05	57,047
ORGANIZATION TOTAL	4 404,134		
SYRACUSE			
STATE UNIVERSITY OF NEW YORK--UPSTATE MEDICAL CENTER ZIP CODE 13210			
STREETEN, DAVID H.	ENDOCRINOLOGY	5T32 AM07146-06	13,625
ORGANIZATION TOTAL	1 13,625		
TROY			
RENSSELAER POLYTECHNIC INSTITUTE ZIP CODE 12181			
KATZ, J LAWRENCE	DENTAL MATERIALS	5T32 DE07054-05	60,347
ORGANIZATION TOTAL	1 60,347		
UPTON			
ASSOCIATED UNIVERSITIES--BROOKHAVEN NATIONAL LABORATORY ZIP CODE 11973			
SETLOW, RICHARD B.	ENVIRONMENTAL AND GENETIC FACTORS IN NEOPLASIA	2T32 CA09121-06	108,135
ORGANIZATION TOTAL	1 108,135		
UTICA			
MASONIC FOUNDATION FOR MEDICAL RESEARCH AND HUMAN WELFARE ZIP CODE 13501			
MOE, GORDON K.	EXPERIMENTAL CARDIOLOGY	3T32 HL07254-03S1	783
MOE, GORDON K.	EXPERIMENTAL CARDIOLOGY	5T32 HL07254-04	52,426
ORGANIZATION TOTAL	2 53,209		
STATE TOTAL	193 19,514,949		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
NORTH CAROLINA			
CHAPEL HILL			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514			
BRIGGAMAN, ROBERT A.....	DERMATOLOGIC RESEARCH.....	1T32 AM07369-01	47,023
BROMBERG, PHILIP A.....	RESPIRATORY DISEASES—MULTIDISCIPLINARY.....	2T32 HL07106-06	95,052
CLYDE, WALLACE A, JR.....	CHILDHOOD AND ADULT INFECTIOUS DISEASES.....	5T32 AI07151-03	93,277
CROMARTIE, WILLIAM J.....	SHORT-TERM RESEARCH TRAINING.....	1T35 AM07386-01	69,399
DAVIS, CLARENCE E.....	CARDIOVASCULAR EPIDEMIOLOGY AND STATISTICS.....	2T32 HL07005-06	87,290
GETTES, LEONARD S.....	SELECTED TOPICS IN CARDIOLOGY.....	1T32 HL07470-01	50,310
GOTTSCHALK, CARL W.....	KIDNEY AND MEMBRANE PHYSIOLOGY AND DISEASE.....	2T32 AM07047-07	54,031
GRAHAM, JOHN B.....	EXPERIMENTAL HEMATOLOGY.....	5T32 HL07255-04	89,460
GRAHAM, JOHN B.....	GENETICS.....	2T32 GM07092-06	145,710
GREGG, JOHN M.....	MECHANISMS AND CONTROL OF CRANIOFACIAL PAIN.....	5T32 DE07018-05	87,737
GRISHAM, JOE W.....	ENVIRONMENTAL PATHOLOGY: EXPERIMENTAL AND APPLIED.....	2T32 ES07017-06	141,703
HULKA, BARBARA S.....	CANCER EPIDEMIOLOGY.....	1T32 CA09330-01A1	104,801
KUPPER, LAWRENCE L.....	BIOSTATISTICAL RESEARCH—ENVIRONMENTAL HEALTH.....	5T32 ES07018-04	95,641
LIPTON, MORRIS A.....	MENTAL RETARDATION—INTERDISCIPLINARY.....	5T32 HD07201-02	52,247
LUNDBLAD, ROGER L.....	SHORT-TERM RESEARCH TRAINING.....	1T35 DE07102-01	13,025
MANIRE, G PHILIP.....	TUMOR BIOLOGY.....	3T32 CA09057-05S1	20,242
MC KINNEY, JAMES D.....	MENTAL RETARDATION.....	5T32 HD07178-02	105,553
MORELL, PIERRE.....	NEUROBIOLOGY.....	3T32 NS07166-01S1	1,187
MORELL, PIERRE.....	NEUROBIOLOGY.....	5T32 NS07166-02	103,820
PAGANO, JOSEPH S.....	BASIC MECHANISMS OF VIRAL AND CHEMICAL CARCINOGENESIS.....	2T32 CA09156-06	214,580
PERKINS, JOHN P.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07040-06	64,902
SPARLING, PHILIP F.....	NORTH CAROLINA VENEREAL DISEASE PROGRAM.....	5T32 AI07001-05	67,450
TYROLER, HERMAN A.....	CARDIOVASCULAR EPIDEMIOLOGY AND STATISTICS.....	3T32 HL07055-05S1	696
TYROLER, HERMAN A.....	CARDIOVASCULAR EPIDEMIOLOGY AND STATISTICS.....	2T32 HL07055-06	133,182
TYROLER, HERMAN A.....	ENVIRONMENTAL EPIDEMIOLOGY.....	5T32 ES07036-04	149,758
UDRY, J RICHARD.....	POPULATION STUDIES.....	5T32 HD07168-02	168,395
VAN WYK, JUDSON J.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07129-06	71,844
VAN WYK, JUDSON J.....	ENDOCRINOLOGY AND METABOLISM.....	2T32 AM07129-07	88,633
WELLS, H BRADLEY.....	POPULATION STATISTICS.....	5T32 HD07102-04	101,150
ORGANIZATION TOTAL	29	2,518,098	
CHARLOTTE			
JOHNSON C. SMITH UNIVERSITY ZIP CODE 28216			
CHOPRA, BALDEO K.....	MICROBIOLOGY, BIOCHEMISTRY & BIOPHYSICS.....	5T32 GM07652-04	104,930
ORGANIZATION TOTAL	1	104,930	
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
AMOS, D BERNARD.....	TUMOR IMMUNOLOGY AND IMMUNOGENETICS.....	2T32 CA09058-06	278,055
AMOS, D BERNARD.....	MEDICAL GENETICS.....	5T32 GM07003-05	58,432
BUCKLEY, REBECCA H.....	ALLERGY AND CLINICAL IMMUNOLOGY.....	5T32 AI07062-04	89,413
GILLHAM, NICOLAS W.....	GENETICS.....	5T32 GM07754-02	99,899
GOLDSMITH, LOWELL A.....	DERMATOLOGY.....	2T32 AM07093-06	92,124
HILL, ROBERT L.....	MEDICAL SCIENTIST.....	2T32 GM07171-06	595,621
HILL, ROBERT L.....	ORGANIZATION AND FUNCTIONS OF CELLULAR STRUCTURES.....	2T32 GM07184-06	371,381
JOKLIK, WOLFGANG K.....	VIRAL ONCOLOGY.....	2T32 CA09111-06	309,988
JOKLIK, WOLFGANG K.....	BASIC MECHANISMS IN INFECTIOUS DISEASES.....	5T32 AI07148-03	151,483
LASZLO, JOHN.....	CANCER CHEMOTHERAPY.....	5T32 CA09307-03	152,223
LEBOVITZ, HAROLD E.....	ENDOCRINOLOGY AND DIABETES.....	2T32 AM07012-06	44,561
LYNN, WILLIAM S.....	ENVIRONMENT AND THE LUNGS: TOXINS AND MEDIATORS.....	5T32 ES07031-03	134,853
MADDOX, GEORGE L.....	BEHAVIOR & PHYSIOLOGY IN AGING.....	5T32 AG00029-05	155,482
OTTOLENGHI, ATHOS.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07105-06	104,412
PILKINGTON, THEO C.....	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	5T32 HL07063-05	148,950
ROBERTSON, J DAVID.....	BIOLOGICAL MEMBRANE STUDIES.....	5T32 GM07403-04	132,352
ROBINSON, ROSCOE R.....	KIDNEY STRUCTURE AND FUNCTION IN HEALTH AND DISEASE.....	5T32 AM07308-03	70,230

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
NORTH CAROLINA—Continued				
ROSATI, ROBERT A.....		BIOMEDICAL COMMUNICATIONS.....	5T15 LM07003-06	190,324
ROSSE, WENDELL F.....		BLOOD BANKING SCIENCES AND RELATED PROGRAMS.....	3T32 HL07057-05S1	4,593
ROSSE, WENDELL F.....		BLOOD BANKING SCIENCES AND RELATED PROGRAMS.....	2T32 HL07057-06	136,878
SNYDERMAN, RALPH.....		INFLAMMATORY AND IMMUNOLOGICAL DISEASES.....	1T32 AI07217-01	47,566
TYOR, MALCOLM P.....		DIGESTIVE DISEASES.....	5T32 AM07166-05	65,407
VOGEL, F STEPHEN.....		BIOLOGICAL APPROACHES TO DEMENTIA.....	2T32 AG00007-06	65,681
WALLACE, ANDREW G.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07101-05S1	22,240
WALLACE, ANDREW G.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	2T32 HL07101-06	370,418
WYNGAARDEN, JAMES B.....		METABOLIC AND RHEUMATIC DISEASES.....	5T32 AM07015-06	16,544
WYNGAARDEN, JAMES B.....		METABOLIC AND RHEUMATIC DISEASES.....	2T32 AM07015-07	69,664
ORGANIZATION TOTAL	27	3,978,774		
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA CENTRAL UNIVERSITY ZIP CODE 27707				
TOWNES, MARY M.....		BIOMEDICAL SCIENCES.....	1T32 GM07668-01A1	144,477
ORGANIZATION TOTAL	1	144,477		
GREENSBORO				
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY ZIP CODE 27411				
DE LAUDER, WILLIAM B.....		BIOMEDICAL SCIENCES.....	5T32 GM07649-02	121,818
ORGANIZATION TOTAL	1	121,818		
RALEIGH				
UNIVERSITY OF NORTH CAROLINA SYSTEM—NORTH CAROLINA STATE UNIVERSITY AT RALEIGH ZIP CODE 27607				
GUTHRIE, FRANK E.....		MOLECULAR AND ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07046-04	145,776
ORGANIZATION TOTAL	1	145,776		
WINSTON-SALEM				
WAKE FOREST UNIVERSITY ZIP CODE 27109				
BUCKALEW, VARDAMAN M, JR.....		CARDIOVASCULAR DISEASES.....	1T32 HL07458-01	67,621
CLARKSON, THOMAS B.....		SHORT-TERM RESEARCH TRAINING.....	1T35 AM07400-01	34,637
CLARKSON, THOMAS B.....		LABORATORY ANIMAL AND COMPARATIVE MEDICINE.....	5T32 RR07009-04	96,125
HUTCHINS, PHILLIP M.....		MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....	5T35 HL07304-04	33,427
ST CLAIR, RICHARD W.....		MULTIDISCIPLINARY HEART AND VASCULAR DISEASES.....	3T32 HL07115-05S1	9,566
ST CLAIR, RICHARD W.....		CARDIOVASCULAR PATHOLOGY.....	2T32 HL07115-06	183,197
ORGANIZATION TOTAL	6	424,573		
STATE TOTAL	66	7,438,446		
OHIO				
CINCINNATI				
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 45229				
KAPLAN, SAMUEL.....		CARDIOVASCULAR DISEASE OF THE YOUNG.....	5T32 HL07417-03	48,902
LAMPKIN, BEATRICE C.....		PEDIATRIC HEMATOLOGY-ONCOLOGY.....	5T32 CA09148-02	77,216
WEST, CLARK D.....		PEDIATRIC NEPHROLOGY RESEARCH.....	5T32 AM07051-05	37,290
ZIMMERMAN, ERNEST F.....		TERATOLOGY.....	5T32 ES07051-04	63,433
ORGANIZATION TOTAL	4	226,841		
UNIVERSITY OF CINCINNATI AT CINCINNATI ZIP CODE 45221				
BUNCHER, CHARLES R.....		ENVIRONMENTAL EPIDEMIOLOGY AND BIOSTATISTICS.....	5T32 ES07053-03	85,858
HAMMOND, PAUL B.....		TOXICOLOGY.....	5T32 ES07073-03	359,150
KLEINMAN, LEONARD I.....		PERINATOLOGY.....	5T32 HD07200-02	82,849
SCHWARTZ, ARNOLD.....		CARDIOVASCULAR BIOLOGY.....	3T32 HL07382-03S1	10,705
SCHWARTZ, ARNOLD.....		CARDIOVASCULAR BIOLOGY.....	5T32 HL07382-04	163,216

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
OHIO—Continued			
SUBBIAH, M T.....	LIPIDS, ATHEROSCLEROSIS, AND NUTRITION.....	1T32 HL07460-01	97,433
ORGANIZATION TOTAL	6 799,211		
CLEVELAND			
CASE WESTERN RESERVE UNIVERSITY ZIP CODE 44106			
BILLIAR, REINHART B.....	BIOLOGY OF HUMAN REPRODUCTION.....	5T32 HD07120-04	57,965
CHERNIACK, NEIL S.....	RESPIRATORY DISEASES.....	5T32 HL07288-04	74,243
DEFTERMAN, DOUGLAS K.....	MENTAL RETARDATION RESEARCH TRAINING IN PSYCHOLOGY.....	5T32 HD07176-02	58,483
DOERSHUK, CARL F.....	PEDIATRIC PULMONARY DISEASE AND CYSTIC FIBROSIS.....	5T32 HL07415-02	162,466
EVANS, HELEN H.....	ENVIRONMENTAL BIOLOGY.....	5T32 ES07080-03	22,925
FANAROFF, AVROY A.....	NEONATAL RESPIRATORY RESEARCH.....	5T32 HD07132-03	36,122
KOSBERG, JORDAN I.....	GERONTOLOGY—INTERDISCIPLINARY.....	1T32 AG00056-01A2	89,793
LAKE, ROBIN B.....	COMPUTER TECHNOLOGY IN HEALTH SCIENCES.....	2T15 LM07001-06	178,957
LASEK, RAYMOND J.....	DEVELOPMENTAL NEUROLOGY.....	3T32 NS07118-02S1	1,475
LASEK, RAYMOND J.....	DEVELOPMENTAL NEUROLOGY.....	5T32 NS07118-03	112,497
MAHMOUD, ADEL A.....	GEOGRAPHIC MEDICINE.....	5T32 AI07024-04	52,348
PLONSEY, ROBERT.....	BIOMEDICAL ENGINEERING/SYSTEMS & INTEGRATIVE BIOLOGY.....	5T32 GM07535-04	216,975
RATNOFF, OSCAR D.....	HEMATOLOGY.....	2T32 HL07147-06A1	74,202
SINGER, MARCUS.....	NORMAL AND ABNORMAL DEVELOPMENT.....	5T32 HD07104-04	184,226
UTTER, MERTON F.....	METABOLISM.....	5T32 AM07319-02	176,208
WEBSTER, LESLIE T, JR.....	PHARMACOLOGY.....	5T32 GM07382-04	50,241
ORGANIZATION TOTAL	16 1,549,126		
CLEVELAND CLINIC HOSPITAL ZIP CODE 44106			
KHAIRALLAH, PHILIP A.....	CARDIOVASCULAR DISEASES.....	3T32 HL07242-02S1	11,152
KHAIRALLAH, PHILIP A.....	CARDIOVASCULAR DISEASES.....	5T32 HL07242-03	129,829
ORGANIZATION TOTAL	2 140,981		
COLUMBUS			
OHIO STATE UNIVERSITY ZIP CODE 43210			
ALLEN, JAMES N.....	BIOCHEMICAL NEUROPATHOLOGY.....	5T32 NS07091-05	56,319
BALCERZAK, STANLEY P.....	ONCOLOGY.....	2T32 CA09338-03	147,798
TRZEBIATOWSKI, GREGORY L.....	BIOMEDICAL COMPUTING AND INFORMATION PROCESSING.....	2T15 LM07023-03	148,249
WITIAK, DONALD T.....	MEDICINAL CHEMISTRY.....	5T32 GM07622-03	71,314
ORGANIZATION TOTAL	4 423,680		
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO ZIP CODE 43699			
MULROW, PATRICK J.....	ENDOCRINOLOGY AND METABOLOGY.....	5T32 AM07316-03	32,537
RAPP, JOHN P.....	HYPERTENSION.....	5T32 HL07357-03	76,074
ORGANIZATION TOTAL	2 108,611		
STATE TOTAL	34 3,248,450		
OKLAHOMA			
OKLAHOMA CITY			
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER ZIP CODE 73190			
MC CAFFREE, D ROBERT.....	PULMONARY MEDICINE.....	5T17 HL07155-06	10,800
ROGERS, ROBERT M.....	PULMONARY DISEASES—MULTIDISCIPLINARY.....	5T32 HL07210-05	41,083
STONE, HUBERT L.....	CARDIOVASCULAR CONTROL AND HYPERTENSION.....	3T32 HL07430-01S1	23,776
STONE, HUBERT L.....	CARDIOVASCULAR CONTROL AND HYPERTENSION.....	5T32 HL07430-02	171,523
TAYLOR, FLETCHER B, JR.....	HEMATOLOGY.....	3T32 HL07207-04S1	6,155
TAYLOR, FLETCHER B, JR.....	HEMATOLOGY.....	5T32 HL07207-05	59,012
ORGANIZATION TOTAL	6 312,349		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
OKLAHOMA—Continued			
TAHLEQUAH			
NORTHEASTERN OKLAHOMA STATE UNIVERSITY		ZIP CODE 74464	
REED, LANNY J.....	PHYSICS & NATURAL SCIENCES.....	5T32 GM07694-04	49,063
ORGANIZATION TOTAL	1 49,063		
STATE TOTAL	7 361,412		
OREGON			
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY		ZIP CODE 97331	
MATHEWS, CHRISTOPHER K.....	MOLECULAR AND CELLULAR BIOLOGY.....	1T32 GM07774-01A1	33,250
TINSLEY, IAN J.....	ENVIRONMENTAL TOXICOLOGY.....	5T32 ES07060-02	115,275
ORGANIZATION TOTAL	2 148,525		
EUGENE			
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON		ZIP CODE 97403	
FERNALD, RUSSELL D.....	SYSTEMS AND INTEGRATIVE BIOLOGY.....	2T32 GM07257-06	97,954
MATTHEWS, BRIAN W.....	MOLECULAR BIOLOGY.....	5T32 GM07759-02	138,465
POSTLETHWAIT, JOHN H.....	GENETICS.....	5T32 GM07413-04	140,607
ORGANIZATION TOTAL	3 377,026		
PORTLAND			
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER		ZIP CODE 97201	
BISSONNETTE, JOHN M.....	PERINATAL BIOLOGY.....	5T32 HD07084-03	71,127
CONNOR, WILLIAM E.....	NUTRITION AND ATHEROSCLEROSIS.....	3T32 HL07295-03S1	1,880
CONNOR, WILLIAM E.....	NUTRITION AND ATHEROSCLEROSIS.....	5T32 HL07295-04	94,440
CRITCHLOW, B VAUGHN.....	REPRODUCTIVE BIOLOGY—MULTIDISCIPLINARY.....	5T32 HD07133-03	51,009
GREER, MONTE A.....	ENDOCRINOLOGY AND METABOLGY.....	5T32 AM07331-02	72,226
JONES, RICHARD T.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07336-04	45,797
MATARAZZO, JOSEPH D.....	CARDIOVASCULAR FUNCTION—BEHAVIORAL.....	3T32 HL07332-02S1	2,022
MATARAZZO, JOSEPH D.....	CARDIOVASCULAR FUNCTION—BEHAVIORAL.....	5T32 HL07332-03	80,211
WUEPPER, KIRK D.....	MULTIDISCIPLINARY DERMATOLOGY.....	5T32 AM07153-05	69,734
ORGANIZATION TOTAL	9 488,446		
STATE TOTAL	14 1,013,997		
PENNSYLVANIA			
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER		ZIP CODE 17033	
BIEBUYCK, JULIEN F.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07477-01	26,050
LANG, C MAX.....	LABORATORY ANIMAL MEDICINE.....	2T32 RR07006-04	54,817
MORGAN, HOWARD E.....	CELLULAR BIOLOGY—HEART.....	5T32 HL07223-05	141,548
RAPP, FRED.....	VIRUSES AND CANCER.....	5T32 CA09124-03	117,866
ORGANIZATION TOTAL	4 340,281		
PHILADELPHIA			
CHILDREN'S HOSPITAL OF PHILADELPHIA		ZIP CODE 19104	
SCHWARTZ, ELIAS.....	HEMATOLOGY.....	2T32 HL07150-06	73,519

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
PENNSYLVANIA—Continued			
SEGAL, STANTON.....	MENTAL RETARDATION.....	5T32 HD07107-04	92,452
ORGANIZATION TOTAL	2 165,971		
INSTITUTE FOR CANCER RESEARCH ZIP CODE 19111			
ANDERSON, THOMAS F.....	CANCER RESEARCH.....	2T32 CA09035-06	269,296
ORGANIZATION TOTAL	1 269,296		
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129			
ROSS, LEONARD L.....	NEUROBIOLOGY OF DEVELOPMENT AND REGENERATION.....	5T32 NS07061-03	84,091
ROTHBLAT, GEORGE H.....	PHYSIOLOGY AND BIOCHEMISTRY OF ARTERIOSCLEROSIS.....	3T32 HL07443-01S1	17,480
ORGANIZATION TOTAL	2 101,571		
MONELL CHEMICAL SENSES CENTER ZIP CODE 19104			
KARE, MORLEY R.....	CHEMICAL SENSES—INTERDISCIPLINARY.....	3T32 NS07176-01S1	2,087
KARE, MORLEY R.....	CHEMICAL SENSES—INTERDISCIPLINARY.....	5T32 NS07176-02	90,166
ORGANIZATION TOTAL	2 92,253		
PHILADELPHIA GERIATRIC CENTER ZIP CODE 19141			
ADELMAN, RICHARD C.....	CELLULAR AND MOLECULAR ASPECTS OF AGING.....	5T32 AG00034-03	38,076
ORGANIZATION TOTAL	1 38,076		
TEMPLE UNIVERSITY ZIP CODE 19122			
BUCKLEY, HELEN R.....	MEDICAL MYCOLOGY.....	5T32 AI07141-02	24,138
COHEN, ALLEN B.....	EXPERIMENTAL PULMONARY EMPHYSEMA.....	3T32 HL07414-01S1	4,147
COHEN, ALLEN B.....	EXPERIMENTAL PULMONARY EMPHYSEMA.....	5T32 HL07414-02	98,558
COLMAN, ROBERT W.....	THROMBOSIS AND HEMOSTASIS.....	5T32 HL07248-04	86,573
MAGEE, PETER N.....	CANCER AND CANCER RELATED RESEARCH.....	5T32 CA09214-03	125,899
PLAUT, GERHARD W.....	BIOCHEMICAL ENDOCRINOLOGY RELATED TO DIABETES.....	3T32 AM07162-03S1	12,469
PLAUT, GERHARD W.....	BIOCHEMICAL ENDOCRINOLOGY RELATED TO DIABETES.....	5T32 AM07162-04	116,472
SHOCKMAN, GERALD D.....	MICROBIOLOGY AND IMMUNOLOGY.....	5T32 AI07101-03	45,043
SPANN, JAMES F, JR.....	CARDIOLOGY.....	3T32 HL07198-04S1	611
SPANN, JAMES F, JR.....	CARDIOLOGY.....	5T32 HL07198-05	56,636
ORGANIZATION TOTAL	10 570,546		
THOMAS JEFFERSON UNIVERSITY ZIP CODE 19107			
BIANCHI, C PAUL.....	ENVIRONMENTAL AND INDUSTRIAL TOXICOLOGY.....	5T32 ES07084-02	95,069
BRENT, ROBERT L.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07075-05	58,220
BRENT, ROBERT L.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07497-01	43,416
ERSLEV, ALLAN J.....	HEMATOLOGY.....	2T32 AM07084-06	66,189
KRAMER, SIMON.....	RADIATION THERAPY.....	5T32 CA09137-06	35,289
LIBERTI, PAUL A.....	IMMUNOCHEMISTRY AND IMMUNOBIOLOGY.....	5T32 AI07043-05	39,057
SHAPIRO, SANDOR S.....	HEMOSTASIS AND THROMBOSIS.....	3T32 HL07371-02S1	4,402
SHAPIRO, SANDOR S.....	HEMOSTASIS AND THROMBOSIS.....	5T32 HL07371-03	71,789
ORGANIZATION TOTAL	8 413,431		
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19104			
AGUS, ZALMAN S.....	RENAL PATHOPHYSIOLOGY IN CARDIAC AND RENAL DISEASE.....	5T32 AM07006-06	58,486
AGUS, ZALMAN S.....	RENAL PATHOPHYSIOLOGY IN CARDIAC AND RENAL DISEASE.....	2T32 AM07006-07	143,827
AVADHANI, NARAYAN G.....	SHORT-TERM RESEARCH TRAINING.....	1T35 GM07900-01	26,050
BAHN, ANITA K.....	CANCER ETIOLOGY.....	5T32 ES07078-03	184,995
BRIGHTON, CARL T.....	BONE AND CARTILAGE RESEARCH.....	5T32 AM07132-05	79,670
COHEN, SIDNEY.....	GASTROENTEROLOGY.....	2T32 AM07066-06	90,806
COOPER, RICHARD A.....	HEMATOLOGY CLINICAL RESEARCH.....	5T32 HL07439-02	142,249
FERGUSON, JAMES J, JR.....	MEDICAL SCIENTIST.....	2T32 GM07170-06	746,652
FISHMAN, ALFRED P.....	CARDIOPULMONOLOGY.....	2T32 HL07000-06	95,070
FORSTER, ROBERT E.....	PULMONARY PHYSIOLOGY.....	2T32 HL07027-06	169,887
FORSTER, ROBERT E.....	INTEGRATIVE AND THEORETICAL BIOLOGY.....	5T32 GM07517-03	139,582
GONATAS, NICHOLAS K.....	NEUROPATHOBIOLOGY.....	1T32 NS07064-01A3	45,734
HOLTZER, HOWARD.....	CELL DIFFERENTIATION.....	5T32 HD07152-03	101,795
HURVICH, LEO M.....	PSYCHOPHYSICS AND PHYSIOLOGY OF VISION.....	5T32 EY07035-05	59,968
KALLENBACH, NEVILLE R.....	GENETICS.....	2T32 GM07071-06	161,385

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
PENNSYLVANIA—Continued			
KASTOR, JOHN A.....	CLINICAL AND EXPERIMENTAL CARDIAC ELECTROPHYSIOLOGY.....	5T32 HL07346-03	126,015
KEFALIDES, NICHOLAS A.....	THROMBOSIS.....	3T32 HL07177-02S1	293
KEFALIDES, NICHOLAS A.....	THROMBOSIS.....	5T32 HL07177-03	69,152
LASH, JAMES W.....	ANALYSIS OF DEVELOPMENT.....	5T32 HD07067-05	128,330
MELLMAN, WILLIAM J.....	HUMAN GENETICS.....	5T32 GM07511-04	87,480
NATHANSON, NEAL.....	NEUROVIROLOGY.....	1T32 NS07180-01	61,442
NOORDERGRAAF, ABRAHAM.....	INTEGRATIVE BIOLOGY.....	5T32 GM07627-02	89,271
NOWOTNY, ALOIS H.....	PERIODONTICS—IMMUNOLOGY, MICROBIOLOGY, & PATHOLOGY.....	1T32 DE07085-01A1	103,091
PEACHEY, LEE D.....	CELL AND MOLECULAR BIOLOGY.....	2T32 GM07229-06	347,560
SCHAD, GERHARD A.....	IMMUNOLOGY OF HOST PARASITE RELATIONSHIPS.....	5T32 AI07050-04	73,077
TRENTHAM, DAVID R.....	CARDIOVASCULAR RESEARCH.....	1T32 HL07502-01	62,413
VAN DE WALLE, ETIENNE.....	DEMOGRAPHY.....	5T32 HD07113-04	52,286
WEISS, LEON P.....	EXPERIMENTAL HEMATOLOGY AND CELL BIOLOGY.....	5T32 AM07185-05	39,222
WILSON, DARCY B.....	IMMUNOBIOLOGY OF NORMAL & NEOPLASTIC LYMPHOCYTES.....	2T32 CA09140-06	324,131
WINEGRAD, ALBERT I.....	DIABETES, ENDOCRINE AND METABOLIC DISEASES.....	5T32 AM07314-02	134,663
WOLLMAN, HARRY.....	DENTAL PAIN CONTROL.....	5T32 DE07009-05	119,042
WOLLMAN, HARRY.....	ANESTHESIOLOGY.....	5T32 GM07612-03	88,960
YAFFE, SUMNER J.....	PEDIATRIC CLINICAL PHARMACOLOGY AND ANESTHESIOLOGY.....	5T32 GM07514-04	70,656
YANOFF, MYRON.....	EXPERIMENTAL OPHTHALMIC PATHOLOGY.....	5T32 EY07041-04	42,648
ZWEIMAN, BURTON.....	ALLERGY AND IMMUNOLOGIC DISEASES.....	5T32 AI07031-05	72,714
ORGANIZATION TOTAL	35	4,338,602	
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY ZIP CODE 19104			
KOPROWSKI, HILARY.....	BASIC CANCER RESEARCH.....	5T32 CA09171-05	278,449
ORGANIZATION TOTAL	1	278,449	
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION—ALLEGHENY-SINGER RESEARCH CORPORATION ZIP CODE 15212			
CONCANNON, JOSEPH P.....	RADIATION ONCOLOGY.....	5T32 CA09231-03	50,225
LESHER, SAMUEL W.....	CANCER RESEARCH.....	5T32 CA09225-03	69,596
ORGANIZATION TOTAL	2	119,821	
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
ANDERSON, JOHN L.....	BIOTECHNOLOGY PROGRAM.....	5T32 GM07477-04	103,138
ORGANIZATION TOTAL	1	103,138	
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
BROWN, STUART I.....	OCULAR CONNECTIVE TISSUES.....	5T32 EY07032-05	42,786
ORGANIZATION TOTAL	1	42,786	
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
BOGGS, DANE R.....	HEMATOLOGY AND ONCOLOGY.....	5T32 AM07040-04	42,785
DE RUBERTIS, FREDERICK R.....	DIABETES AND ENDOCRINOLOGY.....	5T32 AM07052-06	27,054
GILL, THOMAS J, III.....	PATHOBIOLOGY.....	5T32 GM07349-04	80,214
KNOBIL, ERNST.....	PRIMATE REPRODUCTIVE PHYSIOLOGY.....	5T32 HD07116-04	27,258
KULLER, LEWIS H.....	CARDIOVASCULAR EPIDEMIOLOGY.....	2T32 HL07011-06	103,763
ROBINSON, ALAN G.....	DIABETES AND ENDOCRINOLOGY.....	2T32 AM07052-07	45,507
ORGANIZATION TOTAL	6	326,581	
UNIVERSITY PARK			
PENNSYLVANIA STATE UNIVERSITY AT UNIVERSITY PARK ZIP CODE 16802			
TAYLOR, CHARLES.....	GERONTOLOGY (INTERDISCIPLINARY).....	5T32 AG00048-04	76,027
ORGANIZATION TOTAL	1	76,027	
STATE TOTAL	77	7,276,829	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
RHODE ISLAND				
PROVIDENCE				
BROWN UNIVERSITY	ZIP CODE 02912			
CHA, SUNGMAN	CANCER RESEARCH	3T32 CA09204-01S1	3,975	
FAIN, JOHN N.	DIABETES, ENDOCRINOLOGY, AND METABOLISM	5T32 AM07187-05	64,320	
GOLDSTEIN, SIDNEY	POPULATION CHANGE, DISTRIBUTION, AND MODERNIZATION	5T32 HD07069-05	104,173	
RIGGS, LORRIN A.	VISUAL PSYCHOPHYSIOLOGY	5T32 EY07029-05	20,144	
ROTHMAN, FRANK G.	MOLECULAR AND CELL BIOLOGY	5T32 GM07601-02	57,863	
ORGANIZATION TOTAL	5 250,475			
STATE TOTAL	5 250,475			
SOUTH CAROLINA				
CHARLESTON				
MEDICAL UNIVERSITY OF SOUTH CAROLINA	ZIP CODE 29403			
BAGWELL, ERVINE E.	PHARMACOLOGY	5T32 GM07404-04	71,330	
FUDENBERG, H. HUGH	BASIC IMMUNE MECHANISMS AND IMMUNOLOGIC DISEASES	5T32 AI07063-03	66,886	
GAFFNEY, THOMAS E.	CLINICAL PHARMACOLOGY	5T32 GM07534-04	57,737	
LINDENMAYER, GEORGE E.	IMPROVE CARDIOVASCULAR DRUG THERAPY	3T32 HL07260-03S1	7,021	
LINDENMAYER, GEORGE E.	IMPROVE CARDIOVASCULAR DRUG THERAPY	5T32 HL07260-04	132,350	
MILLER, M. CLINTON, III	CARDIOMETRICAL SCIENTIST	3T32 HL07384-02S1	609	
MILLER, M. CLINTON, III	CARDIOMETRICAL SCIENTIST	5T32 HL07384-03	40,940	
ORGANIZATION TOTAL	7 376,873			
COLUMBIA				
BENEDICT COLLEGE	ZIP CODE 29204			
KINARD, JAMES T.	BIOLOGY AND CHEMISTRY	5T32 GM07643-04	47,582	
ORGANIZATION TOTAL	1 47,582			
ORANGEBURG				
SOUTH CAROLINA STATE COLLEGE	ZIP CODE 29117			
ARRINGTON, JAMES H.	INTEGRATED APPROACH TO IMPROVING SCIENCE CURRICULUM	1T32 GM07813-01	47,010	
ORGANIZATION TOTAL	1 47,010			
STATE TOTAL	9 471,465			
TENNESSEE				
KNOXVILLE				
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE	ZIP CODE 37916			
BILLEN, DANIEL	CARCINOGENESIS	2T32 CA09104-06	92,554	
BROWN, ARTHUR	MICROBIOLOGY RELATED TO INFECTIOUS DISEASES	5T32 AI07123-03	102,833	
KENNEY, FRANCIS T.	CARCINOGENESIS	5T32 CA09336-02	125,805	
LANGE, ROBERT D.	HEMATOLOGY	1T32 HL07448-01	45,507	
POPP, RAYMOND A.	GENETICS	5T32 GM07438-04	48,653	
STULBERG, MELVIN P.	MOLECULAR CELLULAR AGING	5T32 AG00028-05	73,102	
WALLACE, ROBIN A.	MACROMOLECULES IN BIOLOGICAL REGULATORY MECHANISMS	5T32 GM07431-04	42,288	
ORGANIZATION TOTAL	7 530,742			

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
TENNESSEE—Continued				
MEMPHIS				
ST. JUDE CHILDREN'S RESEARCH HOSPITAL		ZIP CODE 38101		
PHILLIPS, DAVID R.....	CANCER BIOLOGY.....		5T32 CA09346-02	127,572
ORGANIZATION TOTAL	1	127,572		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES		ZIP CODE 38163		
KANG, ANDREW H.....	CONNECTIVE TISSUE DISEASES.....		3T32 AM07317-02S1	2,395
KANG, ANDREW H.....	CONNECTIVE TISSUE DISEASES.....		5T32 AM07317-03	56,082
KAUKER, MICHAEL L.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT.....		5T35 HL07389-03	30,912
KITABCHI, ABBAS E.....	DIABETES, ENDOCRINE AND METABOLIC DISEASES.....		5T32 AM07088-02	87,131
SABESIN, SEYMOUR M.....	LIVER DISEASES.....		5T32 AM07292-03	40,821
SHARE, LEONARD.....	HYPERTENSION.....		3T32 HL07339-02S1	3,610
SHARE, LEONARD.....	HYPERTENSION.....		5T32 HL07339-03	82,747
SOLOMON, SOLOMON S.....	SHORT-TERM RESEARCH TRAINING.....		1T35 AM07405-01	52,099
ORGANIZATION TOTAL	8	355,797		
NASHVILLE				
FISS UNIVERSITY		ZIP CODE 37203		
MC KELVEY, MARY E.....	BIOMEDICAL SCIENCES.....		5T32 GM07675-03	120,656
ORGANIZATION TOTAL	1	120,656		
STATE UNIVERSITY AND COMMUNITY COLLEGE SYSTEM OF TENNESSEE—TENNESSEE STATE UNIVERSITY		ZIP CODE 37203		
KAHLON, PREM S.....	BIOMEDICAL SCIENCES.....		1T32 GM07663-01A2	103,246
ORGANIZATION TOTAL	1	103,246		
VANDERBILT UNIVERSITY		ZIP CODE 37240		
BRIGHAM, KENNETH L.....	RESPIRATORY DISEASES—MULTIDISCIPLINARY.....		3T32 HL07123-05S1	27,000
BRIGHAM, KENNETH L.....	PATHOPHYSIOLOGY OF THE PULMONARY MICROCIRCULATION.....		2T32 HL07123-06	69,919
BROOKS, PENELOPE H.....	MENTAL RETARDATION—BEHAVIORAL.....		5T32 HD07226-02	125,964
BROQUIST, HARRY P.....	NUTRITION AND GASTROENTEROLOGY.....		5T32 AM07083-06	43,647
CHAPMAN, JOHN E.....	MEDICAL SCIENTIST.....		5T32 GM07347-04	132,083
CROFFORD, OSCAR B.....	DIABETES AND ENDOCRINOLOGY.....		5T32 AM07061-06	29,694
CROFFORD, OSCAR B.....	DIABETES AND ENDOCRINOLOGY.....		2T32 AM07061-07	125,975
CROFFORD, OSCAR B.....	SHORT-TERM RESEARCH TRAINING.....		1T35 AM07383-01	43,284
ELLIOTT, JAMES H.....	VISUAL SCIENCES.....		5T32 EY07007-05	88,755
FRIESINGER, GOTTLIEB C.....	PHARMACOLOGY AND PHYSIOLOGY OF CARDIOVASCULAR DISEASES.....		5T32 HL07411-03	100,509
HARDMAN, JOEL G.....	PHARMACOLOGICAL SCIENCES.....		5T32 GM07628-03	184,614
HNILICA, LUBOMIR S.....	MOLECULAR MECHANISMS IN CANCER.....		5T32 CA09313-02	43,606
INAGAMI, TADASHI.....	HYPERTENSION.....		3T32 HL07323-02S1	2,295
INAGAMI, TADASHI.....	HYPERTENSION.....		5T32 HL07323-03	137,973
KRANTZ, SANFORD B.....	HEMATOLOGY.....		5T32 AM07186-05	56,011
NEAL, ROBERT A.....	ENVIRONMENTAL TOXICOLOGY.....		2T32 ES07028-06	81,699
OATES, JOHN A.....	CLINICAL PHARMACOLOGY.....		5T32 GM07569-04	135,421
PUETT, J DAVID.....	REPRODUCTIVE BIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY.....		3T32 HD07043-05S1	17,546
PUETT, J DAVID.....	REPRODUCTIVE BIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY.....		2T32 HD07043-06	104,573
SCHENKER, STEVEN.....	GASTROENTEROLOGY.....		1T32 AM07365-01	46,797
STAHLMAN, MILDRED T.....	NEWBORN PULMONARY DEVELOPMENT FUNCTION AND DISEASE.....		5T32 HL07256-04	92,237
TOUSTER, OSCAR.....	CELLULAR-MOLECULAR BIOLOGY.....		2T32 GM07319-06	158,454
WAGNER, CONRAD.....	NUTRITION AND GASTROENTEROLOGY.....		2T32 AM07083-07	46,807
ORGANIZATION TOTAL	23	1,894,863		
STATE TOTAL	41	3,132,876		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
TEXAS			
AUSTIN			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN ZIP CODE 78712			
HARDESTY, BOYD A.....	MEMBRANE CHANGES IN CARCINOGENESIS.....	3T32 CA09182-05S1	124,794
POSTON, DUDLEY L, JR.....	SOCIAL DEMOGRAPHY.....	5T32 HD07081-04	45,646
ORGANIZATION TOTAL	2 170,440		
DALLAS			
BISHOP COLLEGE ZIP CODE 75241			
FALOONA, GERALD R.....	BIOMEDICAL RESEARCH.....	5T32 GM07734-02	106,182
ORGANIZATION TOTAL	1 106,182		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS ZIP CODE 75235			
BUJA, LOUIS M.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07483-01	37,028
COMBES, BURTON.....	GASTROENTEROLOGY AND LIVER DISEASE.....	5T32 AM07100-06	28,988
COMBES, BURTON.....	GASTROENTEROLOGY AND LIVER DISEASE.....	2T32 AM07100-07	76,697
FOSTER, DANIEL W.....	ENDOCRINOLOGY AND METABOLISM.....	5T32 AM07307-03	112,685
GILLIAM, JAMES N.....	IMMUNODERMATOLOGY.....	3T32 AM07341-01S1	13,132
JOHNSON, ROBERT L, JR.....	PULMONARY PATHOPHYSIOLOGY.....	3T32 HL07362-02S1	5,216
JOHNSON, ROBERT L, JR.....	PULMONARY PATHOPHYSIOLOGY.....	5T32 HL07362-03	104,859
KOKKO, JUHA P.....	RENAL CONTROL OF BODY COMPOSITION AND BLOOD PRESSURE.....	5T32 AM07257-04	71,730
MACDONALD, PAUL C.....	PHYSIOLOGY OF REPRODUCTION.....	5T32 HD07190-02	192,033
MC CANN, SAMUEL M.....	NEUROENDOCRINOLOGY.....	5T32 HD07062-05	83,733
MITCHELL, JERE H.....	CARDIOVASCULAR PATHOPHYSIOLOGY.....	3T32 HL07360-02S1	16,845
MITCHELL, JERE H.....	CARDIOVASCULAR PATHOPHYSIOLOGY.....	5T32 HL07360-03	314,446
PETTINGER, WILLIAM A.....	CLINICAL PHARMACOLOGY.....	5T32 GM07247-04	67,809
PIERCE, ALAN K.....	PULMONARY MEDICINE.....	5T17 HL07128-06	43,200
STREILEIN, J WAYNE.....	CANCER IMMUNOLOGY.....	2T32 CA09082-06	252,399
WEISS, GEORGE B.....	FACTORS INFLUENCING DRUG ACTIVITY AND DISTRIBUTION.....	2T32 GM07062-06	80,364
ZIFF, MORRIS.....	BASIC AND CLINICAL RHEUMATOLOGY.....	5T32 AM07055-06	27,815
ZIFF, MORRIS.....	BASIC AND CLINICAL RHEUMATOLOGY.....	2T32 AM07055-07	91,014
ORGANIZATION TOTAL	18 1,619,993		
FORT WORTH			
TEXAS COLLEGE OF OSTEOPATHIC MEDICINE ZIP CODE 76107			
ELKO, EDWARD E.....	HYPERTENSION—MINORITIES.....	1T35 HL07465-01	31,048
ORGANIZATION TOTAL	1 31,048		
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON ZIP CODE 77550			
BROWN, ARTHUR M.....	BIOPHYSICS OF NERVE AND MUSCLE CELLS AND NEURAL CONTROL.....	1T32 GM07856-01	17,486
REMMERS, JOHN E.....	RESPIRATORY DISEASES.....	5T32 HL07217-05	39,897
REYNOLDS, EDWARD S.....	SHORT-TERM RESEARCH TRAINING.....	1T35 NS07189-01	38,902
ORGANIZATION TOTAL	3 96,285		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE ZIP CODE 77030			
ALLEN, JULIUS C.....	CARDIOVASCULAR SCIENCE.....	3T32 HL07282-02S1	3,041
ALLEN, JULIUS C.....	CARDIOVASCULAR SCIENCE.....	5T32 HL07282-03	83,615
ANDERSON, ROBERT E.....	VISUAL SCIENCES.....	2T32 EY07001-06	67,846
APPEL, STANLEY H.....	BIOLOGICAL APPROACHES TO DEMENTIA.....	3T32 AG00061-02S1	1,959
APPEL, STANLEY H.....	BIOLOGICAL APPROACHES TO DEMENTIA.....	5T32 AG00061-03	64,385
APPEL, STANLEY H.....	NEUROSCIENCES.....	1T32 NS07182-01	106,060
BUTEL, JANET S.....	VIRAL ONCOLOGY.....	5T32 CA09197-02	66,729
CASKEY, CHARLES T.....	MEDICAL GENETICS.....	5T32 GM07526-03	68,718
FIELD, JAMES B.....	DIABETES AND ENDOCRINOLOGY.....	5T32 AM07348-02	69,391

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
TEXAS—Continued			
MC NAMARA, DAN G.....	DEVELOPMENTAL CARDIAC PHARMACOLOGY AND PHYSIOLOGY.....	5T32 HL07190-04	45,543
O'MALLEY, BERT W.....	REPRODUCTIVE BIOLOGY: REGULATORY MECHANISMS.....	5T32 HD07165-02	99,567
WAKIL, SALIH J.....	MEDICAL SCIENTIST.....	5T32 GM07330-04	78,843
WILLIAMS, ROBERT P.....	MICROBIOLOGY OF INFECTIOUS DISEASES.....	3T32 AI07145-02S1	4,009
WILLIAMS, ROBERT P.....	MICROBIOLOGY OF INFECTIOUS DISEASES.....	5T32 AI07145-03	44,859
ORGANIZATION TOTAL	14	804,565	
RICE UNIVERSITY ZIP CODE 77001			
SCHROEPFER, GEORGE J, JR.....	MOLECULAR AND CELL BIOCHEMISTRY AND BIOLOGY.....	1T32 GM07833-01	73,385
ORGANIZATION TOTAL	1	73,385	
TEXAS SOUTHERN UNIVERSITY ZIP CODE 77004			
SESSION, JOHN J.....	IMMUNOBIOLOGY, BIOCHEMISTRY & PSYCHOLOGY.....	5T32 GM07659-04	85,535
ORGANIZATION TOTAL	1	85,535	
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON AT HOUSTON ZIP CODE 77004			
BUCKLEY, JOSEPH P.....	MINORITY HYPERTENSION RESEARCH DEVELOPMENT PROGRAM.....	3T35 HL07434-01S1	4,427
EVANS, RICHARD I.....	SOCIAL PSYCHOLOGY IN PREVENTING CARDIOVASCULAR DISEASE.....	3T32 HL07258-02S1	2,787
EVANS, RICHARD I.....	SOCIAL PSYCHOLOGY IN PREVENTING CARDIOVASCULAR DISEASE.....	5T32 HL07258-03	126,720
ORGANIZATION TOTAL	3	133,934	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON ZIP CODE 77025			
ANDREOLI, THOMAS E.....	PATHOPHYSIOLOGY OF MEMBRANE TRANSPORT PROCESSES.....	1T32 AM07408-01	67,612
CASTRO, GILBERT A.....	SHORT-TERM RESEARCH TRAINING.....	1T35 GM07871-01	52,099
DE MOSS, JOHN A.....	MOLECULAR BASIS OF CELL FUNCTION.....	5T32 GM07542-04	65,678
DUPONT, HERBERT L.....	ENTERIC INFECTION/ETIOLOGY, EPIDEMIOLOGY, IMMUNOLOGY.....	5T32 AI07128-02	39,701
LAVIS, VICTOR R.....	DIABETES.....	5T32 AM07282-03	87,986
MURPHY, SHELDON D.....	TOXICOLOGY.....	5T32 ES07090-02	109,902
PRESLOCK, JAMES P.....	HUMORAL REGULATION OF REPRODUCTIVE SYSTEMS.....	5T32 HD07119-04	33,951
ROBISON, GEORGE A.....	HOUSTON PHARMACOLOGICAL CENTER.....	5T32 GM07405-04	100,818
SPEERLING, HARRY G.....	PHYSIOLOGY AND NEUROCHEMISTRY OF VISION.....	2T32 EY07024-06	73,652
ORGANIZATION TOTAL	9	631,399	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025			
ANDERSON, DAVID E.....	CANCER BIOLOGY.....	5T32 CA09299-03	115,051
CONRAD, FRED G.....	CANCER CHEMOTHERAPY.....	3T32 CA09163-05S1	237,243
FREIREICH, EMIL J.....	CLINICAL PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS.....	5T32 CA09189-05	288,654
HUMPHREY, RONALD M.....	RADIATION ONCOLOGY.....	5T32 CA09191-03	76,454
VAN EYS, JAN.....	PEDIATRIC HEMATOLOGY AND ONCOLOGY.....	2T32 CA09070-06	96,161
ORGANIZATION TOTAL	5	813,563	
LUBBOCK			
TEXAS TECH UNIVERSITY ZIP CODE 79409			
BARNES, CHARLES D.....	FACTORS MODIFYING CARDIOVASCULAR ACTIVITY.....	5T32 HL07289-04	68,156
BARNES, CHARLES D.....	SHORT-TERM RESEARCH TRAINING.....	1T35 HL07474-01	15,196
ORGANIZATION TOTAL	2	83,352	
PRAIRIE VIEW			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—PRAIRIE VIEW A & M UNIVERSITY ZIP CODE 77445			
WASHINGTON, ARTHUR C.....	BIOMEDICAL SCIENCES.....	5T32 GM07695-04	55,690
ORGANIZATION TOTAL	1	55,690	
SAN ANTONIO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT SAN ANTONIO ZIP CODE 78285			
SILBER, HERBERT B.....	CELLULAR AND MOLECULAR BIOLOGY.....	1T32 GM07717-01	59,642
ORGANIZATION TOTAL	1	59,642	

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
TEXAS—Continued			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO		ZIP CODE 78284	
JOHANSON, WALDEMAR G, JR.....	LUNG DISEASES—MULTIDISCIPLINARY.....	3T32 HL07221-04S1	2,268
JOHANSON, WALDEMAR G, JR.....	LUNG DISEASES—MULTIDISCIPLINARY.....	5T32 HL07221-05	37,668
MC GUIRE, WILLIAM L.....	MECHANISMS OF BREAST CANCER GROWTH AND REGRESSION.....	2T32 CA09042-06A1	68,251
MC NAY, JOHN L, JR.....	CLINICAL PHARMACOLOGY.....	5T32 GM07014-06	32,699
O'ROURKE, ROBERT A.....	CARDIOVASOLOGY.....	5T32 HL07350-03	118,852
PAUERSTEIN, CARL J.....	REPRODUCTIVE BIOLOGY.....	5T32 HD07139-03	22,590
SCHWARTZ, COLIN J.....	PATHOBIOLOGY OF OCCLUSIVE VASCULAR DISEASE.....	5T32 HL07446-02	122,854
STEIN, JAY H.....	ACADEMIC NEPHROLOGY.....	2T32 AM07103-06	115,360
ORGANIZATION TOTAL	8	520,542	
STATE TOTAL	70	5,285,555	
UTAH			
LOGAN			
UTAH STATE HIGHER EDUCATION SYSTEM—UTAH STATE UNIVERSITY		ZIP CODE 84322	
STREET, JOSEPH C.....	TOXICOLOGY.....	5T32 ES07097-02	98,400
ORGANIZATION TOTAL	1	98,400	
SALT LAKE CITY			
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH		ZIP CODE 84112	
ATHENS, JOHN W.....	HEMATOLOGY.....	2T32 AM07115-06	82,241
BROOM, ARTHUR D.....	CANCER CHEMOTHERAPY.....	5T32 CA09038-03	90,540
DETHLEFSEN, LYLE A.....	RADIATION BIOLOGY AND EXPERIMENTAL ONCOLOGY.....	2T32 CA09097-06	63,695
EYZAGUIRRE, CARLOS E.....	NEURAL AND MUSCLE TISSUE—MULTIDISCIPLINARY.....	1T32 NS07172-01	51,920
FRANKLIN, MICHAEL R.....	PHARMACOLOGICAL SCIENCES.....	5T32 GM07579-03	118,372
GLASGOW, LOWELL A.....	INFECTIOUS DISEASES.....	5T32 AI07011-05	106,946
LARK, KARL G.....	BASIC AND MEDICAL GENETICS.....	1T32 GM07825-01	63,549
VELICK, SIDNEY F.....	CELLULAR AND MOLECULAR BIOLOGY.....	5T32 GM07531-03	59,380
VICKERY, ROBERT K, JR.....	GENETICS.....	5T32 GM07464-04	75,730
WONG, KUANG-CHUNG.....	ANESTHESIOLOGY.....	1T32 GM07613-01A2	22,065
ORGANIZATION TOTAL	10	734,438	
STATE TOTAL	11	832,838	
VERMONT			
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE		ZIP CODE 05405	
BRESNICK, EDWARD.....	CANCER BIOLOGY.....	5T32 CA09286-03	95,912
CRAIGHEAD, JOHN E.....	RESPIRATORY DISEASES.....	5T32 HL07206-05	58,316
KRAKOFF, IRWIN H.....	CANCER CHEMOTHERAPY.....	5T32 CA09324-03	37,004
ORGANIZATION TOTAL	3	191,232	
STATE TOTAL	3	191,232	
VIRGINIA			
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE		ZIP CODE 22903	
ADLER, PAUL N.....	EARLY DEVELOPMENT.....	5T32 HD07192-02	135,737

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
VIRGINIA—Continued			
ATTINGER, ERNST O	HEALTH SCIENCES AND COMPUTER TECHNOLOGY	1T15 LM07025-01	87,976
ATTINGER, ERNST O	SYSTEMS PHYSIOLOGY	5T32 GM07593-02	56,495
AYERS, CARLOS R	HIGH BLOOD PRESSURE RESEARCH	5T32 HL07355-03	113,923
BERNE, ROBERT M	BASIC CARDIOVASCULAR RESEARCH	5T32 HL07284-04	170,425
BILTONEN, RODNEY L	MEMBRANE AND MACROMOLECULAR STRUCTURE AND FUNCTION	2T32 GM07294-06	54,973
BILTONEN, RODNEY L	SHORT-TERM RESEARCH TRAINING	1T35 AM07419-01	68,954
DAVIS, JOHN S. IV	IMMUNOPATHOLOGY OF RHEUMATIC DISEASES	5T32 AM07156-05	61,870
EPSTEIN, ROBERT M	ANESTHESIOLOGY	5T32 GM07590-02	44,288
GILMAN, ALFRED G	MEDICAL SCIENTIST	5T32 GM07267-04	125,879
KADNER, ROBERT J	GENETIC CONTROL OF BIOLOGICAL REGULATORY SYSTEMS	2T32 GM07082-06	89,833
LARNER, JOSEPH	PHARMACOLOGY	2T32 GM07055-06	109,736
LAWLESS, KENNETH R	CHEMICAL AND PHYSICAL PROPERTIES OF DENTAL MATERIALS	5T32 DE07046-05	45,672
MANDELL, GERALD L	INFECTIOUS DISEASES	5T32 AI07046-04	125,592
MURAD, FERID	DIABETES AND HORMONE ACTION	5T32 AM07320-03	146,509
WAGNER, ROBERT R	CANCER RESEARCH—MOLECULAR BIOLOGY	5T32 CA09109-05	268,950
ORGANIZATION TOTAL	16	1,706,812	
PETERSBURG			
VIRGINIA STATE UNIVERSITY ZIP CODE 23803			
POWELL, MARVIN L	BIOMEDICAL SCIENCES	1T32 GM07678-01A1	111,067
ORGANIZATION TOTAL	1	111,067	
RICHMOND			
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
GOLDMAN, I DAVID	MEMBRANE TRANSPORT OF ANTINEOPLASTIC AGENTS	5T32 CA09340-02	47,032
GOLDMAN, I DAVID	CARDIOVASCULOLOGY—MULTIDISCIPLINARY	3T32 HL07110-05S1	5,020
GOLDMAN, I DAVID	MEMBRANE PHENOMENA RELEVANT TO CARDIOVASCULAR DISEASES	2T32 HL07110-06A1	45,570
KAPLAN, ALAN M	CANCER ETIOLOGY AND TREATMENT	5T32 CA09210-03	98,941
MORAHAN, PAGE S	CANCER ETIOLOGY AND TREATMENT	5T32 CA09036-03	109,590
MUNSON, ALBERT E	TOXICOLOGY	5T32 ES07087-02	122,712
NANCE, WALTER E	HUMAN GENETICS	5T32 GM07492-04	53,023
OKEN, DONALD E	NEPHROLOGY BASIC RESEARCH	1T32 AM07371-01	46,211
PHIBBS, PAUL V, JR	INFECTIOUS DISEASES	5T32 AI07086-04	100,642
RICHARDSON, DAVID W	MINORITY HYPERTENSION RESEARCH DEVELOPMENT	5T35 HL07309-04	25,707
RUDDY, SHAUN	PATHOGENESIS AND TREATMENT OF RHEUMATIC DISEASES	5T32 AM07079-04	48,598
VLAHCEVIC, Z RENO	DIGESTIVE AND LIVER DISEASES	5T32 AM07150-05	61,577
WEGLICKI, WILLIAM B	MECHANISMS OF CARDIOVASCULAR INJURY	3T32 HL07244-03S1	21,749
WEGLICKI, WILLIAM B	MECHANISMS OF CARDIOVASCULAR INJURY	5T32 HL07244-04	132,934
ORGANIZATION TOTAL	14	919,306	
STATE TOTAL	31	2,737,185	
WASHINGTON			
PULLMAN			
WASHINGTON STATE UNIVERSITY ZIP CODE 99163			
HUBER, WILLIAM G	SHORT-TERM RESEARCH TRAINING	1T35 RR07013-01	13,025
MC GUIRE, TRAVIS C	IMMUNOLOGY	5T32 AI07025-04	82,118
MC GUIRE, TRAVIS C	PATHOBIOLOGY	1T32 GM07853-01	62,584
ORGANIZATION TOTAL	3	157,727	
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
BERNSTEIN, IRWIN D	PEDIATRIC ONCOLOGY	3T32 CA09351-01S1	4,847

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
WASHINGTON—Continued			
BERNSTEIN, IRWIN D	PEDIATRIC ONCOLOGY	5T32 CA09351-02	49,878
ORGANIZATION TOTAL	2 54,725		
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
BASSINGTHWAIGHT, JAMES B	CARDIOVASCULAR BIOENGINEERING	3T32 HL07403-02S1	18,708
BASSINGTHWAIGHT, JAMES B	CARDIOVASCULAR BIOENGINEERING	5T32 HL07403-03	149,862
BENDITT, EARL P	EXPERIMENTAL PATHOLOGY OF CARDIOVASCULAR DISEASE	3T32 HL07312-02S1	7,247
BENDITT, EARL P	EXPERIMENTAL PATHOLOGY OF CARDIOVASCULAR DISEASE	5T32 HL07312-03	163,748
BIERMAN, EDWIN L	NUTRITION, LIPID METABOLISM, AND ARTERIOSCLEROSIS	5T32 HL07028-05	43,601
BIERMAN, EDWIN L	DIABETES, METABOLISM, AND ENDOCRINOLOGY	5T32 AM07247-04	144,919
BUTLER, JOHN	RESPIRATORY PHYSIOLOGY	5T32 HL07287-03	119,083
CARRICO, C JAMES	TRAUMA AND BURNS	2T32 GM07037-06	82,708
DE ROUEN, TIMOTHY A	CARDIOVASCULAR BIostatISTICS	5T32 HL07183-05	141,516
DODGE, HAROLD T	CARDIOVASCULAR RESEARCH	5T32 HL07278-04	101,993
FALKOW, STANLEY	BIOLOGIC BASIS OF INFECTION AND ITS CONTROL	5T32 AI07149-03	86,197
FEIGL, ERIC O	MULTIDISCIPLINARY HEART AND VASCULAR DISEASES	2T32 HL07090-06	118,044
FINCH, CLEMENT A	HEMATOLOGY AND NUTRITIONAL ANEMIAS	5T32 AM07237-04	35,864
FOY, HJORDIS M	EPIDEMIOLOGY OF INFECTIOUS DISEASES	5T32 AI07125-04	81,874
GORDON, MILTON P	MOLECULAR AND CELLULAR BIOLOGY	2T32 GM07270-06	328,231
HARKER, LAURENCE A	HEMATOLOGY	3T32 HL07093-05S1	4,148
HARKER, LAURENCE A	HEMATOLOGY	2T32 HL07093-06	140,849
HOLMES, KING K	VENEREAL DISEASE	3T32 AI07140-02S1	3,500
HOLMES, KING K	VENEREAL DISEASE	5T32 AI07140-03	57,905
HORNBEIN, THOMAS F	ANESTHESIA RESEARCH	5T32 GM07604-02	103,373
JACKSON, KENNETH L	RADIOLOGICAL SCIENCES	5T32 CA09081-05	81,484
KALINA, ROBERT E	VISION RESEARCH—MULTIDISCIPLINARY	2T32 EY07013-06	53,914
KELLER, PATRICIA J	ORAL BIOLOGY—SALIVARY SECRETIONS	2T32 DE07023-06	87,074
KELLEY, VINCENT C	ABNORMAL BIOLOGIC DEVELOPMENT AND MENTAL RETARDATION	5T32 HD07172-02	69,932
KLEBANOFF, SEYMOUR J	HOST DEFENSE IN ALLERGY AND INFECTIOUS DISEASE	5T32 AI07044-05	185,925
LEE, JOHN A	CANCER EPIDEMIOLOGY AND BIostatISTICS	2T32 CA09168-06	192,704
LOEB, LAWRENCE A	BASIC PATHOBIOLOGY	2T32 GM07187-06	65,916
MANNIK, MART	RHEUMATOLOGY	2T32 AM07108-06	92,893
MARTIN, GEORGE M	GENETIC APPROACHES TO AGING RESEARCH	5T32 AG00057-03	80,605
MOTTET, N KARLE	ENVIRONMENTAL PATHOLOGY/PATHOPHYSIOLOGY	5T32 ES07032-03	129,558
MOTULSKY, ARNO G	MEDICAL GENETICS	5T32 GM07454-04	93,843
NELSON, WENDEL L	DRUG ACTION, METABOLISM AND KINETICS	5T32 GM07750-02	81,129
NOWINSKI, ROBERT C	VIRAL ONCOLOGY	5T32 CA09229-03	120,336
ODLAND, GEORGE F	DERMATOLOGY	2T32 AM07019-06	95,357
PAGE, ROY C	PERIODONTAL DISEASES AND CHRONIC INFLAMMATION	5T32 DE07063-05	123,531
PATTON, HARRY D	NEUROBIOLOGY	2T32 GM07108-06	90,114
PATTON, HARRY D	NEUROBIOLOGY	3T32 NS07097-02S1	3,224
PATTON, HARRY D	NEUROBIOLOGY	5T32 NS07097-03	83,032
ROMAN, HERSCHEL L	GENETICS—GENERAL AND MEDICAL	5T32 GM07735-02	195,381
STRIKER, GARY E	MEDICAL SCIENTIST	2T32 GM07266-06	245,746
STRIKER, GARY E	SHORT-TERM RESEARCH TRAINING	1T35 GM07917-01	26,050
TELLER, DAVIDA Y	VISUAL SCIENCES	5T32 EY07031-05	42,923
THOMAS, E DONNALL	ONCOLOGY	5T32 CA09319-03	200,835
VOLWILER, WADE	GASTROENTEROLOGY	5T32 AM07113-06	16,176
VOLWILER, WADE	GASTROENTEROLOGY	2T32 AM07113-07	44,384
WARD, ARTHUR A, JR	CLINICAL INVESTIGATION	5T32 NS07144-02	87,337
WHITELEY, ARTHUR H	DEVELOPMENT BIOLOGY—INTERDISCIPLINARY	5T32 HD07183-02	109,771
ORGANIZATION TOTAL	47 4,632,544		
STATE TOTAL	52 4,844,996		

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director		General area of training	Grant number	Dollars
WEST VIRGINIA				
MORGANTOWN				
WEST VIRGINIA UNIVERSITY		ZIP CODE 26506		
FLEMING, WILLIAM W.....	PHARMACOLOGICAL SCIENCES.....	2T32 GM07039-06	79,593	
HEDGE, GEORGE A.....	ENDOCRINOLOGY.....	5T32 AM07312-03	90,094	
ORGANIZATION TOTAL	2 169,687			
STATE TOTAL	2 169,687			
WISCONSIN				
MADISON				
UNIVERSITY OF WISCONSIN SYSTEM--UNIVERSITY OF WISCONSIN-MADISON		ZIP CODE 53706		
AUERBACH, ROBERT.....	DEVELOPMENTAL BIOLOGY.....	5T32 HD07118-03	156,320	
BEINERT, HELMUT.....	ENZYMOLGY RELATED TO MAMMALIAN METABOLISM.....	2T32 AM07049-07	52,279	
BUMPASS, LARRY L.....	DEMOGRAPHY AND ECOLOGY.....	3T32 HD07014-05S1	21,697	
BUMPASS, LARRY L.....	DEMOGRAPHY AND ECOLOGY.....	2T32 HD07014-06	63,301	
CAMERON, JOHN R.....	RADIOLOGICAL SCIENCES.....	5T32 CA09206-03	139,467	
HARPER, ALFRED E.....	METABOLIC REGULATION AND WEIGHT CONTROL.....	5T32 GM07058-04	70,215	
HIND, JOSEPH E.....	SENSORY PHYSIOLOGY AND BIOPHYSICS.....	2T32 NS07026-05	77,872	
HINSDILL, RONALD D.....	ENVIRONMENTAL TOXICOLOGY.....	2T32 ES07015-06	290,237	
HONG, RICHARD.....	CELLULAR AND TUMOR IMMUNITY.....	5T32 CA09106-05	276,486	
KALIL, RONALD E.....	NEUROSCIENCES.....	5T32 GM07507-03	67,996	
MILLER, ELIZABETH C.....	CHEMICAL CARCINOGENESIS.....	5T32 CA09020-06	131,502	
MUELLER, GERALD C.....	TUMOR BIOLOGY.....	5T32 CA09230-05	126,321	
PITOT, HENRY C.....	EXPERIMENTAL ONCOLOGY.....	2T32 CA09135-06	465,502	
SIMPSON, DAVID P.....	NEPHROLOGY.....	5T32 AM07238-04	28,891	
SUSMAN, MILLARD.....	GENETICS.....	2T32 GM07133-06	140,682	
SUTTIE, JOHN W.....	NUTRITION.....	2T32 DE07031-06	50,556	
TEMIN, HOWARD M.....	VIRAL ONCOLOGY.....	2T32 CA09075-06	249,345	
TULUNAY-KEESEY, ULKER.....	VISUAL SCIENCES.....	5T32 EY07059-02	173,102	
WELLS, ROBERT D.....	CELLULAR AND MOLECULAR BIOLOGY.....	2T32 GM07215-06	652,608	
WOLF, RICHARD C.....	ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY.....	5T32 HD07007-04	137,689	
ORGANIZATION TOTAL	20 3,372,068			
MILWAUKEE				
MEDICAL COLLEGE OF WISCONSIN		ZIP CODE 53226		
ASTER, RICHARD H.....	HEMATOLOGY AND BLOOD BANKING SCIENCES.....	5T32 HL07209-05	45,098	
EDELHAUSER, HENRY F.....	EYE PHYSIOLOGY AND BIOCHEMISTRY.....	2T32 EY07016-06	32,357	
FUJIMOTO, JAMES M.....	PHARMACOLOGIC TOXICOLOGY OF ENVIRONMENTAL CHEMICALS.....	5T32 ES07043-04	123,699	
GROSSBERG, SIDNEY E.....	SHORT-TERM RESEARCH TRAINING.....	1T35 GM07892-01	13,025	
SOERGEL, KONRAD H.....	PATHOPHYSIOLOGY AND GASTROENTEROLOGY.....	5T32 AM07267-03	44,877	
ORGANIZATION TOTAL	5 259,056			
STATE TOTAL	25 3,631,124			
PUERTO RICO				
PONCE				
CATHOLIC UNIVERSITY OF PUERTO RICO		ZIP CODE 00731		
MERCADO, CARMEN M.....	BIOCHEMISTRY OF THE NUCLEIC ACIDS.....	1T32 GM07732-01A1	63,832	
ORGANIZATION TOTAL	1 63,832			

Table 3.—NIH Training Grants, by Area, Organization, and Program Director, Fiscal Year 1980—Continued

Program director	General area of training	Grant number	Dollars
PUERTO RICO—Continued			
SAN JUAN			
UNIVERSITY OF PUERTO RICO RIO PIEDRAS ZIP CODE 00931			
LARSON, GERALD L	BIOMEDICAL SCIENCES.....	1T32 GM07821-01A1	106,466
ORGANIZATION TOTAL	1 106,466		
STATE TOTAL	2 170,298		

Table 4.—Cancer Research Facilities Construction Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980

Responsible official	Purpose of grant	Grant number	Dollars
TOTAL, 10 GRANTS			10,813,603

CALIFORNIA

LA JOLLA

UNIVERSITY OF CALIFORNIA AT SAN DIEGO		ZIP CODE 92093		
POWERS, CHARLES B	CANCER RESEARCH FACILITY		3C06 CA25814-01S1	965,367
ORGANIZATION TOTAL	1	965,367		
STATE TOTAL	1	965,367		

MARYLAND

BALTIMORE

JOHNS HOPKINS UNIVERSITY		ZIP CODE 21218		
ROSEMAN, SAUL	EXPAND CANCER RESEARCH FACILITY		3C06 CA24501-01S1	801,747
ROSEMAN, SAUL	CANCER BIOLOGY RESEARCH FACILITY		1C06 CA26698-01	2,093,080
ORGANIZATION TOTAL	2	2,894,827		
STATE TOTAL	2	2,894,827		

MASSACHUSETTS

CAMBRIDGE

HARVARD UNIVERSITY		ZIP CODE 02138		
ORF, HARRY W.	CANCER RESEARCH FACILITY		1C06 CA28144-01	111,450
ORGANIZATION TOTAL	1	111,450		
STATE TOTAL	1	111,450		

MICHIGAN

DETROIT

MICHIGAN CANCER FOUNDATION		ZIP CODE 48201		
PETTIT, JOHN W.	CANCER RESEARCH FACILITY		3C06 CA21123-01A2S1	300,000
ORGANIZATION TOTAL	1	300,000		
STATE TOTAL	1	300,000		

NOTE: For comments on organizations, see Appendix.

Table 4.—Cancer Research Facilities Construction Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official	Purpose of grant	Grant number	Dollars
MINNESOTA			
MINNEAPOLIS			
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL ZIP CODE 55455			
RUPPRECHT, PAUL	TOXIC MATERIAL HANDLING FACILITY	1C06 CA28136-01	221,530
ORGANIZATION TOTAL	1 221,530		
STATE TOTAL	1 221,530		
NEW YORK			
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH--ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
MIHICH, ENRICO	CANCER RESEARCH FACILITY	1C06 CA28150-01	645,300
ORGANIZATION TOTAL	1 645,300		
ITHACA			
CORNELL UNIVERSITY ITHACA ZIP CODE 14853			
CURRY, PETER	CANCER RESEARCH FACILITY	1C06 CA28152-01	169,500
ORGANIZATION TOTAL	1 169,500		
STATE TOTAL	2 814,800		
TENNESSEE			
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101			
HARRINGTON, R L	ANIMAL CARE FACILITY	3C06 CA25869-01S1	901,956
ORGANIZATION TOTAL	1 901,956		
STATE TOTAL	1 901,956		
WASHINGTON			
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
HUTCHINSON, WILLIAM B	CANCER RESEARCH FACILITY	1C06 CA23718-01A1	4,603,673
ORGANIZATION TOTAL	1 4,603,673		
STATE TOTAL	1 4,603,673		

Table 5.—Cancer Control Grants, by Area, Organization, and Project Director, Fiscal Year 1980

Project director	Project title	Grant number	Dollars
TOTAL, 119 GRANTS.....			22,886,530

ALABAMA

BIRMINGHAM

UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294

BUTTERWORTH, C E, JR	NUTRITIONAL SUPPORT & REHABILITATION FOR CANCER PATIENTS	5R18 CA17928-05	93,509
GAMS, RICHARD A	CANCER CONTROL—DEVELOPMENTAL AND SUPPORT GRANT.....	3R18 CA22842-02S2	110,308
SHINGLETON, HUGH M	GYNECOLOGIC CANCER EDUCATION	5R18 CA24118-02	221,316
ORGANIZATION TOTAL	3 425,133		
STATE TOTAL	3 425,133		

CALIFORNIA

BERKELEY

UNIVERSITY OF CALIFORNIA AT BERKELEY ZIP CODE 94720

COVINGTON, MARTIN V	SMOKING PREVENTION IN YOUTH: MOTIVATIONAL STRATEGIES	1R18 CA29558-01	112,372
ORGANIZATION TOTAL	1 112,372		

LOMA LINDA

LOMA LINDA UNIVERSITY ZIP CODE 92354

HART, RICHARD H	FACTORS IN SELF-HELP SMOKING CESSATION ATTEMPTS	1R18 CA27092-01	159,453
ORGANIZATION TOTAL	1 159,453		

LOS ANGELES

CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027

KELLERMAN, JONATHAN	PAIN AND ANXIETY IN CHILDREN WITH ACUTE LEUKEMIA	5R18 CA26292-02	42,521
ORGANIZATION TOTAL	1 42,521		

UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024

BERKANOVIC, EMIL	PROCESSES IN HEALTH BEHAVIOR AND CANCER CONTROL	5R18 CA18451-05	88,065
CULLEN, JOSEPH W	CANCER CONTROL DEVELOPMENTAL OUTREACH GRANT	3R18 CA23974-02S1	53,381
ORGANIZATION TOTAL	2 141,446		

UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007

GEORGE, FREDERICK W, III	COMMUNITY RADIATION ONCOLOGY PROGRAM	5R18 CA25117-02	186,200
MC KENNA, ROBERT J	REGIONAL ACTIVITIES CANCER CENTER	5R18 CA16419-06	606,261
MORROW, C PAUL	MODEL REGIONAL TROPHOBLASTIC DISEASE PROGRAM	2R18 CA20749-04	89,759
ORGANIZATION TOTAL	3 882,220		

NOTE: Grants are listed according to the State or Country and City of the component part of the organization professionally responsible for the work (see Technical Note, p. vii). If an organization appears in more than one geographic location or requires a clarifying comment, appropriate annotations have been made in the Appendix.

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
CALIFORNIA—Continued			
PALO ALTO			
NORTHERN CALIFORNIA CANCER PROGRAM, INC. ZIP CODE 94304			
CARTER, STEPHEN K	NCOG ED./DEMO. PROGRAM FOR COMMUNITY HEALTH PROVIDERS	5R18 CA24751-02	435,138
GOTTFRIED, DEANNE F.	NORTHERN CALIFORNIA CANCER CONTROL	5R18 CA22721-03	651,723
ORGANIZATION TOTAL	2 1,086,861		
SAN DIEGO			
CALIFORNIA STATE UNIVERSITY AND COLLEGES SYSTEM—SAN DIEGO STATE UNIVERSITY ZIP CODE 92182			
SPINETTA, JOHN J.	ADJUSTMENT AND ADAPTATION IN CHILDREN WITH CANCER	2R18 CA21254-04	215,816
ORGANIZATION TOTAL	1 215,816		
SAN FRANCISCO			
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94115			
SYME, S LEONARD	THE SELF-HELP PROCESS IN SMOKING CESSATION	1R18 CA27332-01A1	93,770
ORGANIZATION TOTAL	1 93,770		
STATE TOTAL	12 2,734,459		
COLORADO			
DENVER			
COLORADO REGIONAL CANCER CENTER ZIP CODE 80206			
BERG, JOHN W.	MONITORING FOR CANCER RISKS	5R18 CA25254-02	100,385
ORGANIZATION TOTAL	1 100,385		
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO HEALTH SCIENCE CENTER ZIP CODE 80262			
KIRSCH, WOLFF M.	PAIN CONTROL IN CANCER PATIENTS	3R18 CA20370-03S2	12,076
ORGANIZATION TOTAL	1 12,076		
UNIVERSITY OF DENVER ZIP CODE 80210			
ARNOLD, MARY F.	CANCER IN WOMEN RECEIVING EXOGENOUS ESTROGENS	7R18 CA29543-01	115,849
ORGANIZATION TOTAL	1 115,849		
STATE TOTAL	3 228,310		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
KEGELES, S STEPHEN	WOMAN'S ACCEPTANCE OF BREAST SELF-EXAMINATION	5R18 CA26216-02	111,604
ORGANIZATION TOTAL	1 111,604		
HARTFORD			
CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES ZIP CODE 06115			
LEWIS, JOHN N.	DIETHYLSTILBESTROL AND TESTICULAR CANCER IN CONNECTICUT	1R18 CA27179-01	68,873
ORGANIZATION TOTAL	1 68,873		
NEW HAVEN			
YALE UNIVERSITY ZIP CODE 06520			
DIXON, JANE	NURSING INTERVENTIONS IN NUTRITION OF CANCER PATIENTS	5R18 CA26619-02	150,452

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title		Grant number	Dollars
CONNECTICUT—Continued				
GENEL, MYRON	MONITORING FAMILIAL MEDULLARY CARCINOMA OF THE THYROID		5R18 CA18863-05	51,771
KOHORN, ERNEST I	COUNSELING TECHNIQUES FOR CANCER PATIENTS		1R18 CA27767-01	104,031
ORGANIZATION TOTAL	3	306,254		
STATE TOTAL	5	486,731		
DELAWARE				
WILMINGTON				
WILMINGTON MEDICAL CENTER		ZIP CODE 19801		
WHITNEY, LESLIE W	TUMOR CONTROL CENTER PROGRAM		5R18 CA18940-04	218,200
ORGANIZATION TOTAL	1	218,200		
STATE TOTAL	1	218,200		
DIST OF COL				
WASHINGTON				
HOWARD UNIVERSITY		ZIP CODE 20059		
WHITE, JACK E	CANCER CENTER COMMUNITY OUTREACH DEVELOPMENTAL GRANT		3R18 CA18510-03S1	31,060
WHITE, JACK E	CANCER CENTER COMMUNITY OUTREACH DEVELOPMENTAL GRANT		2R18 CA18510-04	404,923
ORGANIZATION TOTAL	2	435,983		
STATE TOTAL	2	435,983		
FLORIDA				
GAINESVILLE				
FLORIDA ASSOCIATION OF PEDIATRIC TUMOR PROGRAMS		ZIP CODE 32610		
TALBERT, JAMES L	COMMUNITY CHILDHOOD CANCER CONTROL FOR FLORIDA		5R18 CA22049-02	55,130
ORGANIZATION TOTAL	1	55,130		
STATE UNIVERSITY SYSTEM OF FLORIDA--UNIVERSITY OF FLORIDA		ZIP CODE 32611		
PENNYPACKER, HENRY S	SIMULATED BREASTS FOR THE TRAINING OF LUMP DETECTION		5R18 CA20791-03	205,300
ORGANIZATION TOTAL	1	205,300		
MIAMI				
UNIVERSITY OF MIAMI		ZIP CODE 33101		
HEALEY, JOHN E, JR	CANCER CONTROL DEVELOPMENTAL AND SUPPORT GRANT		3R18 CA17910-05S1	73,343
ORGANIZATION TOTAL	1	73,343		
STATE TOTAL	3	333,773		
ILLINOIS				
CHICAGO				
AMERICAN COLLEGE OF SURGEONS		ZIP CODE 60611		
CARR, DAVID T	AMERICAN JOINT COMMITTEE (CANCER STAGING)		2R18 CA11606-11	102,861
ORGANIZATION TOTAL	1	102,861		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
ILLINOIS—Continued			
CHILDREN'S MEMORIAL HOSPITAL ZIP CODE 60614			
SCHULMAN, JEROME L.....	COPING IN FAMILIES WITH A LEUKEMIC CHILD.....	5R18 CA19344-05	72,603
ORGANIZATION TOTAL	1 72,603		
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
OLESKE, DENISE.....	DEMONSTRATION PROJECT: HOME NURSING FOR CANCER PATIENTS.....	1R18 CA27555-01	210,992
STEINER, JAN W.....	COORDINATED REGIONAL CANCER CONTROL PROGRAM.....	2R18 CA20071-04A1	578,237
WARNECKE, RICHARD B.....	CANCER INFORMATION NEEDS IN ILLINOIS.....	2R18 CA21954-04	187,882
ORGANIZATION TOTAL	3 977,111		
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
BOND, GARY R.....	EVALUATION OF COUNSELING FOR MASTECTOMY PATIENTS.....	1R18 CA27912-01	117,222
LOGEMANN, JERILYN A.....	EVALUATION OF REHABILITATION OF OROPHARYNGEAL CANCER.....	5R18 CA18901-06	64,361
ORGANIZATION TOTAL	2 181,583		
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER--RUSH UNIVERSITY ZIP CODE 60612			
GORDON, LAURA B.....	ASSESSING THE EFFECTS OF COUNSELING CANCER PATIENTS.....	1R18 CA27676-01	202,740
ORGANIZATION TOTAL	1 202,740		
UNIVERSITY OF CHICAGO ZIP CODE 60637			
BIBBO, MARLUCE.....	ASSESSMENT OF TECHNIQS FOR ENDOMETRIAL CANCER DETECTION.....	2R18 CA22460-03	62,914
ROBSON, MARTIN C.....	REHABILITATION OF THE HEAD AND NECK CANCER PATIENT.....	3R18 CA20396-02S1	14,754
ORGANIZATION TOTAL	2 77,668		
STATE TOTAL	10 1,614,566		
INDIANA			
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202			
BAEHNER, ROBERT L.....	PREVENTION/REVERSAL OF MALNUTRITION IN NEUROBLASTOMA.....	1R18 CA28005-01	57,240
ORGANIZATION TOTAL	1 57,240		
STATE TOTAL	1 57,240		
IOWA			
IOWA CITY			
UNIVERSITY OF IOWA ZIP CODE 52242			
KISKER, C THOMAS.....	COMMUNITY BASED THERAPY FOR CHILDREN WITH CANCER.....	3R18 CA18139-05S1	65,377
ORGANIZATION TOTAL	1 65,377		
STATE TOTAL	1 65,377		
KANSAS			
KANSAS CITY			
UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOSPITAL ZIP CODE 66103			
CAIRNS, NANCY U.....	PEDIATRIC CANCER CONTROL: SCHOOL AND NURSING OUTREACH.....	5R18 CA25271-02	151,794
LANSKY, SHIRLEY B.....	CHILDHOOD CANCER: PSYCHOSOCIAL REHABILITATION.....	5R18 CA17806-06	164,710
ORGANIZATION TOTAL	2 316,504		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
KANSAS—Continued			
TOPEKA			
MENNINGER FOUNDATION	ZIP CODE 66601		
HYLAND, JOSEPH M	COUNSELING TECHNIQUES FOR BREAST CANCER PATIENTS	1R18 CA26878-01	89,709
ORGANIZATION TOTAL	1 89,709		
STATE TOTAL	3 406,213		
KENTUCKY			
HYDEN			
FRONTIER NURSING SERVICE	ZIP CODE 41749		
WASSON, ANNE A	RURAL ONCOLOGY DEMONSTRATION PROJECT	1R18 CA26795-01A1	74,184
ORGANIZATION TOTAL	1 74,184		
LEXINGTON			
EPHRAIM MC DOWELL CANCER RESEARCH FOUNDATION CORPORATION	ZIP CODE 40503		
ANDREWS, CLAUDIA J	CANCER HOPELINE: INFORMATION/SUPPORT SYSTEM	5R18 CA26437-02	80,305
BLUES, ANN G	COMMUNITY OUTREACH DEVELOPMENT PROGRAM	2R18 CA22124-04	194,093
ORGANIZATION TOTAL	2 274,398		
UNIVERSITY OF KENTUCKY	ZIP CODE 40506		
BLUES, ANN G	HOME CARE FOR THE TERMINALLY ILL: A STUDY OF 3 MODELS	5R18 CA26682-02	68,429
ORGANIZATION TOTAL	1 68,429		
LOUISVILLE			
UNIVERSITY OF LOUISVILLE	ZIP CODE 40208		
MOORE, CONDUCT	CANCER CONTROL DEVELOPMENTAL AND SUPPORT GRANT	5R18 CA22091-03	347,650
ORGANIZATION TOTAL	1 347,650		
STATE TOTAL	5 764,661		
MARYLAND			
BALTIMORE			
JOHNS HOPKINS UNIVERSITY	ZIP CODE 21218		
THOMAS, CAROLINE B	PSYCHOLOGICAL AND FAMILIAL PRECURSORS OF CANCER	5R18 CA24416-03	158,570
WAALKES, T PHILLIP	CANCER CONTROL DEVELOPMENT AND SUPPORT GRANT	5R18 CA17448-05	438,484
WAALKES, T PHILLIP	EXPLORATORY STUDIES FOR A STATE-WIDE CANCER NETWORK	3R18 CA20322-03S1	325,430
WANG, VIRGINIA L	ENVIRONMENTAL CANCER PREVENTION AND LABOR HEALTH EDUC	1R18 CA27557-01	119,782
ORGANIZATION TOTAL	4 1,042,266		
STATE TOTAL	4 1,042,266		
MASSACHUSETTS			
BOSTON			
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL	ZIP CODE 02115		
ABRAMS, HERBERT L	EFFICACY STUDIES OF DIAGNOSTIC X-RAY EXAMINATIONS	1R18 CA28847-01	157,244
ORGANIZATION TOTAL	1 157,244		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
MASSACHUSETTS—Continued			
BOSTON UNIVERSITY ZIP CODE 02215			
WATSON, PAMELA G.....	COUNSELING TECHNIQUES FOR CANCER PATIENTS.....	1R18 CA27630-01	19,232
ORGANIZATION TOTAL	1	19,232	
HARVARD UNIVERSITY ZIP CODE 02115			
GARVEY, ARTHUR J.....	INFORMAL SELF-HELP APPROACHES TO SMOKING CESSATION.....	1R18 CA29479-01	72,591
ORGANIZATION TOTAL	1	72,591	
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
WEISMAN, AVERY D.....	RECURRENT CANCER AND ITS PSYCHOSOCIAL CONSEQUENCES.....	1R18 CA27020-01A1	237,780
ORGANIZATION TOTAL	1	237,780	
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115			
PATTERSON, W BRADFORD.....	CANCER CONTROL DEVELOPMENTAL GRANT.....	3R18 CA16408-05S1	1,208,826
PATTERSON, W BRADFORD.....	IMPROVEMENT IN TERMINAL CARE THROUGH PHASE CONGRUENCE.....	1R18 CA26779-01	141,155
STONBERG, MARION F.....	REGIONAL DEVELOPMENT OF ONCOLOGIC SOCIAL WORK SKILLS.....	5R18 CA20615-03	101,067
ORGANIZATION TOTAL	3	1,451,048	
UNIVERSITY HOSPITAL ZIP CODE 02118			
FRIEDMAN, ROBERT H.....	CANCER CARE DATA MANAGEMENT SYSTEM.....	5R18 CA19134-03	207,315
ORGANIZATION TOTAL	1	207,315	
STATE TOTAL	8	2,145,210	
MICHIGAN			
DETROIT			
MICHIGAN CANCER FOUNDATION ZIP CODE 48201			
INGALL, JOHN R.....	EXPLORATORY GRANT FOR CANCER CONTROL AT CANCER CENTERS.....	1R18 CA29023-01	361,745
ORGANIZATION TOTAL	1	361,745	
STATE TOTAL	1	361,745	
MINNESOTA			
ROCHESTER			
MAYO FOUNDATION ZIP CODE 55901			
AHMANN, DAVID L.....	EXPLORATORY GRANT FOR CANCER CONTROL.....	1R18 CA29354-01	299,243
CHAO, EDMUND Y.....	CANCER REHABILITATION PROGRAM.....	5R18 CA23751-02	194,605
ORGANIZATION TOTAL	2	493,848	
STATE TOTAL	2	493,848	
NEW HAMPSHIRE			
HANOVER			
DARTMOUTH COLLEGE ZIP CODE 03755			
COLTON, THEODORE.....	CANCER RISK AMONG WOMEN EXPOSED TO DES IN PREGNANCY.....	1R18 CA27112-01	301,346
GREENBERG, ROBERT E.....	PATTERNS OF CARE IN ONCOLOGY.....	1R18 CA26690-01	161,120
ORGANIZATION TOTAL	2	462,466	
STATE TOTAL	2	462,466	

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH ZIP CODE 12237			
STANDFAST, SUSAN J.....	EDUCATIONAL APPROACHES TO ENDOMETRIAL CANCER CONTROL.....	1R18 CA25280-01A1	192,188
ORGANIZATION TOTAL	1 192,188		
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH--ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
FREEMAN, ARNOLD I.....	CNS PROPHYLAXIS IN CHILDHOOD ACUTE LYMPHOCTIC LEUKEMIA.....	5R18 CA25402-02	158,579
METTLIN, CURTIS J.....	CANCER CONTROL OUTREACH PROGRAM.....	5R18 CA16411-06	432,067
WALLACE, HAROLD J, JR.....	DEMONSTRATION UNIT FOR ADOLESCENT CANCER PATIENTS.....	3R18 CA20617-02S1	22,385
ORGANIZATION TOTAL	3 613,031		
MANHASSET			
NORTH SHORE UNIVERSITY HOSPITAL ZIP CODE 11030			
VINOIGUERRA, VINCENT P.....	IMPROVED CANCER CARE THROUGH A HOME PROGRAM.....	1R18 CA27683-01	107,660
ORGANIZATION TOTAL	1 107,660		
NEW YORK			
AMERICAN HEALTH FOUNDATION ZIP CODE 10017			
ARNOLD, CHARLES B.....	PRIMARY PREVENTION OF CANCER IN CHILDHOOD.....	1R18 CA25521-01	407,204
ORGANIZATION TOTAL	1 407,204		
COLUMBIA UNIVERSITY ZIP CODE 10027			
ROGERS, THERESA F.....	RESOURCES THAT AID THE RECOVERY OF CANCER PATIENTS.....	2R18 CA22219-04	140,074
ORGANIZATION TOTAL	1 140,074		
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021			
DE COSSE, JEROME J.....	NUTRITIONAL REHABILITATION IN HEAD AND NECK CANCER.....	1R18 CA28072-01	227,012
HOLLAND, JIMMIE C.....	PREDICTIVE PSYCHOLOGIC STUDY OF BREAST RECONSTRUCTION.....	1R18 CA27638-01	55,048
ROBBINS, GUY F.....	CANCER CONTROL DEVELOPMENT GRANT.....	3R18 CA16402-04S1	430,996
WINAWER, SIDNEY J.....	CONTROL OF LARGE BOWEL CANCER FOLLOWING POLYPECTOMY.....	1R18 CA26852-01	237,856
ORGANIZATION TOTAL	4 950,912		
STATE UNIVERSITY OF NEW YORK--DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
CARTER, ANNE C.....	BREAST SELF-EXAMINATION MOTIVATING METHODS.....	1R18 CA28269-01	152,323
ORGANIZATION TOTAL	1 152,323		
POTSDAM			
CLARKSON COLLEGE OF TECHNOLOGY ZIP CODE 13676			
FRIEND, KENNETH E.....	ENVIRONMENT 'NEED FOR STIMULATION' AND SMOKING.....	1R18 CA29321-01	21,975
ORGANIZATION TOTAL	1 21,975		
ROCHESTER			
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
MORROW, GARY R.....	COUNSELING INTERVENTION FOR CHEMOTHERAPY SIDE EFFECTS.....	5R18 CA26832-02	46,280
SCHMALE, ARTHUR H.....	PSYCHOSOCIAL COLLABORATIVE GROUP FOR CANCER CONTROL.....	5R18 CA19681-04	336,479
WOODARD, ELIZABETH D.....	HUMAN RADIATION CARCINOGENESIS STUDY.....	2R18 CA19764-04	104,877
ORGANIZATION TOTAL	3 487,636		
STATE TOTAL	16 3,073,003		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
NORTH CAROLINA			
CHAPEL HILL			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL		ZIP CODE 27514	
FOWLER, WESLEY C, JR	CANCER CONTROL AND COMMUNITY PHYSICIANS	1R18 CA27279-01	160,202
SYMONS, MICHAEL J	ENVIRONMENTAL & OCCUPATIONAL CANCER MORTALITY ESTIMATION	1R18 CA27378-01	41,788
ORGANIZATION TOTAL	2	201,990	
DURHAM			
DUKE UNIVERSITY		ZIP CODE 27706	
CLIPPINGER, FRANK W	SENSORY FEEDBACK LEG PROSTHESIS FOR CANCER PATIENTS	5R18 CA17945-05	168,505
HAMMOND, CHARLES B	REGIONAL TROPHOBLASTIC DISEASE CENTER	5R18 CA19272-05	86,159
ORGANIZATION TOTAL	2	254,664	
STATE TOTAL	4	456,654	
OHIO			
CINCINNATI			
CHILDREN'S HOSPITAL MEDICAL CENTER		ZIP CODE 45229	
BUNCHER, CHARLES R	CANCER CONTROL DEVELOPMENT: CINCINNATI STRATEGY	3R18 CA25299-01S1	11,474
BUNCHER, CHARLES R	CANCER CONTROL DEVELOPMENT: CINCINNATI STRATEGY	5R18 CA25299-02	160,633
ORGANIZATION TOTAL	2	172,107	
COLUMBUS			
OHIO STATE UNIVERSITY		ZIP CODE 43210	
CAVALARIS, CONSTANTINE J	OHIO STATEWIDE CANCER CONTROL SUPPORT AND DEVELOPMENT	5R18 CA25657-02	467,844
ORGANIZATION TOTAL	1	467,844	
WORKERS INSTITUTE FOR SAFETY AND HEALTH		ZIP CODE 43215	
RINGEN, KNUT	COMMUNITY-BASED INTERVENTION FOR HIGH-RISK WORKERS	1R18 CA27582-01	282,277
ORGANIZATION TOTAL	1	282,277	
TOLEDO			
MEDICAL COLLEGE OF OHIO AT TOLEDO		ZIP CODE 43699	
SKEEL, ROLAND T	NORTHWEST OHIO CANCER NETWORK OUTREACH PROGRAM	2R18 CA21931-03	166,944
ORGANIZATION TOTAL	1	166,944	
STATE TOTAL	5	1,089,172	
OREGON			
PORTLAND			
MEDICAL RESEARCH FOUNDATION OF OREGON		ZIP CODE 97225	
HUTCHINSON, ALFRED C	A CONCEPT FOR OPTIMAL CANCER CARE IN OREGON	2R18 CA21267-04	320,443
ORGANIZATION TOTAL	1	320,443	
STATE TOTAL	1	320,443	

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
PENNSYLVANIA			
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER ZIP CODE 17033			
HOUTS, PETER S	COUNSELING CANCER PATIENTS IN COPING STRATEGIES	1R18 CA26868-01	49,320
ORGANIZATION TOTAL	1 49,320		
PHILADELPHIA			
AMERICAN COLLEGE OF RADIOLOGY—RADIATION ONCOLOGY STUDY CENTER ZIP CODE 19107			
KRAMER, SIMON	CLINICAL AND RESEARCH RADIATION THERAPY IN CANCER CARE	3R18 CA15978-06S2	945,032
ORGANIZATION TOTAL	1 945,032		
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104			
MEADOWS, ANNA T	CANCER INFORMATION EXCHANGE	5R18 CA26191-02	101,339
ORGANIZATION TOTAL	1 101,339		
FOX CHASE CANCER CENTER ZIP CODE 19111			
DONALDSON, MILTON H	CANCER CONTROL DEVELOPMENT & SUPPORT	2R18 CA23321-03	961,294
GROVER, PRAKASH L	MEASURING PHYSICAL FUNCTION IN CANCER REHABILITATION	5R18 CA25289-02	79,568
ORGANIZATION TOTAL	2 1,040,862		
PITTSBURGH			
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
MYERS, EUGENE N	EFFECT OF TUMORS ON EUSTACHIAN TUBE AND HEARING	1R18 CA27328-01	40,255
ORGANIZATION TOTAL	1 40,255		
WILKES-BARRE			
COMMUNITY CANCER CORPORATION OF LUZERNE COUNTY ZIP CODE 18711			
GRECO, VICTOR F	A PILOT DEMONSTRATION DETECTION PROGRAM	5R18 CA22190-03	166,594
ORGANIZATION TOTAL	1 166,594		
STATE TOTAL	7 2,343,402		
RHODE ISLAND			
KINGSTON			
UNIVERSITY OF RHODE ISLAND ZIP CODE 02881			
PROCHASKA, JAMES O	INFORMAL SELF-HELP APPROACHES TO SMOKING CESSATION	1R18 CA27821-01	181,664
ORGANIZATION TOTAL	1 181,664		
PROVIDENCE			
RHODE ISLAND HOSPITAL ZIP CODE 02902			
GOLDBERG, RICHARD J	SOCIAL SUPPORT & ADAPTATION IN TERMINAL LUNG CANCER	1R18 CA27807-01	119,285
ORGANIZATION TOTAL	1 119,285		
STATE TOTAL	2 300,949		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
TENNESSEE			
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101			
GOFF, JOHN R.....	NEUROPSYCHOLOGICAL EFFECTS OF LEUKEMIA & ITS TREATMENT	3R18 CA24079-02S1	79,531
ORGANIZATION TOTAL	1 79,531		
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163			
HOON, PETER W.....	SEXUAL EFFECTS OF CERVICAL CANCER	5R18 CA26364-02	94,701
ORGANIZATION TOTAL	1 94,701		
NASHVILLE			
VANDERBILT UNIVERSITY ZIP CODE 37240			
BURISH, THOMAS G.....	REDUCING ADVERSE REACTIONS TO CANCER CHEMOTHERAPY.....	5R18 CA25516-02	51,445
ORGANIZATION TOTAL	1 51,445		
STATE TOTAL	3 225,677		
TEXAS			
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON ZIP CODE 77550			
BAILEY, BYRON J.....	ELECTRONIC LARYNGEAL PROSTHESIS	5R18 CA17961-06	124,947
ORGANIZATION TOTAL	1 124,947		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE ZIP CODE 77030			
SPIRA, MELVIN.....	A NEW METHOD USING OMENTUM TO RECONSTRUCT DEFORMITIES.....	5R18 CA25650-02	99,976
ORGANIZATION TOTAL	1 99,976		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025			
HICKEY, ROBERT C.....	CANCER CONTROL AND PREVENTION DEVELOPMENT AND SUPPORT	2R18 CA16413-04A1	308,420
ORGANIZATION TOTAL	1 308,420		
SAN ANTONIO			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284			
ZELTZER, LONNIE K.....	USE OF SELF-HYPNOSIS FOR CONTROL OF PAIN	5R18 CA27376-02	174,653
ORGANIZATION TOTAL	1 174,653		
STATE TOTAL	4 707,996		
VERMONT			
BURLINGTON			
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05405			
FOSTER, ROGER S, JR.....	BREAST CANCER DETECTION BY BREAST SELF-EXAMINATION.....	5R18 CA26363-02	112,188
ORGANIZATION TOTAL	1 112,188		
STATE TOTAL	1 112,188		

**Table 5.—Cancer Control Grants, by Area, Organization,
and Project Director, Fiscal Year 1980—Continued**

Project director	Project title	Grant number	Dollars
WASHINGTON			
SEATTLE			
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104			
FRANCIS, ANITA M	SOCIAL EPIDEMIOLOGY OF CANCER CARE	1R18 CA27281-01	113,810
HONGLADAROM, GAIL L	CANCER CONTROL DEVELOPMENT GRANT	2R18 CA16404-06	175,577
HONGLADAROM, GAIL L	COMMUNITY-BASED CANCER NURSING EDUCATIONAL PROGRAM	5R18 CA25570-02	210,694
HUTCHINSON, WILLIAM B	CANCER PREVENTION IS YOUR CHOICE	5R18 CA25523-02	63,432
POLISSAR, LINCOLN	REFERRAL OF CANCER PATIENTS IN THE PUGET SOUND REGION	5R18 CA25919-02	39,548
ORGANIZATION TOTAL	5 603,061		
UNIVERSITY OF WASHINGTON ZIP CODE 98195			
BONICA, JOHN J	PILOT STUDY OF PAIN IN FOUR SELECTED CANCERS	1R18 CA26565-01	145,116
ORGANIZATION TOTAL	1 145,116		
VIRGINIA MASON RESEARCH CENTER ZIP CODE 98101			
CARLILE, THOMAS	PREDICTIVE VALUE OF WOLFE CLASS IN BCDDP WOMEN	5R18 CA26071-02	363,948
ORGANIZATION TOTAL	1 363,948		
STATE TOTAL	7 1,112,125		
WISCONSIN			
MADISON			
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
CLEELAND, CHARLES S	A PILOT STUDY OF CANCER PAIN	5R18 CA26582-02	159,717
JOHNSON, ROBERT O	DEVELOPMENT OF REGIONAL CANCER CONTROL PROGRAM	2R18 CA16405-05	570,837
LEVENTHAL, HOWARD	CONTROL OF EMOTIONAL DISTRESS IN CANCER CHEMOTHERAPY	1R18 CA26235-01A1	138,186
ORGANIZATION TOTAL	3 868,740		
STATE TOTAL	3 868,740		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980

Responsible official	Grant number	Dollars
TOTAL, 74 GRANTS		1,595,552

ALABAMA

BIRMINGHAM

EAST END MEMORIAL HOSPITAL AND HEALTH CENTERS ZIP CODE 35206

TOLL, ANNE B	1G07 LM03460-01	6,883
ORGANIZATION TOTAL 1		6,883

MONTGOMERY

ALABAMA HOSPITAL ASSOCIATION ZIP CODE 36193

CRAWFORD, FRED C	5G08 LM03230-02	57,716
ORGANIZATION TOTAL 1		57,716
STATE TOTAL 2		64,599

ALASKA

FAIRBANKS

FAIRBANKS MEMORIAL HOSPITAL ZIP CODE 99701

MONTANO, EILEEN M	1G07 LM03628-01	4,450
ORGANIZATION TOTAL 1		4,450
STATE TOTAL 1		4,450

ARKANSAS

PINE BLUFF

JEFFERSON HOSPITAL ZIP CODE 71603

LAMPKIN, STEVEN B	1G08 LM03318-01A1	76,330
ORGANIZATION TOTAL 1		76,330
STATE TOTAL 1		76,330

NOTE: For comments on organizations, see Appendix.

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official		Grant number		Dollars
CALIFORNIA				
FAIRFIELD				
INTERCOMMUNITY HOSPITAL		ZIP CODE 94533		
QUINN, BERNICE		1G07 LM03443-01		2,500
ORGANIZATION TOTAL		1	2,500	
FULLERTON				
SOUTHERN CALIFORNIA COLLEGE OF OPTOMETRY		ZIP CODE 92631		
CARLSON, PATRICIA T		5G08 LM03159-03		19,492
ORGANIZATION TOTAL		1	19,492	
HEMET				
HEMET VALLEY HOSPITAL DISTRICT		ZIP CODE 92343		
CIROCCO, DIXIE		1G07 LM03506-01		4,000
ORGANIZATION TOTAL		1	4,000	
LOS ANGELES				
UNIVERSITY OF SOUTHERN CALIFORNIA		ZIP CODE 90007		
GILMAN, NELSON J		1G08 LM03435-01		73,078
ORGANIZATION TOTAL		1	73,078	
MADERA				
MADERA COMMUNITY HOSPITAL		ZIP CODE 93637		
KELLEY, JANICE		1G07 LM03566-01		3,118
ORGANIZATION TOTAL		1	3,118	
SALINAS				
NATIVIDAD MEDICAL CENTER		ZIP CODE 93905		
MEYER, ROBERT S		1G07 LM03615-01		22,350
ORGANIZATION TOTAL		1	22,350	
SAN FRANCISCO				
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO		ZIP CODE 94143		
ZINN, NANCY W		1G08 LM03596-01		2,890
ORGANIZATION TOTAL		1	2,890	
VAN NUYS				
SAN FERNANDO VALLEY COMMUNITY MENTAL HEALTH CENTERS		ZIP CODE 91405		
MORRIS, ROBERT		1G07 LM03620-01		3,000
ORGANIZATION TOTAL		1	3,000	
STATE TOTAL		8	130,428	
CONNECTICUT				
MIDDLETOWN				
CONNECTICUT STATE DEPARTMENT OF MENTAL HEALTH--CONNECTICUT VALLEY HOSPITAL		ZIP CODE 06457		
ASBELL, MILDRED S		5G08 LM03064-03		5,839
ORGANIZATION TOTAL		1	5,839	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official			Grant number	Dollars
CONNECTICUT—Continued				
NEW HAVEN				
YALE UNIVERSITY	ZIP CODE 06520			
VISELFEAR, ARTHUR J.....			5G08 LM03072-02	33,541
ORGANIZATION TOTAL	1	33,541		
STATE TOTAL	2	39,380		
FLORIDA				
GAINESVILLE				
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA	ZIP CODE 32611			
SRYGLEY, TED F.....			5G08 LM03244-02	57,898
ORGANIZATION TOTAL	1	57,898		
TAMPA				
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA	ZIP CODE 33620			
BRYANT, FRED D.....			5G08 LM03041-02	36,650
ORGANIZATION TOTAL	1	36,650		
STATE TOTAL	2	94,548		
GEORGIA				
FORT VALLEY				
GEORGIA DEPARTMENT OF HUMAN RESOURCES—PEACH COUNTY HEALTH DEPARTMENT	ZIP CODE 31030			
RANKIN, JOCELYN A.....			1G07 LM03649-01	14,000
ORGANIZATION TOTAL	1	14,000		
STATE TOTAL	1	14,000		
IDAHO				
BOISE				
IDAHO STATE DEPARTMENT OF EDUCATION	ZIP CODE 83720			
BOLLES, CHARLES A.....			5G08 LM03357-02	40,980
ORGANIZATION TOTAL	1	40,980		
MC CALL				
MC CALL MEMORIAL HOSPITAL	ZIP CODE 83638			
HART, GERALD L.....			2G07 LM03241-02	5,000
ORGANIZATION TOTAL	1	5,000		
NAMPA				
MERCY MEDICAL CENTER	ZIP CODE 83651			
GRUPE, MYRA C.....			1G07 LM03407-01	4,200
ORGANIZATION TOTAL	1	4,200		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official			Grant number	Dollars
IDAHO—Continued				
POCATELLO				
BANNOCK MEMORIAL HOSPITAL	ZIP CODE 83201			
MC NAMARA, MARGARET			5G07 LM03314-02	60,485
ORGANIZATION TOTAL	1	60,485		
STATE TOTAL	4	110,665		
ILLINOIS				
EUREKA				
EUREKA HOSPITAL	ZIP CODE 61530			
ANDERSON, CAROLYN M.			1G07 LM03521-01	4,000
ORGANIZATION TOTAL	1	4,000		
JACKSONVILLE				
PASSAVANT MEMORIAL AREA HOSPITAL	ZIP CODE 62650			
KNIGHT, DOROTHY H.			1G07 LM03561-01	4,000
ORGANIZATION TOTAL	1	4,000		
PRINCETON				
PERRY MEMORIAL HOSPITAL	ZIP CODE 61356			
EVANS, DONALD R.			1G07 LM03453-01	3,305
ORGANIZATION TOTAL	1	3,305		
STATE TOTAL	3	11,305		
INDIANA				
COLUMBUS				
REGION X MENTAL HEALTH FOUNDATION	ZIP CODE 47201			
BRAUN, MARILYN			1G07 LM03532-01	4,176
ORGANIZATION TOTAL	1	4,176		
INDIANAPOLIS				
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS	ZIP CODE 46202			
LAATZ, MARY J.			5G08 LM02687-03	26,096
ORGANIZATION TOTAL	1	26,096		
TERRE HAUTE				
INDIANA STATE UNIVERSITY TERRE HAUTE	ZIP CODE 47809			
TANNENBAUM, EARL			1G07 LM03595-01	20,225
ORGANIZATION TOTAL	1	20,225		
STATE TOTAL	3	50,497		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official		Grant number	Dollars
IOWA			
DES MOINES			
DRAKE UNIVERSITY ZIP CODE 50311			
JOHNSTON, PRESLEY M		1G08 LM03356-01	49,047
ORGANIZATION TOTAL	1	49,047	
DUBUQUE			
AREA RESIDENTIAL CARE ZIP CODE 52001			
GANSEMER, GARY L		1G07 LM03345-01	4,000
ORGANIZATION TOTAL	1	4,000	
SPENCER			
SPENCER MUNICIPAL HOSPITAL ZIP CODE 51301			
ANDERSEN, RUTH M		1G07 LM03504-01	3,910
ORGANIZATION TOTAL	1	3,910	
STATE TOTAL	3	56,957	
KANSAS			
WICHITA			
OSTEOPATHIC HOSPITAL OF WICHITA ZIP CODE 67203			
PICKELL, BARBARA		1G07 LM03481-01	4,000
ORGANIZATION TOTAL	1	4,000	
STATE TOTAL	1	4,000	
LOUISIANA			
LAKE CHARLES			
ST. PATRICK HOSPITAL OF LAKE CHARLES ZIP CODE 70601			
PARK, IMOGENE G		1G07 LM03452-01	19,822
ORGANIZATION TOTAL	1	19,822	
STATE TOTAL	1	19,822	
MAINE			
AUGUSTA			
KENNEBEC VALLEY MEDICAL CENTER ZIP CODE 04330			
GOODWIN, CLAIRE K		5G08 LM03219-02	20,532
GOODWIN, CLAIRE K		7G08 LM03762-01	19,968
ORGANIZATION TOTAL	2	40,500	
MAINE HOSPITAL ASSOCIATION ZIP CODE 04330			
BERTSCH, DONALD A, JR		5G08 LM03211-02	31,236
ORGANIZATION TOTAL	1	31,236	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official			Grant number	Dollars
MAINE—Continued				
BAR HARBOR				
CENTER FOR HUMAN GENETICS	ZIP CODE 04609			
FOLLETT, MARY M			1G07 LM03507-01	3,701
ORGANIZATION TOTAL	1	3,701		
CAMDEN				
CAMDEN COMMUNITY HOSPITAL AND HEALTH CARE CENTER	ZIP CODE 04843			
SWIFT, BARBARA			1G07 LM03517-01	4,000
ORGANIZATION TOTAL	1	4,000		
LEWISTON				
CENTRAL MAINE MEDICAL CENTER	ZIP CODE 04240			
GENETTI, RAYNNA B			5G08 LM03348-02	63,062
ORGANIZATION TOTAL	1	63,062		
STATE TOTAL	6	142,499		
MARYLAND				
BALTIMORE				
UNIVERSITY OF MARYLAND SYSTEM--UNIVERSITY OF MARYLAND AT BALTIMORE	ZIP CODE 21201			
FENG, CYRIL C			5G08 LM03257-02	36,825
ORGANIZATION TOTAL	1	36,825		
BETHESDA				
UNDERSEA MEDICAL SOCIETY	ZIP CODE 20014			
SHILLING, CHARLES W			5G08 LM03134-02	13,403
ORGANIZATION TOTAL	1	13,403		
STATE TOTAL	2	50,228		
MASSACHUSETTS				
BOSTON				
MASSACHUSETTS COLLEGE OF PHARMACY AND ALLIED HEALTH SCIENCES	ZIP CODE 02115			
GAZILLO, MARK J			1G07 LM03412-01	4,000
ORGANIZATION TOTAL	1	4,000		
CAMBRIDGE				
MOUNT AUBURN HOSPITAL	ZIP CODE 02138			
WITTE, LAWRENCE M			3G08 LM03024-03S1	8,000
ORGANIZATION TOTAL	1	8,000		
WORCESTER				
UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL AT WORCESTER	ZIP CODE 01605			
MORTON, DONALD J			2G07 LM03147-02	24,000
ORGANIZATION TOTAL	1	24,000		
STATE TOTAL	3	36,000		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official			Grant number	Dollars
MICHIGAN				
HASTINGS				
PENNOCK HOSPITAL			ZIP CODE 49058	
HAWKINS, MARY D			1G07 LM03441-01	3,925
ORGANIZATION TOTAL	1	3,925		
STATE TOTAL	1	3,925		
MINNESOTA				
CANBY				
CANBY COMMUNITY HOSPITAL DISTRICT ONE			ZIP CODE 56220	
RAIBER, LINDA			2G07 LM03237-02	30,000
ORGANIZATION TOTAL	1	30,000		
GRAND RAPIDS				
ITASCA MEMORIAL HOSPITAL			ZIP CODE 55744	
ANDERSON, PAT			1G07 LM03598-01	4,350
ORGANIZATION TOTAL	1	4,350		
STATE TOTAL	2	34,350		
MONTANA				
LEWISTOWN				
CENTRAL MONTANA HOSPITAL AND NURSING HOME			ZIP CODE 59457	
FLETCHER, GARY L			1G07 LM03454-01	3,222
ORGANIZATION TOTAL	1	3,222		
STATE TOTAL	1	3,222		
NEBRASKA				
LINCOLN				
LINCOLN MEDICAL EDUCATION FOUNDATION			ZIP CODE 68510	
GEORGE, JOHN H			1G07 LM03324-01	23,200
ORGANIZATION TOTAL	1	23,200		
OMAHA				
CREIGHTON UNIVERSITY			ZIP CODE 68178	
WANNARKA, MARJORIE B			1G08 LM03353-01	109,427
ORGANIZATION TOTAL	1	109,427		
STATE TOTAL	2	132,627		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official			Grant number	Dollars
NEW JERSEY				
ELIZABETH				
ELIZABETH GENERAL HOSPITAL AND DISPENSARY			ZIP CODE 07201	
BOSS, CATHERINE M.....			5G08 LM02999-03	13,187
ORGANIZATION TOTAL	1	13,187		
STATE TOTAL	1	13,187		
NEW MEXICO				
SANTA FE				
ST. VINCENT HOSPITAL			ZIP CODE 87501	
KNOWLES, JANE.....			1G07 LM03200-01A1	4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	1	4,000		
NEW YORK				
CANTON				
NORTH COUNTRY REFERENCE AND RESEARCH RESOURCES COUNCIL			ZIP CODE 13617	
KIMBALL, RICHARD H.....			5G07 LM03316-02	67,500
ORGANIZATION TOTAL	1	67,500		
UTICA				
NEW YORK STATE DEPARTMENT OF MENTAL HYGIENE--UTICA-MARCY PSYCHIATRIC CENTERS			ZIP CODE 13502	
SMITH, TOMS E.....			5G08 LM03059-03	10,285
ORGANIZATION TOTAL	1	10,285		
STATE TOTAL	2	77,785		
NORTH CAROLINA				
GOLDSBORO				
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES--CHERRY HOSPITAL			ZIP CODE 27530	
TABORY, MAXIM.....			5G08 LM02983-03	18,140
ORGANIZATION TOTAL	1	18,140		
NORTH WILKESBORO				
WILKES GENERAL HOSPITAL			ZIP CODE 28659	
HARRIS, RUSSELL P.....			1G07 LM03567-01	4,000
ORGANIZATION TOTAL	1	4,000		
RALEIGH				
NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES--DOROTHEA DIX HOSPITAL			ZIP CODE 27611	
WALKER, PRESTON A.....			5G08 LM03125-03	10,880
ORGANIZATION TOTAL	1	10,880		
STATE TOTAL	3	33,020		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official		Grant number	Dollars
OHIO			
ALLIANCE			
ALLIANCE CITY HOSPITAL		ZIP CODE 44601	
BENISHEK, KRISTINE K.....		1G07 LM03415-01	3,000
ORGANIZATION TOTAL	1	3,000	
STATE TOTAL	1	3,000	
OKLAHOMA			
OKLAHOMA CITY			
PRESBYTERIAN HOSPITAL		ZIP CODE 73104	
WILLIAMS, DOROTHY		5G07 LM03326-02	71,150
ORGANIZATION TOTAL	1	71,150	
STATE TOTAL	1	71,150	
OREGON			
LA GRANDE			
COUNCIL FOR MEDICAL EDUCATION AND DEVELOPMENT		ZIP CODE 97850	
BROWN, PAT		7G07 LM03751-01	20,489
ORGANIZATION TOTAL	1	20,489	
PORTLAND			
OREGON STATE HIGHER EDUCATION SYSTEM--UNIVERSITY OF OREGON HEALTH SCIENCES CENTER		ZIP CODE 97201	
MORGAN, JAMES E		5G08 LM03115-03	73,936
ORGANIZATION TOTAL	1	73,936	
PROVIDENCE MEDICAL CENTER		ZIP CODE 97213	
PALMER, MIRIAM		1G07 LM03530-01	4,000
ORGANIZATION TOTAL	1	4,000	
STATE TOTAL	3	98,425	
PENNSYLVANIA			
PHILADELPHIA			
HORIZON HOUSE INSTITUTE FOR RESEARCH AND DEVELOPMENT		ZIP CODE 19144	
TUCKER, MARGARET		1G07 LM03486-01	4,000
ORGANIZATION TOTAL	1	4,000	
SAYRE			
ROBERT PACKER HOSPITAL		ZIP CODE 18840	
ANTES, E JEAN		5G08 LM03301-02	58,831
ORGANIZATION TOTAL	1	58,831	

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official		Grant number		Dollars
PENNSYLVANIA—Continued				
SOMERSET				
PENNSYLVANIA STATE DEPARTMENT OF PUBLIC WELFARE--SOMERSET STATE HOSPITAL		ZIP CODE 15501		
KLINE, EVE.....		5G07 LM03275-02		38,000
ORGANIZATION TOTAL	1	38,000		
STATE TOTAL	3	100,831		
RHODE ISLAND				
WARWICK				
KENT COUNTY MEMORIAL HOSPITAL		ZIP CODE 02886		
LAMBETH, MARGARET S.....		1G07 LM03419-01		4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	1	4,000		
SOUTH DAKOTA				
ABERDEEN				
ST. LUKE'S HOSPITAL		ZIP CODE 57401		
PETERSEN, BYRON L.....		5G07 LM03297-02		17,753
ORGANIZATION TOTAL	1	17,753		
WATERTOWN				
ST. ANN'S HOSPITAL		ZIP CODE 57201		
CONEJO, DAVID.....		2G07 LM03233-02		11,982
ORGANIZATION TOTAL	1	11,982		
YANKTON				
SOUTH DAKOTA STATE BOARD OF CHARITIES AND CORRECTIONS--SOUTH DAKOTA HUMAN SERVICES CENTER		ZIP CODE 57078		
KOSTEL, MARY L.....		1G07 LM03414-01		4,000
ORGANIZATION TOTAL	1	4,000		
STATE TOTAL	3	33,735		
TEXAS				
MOUNT PLEASANT				
TITUS COUNTY MEMORIAL HOSPITAL		ZIP CODE 75455		
ALLEN, WILLIAM J.....		1G07 LM03534-01		4,400
ORGANIZATION TOTAL	1	4,400		
STATE TOTAL	1	4,400		

Table 6.—Medical Library Grants, by Area, Organization, and Responsible Official, Fiscal Year 1980—Continued

Responsible official	Grant number	Dollars
UTAH		
SALT LAKE CITY		
INTERMOUNTAIN HEALTH CARE--PRIMARY CHILDREN'S MEDICAL CENTER ZIP CODE 84103		
BAER, MARY L.....	5G07 LM03239-02	24,400
ORGANIZATION TOTAL 1 24,400		
STATE TOTAL 1 24,400		
WASHINGTON		
BELLEVUE		
OVERLAKE HOSPITAL ZIP CODE 98004		
KIRBY, KAREN.....	1G07 LM03508-01	4,000
ORGANIZATION TOTAL 1 4,000		
STATE TOTAL 1 4,000		
WEST VIRGINIA		
GLEN DALE		
REYNOLDS MEMORIAL HOSPITAL ZIP CODE 26038		
LYNCH, MARY C.....	1G07 LM03358-01	4,000
ORGANIZATION TOTAL 1 4,000		
STATE TOTAL 1 4,000		
WYOMING		
CASPER		
MEMORIAL HOSPITAL OF NATRONA COUNTY ZIP CODE 82601		
LANGE, NAOMI W.....	1G08 LM03558-01	35,557
ORGANIZATION TOTAL 1 35,557		
RIVERTON		
FREMONT COUNTY MEMORIAL HOSPITAL ZIP CODE 82501		
BEBOUT, LINDA L.....	1G07 LM03604-01	4,230
ORGANIZATION TOTAL 1 4,230		
STATE TOTAL 2 39,787		



Table 7.—Cooperative Agreements, by Area, Organization, and Project Director, Fiscal Year 1980

Project director	Project title	Grant number	Dollars
TOTAL, 1 GRANT			800,000

SWITZERLAND

GENEVA

WORLD HEALTH ORGANIZATION

SOMERS, EMMANUEL	INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY (IPCS)	1U01 ES02617-01	800,000
ORGANIZATION TOTAL	1	800,000	
STATE TOTAL	1	800,000	

NOTE: For information concerning cooperative agreements, see Technical Note, p. vii.



APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetic sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization.

United States

- Affiliated Hospitals Center--Boston (3 units), Mass. (2,3,5)
American Health Foundation--New York, Valhalla, N.Y. (2,5)
California State University and Colleges System--Los Angeles, Northridge, San Diego, Calif. (2,3,5)
City University of New York--New York (5 units), N.Y. (2,3)
College of Medicine and Dentistry of New Jersey--Newark, Piscataway, N.J. (2,3)
Cornell University--Ithaca, New York, N.Y. (2-4)
Harvard University--Boston, Cambridge, Mass. (2-5)
Indiana University--Bloomington, Indianapolis, Ind. (2,3,5,6)
Kennebec Valley Medical Center (formerly known and shown as Augusta General Hospital)--Augusta, Maine (6)
Louisiana State University--Baton Rouge, New Orleans, La. (2,3)
New York State Department of Health (may include awards to Health Research, Inc.)--Albany, Buffalo, N.Y. (2-5)
New York State Department of Mental Hygiene (may include awards to New York State Research Foundation for Mental Hygiene, Inc.)--New York, Utica, N.Y. (6)
North Carolina Department of Human Resources (may include awards to North Carolina Foundation for Mental Health Research, Inc.)--Chapel Hill, Goldsboro, Raleigh, N.C. (2,6)
Northwestern University--Chicago, Evanston, Ill. (2,3,5)
Oregon State Higher Education System--Corvallis, Eugene, Portland, Oreg. (2,3,6)
Pennsylvania State University--Hershey, University Park, Penn. (2,3,5)
State University of New York--Binghamton, Buffalo, New York, Stony Brook, Syracuse, N.Y. (2,3,5)
State University System of Florida--Gainesville, Tallahassee, Fla. (2,3,5,6)
Texas Agricultural and Mechanical University System--College Station, Prairie View, Texas (2,3)
Tulane University of Louisiana--Covington, New Orleans, La. (2,3)

U.S. Department of Defense--Bethesda (2 units), Md. (2)
 U.S. Department of Health and Human Services--Phoenix,
 Ariz.; Washington, D.C.; Atlanta, Ga.; Baltimore,
 Bethesda, Frederick, Rockville, Md.; Research Triangle
 Park, N.C. (2)
 U.S. Veterans Administration--Long Beach, Los Angeles,
 Calif. (2)
 University of California--Berkeley, Davis, Irvine, La
 Jolla, Los Angeles, Riverside, San Francisco, Santa
 Barbara, Santa Cruz, Calif. The unit in La Jolla may
 include awards to the Friends of Psychiatric Research
 of San Diego. (2-6)
 University of Colorado System--Boulder, Denver, Colo.
 (2,3,5)
 University of Connecticut--Farmington, Storrs, Conn.
 (2,3,5)
 University of Illinois--Chicago, Urbana, Ill. (2,3)
 University of Kansas--Kansas City, Lawrence, Kans. (2,3,5)
 University of Maryland System--Baltimore, Catonsville,
 College Park, Md. (2,3,6)
 University of Massachusetts--Amherst, Worcester, Mass.
 (2,3,6)
 University of Miami--Coral Gables, Miami, Fla. (2,3,5)
 University of Minnesota--Duluth, Minneapolis, Minn.
 (2-4)
 University of Missouri--Columbia, Kansas City, Mo. (2,3)
 University of Nebraska System--Lincoln, Omaha, Nebr.
 (2,3)
 University of North Carolina System--Chapel Hill, Durham,
 Greensboro, Greenville, Raleigh, N.C. (2,3,5)
 University of Puerto Rico--San Juan (2 units), P.R. (2,3)
 University of Tennessee System--Knoxville, Memphis, Tenn.
 (2,3,5)
 University of Texas System--Austin, Dallas, Galveston,
 Houston (2 units), San Antonio (2 units), Tex. (2,3,5)
 University System of Georgia--Athens, Atlanta (2 units),
 Augusta, Savannah, Ga. (2,3)
 Utah State Higher Education System--Logan, Salt Lake City,
 Utah (2,3)

Other Countries

Max Planck Society for the Advancement of Science--Munich,
 Tubingen, Germany (Federal Republic of) (2)
 Medical Research Council--Cambridge, London, United
 Kingdom (2)

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HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health
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NIH Publication No. 81-1043

NATIONAL INSTITUTES OF HEALTH

Research and Development
Contracts

Fiscal Year 1980 Funds



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service National Institutes of Health

DISCRIMINATION PROHIBITED: Under provisions of applicable public laws enacted by Congress since 1964, no person in the United States shall, on the grounds of race, color, national origin, handicap, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity (or, on the basis of sex, with respect to any education program or activity) receiving Federal financial assistance. In addition, Executive Order 11141 prohibits discrimination on the basis of age by contractors and subcontractors in the performance of Federal contracts, and Executive Order 11246 states that no federally funded contractor may discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. Therefore, the National Institutes of Health grants and awards programs, like every program or activity receiving financial assistance from the Department of Health and Human Services, must be operated in compliance with these laws and Executive Orders.

NATIONAL INSTITUTES OF HEALTH

Research and Development Contracts

Fiscal Year 1980 Funds

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service National Institutes of Health

NIH Publication No. 81-1044

Prepared by
NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS
Statistics and Analysis Branch

PREFACE

The mission of the National Institutes of Health is to protect and improve the health of the American people. To achieve this goal, NIH conducts biomedical research in its own laboratories; provides grants to nonprofit organizations and academic institutions for research; provides grants for the training of research investigators; supports biomedical communications through programs and activities of the National Library of Medicine; and provides grants for facilities and other resources required for cancer research. In addition, the research contract mechanism is used under appropriate circumstances.

Listings of the NIH grants and research and development contracts are prepared annually by the Division of Research Grants. This book presents a list of the contracts awarded by NIH from fiscal year 1980 funds and which were reported to the NIH central record system (IMPAC) as of January 16, 1981. Contracts reported in other systems at NIH are excluded from the report.



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TECHNICAL NOTE

Explanation of the Contract Mechanism:

The increasing importance of research contracts in the NIH extramural research programs has generated considerable analysis and discussion covering, among other aspects, the development of criteria for use of the contract mechanism. These criteria as listed in the NIH Guide for Grants and Contracts, Vol. 6, No. 13, July 1, 1977, are as follows:

BASIC CRITERIA: Contracts are used for procurement of research and development when the following considerations obtain:

- a. the NIH procures a specific service or defined end product, including research, development, and related activities for identified NIH program needs, e.g., evaluation studies, technical assistance, surveys, consulting services, training projects where NIH selects the individuals or specifies the content of the program, planning for NIH use, production of publications or audiovisual materials (other than as results of R & D (research and development) projects or as proceedings of scientific conferences which are not being procured for use by the Government); and
- b. the NIH exercises direction or control under terms of the agreement by specifying the scope of the work and manner of performance and requires responsiveness by the performer in the event a change in direction of the effort is necessitated by program developments; and
- c. NIH staff closely monitors technical and administrative performance during the course of the activity to ensure that work on the project is accomplished in accordance with terms of the agreement.

MANDATORY USE OF CONTRACTS: Notwithstanding any of the foregoing, selection of contracts is mandatory whenever:

- a. an award is made to a commercial, i.e., profit-making, organization; or

- b. material having a security classification is involved.

Organization Identification:

In the presentation of research contracts, emphasis is placed on listing the organizations in the city and State of the unit in which professional responsibility of the project director lies. The major part of contractual activities are conducted by universities, research foundations, and commercial and industrial organizations across the Nation. Study of grantee organizations in the United States has led to the following qualifications in the listing of their names:

1. Within a given city, if an institution of higher education belonging to a system of higher education is comprised of two or more components, and each component has equal standing in the system, the name of the component is shown after the name of the institution.
2. If a foundation has been established for the purpose of receiving and administering funds, the name and location of the organization having professional responsibility for the contract are shown rather than the name and location of the foundation. The name of the foundation is indicated in the Appendix if it differs materially from the name of the organization.
3. In the listing of governmental organizations, Federal as well as non-Federal, the name of the parent department precedes that of the individual component, and there are as many listings within a given city as there are components of the organization receiving contracts.

In the case of industrial organizations and associations, professional responsibility is assumed to reside at the address of the contractor and not necessarily the "site of performance." Divisions of parent organizations are shown if they are indicated on the contract, and subsidiaries are linked to parent organizations when the relationship is known.

These qualifications do not apply to foreign organizations or in all cases to organizations in the United States, either because of insufficient information or because of an organizational structure unique to a particular organization.

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed in the Appendix in alphabetic sequence.

ABBREVIATIONS

The component of NIH supporting a contract is indicated by the code letters in the left column. These code letters form part of the identification of the research contract number in Table 2.

<i>Code for supporting component</i>		<i>Abbreviation of supporting component</i>
	Institutes and Research Divisions*	IRD
AG	National Institute on Aging.....	NIA
AI	National Institute of Allergy and Infectious Diseases.....	NIAID
AM	National Institute of Arthritis, Metabolism, and Digestive Diseases.....	NIAMDD
CA	National Cancer Institute.....	NCI
CB	Division of Cancer Biology and Diagnosis	
CM	Division of Cancer Treatment	
CN	Division of Resources, Centers, and Community Activities	
CO	Office of the Director, NCI	
CP	Division of Cancer Cause and Prevention	
CL	Clinical Center.....	CLC
CT	Division of Computer Research and Technology.	DCRT
DE	National Institute of Dental Research.....	NIDR
ES	National Institute of Environmental Health Sciences.....	NIEHS
EY	National Eye Institute.....	NEI
GM	National Institute of General Medical Sciences.....	NIGMS
HD	National Institute of Child Health and Human Development.....	NICHHD
HL	National Heart, Lung, and Blood Institute....	NHLBI
HB	Division of Blood Diseases and Resources	
HI	Division of Intramural Research	
HO	Office of the Director, NHLBI	
HR	Division of Lung Diseases	
HV	Division of Heart and Vascular Diseases	
NS	National Institute of Neurological and Communicative Disorders and Stroke.....	NINCDS
RG	Division of Research Grants.....	DRG
RR	Division of Research Resources.....	DRR
RS	Division of Research Services.....	DRS
LM	National Library of Medicine.....	NLM
OD	Office of the Director, NIH.....	NIH
TW	Fogarty International Center.....	FIC

*For convenience of presentation, includes the following service components: Clinical Center, Division of Computer Research and Technology, Division of Research Grants, Division of Research Resources, and Division of Research Services.

TABLE 1.--SUMMARY OF RESEARCH AND DEVELOPMENT CONTRACTS, BY SUPPORTING COMPONENT, FISCAL YEAR 1980

SUPPORTING COMPONENT		NUMBER	DOLLARS
TOTAL NATIONAL INSTITUTES OF HEALTH.....		1,622	432,373,806
TOTAL INSTITUTE AND RESEARCH DIVISIONS*		1,547	421,040,943
CLINICAL CENTER.....		3	3,194,781
DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY.....		3	687,282
DIVISION OF RESEARCH GRANTS.....		1	50,000
DIVISION OF RESEARCH RESOURCES.....		22	4,557,861
DIVISION OF RESEARCH SERVICES.....		9	1,707,383
NATIONAL CANCER INSTITUTE.....		804	246,534,940
DIVISION OF CANCER BIOLOGY AND DIAGNOSIS.....		119	15,296,459
DIVISION OF CANCER CAUSE AND PREVENTION.....		310	95,636,397
DIVISION OF CANCER TREATMENT.....		260	64,438,392
DIVISION OF RESOURCES, CENTERS, AND COMMUNITY ACTIVITIES.....		81	29,666,989
OFFICE OF THE DIRECTOR, NCI.....		34	41,496,703
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE.....		225	75,493,304
DIVISION OF BLOOD DISEASES AND RESOURCES.....		22	5,706,625
DIVISION OF HEART AND VASCULAR DISEASES.....		166	64,402,668
DIVISION OF INTRAMURAL RESEARCH.....		2	413,028
DIVISION OF LUNG DISEASES.....		31	4,375,274
OFFICE OF THE DIRECTOR, NHLBI.....		4	595,709
NATIONAL EYE INSTITUTE.....		39	4,999,667
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES.....		92	17,412,914
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES.....		53	11,428,955
NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT.....		147	22,926,026
NATIONAL INSTITUTE OF DENTAL RESEARCH.....		28	3,186,538
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES.....		33	8,445,466
NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.....		3	943,892
NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE.....		69	15,141,199
NATIONAL INSTITUTE ON AGING.....		16	4,330,735
NATIONAL LIBRARY OF MEDICINE.....		66	9,434,809
OFFICE OF THE DIRECTOR.....		9	1,898,054

*For convenience of presentation, includes the following service components: Clinical Center, Division of Computer Research and Technology, Division of Research Grants, Division of Research Resources, and Division of Research Services.

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980

Project director	Purpose of contract	Contract No.	Dollars
GRAND TOTAL, 1,622 CONTRACTS.....			432,373,806
UNITED STATES,* 1,529 CONTRACTS.....			420,012,314
OTHER COUNTRIES, 93 CONTRACTS.....			12,361,492

UNITED STATES

ALABAMA

BIRMINGHAM

SOUTHERN RESEARCH INSTITUTE ZIP CODE 35205

DENINE, E PAUL.....	STUDY TOXICITY-PHARMACOLOGY OF ANTITUMOR DRUGS	5N01 CM97263-01	235,000
DENINE, E PAUL.....	THE TOXICOLOGY OF RETINOLIDS	5N01 CP85615-04	278,095
DUNN, RICHARD L.....	DEVELOP HYDROGEL VAGINAL BARRIER CONTRACEPTIVES	5N01 HD02854-01	546,338
HARRISON, STEADMAN D.....	TOXICOLOGY AND PHARMACOLOGY OF ANTICONVULSANTS	1N01 NS02327-00	278,524
HILL, DONALD L.....	PHARMACOLOGICAL STUDIES OF ANTITUMOR AGENTS.....	5N01 CM87162-03	322,000
HILL, DONALD L.....	METABOLISM OF CARCINOGENIC COMPOUNDS.....	5N01 CP55721-11	113,050
MEYERS, WILLIAM E.....	DELIVER CARIOSTATIC AGENTS TO THE ORAL CAVITY.....	1N01 DE02429-00	210,209
MONTGOMERY, JOHN A.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07260-04	61,110
PREJEAN, DAVID.....	CARCINOGENICITY STUDIES IN LABORATORY ANIMALS.....	6N01 CP95651-02	489,892
SCHABEL, FRANK M, JR.....	PRECLINICAL DEVELOPMENT OF NEW ANTICANCER THERAPIES.....	5N01 CM97309-02	2,120,545
SEALEY, Y FULMER.....	SYNTHESIS OF RETINOLIDS FOR LONG TERM ANIMAL STUDIES	5N01 CP85616-07	352,681
ORGANIZATION TOTAL	11	5,007,444	

UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN BIRMINGHAM ZIP CODE 35294

BUTTERWORTH, C E, JR.....	ORAL CONTRACEPTIVE STEROIDS & FOLIC ACID METABOLISM	2N01 HD42862-10	19,195
HIRAMOTO, RAYMOND N.....	IMMUNE FUNCTION IN THYMIC HORMONE TREATED MICE	5N01 AG92100-02	112,688
LINDSEY, J RUSSELL.....	RODENT DISEASE DIAGNOSTIC LABORATORY	3N01 CP95616-02	177,934
MICHALEK, SUZANNE M.....	IMMUNIZE RODENTS WITH NONFREUND-TYPE ANTICARIES VACCINES.....	1N01 DE02426-00	439,585
OBERMAN, ALBERT.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	2N01 HV12440-19	226,581
SCHNAPER, HAROLD W.....	MULTIPLE RISK FACTOR INTERVENTION TRIAL—MEN	5N01 HV33107-11	592,619
SHEFFIELD, L THOMAS.....	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV12159-13	446,550
SHIOTA, TETSUO.....	CARIOGENIC STREPTOCOCCI MUTANTS TO PREVENT DENTAL CARIES.....	2N01 DE62491-10	175,246
ORGANIZATION TOTAL	8	2,190,398	

*Includes Puerto Rico.

NOTE: For information as to how this table is structured, see Technical Note, p. vii. Also, for comments on organizations, see Appendix.

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ALABAMA—Continued			
MOBILE			
UNIVERSITY OF SOUTH ALABAMA ZIP CODE 36688			
MOHR, J P	DEVELOP PILOT STROKE DATA BANK NETWORK CENTER.....	5N01 NS82397-03	157,500
ORGANIZATION TOTAL	1	157,500	
PRATTVILLE			
SOUTHERN ANIMAL FARMS ZIP CODE 36067			
CURLEE, JOSEPH	OPERATION OF A RODENT PRODUCTION CENTER.....	5N01 CM97245-01	201,850
ORGANIZATION TOTAL	1	201,850	
UNIVERSITY			
UNIVERSITY OF ALABAMA SYSTEM—UNIVERSITY OF ALABAMA IN UNIVERSITY ZIP CODE 35486			
BAKER, DAVID C	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07355-04	64,782
ORGANIZATION TOTAL	1	64,782	
STATE TOTAL	22	7,621,974	
ARIZONA			
PHOENIX			
INTEL CORPORATION—COMMERCIAL SYSTEMS DIVISION ZIP CODE 85069			
ELGIN, GUS	RENT & MAINTAIN INTEL 7158 MEMORY SYSTEM.....	1N01 LM03519-00	38,240
ORGANIZATION TOTAL	1	38,240	
SACATON			
GILA RIVER INDIAN COMMUNITY COUNCIL ZIP CODE 85247			
HEDRICK, HILTON O	DIABETES AND ARTHRITIS IN PIMA-MARICOPA INDIAN TRIBES.....	5N01 AM92207-05	71,860
ORGANIZATION TOTAL	1	71,860	
TEMPE			
ARIZONA STATE UNIVERSITY ZIP CODE 85281			
PETTIT, GEORGE R	ISOLATE ANTINEOPLASTIC AGENTS FROM MARINE ORGANISMS.....	5N01 CM97262-01	128,000
PETTIT, GEORGE R	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS.....	5N01 CM97297-02	147,158
ORGANIZATION TOTAL	2	275,158	
TUCSON			
HILLHAVEN FOUNDATION—HILLHAVEN HOSPICE ZIP CODE 85712			
HACKLEY, JOHN A	HOSPICE CONCEPT FOR THE CARE OF TERMINAL CANCER PATIENTS.....	5N01 CN85392-03	214,808
ORGANIZATION TOTAL	1	214,808	
UNIVERSITY OF ARIZONA ZIP CODE 85721			
PRESENT, ARTHUR J	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55097-09	139,520
SIPIES, I GLENN	PHARMACOKINETICS OF XENOBIOTICS.....	5N01 ES82130-05	159,358
ORGANIZATION TOTAL	2	298,878	
STATE TOTAL	7	898,944	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA			
BERKELEY			
ANDROS, INC. ZIP CODE 94710			
PORTNER, PEER M.....	DEVELOP AN IMPLANTABLE LEFT HEART ASSIST SYSTEM.....	1N01 HV02908-00	1,044,718
PORTNER, PEER M.....	ELECTRICAL ENERGY TRANSMISSION TECHNIQUE DEVELOPMENT.....	2N01 HV72933-07	219,343
WILLIAMS, KEVIN G.....	RESTORE AND REFURBISH INFRARED HETERODYNE RATIONOMETER.....	1N01 GM02132-00	85,479
ORGANIZATION TOTAL 3	1,349,540		
THORATEC LABORATORIES CORPORATION ZIP CODE 94710			
LAWSON, JOHN H.....	FABRICATION OF CARDIOVASCULAR DEVICES.....	2N01 HV92906-01	207,821
WARD, ROBERT S.....	PROCUREMENT OF PRIMARY REFERENCE MATERIALS.....	5N01 HV92933-01	237,248
ORGANIZATION TOTAL 2	445,069		
CUPERTINO			
COMPRESSION LABS, INC. ZIP CODE 95014			
CHEN, WEN H.....	COMPRESSION PERFORMANCE SIMULATION STUDY.....	1N01 LM03521-00	26,930
ORGANIZATION TOTAL 1	26,930		
TYMSHARE, INC. ZIP CODE 95014			
NOT AVAILABLE.....	DATA COMMUNICATION SERVICES.....	3N01 LM44711-24	336,000
ORGANIZATION TOTAL 1	336,000		
DAVIS			
UNIVERSITY OF CALIFORNIA AT DAVIS ZIP CODE 95616			
BORHANI, NEMAT O.....	COOPERATIVE STUDY OF HYPERTENSION.....	2N01 HV22945-14	439,166
BORHANI, NEMAT O.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	5N01 HV22977-12	92,269
BORHANI, NEMAT O.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72954-08	60,000
BORHANI, NEMAT O.....	TWIN STUDY FOLLOW-UP EXAMINATION.....	5N01 HV92929-01	67,017
CARDIFF, ROBERT D.....	MUMTV EXPRESSION IN MOUSE MAMMARY PRENEOPLASTIC TISSUES.....	1N01 CP01008-00	177,590
HENDRICKX, ANDREW G.....	MAINTENANCE OF A NON-HUMAN PRIMATE BREEDING COLONY.....	5N01 HD92828-02	194,142
JENSEN, HANNE M.....	CHARACTERIZE PREMALIGNANT HUMAN MAMMARY HYPERPLASIAS.....	5N01 CB84316-03	91,550
KAWAKAMI, THOMAS G.....	COMPARATIVE LEUKEMIA AND SARCOMA VIRAL STUDIES.....	2N01 CP33242-10	343,702
KRAUS, JESS F.....	SUDDEN INFANT DEATH SYNDROME RISK FACTOR (COOPERATIVE).....	2N01 HD72840-04	101,774
ORGANIZATION TOTAL 9	1,567,210		
FOLSOM			
GENERAL TIRE AND RUBBER COMPANY—AEROJET LIQUID ROCKET COMPANY ZIP CODE 95630			
MOISE, JOHN C.....	DEVELOP AN IMPLANTABLE LEFT HEART ASSIST SYSTEM.....	5N01 HV02911-01	2,184,448
MOISE, JOHN C.....	THERMAL ENGINE SYSTEM DEVELOPMENT.....	5N01 HV92909-04	1,791,041
ORGANIZATION TOTAL 2	3,975,489		
GENERAL TIRE AND RUBBER COMPANY—CORDOVA CHEMICAL COMPANY ZIP CODE 95630			
OLSEN, ROBERT.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	3N01 CM87201-03	251,774
ORGANIZATION TOTAL 1	251,774		
GILROY			
SIMONSEN LABORATORIES ZIP CODE 95020			
RUSSELL, JAMES D.....	GENETIC CENTER FOR RODENTS IN BIOCONTAINMENT ENVIRONMENT.....	5N01 CM77166-07	768,057
RUSSELL, JAMES D.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	5N01 CM97247-01	349,020
RUSSELL, JAMES D.....	RODENT PRODUCTION COLONIES FOR NCI.....	3N01 CP95643-01	255,647
ORGANIZATION TOTAL 3	1,372,724		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
IRVINE			
UNIVERSITY OF CALIFORNIA AT IRVINE ZIP CODE 92717			
MORAN, EDGAR.....	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER.....	5N01 CM97318-02	60,715
ORGANIZATION TOTAL 1	60,715		
LA JOLLA			
CDP ASSOCIATES ZIP CODE 92037			
TAYLOR, CAROLYN A.....	EVALUATE TECHNOLOGY TRANSFER—CANCER PATIENT MANAGEMENT.....	3N01 OD02109-03	184,335
ORGANIZATION TOTAL 1	184,335		
SALK INSTITUTE FOR BIOLOGICAL STUDIES ZIP CODE 92037			
COHN, MELVIN.....	SUPPLY IMMUNE-RELATED CELL LINES.....	2N01 CB23886-14	120,710
GUILLEMIN, ROGER C.....	ISOLATE, CHARACTERIZE, & SYNTHESIZE GONADOTROPIN.....	1N01 HD02860-00	402,719
RIVIER, JEAN.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	5N01 HD02836-01	401,538
RIVIER, JEAN.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	3N01 HD82821-03	38,368
ORGANIZATION TOTAL 4	963,335		
SCIENCE APPLICATIONS ZIP CODE 92038			
REED, JOHN H.....	ANALYZE TOTAL ORGANIC CHLORINE AND BROMINE RESIDUES.....	5N01 ES00001-02	369,677
ORGANIZATION TOTAL 1	369,677		
SCRIPPS CLINIC AND RESEARCH FOUNDATION ZIP CODE 92037			
DIXON, FRANK J.....	IMMUNOLOGIC STUDY OF RNA (TYPE C) VIRUSES.....	3N01 CP71018-11	178,213
LENER, RICHARD A.....	IMMUNE RESPONSE TO RECOMBINANT ONCORNAVIRUS.....	5N01 CP91012-02	78,710
ORGANIZATION TOTAL 2	256,923		
UNIVERSITY OF CALIFORNIA AT SAN DIEGO ZIP CODE 92093			
MARSHALL, LAWRENCE F.....	ESTABLISH CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	5N01 NS92312-03	457,357
MATTSON, FRED H.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	5N01 HV12160-19	1,083,800
RICHMAN, DOUGLAS D.....	DEVELOP A NEW TECHNIQUE FOR RAPID VIRAL DIAGNOSIS.....	5N01 AI92615-01	74,413
ROYSTON, IVOR.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07444-01	223,422
SATO, GORDON H.....	GROWTH/PASSAGE OF MAMMARY EPITHELIAL CELLS IN CULTURE.....	5N01 CB74188-05	71,500
SHIMKIN, MICHAEL B.....	PULMONARY ADENOMA INDUCTION IN A STRAIN OF MICE.....	3N01 CP95608-01	171,214
YEN, SAMUEL S.....	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS.....	5N01 HD92842-01	149,860
ORGANIZATION TOTAL 7	2,231,566		
LOMA LINDA			
LOMA LINDA UNIVERSITY ZIP CODE 92354			
HODGKIN, JOHN E.....	STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING.....	5N01 HR72904-06	267,647
JUDKINS, MELVIN P.....	COOPERATIVE CLINICAL TRIAL ON DISSOLUTION OF GALLSTONES.....	2N01 HV32975-10	146,667
ORGANIZATION TOTAL 2	414,314		
LOS ANGELES			
CEDARS-SINAI MEDICAL CENTER ZIP CODE 90048			
DANZER, HAL C.....	DEVELOPMENT AND TESTING OF VAGINAL CONTRACEPTIVES.....	3N01 HD82856-02	10,343
MAXWELL, MORTON H.....	THERAPY FOR HYPERTENSION IN THE GENERAL POPULATION.....	2N01 HV12436-22	456,729
SCHOENFIELD, LESLIE J.....	COOPERATIVE CLINICAL TRIAL ON DISSOLUTION OF GALLSTONES.....	1N01 AM02205-00	1,123,695
SCHOENFIELD, LESLIE J.....	COOPERATIVE CLINICAL STUDY OF DISSOLUTION OF GALLSTONES.....	3N01 AM32216-17	113,830
ORGANIZATION TOTAL 4	1,704,597		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
CHILDREN'S HOSPITAL OF LOS ANGELES ZIP CODE 90027			
HIGGINS, GUSSIE R.....	CLINICAL TRIALS IN PEDIATRIC PATIENTS.....	6N01 CM07467-01	44,977
ORGANIZATION TOTAL 1	44,977		
COMMUNITY CANCER CONTROL ZIP CODE 90036			
PICK, RUTH ANN.....	COMMUNITY-BASED CANCER CONTROL PROGRAM.....	3N01 CN75400-08	825,000
ORGANIZATION TOTAL 1	825,000		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 90027			
ZIEL, HARRY K.....	CONJUGATED ESTROGENS AND THE RISK OF BREAST CANCER.....	2N01 CP91028-02	47,309
ORGANIZATION TOTAL 1	47,309		
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT—LOS ANGELES COUNTY-UNIV OF SO CALIFORNIA MED CTR ZIP CODE 90033			
BERNSTEIN, GERALD S.....	HEALTH STATUS OF AMERICAN MEN.....	2N01 HD72802-05	692,930
HODGMAN, JOAN E.....	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42823-11	123,750
MARCH, CHARLES M.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES.....	5N01 HD92810-02	50,159
ORGANIZATION TOTAL 3	866,839		
UNIVERSITY OF CALIFORNIA AT LOS ANGELES ZIP CODE 90024			
BECKMAN, LINDA J.....	CONSEQUENCES OF CHILDLESSNESS FOR OLDER MEN.....	1N01 HD02804-00	56,387
BLAKE, JUDITH.....	AMERICAN ATTITUDES TOWARD ABORTION.....	5N01 HD82832-03	72,085
CHASE, MICHAEL H.....	OPERATION OF A BRAIN INFORMATION CENTER.....	3N01 OD02102-01	285,000
CHERRY, JAMES D.....	INFLUENZA STUDIES—VACCINE TRIALS, VIROLOGIC, CLINICAL.....	3N01 AI62510-10	9,399
COBURN, JACK W.....	CONTROLLED EVALUATION OF MAINTENANCE PERITONEAL DIALYSIS.....	5N01 AM52218-07	129,969
COBURN, JACK W.....	PROPHYLACTIC AGENT FOR RENAL OSTEOCYSTOSIS IN DIALYSIS.....	3N01 AM72204-05	110,943
CULLEN, JOSEPH W.....	COMPREHENSIVE CANCER CENTER COMMUNICATIONS NETWORK.....	3N01 CN85397-04	34,912
DIXON, WILFRED.....	SUPPORT OF THE BMD/BMDP PROGRAM.....	2N01 RR82107-04	351,744
EILBER, FREDERICK R.....	IMMUNOTHERAPY IN SKELETAL AND SOFT TISSUE SARCOMA.....	1N01 CB04344-00	108,161
ELASHOFF, ROBERT M.....	MALIGNANT MELANOMA AMONG WOMEN ON CONTRACEPTIVE STEROIDS.....	2N01 HD82803-03	106,766
ESCUETA, ANTONIO V.....	A COMPREHENSIVE EPILEPSY PROGRAM.....	5N01 NS02332-02	1,240,921
EYMAN, RICHARD K.....	FOSTER FAMILY CARE IMPACT ON MENTALLY RETARDED CHILDREN.....	3N01 HD72847-04	14,185
FOX, CHARLES F.....	CELL SURFACE RECEPTOR FOR ONCORNAVIRUS.....	3N01 CP91010-01	92,410
HOLMES, CARMACK.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	1N01 CM07416-00	70,577
HOLMES, CARMACK.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	2N01 CM77151-08	89,057
KOPPEL, JOEL D.....	DIETARY MAINTENANCE OF CHRONIC UREMIC PATIENTS.....	3N01 AM92220-01	25,046
MAKINODAN, TAKASHI.....	TWIN STUDY FOLLOW-UP EXAMINATION—CHD INCIDENCE.....	5N01 HV02900-02	138,505
MASSEY, FRANK J.....	HEALTH STATUS OF VASECTOMIZED MEN—COORDINATING CENTER.....	2N01 HD62807-05	415,000
MORTON, DONALD L.....	HUMAN MELANOMA: EVALUATION OF BCG IMMUNOTHERAPY.....	2N01 CB64076-07	146,641
MORTON, DONALD L.....	HUMAN TUMOR STEM CELL CLONING ASSAY & DRUG SCREENING.....	1N01 CM07420-00	206,504
PARKER, ROBERT.....	CLINICAL NEUTRON THERAPY PROGRAM.....	5N01 CM97315-01	622,227
RAMMIRY, KENNETH.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM67097-10	30,000
SARNA, GREGORY P.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07439-01	249,963
SHABO, ALAN L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72132-05	56,845
SPIVEY, GARY H.....	EPIDEMIOLOGY OF BENIGN BREAST DISEASE.....	2N01 CB74202-04	62,800
TAKASUGI, MITSUO.....	VIRUSES, GENETICS, IMMUNITY IN ETIOLOGY OF HUMAN CANCER.....	1N01 CP01022-00	205,080
TAKASUGI, MITSUO.....	CELLULAR IMMUNITY TO TUMOR ANTIGENS.....	3N01 CP43211-10	24,630
TERASAKI, PAUL I.....	HLA TYPING FOR PLATELET AND LEUKOCYTE TRANSFUSIONS.....	5N01 CM97239-01	398,000
TERASAKI, PAUL I.....	HLA GENETIC MARKERS IMMUNE RESPONSE TO CANCER VIRUSES.....	1N01 CP01024-00	76,170
WERNER, GLORIA.....	REGIONAL MEDICAL LIBRARY SERVICES.....	1N01 LM03506-00	451,279
WERNER, GLORIA.....	REGIONAL MEDICAL LIBRARY SERVICES.....	3N01 LM34708-16	1,913
ORGANIZATION TOTAL 31	5,883,119		
UNIVERSITY OF SOUTHERN CALIFORNIA ZIP CODE 90007			
BOYLEN, C THOMAS.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	2N01 HR62947-10	62,912
GARDNER, MURRAY B.....	WILD MOUSE STUDIES.....	2N01 CP81032-05	476,594
GARDNER, MURRAY B.....	HUMAN SRC GENE AND IMMUNOPREVENTION.....	2N01 CP81033-04	175,500
GARDNER, MURRAY B.....	IMMUNOPREVENTION OF CANCER.....	2N01 CP81063-06	230,000
GUISS, LEWIS W.....	EARLY DETECTION OF BREAST CANCER.....	3N01 CM45098-09	60,484

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director		Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued				
HAMMOND, G DENMAN		COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	3N01 CN55235-09	183,970
HAMMOND, G DENMAN		CHILDREN'S CANCER STUDY GROUP—CANCER CONTROL PROGRAM.....	3N01 CN65374-09	754,290
HAYWOOD, L JULIAN		CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72970-07	89,291
HEIDELBERGER, CHARLES D.....		CARCINOGENESIS IN VITRO: INITIATION AND PROMOTION.....	5N01 CP65831-09	159,613
HENDERSON, BRIAN E.....		STUDY OF CANCER INCIDENCE IN THE SOUTH PACIFIC.....	5N01 CP91027-02	46,904
HODGKINSON, BERNARD J.....		EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72133-04	168,926
MARMORSTON, JESSIE.....		CORONARY HEART DISEASE RISK FACTOR INTERVENTION.....	5N01 HV42931-09	543,305
MASSRY, SHAUL G.....		ROLE OF PARATHYROID AS A UREMIC TOXIN	3N01 AM72218-03	45,250
MASSRY, SHAUL G.....		SEXUAL DYSFUNCTION IN END-STAGE RENAL DISEASE.....	3N01 AM72225-04	80,407
MITCHELL, MALCOLM S.....		THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	2N01 CN55842-13	13,277
MOSLEY, JAMES W.....		PROSPECTIVE STUDY OF POST TRANSFUSION HEPATITIS	5N01 HB42972-16	539,876
RYAN, STEPHEN J.....		EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	5N01 EY52141-06	64,130
ORGANIZATION TOTAL	17	3,694,729		
MENLO PARK				
SRI INTERNATIONAL ZIP CODE 94025				
ACTON, EDWARD M.....		OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07351-01	15,271
CHESNEY, MARGARET A.....		TWIN STUDY FOLLOW-UP EXAMINATION.....	5N01 HV92931-01	76,502
DAWSON, MARCIA I.....		FUNCTIONALIZED POLYMERS AS POTENTIAL CONTRACEPTIVES.....	1N01 HD02819-00	59,645
DAWSON, MARSHA I.....		SUPPLY CHEMOPREVENTION RETINOIDS FOR EPITHELIAL CANCER.....	1N01 CP05600-00	158,971
FODGE, DOUGLAS W.....		CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS	3N01 CP55701-10	63,507
HELMES, C TUCKER.....		CARCINOGENICITY OF COSMETICS.....	6N01 CP05711-01	77,400
KAEGI, HANS H.....		SYNTHESIZE RADIOLABELED RETINOIDS	1N01 CP05601-00	165,899
LEAFFER, MORRIS.....		PREPARATION OF RADIOLABELED MATERIALS.....	5N01 CM97256-01	247,570
LEE, WILLIAM W.....		SYNTHESIS OF RADIOSENSITIZING AGENTS.....	5N01 CM87207-04	194,000
LIM, PETER.....		ANALYSIS OF CHEMICAL AND PHARMACEUTICAL FORMULATIONS.....	5N01 CM87183-04	526,232
MC CALEB, KIRTLAND E.....		RESOURCE FOR INFORMATION NEEDS OF DCCP, NCI AND IARC.....	3N01 CP95607-03	1,014,583
MITCHELL, ANN D.....		MUTAGENESIS SYSTEM FOR CARCINOGENESIS SCREENING.....	2N01 CP65854-06	213,846
PETERS, JOHN H.....		OXALATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT.....	5N01 AM92213-01	77,900
PETERS, JOHN H.....		EFFECTS OF DIET ON CARCINOGENIC POTENTIAL OF SECRETIONS.....	3N01 CP85620-04	243,252
PINCUS, JACK H.....		ANALYZE ENVIRONMENTAL CHEMICALS BY RADIOIMMUNOASSAY.....	5N01 ES90006-01	190,289
PRYOR, GORDON T.....		NEUROBEHAVIORAL ASSESSMENT OF POTENTIAL NEUROTOXINS.....	5N01 ES82154-04	112,946
REIST, ELMER J.....		SYNTHESIZE SELECTED CHEMICAL CARCINOGENS.....	1N01 CP05614-00	148,613
REIST, ELMER J.....		SYNTHESIS OF HETERO-SUBSTITUTED POLYAROMATIC HYDROCARBON	3N01 CP85612-03	145,560
REIST, ELMER J.....		PREPARATION OF 11 CHEMICAL COMPOUNDS-TASK 3.....	3N01 CP85667-03	8,884
SIMMON, VINCENT F.....		MUTAGENESIS SYSTEMS FOR CARCINOGENESIS SCREENING.....	3N01 CP65857-05	156,745
TANABE, MASATO.....		SYNTHESIS OF ANTIPROGESTATIONAL AGENTS.....	1N01 HD02816-00	123,815
TANABE, MASATO.....		SYNTHESIS OF ORAL ANDROGENIC AGENTS.....	1N01 HD02828-00	119,048
ORGANIZATION TOTAL	22	4,140,478		
ZWENG MEMORIAL RETINAL RESEARCH FOUNDATION ZIP CODE 94025				
LITTLE, HUNTER L.....		EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72140-04	17,545
ORGANIZATION TOTAL	1	17,545		
OAKLAND				
CHILDREN'S HOSPITAL MEDICAL CENTER OF NORTHERN CALIFORNIA ZIP CODE 94609				
LUBIN, BERTRAM H.....		COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB73004-06	186,349
ORGANIZATION TOTAL	1	186,349		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE ZIP CODE 94612				
BAKER, T HART.....		HOSPICE CONCEPT FOR TERMINAL CANCER PATIENTS.....	5N01 CN85375-03	358,309
FRIEDMAN, GARY D.....		SURVEY HEALTH EFFECTS OF TOBACCO PRODUCTS	1N01 CP05681-00	60,000
FRIEDMAN, GARY D.....		STUDY ENVIRONMENTAL CANCER—PREPAID HEALTH PLAN.....	3N01 CP81047-04	240,232
GROVER, JOHN.....		CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82905-06	129,678
PELLEGRIN, FREDERICK A.....		STUDY OF CONTRACEPTIVE DRUGS.....	3N01 HD32710-25	28,586

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
WILD, J. E.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE.....	5N01 HV33105-16	690,721
ORGANIZATION TOTAL	6 1,507,526		
SAMUEL MERRITT HOSPITAL ZIP CODE 94609			
SCHWEITZER, ROBERT J.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05519-00	98,671
ORGANIZATION TOTAL	1 98,671		
PALO ALTO			
ALZA CORPORATION ZIP CODE 94304			
PHARRISS, BRUCE B.....	DEVELOP AND TEST NEW BIODEGRADABLE DRUG DELIVERY SYSTEM.....	3N01 HD72825-03	356,612
ORGANIZATION TOTAL	1 356,612		
NORTHERN CALIFORNIA CANCER PROGRAM, INC. ZIP CODE 94304			
CARTER, STEPHEN K.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07443-02	205,590
CARTER, STEPHEN K.....	ADJUVANT CHEMOTHERAPY IN HEAD AND NECK CARCINOMA.....	5N01 CM87154-03	157,938
ORGANIZATION TOTAL	2 363,528		
SYNTEX CORPORATION—SYNTEX RESEARCH DIVISION ZIP CODE 94304			
EDGREN, RICHARD A.....	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS.....	1N01 HD02811-00	778,226
ORGANIZATION TOTAL	1 778,226		
PASADENA			
HUNTINGTON MEMORIAL HOSPITAL ZIP CODE 91105			
AGNEW, WILLIAM F.....	STUDY OF FEASIBILITY OF A SENSORY PROSTHESIS.....	3N01 NS02275-14	28,800
AGNEW, WILLIAM F.....	DEVELOP AND EVALUATE METHODS OF NERVE STIMULATION.....	5N01 NS02319-01	257,604
ORGANIZATION TOTAL	2 286,404		
XEROX CORPORATION ZIP CODE 91107			
EIN-GAL, MOSHE.....	DEVELOP SOLID STATE IMAGE RECEPTORS FOR X-RAY IMAGING.....	2N01 CB74211-08	378,200
ORGANIZATION TOTAL	1 378,200		
REDWOOD CITY			
AMPLEX CORPORATION ZIP CODE 94063			
CHAPMAN, DAVID J.....	PROVIDE BUFFER STORAGE AND RETRIEVAL SUBSYSTEM.....	1N01 LM03543-00	222,520
ORGANIZATION TOTAL	1 222,520		
RIVERSIDE			
UNIVERSITY OF CALIFORNIA AT RIVERSIDE ZIP CODE 92521			
OKAMURA, WILLIAM H.....	SUPPLY CHEMOPREVENTION RETINOIDS FOR EPITHELIAL CANCER.....	1N01 CP05715-00	86,312
ORGANIZATION TOTAL	1 86,312		
SACRAMENTO			
CALIFORNIA STATE HEALTH AND WELFARE AGENCY ZIP CODE 95814			
AUSTIN, DONALD F.....	MORBIDITY IN CHILDHOOD CANCER SURVIVORS AND OFFSPRING.....	1N01 CP01000-00	498,445
AUSTIN, DONALD F.....	SAN FRANCISCO RESOURCE FOR CANCER EPIDEMIOLOGY.....	2N01 CP81018-08	1,560,885
ORGANIZATION TOTAL	2 2,059,330		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
PLANNED PARENTHOOD ASSOCIATION OF SACRAMENTO ZIP CODE 95814			
STEWART, GARY K.....	EVALUATE RISK OF SERIOUS COMPLICATIONS IN IUD WEARERS.....	2N01 HD72808-07	5,309
ORGANIZATION TOTAL	1	5,309	
SAN DIEGO			
DATA/WARE DEVELOPMENT ZIP CODE 92121			
MURRAY, G GRAHAM	OPTIMIZE MULTIMODE VIDEO COMMUNICATIONS SYSTEM.....	1N01 LM03514-00	19,933
ORGANIZATION TOTAL	1	19,933	
WSA, INC. ZIP CODE 92121			
DOBSON, JACK.....	ASSESSMENT OF RADIATION THERAPY EQUIPMENT NEEDS.....	2N01 C085406-03	6,438
ORGANIZATION TOTAL	1	6,438	
SAN FRANCISCO			
INSTITUTES OF MEDICAL SCIENCES ZIP CODE 94115			
HULLEY, STEPHEN B.....	INTERVENTION TRIAL FOR CORONARY HEART DIS PREVENTION.....	3N01 HV22981-19	47,005
ORGANIZATION TOTAL	1	47,005	
PACIFIC MEDICAL CENTER ZIP CODE 94115			
CAVENDER, JOHN C.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY82101-07	16,749
ORGANIZATION TOTAL	1	16,749	
SAN FRANCISCO CORONER'S OFFICE ZIP CODE 94103			
STEPHENS, BOYD G.....	PATHOLOGICAL COORDINATING LABORATORY	3N01 HD82845-04	23,852
ORGANIZATION TOTAL	1	23,852	
SAN FRANCISCO MEDICAL SOCIETY ZIP CODE 94118			
PERKINS, HERBERT A.....	REFERENCE HLA LABORATORIES	5N01 A182547-06	26,857
ORGANIZATION TOTAL	1	26,857	
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO ZIP CODE 94143			
ARIEFF, ALLEN I.....	ABNORMALITIES OF NERVOUS SYSTEM FUNCTION IN UREMIA	3N01 AM52204-09	50,620
EPSTEIN, CHARLES J.....	DEVELOP MODELS FOR GENETIC DISORDERS ON TRISOMY 21	2N01 HD82858-03	231,957
FLEISHER, DANIEL S.....	PRIMARY PHYSICIANS' KNOWLEDGE OF RESPIRATORY DISEASES	1N01 HR02905-00	138,433
GALIN, DAVID.....	NEUROPSYCHOLOGICAL STUDIES OF READING DISABILITIES	5N01 HD82824-07	460,827
GREENSPAN, JOHN S.....	RECURRENT APHTHOUS STOMATITIS AND BEHCET'S SYNDROME.....	5N01 DE82415-03	129,759
HOPEWELL, PHILIP C.....	INTERMITTENT POSITIVE PRESSURE BREATHING CLINICAL STUDY	5N01 HR72906-06	322,916
IRVINE, ALEXANDER R.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	3N01 EY62139-08	36,708
JAFFE, ROBERT B.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES	5N01 HD92812-02	60,559
KAUFMAN, LEON.....	DEVELOP NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	1N01 HV02928-00	87,361
MARTIN, DAVID W, JR.....	PROPAGATION OF MUTANT SOMATIC CELLS	3N01 CP43239-10	8,479
MERZENICH, MICHAEL M.....	DEVELOP ELECTRODES FOR AUDITORY PROSTHESIS.....	1N01 NS02337-00	154,222
PETERS, ROBERT W.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82901-04	106,900
SILVERSTEIN, STEVEN J.....	COMMUNITY CRIES PREVENTION DEMONSTRATION PROJECT.....	3N01 DE52470-05	10,318
TANAGHO, EMIL A.....	STUDY OF URINARY BLADDER EVACUATION.....	5N01 NS32307-11	105,446
WARA, WILLIAM M.....	IMMUNO-STIMULANTS IN LOCALIZED RADIATION THERAPY	2N01 CB64004-04	45,178
ZIPPIN, CALVIN.....	TUMOR REGISTRY TRAINING PROGRAM AND ALLIED ACTIVITIES.....	2N01 CP43383-11	142,997
ORGANIZATION TOTAL	16	2,092,680	
WEST COAST CANCER FOUNDATION ZIP CODE 94133			
MEURK, MARY L.....	CENTER FOR RADIOLOGICAL PHYSICS	1N01 CN05508-00	754,436
ORGANIZATION TOTAL	1	754,436	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
SANTA CLARA			
TECHNICON CORPORATION—TECHNICON MEDICAL INFORMATION SYSTEMS CORPORATION		ZIP CODE 95051	
FURSTENAU, BERNIE.....	COMPUTER BASED HOSPITAL INFORMATION SYSTEM.....	3N01 CL52154-24	2,976,471
ORGANIZATION TOTAL	1 2,976,471		
SANTA CRUZ			
UNIVERSITY OF CALIFORNIA AT SANTA CRUZ		ZIP CODE 95064	
TALAMANTES, FRANK J, JR.....	ESTROGEN/PROGESTIN EFFECTS ON BREAST IN NEONATAL PERIOD.....	3N01 CB74091-03	3,832
WIPIKE, W TODD.....	PREDICTION OF METABOLITES FOR CARCINOGENICITY.....	5N01 CP75816-08	97,456
ORGANIZATION TOTAL	2 101,288		
SANTA MONICA			
RAND CORPORATION		ZIP CODE 90406	
HOPWOOD, MARSHA.....	EVALUATE CLINICAL INFORMATION PROCESSING.....	5N01 RR82122-03	45,000
ORGANIZATION TOTAL	1 45,000		
SYSTEM DEVELOPMENT CORPORATION		ZIP CODE 90406	
KATTER, ROBERT.....	SUPPORT ON-LINE RETRIEVAL IN BIOMEDICAL COMMUNICATIONS.....	3N01 LM90071-26	1,965
ORGANIZATION TOTAL	1 1,965		
SIMI VALLEY			
PHARM-ECO LABORATORIES		ZIP CODE 93065	
DRAPER, MARSHALL D.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	3N01 CM87200-04	290,523
ORGANIZATION TOTAL	1 290,523		
STANFORD			
STANFORD UNIVERSITY		ZIP CODE 94305	
ALDERMAN, EDWIN L.....	CORONARY ARTERY SURGERY COLLABORATIVE STUDIES.....	3N01 HV32974-12	117,743
BRODY, WILLIAM.....	DEVELOP NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	1N01 HV02922-00	246,359
ENGLEMAN, EDGAR G.....	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 AI82551-05	107,213
FARQUHAR, JOHN W.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	2N01 HV12161-18	1,609,650
GRUMET, F CARL.....	ACQUISITION OF HLA-A, B AND C LOCI AND B CELL ANTISERA.....	3N01 AI82558-07	66,435
KAPLAN, HENRY S.....	HODGKIN'S DISEASE AND OTHER LYMPHOMA RESEARCH.....	2N01 CP91044-03	225,000
MC SHANE, DENNIS J.....	PILOT DATA BANK NETWORK IN STROKE.....	5N01 NS82390-06	47,642
MISFELDT, DAYTON S.....	GROWTH/PASSAGE OF MAMMARY EPITHELIAL CELLS IN CULTURE.....	5N01 CB74094-04	79,600
ROSENBERG, SAUL A.....	NONHODGKIN'S LYMPHOMAS CLASSIFICATION CENTER.....	2N01 CM67072-08	102,831
SUSSMAN, HOWARD H.....	BIOLOGIC MARKERS IN BREAST CANCER PATIENTS.....	2N01 CB74086-04	35,000
WEISSMAN, IRVING L.....	ISOLATE & CHARACTERIZE T CELLS & NORMAL CELL RECEPTORS.....	3N01 CP91011-04	119,870
WHITE, ROBERT L.....	DEVELOP MULTICHANNEL ELECTRODES FOR AUDITORY PROSTHESIS.....	1N01 NS02336-00	173,065
WHITE, ROBERT L.....	TRANSDERMAL ELECTRONICS FOR AUDITORY PROSTHESIS.....	2N01 NS52306-10	147,739
ORGANIZATION TOTAL	13 3,078,147		
SUNNYVALE			
INTEL CORPORATION—INTEL MEMORY SYSTEMS OPERATIONS		ZIP CODE 94086	
COOPER, DON L.....	MEMORY SYSTEM FOR DOCUMENT DISTRIBUTION.....	1N01 LM03336-00	56,510
ORGANIZATION TOTAL	1 56,510		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CALIFORNIA—Continued			
RASOR ASSOCIATES ZIP CODE 94086			
RASOR, N S.....	NONINVASIVE ASSESSMENT OF PULMONARY HYPERTENSION	3N01 HR62917-06	32,886
ORGANIZATION TOTAL	1 32,886		
TARZANA			
STEIGER, FINK AND KOSECOFF, INC. ZIP CODE 91356			
KOSECOFF, JACQUELINE	RESEARCH ON CHILDLESSNESS AND THE ONE-CHILD FAMILY	5N01 HD92814-01	50,674
ORGANIZATION TOTAL	1 50,674		
TORRANCE			
LOS ANGELES COUNTY HEALTH SERVICES DEPARTMENT--LOS ANGELES COUNTY HARBOR-UCLA MEDICAL CENTER ZIP CODE 90509			
PARLOW, ALBERT F	ISOLATE RAT AND HUMAN PITUITARY HORMONES	5N01 AM92206-03	386,953
ORGANIZATION TOTAL	1 386,953		
VAN NUYS			
BIO-SCIENCE LABORATORIES ZIP CODE 91405			
DEMETRIOU, JAMES	FOLLOW-UP & TOXICITY BLOOD DETERMINATIONS--LRC PATIENTS.....	2N01 HV32961-11	390,910
IBBOTT, FRANK A	CENTRAL LABORATORY FOR PROPRANOLOL HEART TRIAL.....	2N01 HV72950-06	90,000
ORGANIZATION TOTAL	2 480,910		
WOODLAND HILLS			
TERMINAL DATA CORPORATION ZIP CODE 91367			
PASS, HERMAN W	PROVIDE HIGH RESOLUTION PICTURE MONITOR	1N01 LM03539-00	27,445
PASS, HERMAN W	DOCUMENT-TO-VIDEO CONVERTOR STATION SUPPORT	1N01 LM03541-00	87,420
ORGANIZATION TOTAL	2 114,865		
STATE TOTAL	191 47,963,323		
COLORADO			
BOULDER			
INSTITUTE FOR RESEARCH ON SOCIAL PROBLEMS ZIP CODE 80302			
KATZ, PHYLLIS A	STUDY SEX ROLE DEVELOPMENT AND THE SINGLE-CHILD FAMILY.....	5N01 HD92820-01	96,169
ORGANIZATION TOTAL	1 96,169		
COLORADO SPRINGS			
PENROSE HOSPITAL ZIP CODE 80907			
ANDERSON, PAUL N	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05528-00	119,700
ORGANIZATION TOTAL	1 119,700		
DENVER			
NATIONAL JEWISH HOSPITAL AND RESEARCH CENTER ZIP CODE 80206			
BRENNAN, PATRICK J	PURIFY/CHARACTERIZE MYCOBACTERIUM LEPRAE ANTIGENS	5N01 AJ92625-02	63,062
MC CLATCHY, J KENNETH	SEROLOGICAL CLASSIFICATION OF ATYPICAL MYCOBACTERIUM	1N01 AJ02641-00	113,346
ORGANIZATION TOTAL	2 176,408		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
COLORADO—Continued			
UNIVERSITY OF COLORADO SYSTEM—UNIVERSITY OF COLORADO HEALTH SCIENCE CENTER ZIP CODE 80262			
PETTY, THOMAS L.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	2N01 HR62942-10	29,931
STEWART, JOHN M.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	1N01 HD02832-00	176,746
STEWART, JOHN M.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	5N01 HD62843-07	22,900
WEBBER, MUKTA M.....	IN VITRO CULTIVATION OF HUMAN PROSTATIC CELLS.....	3N01 CP65849-08	3,014
ORGANIZATION TOTAL	4 232,591		
STATE TOTAL	8 624,868		
CONNECTICUT			
FARMINGTON			
UNIVERSITY OF CONNECTICUT HEALTH CENTER ZIP CODE 06032			
BIGAZZI, PIERLUIGI E.....	IMMUNOLOGIC STUDIES OF VASECTOMY.....	5N01 HD52842-10	89,751
DOHERTY, NEVILLE.....	EFFECTIVENESS OF VARIOUS CARRIES PREVENTIVE AGENTS.....	5N01 DE52449-11	3,840
ORGANIZATION TOTAL	2 93,591		
HARTFORD			
CONNECTICUT STATE DEPARTMENT OF HEALTH SERVICES ZIP CODE 06115			
HONEYMAN, MERTON S.....	CANCER END RESULTS EVALUATION.....	2N01 CP61002-13	879,591
OSTFELD, ADRIAN M.....	HIGH BLOOD PRESSURE CONTROL PROGRAM.....	3N01 HV72984-06	37,467
ORGANIZATION TOTAL	2 917,058		
NEW HAVEN			
HASKINS LABORATORIES ZIP CODE 06510			
LIBERMAN, ALVIN M.....	STUDY OF LANGUAGE DEVELOPMENT IN CHILDREN.....	2N01 HD12420-14	129,100
ORGANIZATION TOTAL	1 129,100		
YALE UNIVERSITY ZIP CODE 06520			
COHEN, LAWRENCE S.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62925-06	102,243
FURTHMAYR, HEINZ.....	ISOLATE/CHARACTERIZE ANTIBODIES TO COLLAGEN, PROCOLLAGEN.....	5N01 CB84225-03	98,541
GREENSPAN, RICHARD.....	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM.....	5N01 HR92904-01	137,769
HITCHCOCK, MARGARET.....	EVALUATE NIEHS ENVIRONMENTAL TOXICOLOGY TRAINING PROGRAM.....	5N01 ES90005-01	113,818
KELSEY, JENNIFER L.....	CANCER RISK FROM MULTIPLE CHEST FLUOROSCOPIES FOR TBC.....	1N01 CP01029-00	152,849
LIVSTONE, ELLIOT.....	THERAPY FOR GASTRIC & PANCREATIC CARCINOMA PATIENTS.....	1N01 CM07339-00	77,290
MATTHAY, RICHARD A.....	INTRATUMORAL BCG IMMUNOTHERAPY.....	5N01 CB74191-04	81,750
MEIGS, J WISTER.....	MORBIDITY IN CHILDHOOD CANCER SURVIVORS AND OFFSPRING.....	1N01 CP01002-00	427,630
MEIGS, J WISTER.....	SUPPORT FOR CANCER EPIDEMIOLOGY PROGRAM.....	2N01 CP33235-18	593,110
OSTFELD, ADRIAN M.....	ESTABLISH POPULATIONS FOR EPIDEMIOLOGICAL STUDIES.....	1N01 AG02105-00	242,762
PEARSON, HOWARD A.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB72996-06	121,192
SPIRO, HOWARD M.....	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	2N01 CM43797-13	96,884
SPIRO, HOWARD M.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	2N01 CM53843-11	97,819
ORGANIZATION TOTAL	13 2,343,657		
STORRS			
UNIVERSITY OF CONNECTICUT STORRS ZIP CODE 06268			
LERMAN, JAY W.....	EFFECTIVENESS OF MEDLINE PROVIDED INFORMATION SERVICES.....	1N01 NS02345-00	47,000
ORGANIZATION TOTAL	1 47,000		
STATE TOTAL	19 3,530,406		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DELAWARE			
WILMINGTON			
WILMINGTON MEDICAL CENTER	ZIP CODE 19801		
WHITNEY, LESLIE W.....	SERUM FROM PATIENTS WITH BREAST CANCER LESIONS	5N01 CB74137-04	6,091
WHITNEY, LESLIE W.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05512-00	82,503
WHITNEY, LESLIE W.....	SCREENING FOR DETECTION OF BREAST CANCER.....	2N01 CN45047-08	10,573
ORGANIZATION TOTAL	3 99,167		
STATE TOTAL	3 99,167		
DIST OF COL			
WASHINGTON			
AMERICAN INSTITUTES FOR RESEARCH	ZIP CODE 20007		
BAGSHAW, MURIEL H.....	EVALUATE SELF-MANAGEMENT SYSTEMS FOR ASTHMATIC CHILDREN.....	5N01 HR72974-05	171,950
MILLER, WARREN B.....	VOLUNTARY AND INVOLUNTARY CHILDLESSNESS.....	3N01 HD82853-02	6,822
POLIT, DENISE F.....	CONTRACEPTIVE DECISION MAKING IN ADOLESCENT COUPLES.....	5N01 HD92835-01	43,228
ORGANIZATION TOTAL	3 222,000		
ANALYSIS GROUP	ZIP CODE 20010		
AMBROSE, RUPERT.....	SERVICES FOR DIABETES MELLITUS COORDINATING COMMITTEE.....	3N01 AM9222-01	20,047
ORGANIZATION TOTAL	1 20,047		
ARTHUR YOUNG AND COMPANY	ZIP CODE 20036		
COOK, CRAIG.....	ASSESSMENT OF NINCDS DATA BANK METHODOLOGY.....	1N01 NS02326-00	99,000
ORGANIZATION TOTAL	1 99,000		
ASSOCIATION OF AMERICAN MEDICAL COLLEGES	ZIP CODE 20036		
JOLLY, H PAUL, JR.....	REFINE AND UPDATE MEDICAL COLLEGE FACULTY ROSTER.....	1N01 OD02121-00	160,000
LIU, BARBARA M.....	EVALUATE THE PULMONARY ACADEMIC AWARD PROGRAM.....	1N01 HR02907-00	149,827
SUTER, EMANUEL.....	DEVELOP A RESOURCE FOR EDUCATING HEALTH PROFESSIONALS.....	2N01 LM64711-10	228,713
WILSON, MARJORIE P.....	STUDY OF GUIDELINES FOR ACADEMIC HEALTH SCIENCE LIBRARY.....	3N01 LM94716-03	14,700
ORGANIZATION TOTAL	4 553,240		
BOKONON SYSTEMS	ZIP CODE 20007		
BLOCK, A HARVEY.....	SOCIETAL CONSEQUENCES OF ADOLESCENT CHILDBEARING.....	1N01 HD02838-00	109,046
ORGANIZATION TOTAL	1 109,046		
CHILDREN'S HOSPITAL NATIONAL MEDICAL CENTER	ZIP CODE 20010		
PARROTT, ROBERT H.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER.....	3N01 AI72535-08	93,871
ORGANIZATION TOTAL	1 93,871		
CLEMENTS ASSOCIATES	ZIP CODE 20007		
GOODMAN, DAWN.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	3N01 CP95646-01	386,253
ORGANIZATION TOTAL	1 386,253		
GEORGE WASHINGTON UNIVERSITY	ZIP CODE 20052		
KOERING, MARILYN J.....	FOLLICULOGENESIS DURING THE MENSTRUAL CYCLE.....	2N01 HD72835-06	57,818
KRUEGER, DEAN E.....	INTERMITTENT POSITIVE PRESSURE BREATHING—DATA STUDY.....	5N01 HR72901-04	233,826
LA ROSA, JOHN C.....	SUPPORT FOR LIPID RESEARCH CLINIC CENTER.....	2N01 HV32931-12	739,040
MC GOWAN, LARRY.....	STUDY OF OVARIAN CANCER IN GREATER WASHINGTON, D C.....	5N01 CP81051-03	93,573
SCHULOF, RICHARD.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07446-01	183,258
SHAW, LAWRENCE W.....	RISK OF SERIOUS COMPLICATIONS IN IUD WEARERS.....	2N01 HD52852-12	104,958
ORGANIZATION TOTAL	6 1,412,473		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DIST OF COL—Continued			
GEORGETOWN UNIVERSITY ZIP CODE 20057			
DOUKAS, HARRY M.....	SUPPORT SERVICES FOR NCI EXTRAMURAL CLINICAL TRIALS	5N01 CM87194-05	233,857
FELLER, WILLIAM F.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05518-00	112,329
FELLER, WILLIAM F.....	EARLY DETECTION OF CANCER OF THE BREAST	2N01 CN45062-09	50,036
GERIN, JOHN L.....	OPERATE MOLECULAR ANATOMY LABORATORIES.....	5N01 A182572-05	945,998
NEEFE, JOHN R.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS	6N01 CM07437-01	174,530
RIDLEY, JEANNE C.....	A STUDY OF LOW FERTILITY COHORTS IN THE UNITED STATES	2N01 HD62818-06	74,314
SCHEIN, PHILIP S.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	5N01 CM67094-08	50,000
SCHEIN, PHILIP S.....	PHASE II STUDIES IN GASTROINTESTINAL CANCER	5N01 CM97310-03	265,077
SLOTKOFF, LAWRENCE M.....	THERAPY FOR HYPERTENSION IN THE GENERAL POPULATION	2N01 HV72915-05	323,132
WOOLLEY, PAUL V.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97208-01	67,967
YEAGER, HENRY.....	HUMAN TISSUE COLLECTION RESOURCE	1N01 CP05707-00	65,062
ORGANIZATION TOTAL	11	2,362,302	
HOWARD UNIVERSITY ZIP CODE 20059			
JENKINS, RENEE R.....	SOCIOSEXUAL DEVELOPMENT OF BLACK ADOLESCENTS.....	5N01 HD82840-02	112,630
SCOTT, ROLAND B.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72991-06	153,392
ORGANIZATION TOTAL	2	266,022	
KOBA ASSOCIATES ZIP CODE 20007			
SEVICK, JAMES R.....	EVALUATE HYPERLIPOPROTEINEMIA DIETARY MANUALS.....	1N01 H002921-00	90,000
ORGANIZATION TOTAL	1	90,000	
MISSO SERVICES CORPORATION AND ASSOCIATES ZIP CODE 20036			
COATES, SHELBY L.....	GENERATOR AND EQUIPMENT FOR NATIONAL LIBRARY OF MEDICINE.....	1N01 LM03522-00	135,406
ORGANIZATION TOTAL	1	135,406	
NATIONAL ACADEMY OF SCIENCES ZIP CODE 20418			
BROWN, MYRTLE L.....	EVALUATION OF HUMAN NUTRIENT REQUIREMENTS.....	1N01 AM02204-00	130,580
EWING, JUNE.....	US NATL COMMITTEE ON THE INTL COUNCIL OF PATHOLOGY.....	2N01 C065280-08	15,200
EWING, JUNE.....	SUPPORT ISCP AND WHO INTERNATIONAL REFERENCE CENTERS.....	2N01 C075279-05	6,900
EWING, JUNE.....	SUPPORT INTERNATIONAL UNION AGAINST CANCER.....	2N01 C075384-07	24,990
GROGAN, EARL W.....	NATIONAL SURVEY OF ANIMAL FACILITIES AND RESOURCES	3N01 RR72114-02	25,900
GROGAN, EARL W.....	SUPPORT THE INSTITUTE OF LABORATORY ANIMAL RESOURCES	2N01 RR92109-01	105,000
HOFFMANN, GEORGE R.....	ADVISORY SERVICE TO NLM TOXICOLOGY INFORMATION PROGRAM.....	2N01 LM64714-07	68,000
HRUBEC, ZDENEK.....	NAS-NRC TWIN REGISTRY	2N01 HV53010-07	99,950
JABLON, SEYMOUR.....	STUDIES OF CANCER AMONG ATOMIC BOMB SURVIVORS	1N01 CP01012-00	195,700
JABLON, SEYMOUR.....	EPIDEMIOLOGICAL STUDIES.....	2N01 CP53573-08	252,810
JABLON, SEYMOUR.....	MEDICAL FOLLOW-UP AGENCY STUDIES	1N01 OD02103-00	252,730
NIGHTINGALE, ELENA O.....	EXPERIENCED AIRLINE PILOTS STUDY	1N01 AG02112-00	181,900
NIGHTINGALE, ELENA O.....	CRITICAL REVIEW OF HEW HEALTH RESEARCH PLANNING	1N01 OD02111-00	35,000
PALMER, SUSHMA.....	ASSESS DIETARY AND NUTRITIONAL FACTORS AND CANCER	1N01 CP05603-00	309,730
SOLOMON, FREDRIC.....	STUDY HEALTH RELATED EFFECTS OF MARIJUANA USE.....	5N01 OD02114-01	340,000
TARDIFF, ROBERT G.....	IDENTIFY TOXIC CHEMICALS FOR NATIONAL TOXICOLOGY PROGRAM.....	1N01 ES00008-00	628,165
YAGER, ROBERT H.....	STUDY ANIMAL BREEDING & MAINTENANCE STANDARDS	3N01 CM53850-07	18,333
ORGANIZATION TOTAL	17	2,690,888	
PAN AMERICAN HEALTH ORGANIZATION ZIP CODE 20037			
LITVAK, JORGE.....	LATIN AMERICAN CANCER RESEARCH INFORMATION PROJECT	2N01 C065332-09	477,507
MORO, MANUEL.....	ESTABLISH A NONHUMAN PRIMATE PROGRAM	5N01 RS52151-11	140,510
ORGANIZATION TOTAL	2	618,017	
PORTER, NOVELLI AND ASSOCIATES ZIP CODE 20007			
NOVELLI, WILLIAM R.....	CANCER COMMUNICATIONS PROGRAM SUPPORT SERVICES.....	5N01 C095447-02	1,220,000
ORGANIZATION TOTAL	1	1,220,000	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
DIST OF COL—Continued			
TELE SEC ZIP CODE 20006			
PASTOR, NANCY	CONVERT SHELF-LIST AND RELATED RECORDS.....	3N01 LM94711-01	21,496
VAN ORDEN, DEBRA.....	PRESERVATION, COLLECTION & MAINTENANCE ACTIVITIES	1N01 LM03524-00	217,086
ORGANIZATION TOTAL	2 238,582		
TRITON CORPORATION ZIP CODE 20006			
SALVATIERRA, RICHARD D.....	COMPUTER SERVICES FOR THE NONMELANOMA SKIN CANCER STUDY	2N01 CP91032-01	23,895
ORGANIZATION TOTAL	1 23,895		
U.S. SMITHSONIAN INSTITUTION ZIP CODE 20560			
GREEN, KENNETH	IMAGE ANALYSIS CENTER FOR ECOLOGICAL STUDIES.....	1N01 RS02125-00	41,036
HOPE, W DUANE	REGISTRY OF TUMORS IN LOWER ANIMALS	2N01 CB33874-09	180,288
ORGANIZATION TOTAL	2 221,324		
URBAN INSTITUTE ZIP CODE 20037			
ESPENSHADE, THOMAS J	LONGITUDINAL ANALYSIS OF FAMILY AND HOUSEHOLD STRUCTURE.....	1N01 HD02849-00	787,000
MOORE, KRISTIN A.....	SOCIETAL CONSEQUENCES OF ADOLESCENT CHILDBEARING.....	5N01 HD92822-01	199,579
ORGANIZATION TOTAL	2 986,579		
STATE TOTAL	60 11,748,945		
FLORIDA			
FORT LAUDERDALE			
LEO GOODWIN INSTITUTE FOR CANCER RESEARCH ZIP CODE 33314			
WARREN, JOEL.....	PRIMARY GENETIC CENTER FOR GERMFREE RODENTS.....	5N01 CM77165-05	760,282
ORGANIZATION TOTAL	1 760,282		
GAINESVILLE			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF FLORIDA ZIP CODE 32611			
BURRIDGE, MICHAEL J.....	BOVINE LEUKOSIS SURVEY OF FLORIDA	1N01 CP01016-00	27,500
MOYE, H ANSON	OXALATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT.....	5N01 AM92212-01	43,705
SEVERY, LAWRENCE J	CONTRACEPTIVE DECISIONS: SPOUSAL RELATIONSHIP.....	1N01 HD02802-00	72,639
TEAS, DONALD C.....	AUDITORY SENSITIVITY & DISCRIMINATION IN YOUNG CHILDREN.....	5N01 NS52313-09	81,873
WEINER, ROY S.....	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER.....	5N01 CM97320-03	128,117
ORGANIZATION TOTAL	5 353,834		
JACKSONVILLE			
ST. VINCENT'S MEDICAL CENTER ZIP CODE 32204			
MC CLOW, MARVIN V.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05517-00	76,557
MC CLOW, MARVIN V.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55210-08	18,013
ORGANIZATION TOTAL	2 94,570		
MELBOURNE			
FLORIDA INSTITUTE OF TECHNOLOGY ZIP CODE 32901			
STORRS, ELEANOR E.....	MAINTAIN ARMADILLO COLONY INFECTED WITH M LEPRAE	5N01 AI92637-01	66,207
ORGANIZATION TOTAL	1 66,207		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
FLORIDA—Continued			
MIAMI			
PAPANICOLAOU CANCER RESEARCH INSTITUTE ZIP CODE 33136			
ALTMAN, NORMAN H	OPERATION OF AN ANIMAL DISEASE DIAGNOSTIC LABORATORY.....	3N01 CM87230-04	144,176
ALTMAN, NORMAN H	BREEDING RHESUS AND SQUIRREL MONKEYS	3N01 RS52131-11	98,083
ORGANIZATION TOTAL	2 242,259		
UNIVERSITY OF MIAMI ZIP CODE 33101			
BAUER, CHARLES	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62951-12	199,938
BLANKENSHIP, GEORGE	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	5N01 EY52142-06	92,639
BLANKENSHIP, GEORGE	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY82102-05	11,376
DAVIES, JOHN E	STUDY ETIOLOGIC FACTORS FOR LUNG CANCER	3N01 CP81000-03	2,843
HAINES, HAROLD G.....	IMMUNOLOGICAL MARKERS APPLICABLE TO CYTOLOGY AUTOMATION	3N01 CB74096-05	944
HARKNESS, DONALD R	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB72992-05	268,273
KALSER, MARTIN H	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	2N01 CM43800-16	57,550
LESSNER, HOWARD E.....	THERAPY FOR GASTRIC & PANCREATIC CARCINOMA PATIENTS	1N01 CM07409-00	62,666
LESSNER, HOWARD E.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	5N01 CM67093-07	75,000
LICHTER, WOLF	CELL CULTURE SCREENING FOR CYTOTOXICITY	3N01 CM97290-05	184,352
MANSELL, PETER W	COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	3N01 CN55243-08	99,327
WAGNER, JOSEPH L	NONHUMAN BREEDING PROGRAM AND CONSIGNEE FUNCTIONS.....	3N01 RS02123-01	722,353
ORGANIZATION TOTAL	12 1,777,261		
MIAMI BEACH			
MIAMI HEART INSTITUTE ZIP CODE 33140			
CANOSA, FRANK L	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82907-04	99,501
GOSSELIN, ARTHUR J	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	2N01 HV32979-12	74,189
ORGANIZATION TOTAL	2 173,690		
SAINT PETERSBURG			
LIFE SCIENCES, INC. ZIP CODE 33710			
BEARD, JOSEPH W.....	PRODUCE AVIAN LEUCOSIS VIRUSES.....	2N01 CP33291-11	522,354
FARROW, WENDALL M.....	PRODUCTION AND MAINTENANCE OF GERMFREE ANIMALS.....	3N01 CP33210-04	56,640
FARROW, WENDALL M.....	PRODUCE SELECTED REAGENT GRADE SPF ANIMALS	2N01 CP61005-07	422,032
NONOYAMA, MEIHAN.....	PRODUCE POTENTIAL ONCOGENIC DNA VIRUSES	3N01 CP81023-04	299,565
ORGANIZATION TOTAL	4 1,300,591		
TALLAHASSEE			
STATE UNIVERSITY SYSTEM OF FLORIDA—FLORIDA STATE UNIVERSITY ZIP CODE 32306			
DOUGHERTY, RALPH C.....	SCREENING ANALYSIS FOR AROMATIC HYDROCARBON RESIDUES.....	5N01 ES90003-03	81,004
ORGANIZATION TOTAL	1 81,004		
TAMPA			
STATE UNIVERSITY SYSTEM OF FLORIDA—UNIVERSITY OF SOUTH FLORIDA ZIP CODE 33620			
ENDICOTT, JAMES N.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	3N01 CM87220-04	39,704
ORGANIZATION TOTAL	1 39,704		
STATE TOTAL	31 4,889,402		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
GEORGIA			
ATHENS			
UNIVERSITY SYSTEM OF GEORGIA—UNIVERSITY OF GEORGIA ZIP CODE 30602			
MC CALL, JOHN W.....	FILARIASIS REPOSITORY RESEARCH SERVICE.....	1N01 A102642-00	105,246
PRICE, JAMES C.....	ENCAPSULATION OF RETINOLIDS FOR LABORATORY DIETS	5N01 CP85663-05	36,200
ORGANIZATION TOTAL	2	141,446	
ATLANTA			
EMORY UNIVERSITY ZIP CODE 30322			
CHAWLA, RAJENDAR K.....	IMMUNODIAGNOSTIC MARKERS FOR BREAST CARCINOMA.....	5N01 CB84308-02	83,567
CHILD, MARGARET A.....	METROPOLITAN ATLANTA SEER PROGRAM	2N01 CP61027-09	592,624
COLLINS, DELWOOD C.....	ABNORMAL PROTEINS IN SERUM OF ORAL CONTRACEPTIVE USERS.....	1N01 HD02823-00	214,706
DOBY, JOHN T.....	INVESTIGATE CONSEQUENCES OF BEING REARED AN ONLY CHILD.....	5N01 HD92802-01	71,756
EGAN, ROBERT L.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	1N01 CN05502-00	40,756
HALL, W DALLAS.....	RISK OF DIABETES FROM STEROID CONTRACEPTIVES.....	5N01 HD82818-04	187,000
MC CLURE, HAROLD M.....	SUPPORT FOR COLONY OF IRRADIATED MONKEYS.....	3N01 CP33343-08	33,000
MC CLURE, HAROLD M.....	ORAL FACIAL MALFORMATIONS IN THE RHESUS MONKEY	2N01 DE52452-10	43,109
MEREDITH, T A.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	1N01 EY02129-00	72,914
PREEDY, JOHN R.....	ENDOCRINE EVENTS AT THE TIME OF FIRST PREGNANCY.....	2N01 CB74101-04	138,939
SCHLANT, ROBERT C.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82902-04	38,000
TUTTLE, ELBERT P, JR.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION	3N01 HV22938-16	239,814
ORGANIZATION TOTAL	12	1,756,185	
GEORGIA BAPTIST HOSPITAL ZIP CODE 30312			
CASS, ALLAN W.....	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05526-00	131,500
LETTON, A HAMBLIN.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05510-00	89,118
ORGANIZATION TOTAL	2	220,618	
GEORGIA DEPARTMENT OF HUMAN RESOURCES ZIP CODE 30334			
WILBER, JOSEPH A.....	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL.....	5N01 HV92912-05	1,504,998
ORGANIZATION TOTAL	1	1,504,998	
UNIVERSITY SYSTEM OF GEORGIA—GEORGIA STATE UNIVERSITY ZIP CODE 30303			
IBRAHIM, ADLY N.....	DEVELOPMENT OF IMMUNODIAGNOSTIC TESTS FOR CANCER	2N01 CB84267-02	78,454
ORGANIZATION TOTAL	1	78,454	
AUGUSTA			
UNIVERSITY SYSTEM OF GEORGIA—MEDICAL COLLEGE OF GEORGIA ZIP CODE 30901			
GREEN, JOSEPH B.....	COMPREHENSIVE EPILEPSY PROGRAM.....	3N01 NS62340-11	1,198,712
MILNER, PAUL F.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB73000-06	106,637
ORGANIZATION TOTAL	2	1,305,349	
CLAXTON			
GEORGIA DEPARTMENT OF HUMAN RESOURCES—EVANS COUNTY HEALTH DEPARTMENT ZIP CODE 30417			
HAMES, CURTIS G.....	EFFECTS OF CONTRACEPTIVE STEROIDS ON BLOOD PRESSURE	5N01 HD52830-08	21,703
ORGANIZATION TOTAL	1	21,703	
STATE TOTAL	21	5,028,753	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
HAWAII			
HONOLULU			
KUAKINI MEDICAL CENTER ZIP CODE 96817			
NOMURA, ABRAHAM M.....	JAPAN-HAWAII CANCER STUDY	2N01 CP61060-10	569,562
STEMMERMANN, GRANT N.....	HONOLULU HEART STUDY.....	5N01 HV02901-01	794,366
ORGANIZATION TOTAL 2	1,363,928		
PACIFIC HEALTH RESEARCH INSTITUTE ZIP CODE 96813			
GILBERT, FRED I, JR	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05514-00	168,795
GILBERT, FRED I, JR	SCREENING FOR DETECTION OF BREAST CANCER	2N01 CN45046-09	15,156
MC NAMARA, J JUDSON.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72956-04	106,535
ORGANIZATION TOTAL 3	290,486		
UNIVERSITY OF HAWAII SYSTEM—UNIVERSITY OF HAWAII AT MANOA ZIP CODE 96822			
CHUNG, CHIN S.....	ABORTION—SUBSEQUENT REPRODUCTIVE FUNCTION/PREGNANCY.....	2N01 HD62801-07	240,278
MI, MING-PI	OCCUPATIONAL CANCER RISK IN HAWAII.....	3N01 CP71006-04	126,015
PIETTE, LAWRENCE H.....	COMMUNITY BASED CANCER CONTROL PROGRAM.....	3N01 CN75399-06	763,000
ROSEN, LEON.....	EPIDEMIOLOGY AND MICROBIOLOGY OF INFECTIOUS DISEASE	3N01 AI82560-09	266,265
SAGAWA, YONEO.....	COLLECTION OF INDIGENOUS AND EXOTIC PLANTS	5N01 CM33747-16	79,184
YATES, JAMES.....	EFFECTIVENESS OF MEDLINE PROVIDED INFORMATION SERVICES.....	1N01 NS02346-00	46,000
ORGANIZATION TOTAL 6	1,520,742		
STATE TOTAL 11	3,175,156		
IDAHO			
BOISE			
ST. LUKE'S HOSPITAL ZIP CODE 83702			
WARD, ELISABETH B.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	3N01 CN05497-01	89,538
ORGANIZATION TOTAL 1	89,538		
STATE TOTAL 1	89,538		
ILLINOIS			
CHICAGO			
AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE ZIP CODE 60601			
KROHMER, JACK.....	CANCER CONTROL RADIOD. PHYSICS CENTER COORD. COMMITTEE	3N01 CN45162-09	16,000
ORGANIZATION TOTAL 1	16,000		
AMERICAN COLLEGE OF RADIOLOGY ZIP CODE 60606			
LESTER, RICHARD G.....	COORDINATION OF MAMMOGRAPHY EDUCATION PROGRAMS	3N01 CN55177-08	23,549
ORGANIZATION TOTAL 1	23,549		
AMERICAN COLLEGE OF SURGEONS ZIP CODE 60611			
MAYER, ANDREW	NATIONAL CANCER CONSULTATIVE PROGRAMS FOR HOSPITALS.....	5N01 CN65282-14	775,746
ORGANIZATION TOTAL 1	775,746		
AMERICAN DENTAL ASSOCIATION HEALTH FOUNDATION ZIP CODE 60611			
GIFT, HELEN C.....	ROLE OF DENTISTS AND PEDIATRICIANS IN CARIES PREVENTION	1N01 DE02424-00	119,604
ORGANIZATION TOTAL 1	119,604		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS—Continued			
HEKTOEN INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 60612			
SZANTO, PAUL B.....	SUPPLY OF MATERIALS FROM NEOPLASTIC SUBJECTS	5N01 CP43344-07	167,999
ORGANIZATION TOTAL	1	167,999	
IIT RESEARCH INSTITUTE ZIP CODE 60616			
GRAY, ALLAN P.....	PREPARATION OF 3-METHYLFLUORANTHENE.....	5N01 CP85668-01	700
KEITH, JAMES N.....	CHEMICAL CARCINOGEN STANDARD REFERENCE REPOSITORY.....	1N01 CP05612-00	298,493
MOON, RICHARD C.....	SUPPLY CHEMOPREVENTION RETINOLIDS FOR EPITHELIAL CANCER	1N01 CP05718-00	139,846
MOON, RICHARD C.....	STUDY OF MODULATING FACTORS IN CARCINOGENESIS.....	2N01 CP23292-12	320,000
SCHIFF, LEONARD J.....	BIOASSAY RETINOID ACTIVITY BY TRACHEAL ORGAN CULTURE.....	1N01 CP05610-00	164,666
SCHIPMA, PETER B.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07359-01	19,377
SCHIPMA, PETER B.....	COMPUTER SUPPORT FOR CANCER INFORMATION DISSEMINATION	1N01 C005468-00	488,710
SCHIPMA, PETER B.....	COMPUTER SUPPORT FOR CANCER INFORMATION DISSEMINATION	5N01 C055221-10	227,547
SHEFNER, ALAN M.....	ACTIVITIES IN SUPPORT OF PRIMARY DRUG SCREENING.....	5N01 CM97213-02	299,450
SHEFNER, ALAN M.....	EFFECTS OF INGESTED ASBESTOS	3N01 ES52157-13	37,702
ORGANIZATION TOTAL	10	1,996,491	
ILLINOIS CANCER COUNCIL ZIP CODE 60603			
STEINER, JAN W.....	COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	3N01 CN55245-09	142,078
THOMAS, PAUL.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER	1N01 CM07415-00	67,087
ORGANIZATION TOTAL	2	209,165	
LOYOLA UNIVERSITY OF CHICAGO ZIP CODE 60611			
YOST, WILLIAM A.....	EFFECTIVENESS OF MEDLINE PROVIDED INFORMATION SERVICES.....	1N01 NS02344-00	43,000
ORGANIZATION TOTAL	1	43,000	
MICHAEL REESE HOSPITAL AND MEDICAL CENTER ZIP CODE 60616			
KOSHY, MABEL.....	COOPERATIVE STUDY-CLINICAL COURSE OF SICKLE CELL DISEASE.....	5N01 HB72998-07	435,767
SCOMMEGNA, ANTONIO.....	INTRAUTERINE RELEASE OF ESTRIOL FOR CONTRACEPTION	5N01 HD32739-16	42,210
ORGANIZATION TOTAL	2	477,977	
NORTHWESTERN UNIVERSITY ZIP CODE 60611			
CUGELL, DAVID W.....	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	2N01 HR62945-09	64,488
DEPP, RICHARD.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62950-10	183,658
HARING, OLGA M.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72963-04	125,000
MARTIN, ALICE O.....	FIELD TEST CHROMOSOME PREPARATION AND KARYOTYPING DEVICE.....	2N01 HD82855-04	273,917
MOLTENI, AGOSTINO.....	SUPPORT FOR LABORATORY TO DETECT HYPERTENSION.....	3N01 HV32933-11	32,509
SIMPSON, JOE L.....	MALFORMATIONS AND FETAL LOSSES IN JUVENILE DIABETES	1N01 HD02840-00	98,879
STAMLER, JEREMIAH.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	2N01 HV12441-19	246,767
STAMLER, JEREMIAH.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	5N01 HV22978-17	880,000
ORGANIZATION TOTAL	8	1,905,218	
RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER—RUSH UNIVERSITY ZIP CODE 60612			
BACUS, JAMES W.....	APPLY DIGITAL IMAGE PROCESSING TO CYTOLOGY AUTOMATION	3N01 CB74190-08	401,580
SCHOENBERGER, JAMES A.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72967-05	118,674
WOLFE, LAUREN G.....	MARMOSSET COLONY FOR CANCER RESEARCH.....	2N01 CP71014-03	307,500
ORGANIZATION TOTAL	3	827,754	
UNIVERSITY OF CHICAGO ZIP CODE 60637			
FRIED, JOSEF.....	SYNTHESIS OF LUTEOLYTIC PROSTAGLANDIN ANALOGS.....	3N01 HD72816-07	149,643
HERBST, ARTHUR L.....	LONG-TERM EFFECTS OF DIETHYLSTILBESTROL DURING PREGNANCY.....	5N01 HD82829-02	208,280
JENSEN, ELWOOD V.....	HORMONE DEPENDENCY PREDICTION IN BREAST CANCER	2N01 CB43969-08	66,400
LEVIN, BERNARD.....	THERAPY FOR GASTRIC AND PANCREATIC CARCINOMA.....	1N01 CM07411-00	53,346
MEDOF, M EDWARD.....	DETECT ANTIGEN-ANTIBODY COMPLEXES IN BREAST CANCER.....	3N01 CB84224-04	66,075
MOOSSA, ABDOL R.....	IMAGING IN DETECTION OF EARLY PANCREATIC CANCER.....	5N01 CB84232-02	242,272
STRAUSS, BERNARD S.....	IDENTIFY HETEROZYGOUS CARRIERS OF DNA REPAIR DEFECTS.....	5N01 CP85669-01	131,139

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS—Continued			
WIED, GEORGE L.....	DEVELOPMENT OF AUTOMATED CELL RECOGNITION SYSTEM	5N01 CB33873-14	270,155
ORGANIZATION TOTAL	8 1,187,310		
UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER ZIP CODE 60612			
CHEN, EDWIN H.....	STATISTICAL COORDINATING CENTER FOR SICKLE CELL DISEASE.....	5N01 HB72982-08	473,393
DAS GUPTA, TAPAS K.....	CHEMOTHERAPY-INDUCED ENDOCRINE CHANGES ON BREAST CANCER.....	5N01 CB84221-04	94,140
DEVEIKIS, AUDRA.....	PENICILLIN FOR STREPTOCOCCAL INFECTION IN THE NEWBORN.....	5N01 AI92610-04	285,225
FARNSWORTH, NORMAN R.....	COMPUTERIZED LITERATURE SURVEILLANCE OF NATURAL PRODUCTS.....	3N01 CM97259-02	99,837
FARNSWORTH, NORMAN R.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS.....	5N01 CM97295-02	140,241
HUAMONTE, FELIPE U.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72137-05	67,571
KINGHORN, A DOUGLAS.....	TEST NATURALLY OCCURRING NON-CARIOGENIC SWEETENERS.....	3N01 DE02425-01	192,830
PEYMAN, GHOLAM A.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	3N01 EY62142-06	60,273
PIZER, IRWIN H.....	REGIONAL MEDICAL LIBRARY SERVICES FOR REGION VII.....	1N01 LM03502-00	430,997
SADOWSKY, CYRIL.....	LONG-TERM EFFECTS OF ORTHODONTIC TREATMENT.....	3N01 DE72401-05	4,586
SUBRAMANIAN, KIRANUR N.....	SITES OF PAPOVAVIRUS GENOMES IN TRANSFORMED CELLS.....	2N01 CP71061-04	85,180
TEODORESCU, MARIUS C.....	REAGENTS TO CHARACTERIZE CELL SUBPOPULATIONS.....	2N01 CB84268-02	75,911
ORGANIZATION TOTAL	12 2,010,184		
EVANSTON			
EVANSTON HOSPITAL ZIP CODE 60201			
SCANLON, EDWARD F.....	THERAPY OF STAGE II & STAGE III OF BREAST CARCINOMA.....	2N01 CB53917-06	50,000
WILNER, GARY N.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72955-04	44,640
ORGANIZATION TOTAL	2 94,640		
NORTHWESTERN UNIVERSITY ZIP CODE 60201			
EPSTEIN, MAX.....	INNOVATIVE TECHNIQUES FOR COLONOSCOPE PASSAGE INTO CECUM.....	5N01 CB74114-04	19,436
ORGANIZATION TOTAL	1 19,436		
JOLIET			
AMERICAN ASSOCIATION FOR ACCREDITATION OF LABORATORY ANIMAL CARE ZIP CODE 60435			
NOT AVAILABLE.....	ACCREDITATION PROGRAM FOR ANIMAL CARE FACILITIES.....	1N01 RR02127-00	10,000
ORGANIZATION TOTAL	1 10,000		
MAYWOOD			
LOYOLA UNIVERSITY MEDICAL CENTER ZIP CODE 60153			
GOLDBERG, JULIUS.....	SIDS RISK FACTOR COOPERATIVE STUDY.....	3N01 HD72843-05	131,865
ORGANIZATION TOTAL	1 131,865		
ROCKFORD			
UNIVERSITY OF ILLINOIS ROCKFORD SCHOOL OF MEDICINE ZIP CODE 61101			
YU, FU L.....	INHIBITION OF RNA POLYMERASE ACTIVITY.....	5N01 CP95631-02	33,962
ORGANIZATION TOTAL	1 33,962		
URBANA			
ASSOCIATION OF VETERINARY MEDICAL DATA PROGRAM PARTICIPANTS ZIP CODE 61801			
HELPER, LLOYD C.....	ANIMAL MORBIDITY/MORTALITY SURVEY OF VETERINARY COLLEGES.....	1N01 CP01056-00	134,000
ORGANIZATION TOTAL	1 134,000		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ILLINOIS—Continued			
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN ZIP CODE 61801			
BILGER, ROBERT C	SPEECH PERCEPTION IN NOISE BY HEARING IMPAIRED SUBJECTS.....	5N01 NS72380-03	121,293
ORGANIZATION TOTAL	1 121,293		
STATE TOTAL	59 10,305,193		
INDIANA			
BLOOMINGTON			
INDIANA UNIVERSITY AT BLOOMINGTON ZIP CODE 47401			
CAMPAIGNE, ERNEST E.....	SYNTHESIS OF SULFUR ANALOGS OF MELATONIN DERIVATIVES.....	1N01 HD02818-00	28,877
GRIECO, PAUL A.....	SYNTHESIS OF LUTEOLYTIC AGENTS	1N01 HD02813-00	82,074
ORGANIZATION TOTAL	2 110,951		
CUMBERLAND			
HARLAN INDUSTRIES ZIP CODE 46229			
HARLAN, HAL P	PRIMARY GENETIC CENTER FOR GERMFREE RODENTS.....	3N01 CM77168-06	354,642
HARLAN, HAL P	ESTABLISH RODENT PRODUCTION CENTER	5N01 CM97242-01	255,860
HARLAN, HAL P	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER	5N01 CM97243-01	194,930
HARLAN, HAL P	PRODUCTION OF AGED RATS.....	2N01 CP55647-13	208,519
HARLAN, HAL P	RODENT PRODUCTION COLONIES FOR NCI.....	3N01 CP95642-01	272,212
HARLAN, HAL P	ESTABLISH SPECIFIC PATHOGEN FREE RODENT STOCKS	5N01 ES82152-03	485,950
ORGANIZATION TOTAL	6 1,772,113		
EVANSVILLE			
DEACONESS HOSPITAL ZIP CODE 47747			
LUTA, THOMAS G	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05527-00	154,500
ORGANIZATION TOTAL	1 154,500		
INDIANAPOLIS			
INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS ZIP CODE 46202			
CHALIAN, VAROUJAN A.....	TRAINING PROGRAMS FOR DENTAL TECHNICIANS.....	1N01 CN05458-00	479,968
CHRISTIAN, JOE C.....	TWIN STUDY FOLLOW-UP EXAMINATION.....	5N01 HV92928-01	117,746
CONNEALLY, P MICHAEL	ESTABLISH RESEARCH ROSTER FOR HUNTINGTON'S DISEASE	5N01 NS92320-05	43,166
LUFT, FRIEDRICH C.....	DEVELOP METHODOLOGY TO ESTIMATE HUMAN SODIUM INTAKE	1N01 HV02904-00	199,621
MEALEY, JOHN, JR.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67057-07	63,282
ORGANIZATION TOTAL	5 903,783		
LABORATORY SUPPLY COMPANY ZIP CODE 46241			
COX, ELDON J.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER	5N01 CM97244-01	204,815
ORGANIZATION TOTAL	1 204,815		
WEST LAFAYETTE			
PURDUE UNIVERSITY WEST LAFAYETTE ZIP CODE 47907			
BINNIE, CARL A.....	EFFECTS OF HEARING AID AMPLIFICATION ON CHILDREN	5N01 NS02329-02	252,639
CASSADY, JOHN M.....	ISOLATION OF ANTINEOPLASTIC AGENTS FROM PLANTS	5N01 CM97296-02	162,601
WHISTLER, ROY L.....	SYNTHESIZE NONCARIOGENIC SWEETENERS	1N01 DE02427-00	114,755
ORGANIZATION TOTAL	3 529,995		
STATE TOTAL	18 3,676,157		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
IOWA			
AMES			
IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY		ZIP CODE 50010	
BALINSKY, DORIS	ISOPROTEINS IN NORMAL AND MALIGNANT BREAST TISSUES.....	5N01 CB84222-03	71,200
ORGANIZATION TOTAL	1	71,200	
IOWA CITY			
UNIVERSITY OF IOWA		ZIP CODE 52242	
ABBOUD, FRANCOIS M	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV22913-14	1,100,100
CLAMON, GERALD.....	PARENTERAL NUTRITION AND CHEMOTHERAPY IN LUNG CANCER	5N01 CM97319-03	90,474
GOEKEN, NANCY E.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	3N01 AI82554-09	39,878
ISACSON, PETER.....	POPULATION-BASED CANCER EPIDEMIOLOGY RESEARCH CENTER	2N01 CP43200-21	1,209,964
LATOURETTE, HOWARD B.....	MORBIDITY IN CHILDHOOD CANCER SURVIVORS AND OFFSPRING	1N01 CP01001-00	167,483
MONTGOMERY, REX.....	ANALYZE PROTEINACEOUS SUBSTANCES.....	1N01 CM07334-00	104,747
ROSAZZA, JOHN P.....	PRODUCE NOVEL ANTINEOPLASTIC COMPOUNDS.....	1N01 CM07412-00	121,000
SCHROTT, HELMUT G.....	WORKSHOPS ON NUTRITION COUNSELING IN HYPERLIPIDEMIA.....	1N01 HV02925-00	39,509
WALLACE, ROBERT B.....	ESTABLISH POPULATIONS FOR EPIDEMIOLOGICAL STUDIES.....	5N01 AG02106-01	454,455
WURSTER, DALE E.....	DEVELOP & PRODUCE PHARMACEUTICAL DOSAGE FORMS.....	1N01 CM07303-00	271,126
WURSTER, DALE E.....	DEVELOP AND PRODUCE PARENTERAL DOSAGE FORMS.....	3N01 CM43743-10	95,000
ORGANIZATION TOTAL	11	3,693,736	
STATE TOTAL	12	3,764,936	
KANSAS			
KANSAS CITY		UNIVERSITY OF KANSAS COLLEGE OF HEALTH SCIENCES AND HOSPITAL	
		ZIP CODE 66103	
BAKER, LARRY H.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	1N01 CN05495-00	84,393
BAKER, LARRY H.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN55303-08	12,310
BRACKETT, CHARLES E, JR.....	POST-TRAUMATIC EPILEPSY PROPHYLAXIS.....	3N01 NS22313-14	99,406
HOLMES, FREDERICK F.....	MORBIDITY IN CHILDHOOD CANCER SURVIVORS AND OFFSPRING	1N01 CP01036-00	437,240
HOOGSTRA滕, BARTH.....	STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97272-01	91,762
HOOGSTRA滕, BARTH.....	CANCER CONTROL PROGRAM—SOUTHWEST ONCOLOGY GROUP	3N01 CN65285-06	2,280,497
ORGANIZATION TOTAL	6	3,005,608	
LAWRENCE			
UNIVERSITY OF KANSAS LAWRENCE		ZIP CODE 66045	
CHENG, C C.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07353-01	13,405
REPTA, ARNOLD J.....	DEVELOP AND PRODUCE PARENTERAL DOSAGE FORMS.....	1N01 CM07304-00	75,235
ORGANIZATION TOTAL	2	88,640	
STATE TOTAL	8	3,094,248	
KENTUCKY			
LEXINGTON		UNIVERSITY OF KENTUCKY	
		ZIP CODE 40506	
GOLD, DAVID V.....	PURIFICATION OF HUMAN TUMOR ASSOCIATED ANTIGENS.....	5N01 CB84259-03	105,386
HOCHSTRASSER, DONALD L.....	ASSESS FERTILITY MANAGEMENT.....	1N01 HD02803-00	129,301
HUSSAIN, ANWAR A.....	DEVELOP AND PRODUCE PARENTERAL DOSAGE FORMS.....	1N01 CM07381-00	73,058
PRIMUS, F JAMES.....	IMMUNOHISTOCHEMISTRY OF TUMOR ASSOCIATED ANTIGENS.....	5N01 CB84257-04	74,961

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
KENTUCKY—Continued			
YOUNG, BYRON.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67058-08	45,064
ORGANIZATION TOTAL	5 427,770		
LOUISVILLE			
UNIVERSITY OF LOUISVILLE ZIP CODE 40208			
POLK, HIRAM C, JR.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT	1N01 CN05500-00	87,770
SPATOLA, ARNO F	PEPTIDE INHIBITORS OF LH-RH AS OVULATION INHIBITORS	3N01 HD02830-01	104,261
ORGANIZATION TOTAL	2 192,031		
STATE TOTAL	7 619,801		
LOUISIANA			
BATON ROUGE			
GULF SOUTH RESEARCH INSTITUTE ZIP CODE 70808			
GREER, WILLIAM E	MAINTAIN BREEDING COLONY OF RHESUS MONKEYS.....	1N01 RS02122-00	325,379
GREER, WILLIAM E	MAINTAIN BREEDING COLONY OF RHESUS MONKEYS.....	3N01 RS42181-09	60,612
GREER, WILLIAM E	PROCURE TIMED PREGNANT RHESUS AND CYNOMOLGOS MONKEYS.....	5N01 RS92111-01	85,410
KLEIN, ELIAS	HOLLOW FIBER DEVICE FOR TREATMENT OF UREMIA.....	3N01 AM82204-02	187
KLEIN, ELIAS	SORBENTS FOR TREATMENT OF END STAGE RENAL DISEASE.....	5N01 AM92217-01	149,674
KLEIN, ELIAS	DEVELOP A SOPHISTICATED FEEDBACK CONTROL SYSTEM	3N01 AM92218-01	5,000
ORGANIZATION TOTAL	6 626,262		
NEW ORLEANS			
ALTON OCHSNER MEDICAL FOUNDATION ZIP CODE 70121			
SEGALOFF, ALBERT	INFLUENCE OF IRRADIATION ON CARCINOGENESIS.....	5N01 CP65764-05	64,782
ORGANIZATION TOTAL	1 64,782		
LOUISIANA HEALTH AND HUMAN RESOURCES ADMINISTRATION—CHARITY HOSPITAL OF LOUISIANA ZIP CODE 70140			
DE JONGH, DAVID S.....	PROCURE HLA-A, B AND C LOC AND B CELL ANTISERA.....	3N01 AI82556-08	64,225
ORGANIZATION TOTAL	1 64,225		
LOUISIANA STATE UNIVERSITY MEDICAL CENTER AT NEW ORLEANS ZIP CODE 70112			
CORREA, PELAYO.....	EPIDEMIOLOGY AND GEOGRAPHIC PATHOLOGY OF CANCER.....	3N01 CP53521-10	150,000
CORREA, PELAYO.....	CASE STUDY OF CANCER IN SOUTHERN LOUISIANA.....	3N01 CP91023-05	420,867
ORGANIZATION TOTAL	2 570,867		
TULANE UNIVERSITY OF LOUISIANA ZIP CODE 70118			
KADOWITZ, PHILIP J	EVALUATE PROSTAGLANDIN ANTAGONISTS.....	5N01 HV82932-02	82,340
SCHALLY, ANDREW V	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS	1N01 HD02831-00	171,238
ORGANIZATION TOTAL	2 253,578		
STATE TOTAL	12 1,579,714		
MAINE			
AUGUSTA			
MAINE DEPARTMENT OF HUMAN SERVICES ZIP CODE 04333			
CHATTERJEE, MANU	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL.....	3N01 HV92913-04	845,922
ORGANIZATION TOTAL	1 845,922		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MAINE—Continued			
BAR HARBOR			
JACKSON LABORATORY	ZIP CODE 04609		
MEIER, HANS.....	NATURAL OCCURRENCE OF RNA TUMOR VIRUSES	2N01 CP33255-10	400,000
ORGANIZATION TOTAL	1 400,000		
STATE TOTAL	2 1,245,922		
MARYLAND			
BALTIMORE			
BECTON, DICKINSON AND COMPANY—HUNTINGDON RESEARCH CENTER	ZIP CODE 21209		
WILSNACK, ROGER E.....	PREPARE ANTISERA TO ONCOGENIC VIRUSES	2N01 CP91004-06	570,000
ORGANIZATION TOTAL	1 570,000		
DONN CORPORATION—LISKEY, INC.	ZIP CODE 21240		
ISAAC, HARRY.....	REMOVE EXISTING ELEVATED ACCESS FLOORING.....	1N01 LM03546-00	30,470
ORGANIZATION TOTAL	1 30,470		
IPCO HOSPITAL SUPPLY CORPORATION—COMMUNITY BLOOD AND PLASMA SERVICES DIVISION	ZIP CODE 21205		
WELCOME, GAIL R.....	PLATELETHRESIS SERVICE—DIVISION OF CANCER TREATMENT.....	5N01 CM97196-04	1,215,275
ORGANIZATION TOTAL	1 1,215,275		
JOHNS HOPKINS UNIVERSITY	ZIP CODE 21218		
AUGUST, J THOMAS.....	MOLECULAR BIOLOGY OF ONCORNAVIRAL PROTEINS.....	5N01 CP81053-04	256,860
AURELIAN, LAURE.....	IMMUNOLOGICAL MARKERS APPLICABLE TO CYTOLOGY AUTOMATION	2N01 CB74170-05	77,450
BECKER, LEWIS G.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	5N01 HV92925-02	71,000
BIAS, WILMA B.....	INFLUENCE OF HLA ON IMMUNE RESPONSE TO VIRAL VACCINES	5N01 AI92626-04	197,071
EWING, LARRY L.....	CONTRACEPTIVE EFFICACY OF ANDROGEN-ESTROGEN IMPLANTS	5N01 HD82805-02	96,217
FROST, JOHN K.....	STUDY OF EARLY DETECTION OF CANCER OF THE LUNGS.....	5N01 CM45037-10	796,164
GORDIS, LEON.....	AMENORRHEA, ADENOMA, AND ORAL CONTRACEPTIVES	5N01 HD72834-06	164,462
GROSSMAN, LAWRENCE.....	HETEROZYGOUS CARRIERS OF DNA REPAIR DEFECTS.....	5N01 CP85670-04	223,492
KAIZER, HERBERT.....	PEDIATRIC TUMOR RESOURCE	3N01 CP33245-07	15,001
KAUFMAN, JOYCE J.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS	2N01 CP75929-03	122,737
KING, THEODORE M.....	AMENORRHEA, PITUITARY ADENOMA, AND ORAL CONTRACEPTIVES	5N01 HD92811-02	33,566
KWITEROVICH, PETER O.....	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV12158-17	1,090,200
MC DONALD, DANIEL F.....	NORMAL & DISEASED SKELETAL SYSTEMS—INTERDISCIPLINARY.....	5N01 AM82202-03	353,129
MICHELIS, RONALD G.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	5N01 EY52145-06	75,773
PIERCE, NATHANIEL F.....	ANIMAL MODEL FOR CHOLERA	5N01 AI92601-01	117,951
PRICE, DONALD L.....	HEREDITARY SPINAL MUSCULAR ATROPHY	5N01 RR82145-02	41,619
RICE, THOMAS A.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72146-04	223,309
SACK, R BRADLEY.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER	1N01 AI02660-00	329,608
SHAPER, JOEL H.....	IMMUNE ASSAYS FOR ENZYMES AND ISOZYMES IN CANCER.....	3N01 CB84260-03	70,150
TEPPER, BYRON S.....	TRAINING COURSE IN CONTROL OF BIOHAZARDS	5N01 OD95456-03	66,037
TS'O, PAUL O.....	SIGNIFICANCE OF MUTATION IN CARCINOGENESIS	2N01 CP55713-11	209,998
WEISFELDT, MYRON L.....	NON-INVASIVE ASSESSMENT OF CARDIAC FUNCTION IN AGING.....	5N01 AG72129-05	34,493
YOLKEN, ROBERT H.....	RAPID DIAGNOSIS OF VIRAL DISEASES.....	5N01 AI92616-01	81,240
ORGANIZATION TOTAL	23 4,747,527		
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND AT BALTIMORE	ZIP CODE 21201		
ELIAS, E GEORGE.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	3N01 CM87223-04	78,436
ENTWISLE, GEORGE.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION	2N01 HV12439-18	229,579
KROL, WILLIAM F.....	COORDINATING CENTER—ASPIRIN-MYOCARDIAL INFARCTION STUDY	2N01 HV52901-12	335,234
LEVINE, MYRON M.....	STUDY OF INFECTIOUS AGENTS IN ADULT VOLUNTEERS	5N01 AI42553-18	1,132,628
MC DILL, MARY S.....	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82912-02	163,572
PRICE, THOMAS R.....	DEVELOP A PILOT STROKE DATA BANK NETWORK CENTER	3N01 NS92302-06	24,610

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
RAITI, SALVATORE	PITUITARY GLAND STORAGE BANK	3N01 AM71153-24	789,875
RAITI, SALVATORE	STORE, PACKAGE, AND DISTRIBUTE HORMONES.....	3N01 HD72838-03	24,725
TRUMP, BENJAMIN F.....	STUDIES OF CARCINOGENESIS IN HUMAN TISSUES.....	2N01 CP75909-07	50,000
TRUMP, BENJAMIN F.....	STUDY MALIGNANT EPITHELIAL TISSUES OF THE HUMAN	5N01 CP95640-04	403,800
YOUNG, JOHN D, JR.....	SUPPORT FOR MEDICAL AND LABORATORY PROGRAMS.....	3N01 CM43748-28	4,038,000
ORGANIZATION TOTAL	11 7,270,459		
WESTINGHOUSE ELECTRIC CORPORATION—WESTINGHOUSE DEFENSE AND ELECTRONIC SYSTEMS DIVISION ZIP CODE 21203			
PECKERAR, M C	CHARGE-COUPLED DEVICE FOR X-RAYS	3N01 AM82220-05	24,730
ORGANIZATION TOTAL	1 24,730		
BELTSVILLE			
INFORMATION DEVELOPMENT AND APPLICATIONS ZIP CODE 20705			
MATHESON, RODERICK	ADVANCED TERMINAL SYSTEMS (ATS)	1N01 LM03523-00	197,849
MATHESON, RODERICK	TECHNICAL SUPPORT SERVICES FOR THE NLM	1N01 LM03527-00	215,708
MATHESON, RODERICK	TECHNICAL SERVICES FOR THE LEARNING RESOURCE CENTER.....	2N01 LM94723-01	148,659
ORGANIZATION TOTAL	3 562,216		
BETHESDA			
AMERICAN SOCIETY OF HOSPITAL PHARMACISTS ZIP CODE 20014			
TOUSIGNAUT, DWIGHT R.....	ASSIGN CHEMICAL ABSTRACT SERVICES REGISTRY NUMBERS	2N01 LM84705-03	28,790
ORGANIZATION TOTAL	1 28,790		
AMPEX CORPORATION—AUDIO-VIDEO SYSTEMS DIVISION ZIP CODE 20034			
ZMATTHIE, KEVIN J.....	PROVIDE A DISK DRIVE PLAYBACK CHANNEL KIT	1N01 LM03530-00	55,685
ORGANIZATION TOTAL	1 55,685		
BOOZ, ALLEN AND HAMILTON ZIP CODE 20014			
BEAVERS, ALEX N.....	ANALYTICAL SUPPORT SERVICES-NLM.....	2N01 LM94703-01	263,932
ORGANIZATION TOTAL	1 263,932		
ELECTRO-NUCLEONICS LABORATORIES ZIP CODE 20014			
LEMP, JOHN F, JR	PRODUCTION OF RNA AVIAN ONCOGENIC VIRUSES	1N01 CP01009-00	498,824
LEMP, JOHN F, JR	VIRUS PROCESSING AND PRODUCTION FACILITY	2N01 CP43334-06	200,000
LEMP, JOHN F, JR	LARGE SCALE PRODUCTION OF POTENTIALLY ONCOGENIC VIRUSES	2N01 CP91001-04	620,744
ORGANIZATION TOTAL	3 1,319,568		
FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY ZIP CODE 20014			
FISHER, KENNETH D.....	DEVELOPMENT AND REVIEW OF DATA STANDARDS	3N01 LM84736-03	22,087
ORGANIZATION TOTAL	1 22,087		
INFORMATION MANAGEMENT SERVICES ZIP CODE 20014			
BEACH, JANIS A.....	BIOMEDICAL COMPUTING SOFTWARE SERVICES	1N01 CP01025-00	311,658
BEACH, JANIS A.....	COMPUTING SERVICES—CLINICAL AND DIAGNOSTIC TRIALS	5N01 CP71010-09	89,585
ORGANIZATION TOTAL	2 401,243		
INTERNATIONAL BUSINESS MACHINES CORPORATION ZIP CODE 20034			
KIESEWITTER, WILLIAM.....	MAINTENANCE OF AN IBM 370/168 (MP) SYSTEM	3N01 CT82156-04	315,939
NOT AVAILABLE.....	MAINTENANCE OF AN IBM 370/168 (MP) SYSTEM	3N01 CT92106-02	309,093
ORGANIZATION TOTAL	2 625,032		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
LEONARD WOOD MEMORIAL ZIP CODE 20014			
REICH, CLAUDE V	EVALUATE CHEMOTHERAPEUTIC AGENTS IN LEPROSY	3N01 A152509-10	43,365
ORGANIZATION TOTAL	1	43,365	
OPERATIONS RESEARCH ZIP CODE 20014			
SCHUSTERMAN, NORMAN.....	SCIENCE CONTENT ANALYSIS SYSTEM (SCANS) DEVELOPMENT.....	5N01 C095427-03	143,221
ORGANIZATION TOTAL	1	143,221	
PROFESSIONAL PRODUCTS ZIP CODE 20014			
KAUFMANN, CARTER	PROVIDE VIDEO SWITCHERS AND TECHNICAL MANUALS.....	1N01 LM03544-00	47,333
ORGANIZATION TOTAL	1	47,333	
WHITTAKER CORPORATION—MICROBIOLOGICAL ASSOCIATES ZIP CODE 20016			
ATHEY, WILBUR L	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER	5N01 CM97246-01	223,560
CASTELLANO, GABRIEL A	DELIVER VIRAL DIAGNOSTIC REAGENTS	5N01 NS92324-03	478,242
COLLINS, MICHAEL J, JR.....	OPERATION OF A VIROLOGICAL DIAGNOSTIC LABORATORY	5N01 CM97287-02	297,500
CURREN, ROGER.....	BIOCHEMISTRY AND CELL CULTURE RESOURCE	1N01 CP05637-00	398,912
DINOWITZ, MARSHALL.....	IMMUNOPREVENTION OF SPONTANEOUSLY OCCURRING NEOPLASMS	3N01 CP33248-23	296,082
DINOWITZ, MARSHALL.....	CARCINOGENICITY AND TOXICITY STUDIES	6N01 CP95650-01M1	417,106
DINOWITZ, MARSHALL.....	SCREENING FOR DIABETOGENIC VIRUSES.....	5N01 DE92420-03	150,439
KOURI, RICHARD E.....	THE GENETICS OF CHEMICAL CARCINOGENESIS.....	2N01 HD92840-01	114,737
PARKER, JOHN C.....	VIRUS TYPING AND DIAGNOSTIC REAGENTS.....	3N01 CP33288-17	601,220
TRAPANI, ROBERT J.....	PREPARE STANDARD HISTOCOMPATIBILITY TYPING TRAYS.....	5N01 A192614-03	140,950
TRAPANI, ROBERT J.....	HEMATOLOGY SUPPORT CARE	1N01 CM07369-00	145,000
TRAPANI, ROBERT J.....	OPERATE CENTER FOR BIOLOGICAL MATERIALS	2N01 CP91016-06	261,307
TRAPANI, ROBERT J.....	OPERATE REFRIGERATED REPOSITORY FOR BIOLOGICAL MATERIALS	5N01 CP91024-02	97,900
WENK, MARTIN	PROVIDE SERVICES IN SUPPORT OF CARCINOGENESIS BIOASSAYS	2N01 CP02199-29	409,282
ORGANIZATION TOTAL	14	4,032,237	
BLADENSBURG			
CRYSTAL INDUSTRIES ZIP CODE 20710			
HOUWEN, CORNELIUS M.....	STORE AND DISTRIBUTE BIOASSAY TECHNICAL PUBLICATIONS	3N01 CP85678-04	4,568
ORGANIZATION TOTAL	1	4,568	
COLLEGE PARK			
UNIVERSITY OF MARYLAND SYSTEM—UNIVERSITY OF MARYLAND COLLEGE PARK CAMPUS ZIP CODE 20742			
AHRENS, RICHARD A.....	DEVELOPMENT OF CANCER CACHEXIA HYPOPHAGIS.....	5N01 CB94327-01	38,703
ORGANIZATION TOTAL	1	38,703	
COLUMBIA			
BENDIX CORPORATION—BENDIX FIELD ENGINEERING CORPORATION ZIP CODE 21045			
CATHCART, JAMES.....	TECHNICAL SERVICES FOR LHNCBC	2N01 LM84716-06	121,620
ORGANIZATION TOTAL	1	121,620	
WESTINGHOUSE ELECTRIC CORPORATION—HEALTH SYSTEMS DIVISION ZIP CODE 21044			
BICKMAN, LEONARD B	VARIABLES ASSOCIATED WITH NONSMOKING IN EX-SMOKERS	1N01 HR02916-00	123,754
SMITH, LAWRENCE, JR	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82911-02	103,939
ORGANIZATION TOTAL	2	227,693	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
GAITHERSBURG			
GEOMET TECHNOLOGIES ZIP CODE 20760			
MASON, BENJAMIN	REPORTS ON ENVIRONMENTAL CARCINOGENESIS	1N01 CP05616-00	330,993
OSLIK, NORMAN	DESIGN AND IMPLEMENT COMPUTER PROGRAMS AND SYSTEMS	3N01 CP81019-05	389,780
ORGANIZATION TOTAL	2 720,773		
INFORMATION PLANNING ASSOCIATES ZIP CODE 20760			
BROWN, MARK	DISTRIBUTE BIOASSAY TECHNICAL PUBLICATIONS	3N01 CP05652-01	29,155
HERNDON, LINDA M.	PREPARE ANNUAL REPORTS FOR NIAMDD	3N01 AM92203-09	54,337
HERNDON, LINDA M.	OBJECTIVES FOR MOTHERS & CHILDREN POPULATION RESEARCH	3N01 HD02807-03	162,339
VIT, ROBERT F.	SUPPORT SERVICES FOR INVESTIGATIONAL NEW DRUG REPORTS	2N01 CM77104-04	164,801
ORGANIZATION TOTAL	4 410,632		
KENSINGTON			
LITTON INDUSTRIES—LITTON BIONETICS ZIP CODE 20795			
BRUSICK, DAVID J.	MICROBIAL MUTAGENESIS SYSTEM—CARCINOGENESIS SCREENING	3N01 CP65856-07	292,054
CANNON, GRACE B.	MELANOMA CELL VACCINE—ASSAYS FOR CYTOTOXICITY	2N01 CB53916-15	143,115
CANNON, GRACE B.	REACTIONS BETWEEN BREAST CANCER AND MAMMARY TUMOR VIRUS	3N01 CB74087-05	10,315
CICMANEC, JOHN L.	OPERATE FACILITY TO MAINTAIN NONHUMAN PRIMATES	2N01 CP91022-09	579,055
FUCILLO, DAVID A.	IMMUNOLOGICAL ASSAY FOR DNA AND RNA VIRUS	3N01 CP43333-21	155,489
GALLAWAY, SHELIA	IN VITRO CYTOGENETIC TESTING	5N01 ES90013-02	170,548
GARD, ELIZABETH A.	SJOGREN'S SYNDROME, APHTHOUS ULCERS & BEHCET'S SYNDROME	5N01 DE72405-06	32,116
GARD, ELIZABETH A.	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS/HYPERTENSION	2N01 HV53031-08	407,159
GOLWAY, PETER L.	MAINTAIN TUMORED LABORATORY ANIMAL MODELS	5N01 CM87169-03	300,935
GOLWAY, PETER L.	FACILITY FOR SMALL LABORATORY ANIMALS	3N01 CP91050-02	5,208
HALL, ARTHUR S.	OPERATION OF A DOMESTIC RHESUS MONKEY BREEDING COLONY	5N01 RR02108-01	319,222
HALL, ARTHUR S.	MAINTAIN A BREEDING COLONY OF RHESUS MONKEYS	5N01 RR62151-06	78,246
HANNA, MICHAEL G. JR.	OPERATE THE FREDERICK CANCER RESEARCH CENTER (FCRC)	3N01 CO75380-25	31,983,709
JOHNSON, ROGER W.	PREPARE AND PURIFY VIRAL COMPONENTS	1N01 CM07326-00	149,400
KINGSBURY, ELIZABETH	IDENTIFY CULTURED CELLS FROM HUMAN AND ANIMAL TISSUES	3N01 CP75908-06	14
MANUS, ALLAN G.	HOLDING FACILITY FOR LABORATORY ANIMALS	1N01 CP01039-00	201,512
MANUS, ALLAN G.	HOLDING FACILITY FOR SMALL LABORATORY ANIMALS	3N01 CP61039-09	119,213
MANUS, ALLAN G.	HOLDING FACILITY FOR SMALL LABORATORY ANIMALS	5N01 CP81025-03	171,100
MC GOWAN, MARTHA J.	DEVELOP INBRED AND CONGENIC RESISTANT MOUSE STRAINS	5N01 CB94325-05	239,953
MC GOWAN, MARTHA J.	INDUCE PLASMA CELL TUMORS IN MICE	5N01 CB94326-05	424,920
MYHR, BRIAN	IN VITRO MUTAGENESIS SYSTEM FOR CARCINOGENESIS SCREENING	2N01 CP65853-09	337,956
PADARATHSINGH, MARTIN L.	CELL MEDIATED IMMUNITY TO RODENT TUMORS	2N01 CB74093-06	128,962
PADARATHSINGH, MARTIN L.	IMMUNOLOGIC ASSESSMENT OF HIGH RISK CANCER FAMILIES	3N01 CP61016-11	215,240
SARNGADHARAN, M G.	PROVIDE ANIMAL FACILITIES FOR VIRAL CANCER RESEARCH	1N01 CM05724-00	475,734
SARNGADHARAN, M G.	PROVIDE TISSUES & CONDUCT TESTS—TUMOR CELL BIOLOGY	1N01 CM07347-00	544,537
SARNGADHARAN, M G.	PROVIDE FACILITIES FOR VIRAL CANCER RESEARCH	3N01 CM77134-09	106,403
SARNGADHARAN, M G.	DEVELOP PROGNOSIS BASED ON CELL TRANSFORMATION	5N01 CM87187-03	778,677
SIBINOVIC, KYLE H.	OPERATION OF ANIMAL DISEASE DIAGNOSTIC LABORATORY	3N01 CM53778-06	11,246
TONDREAU, SUE C.	MONITORING OF IMMUNOLOGIC COMPETENCE IN CANCER PATIENTS	5N01 CM67067-13	200,000
VALERIO, MARION G.	STUDY OF CARCINOGENESIS IN HUMAN BRONCHIAL TISSUES	5N01 CP43274-27	240,000
WALLEN, WILLIAM	IMMUNOLOGIC STUDY OF VIRAL ETIOLOGY OF CANCER	3N01 CP43252-06	3,732
ORGANIZATION TOTAL	31 38,825,770		
LANDOVER			
DIGITAL EQUIPMENT CORPORATION ZIP CODE 20785			
LAZEROWICH, STEVE	PROVIDE BUFFER STORAGE AND RETRIEVAL SUBSYSTEM	1N01 LM03542-00	69,405
NOT AVAILABLE	SCIENTIFIC TIMESHARING REQUIREMENTS AT NIH	1N01 CT02118-00	62,250
ORGANIZATION TOTAL	2 131,655		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
POTOMAC			
PROSPECT ASSOCIATES ZIP CODE 20854			
HENDERSON, LAURA	SUPPORT SERVICES FOR THE NATIONAL INSTITUTE ON AGING.....	5N01 AG02104-02	665,000
ORGANIZATION TOTAL	1	665,000	
ROCKVILLE			
AMERICAN TYPE CULTURE COLLECTION ZIP CODE 20852			
ALDRICH, CHARLES D.	MAINTAIN HUMAN TROPHOBLASTIC CELLS.....	2N01 HD92827-02	62,139
DONOVICK, RICHARD	MAINTAIN STRAINS OF MICROORGANISMS AND CELL CULTURES.....	2N01 RR92104-02	588,043
GHERNA, ROBERT L.	CHARACTERIZE AND IDENTIFY PLEOMORPHIC ORAL BACTERIA.....	5N01 DE92418-02	124,300
HAMBURGER, ANNE W.	MAINTAIN HYBRIDOMA CELL LINES.....	1N01 AI02655-00	251,120
HAY, ROBERT J.	PREPARE FRESH AND CULTURED MAMMALIAN CELLS.....	1N01 CM05725-00	204,897
HAY, ROBERT J.	PREPARE AND ANALYZE FRESH AND CULTURED MAMMALIAN CELLS.....	3N01 CM87158-04	80,000
HAY, ROBERT J.	PREPARE ADRENAL, PITUITARY AND PLACENTAL CELLS.....	1N01 HD02834-00	90,846
ORGANIZATION TOTAL	7	1,401,345	
BIOSPHERICS, INC. ZIP CODE 20852			
LEVIN, M KAREN	SERVICES FOR CANCER-RELATED INQUIRIES.....	3N01 C095441-02	130,984
ORGANIZATION TOTAL	1	130,984	
BIOTECH RESEARCH LABORATORIES ZIP CODE 20852			
TING, ROBERT C.	ESTABLISH CLINICAL IMMUNOLOGY DIAGNOSTIC LABORATORY.....	5N01 AI92623-04	262,113
TING, ROBERT C.	VIROLOGY, IMMUNOLOGY & TISSUE CULTURE SUPPORT SERVICE.....	2N01 CM43719-12	159,987
TSAI, SHIEN	CYTOGENETIC EVALUATION OF HIGH RISK CANCER FAMILIES.....	3N01 CP61011-09	11,652
ORGANIZATION TOTAL	3	433,752	
CAPITAL SYSTEMS GROUP ZIP CODE 20852			
SCHICK, RENEE	NATIONAL CLEARINGHOUSE FOR RHEUMATIC DISEASES.....	5N01 AM82215-04	171,351
SPARGUR, JON L.	SUPPORT SERVICES FOR CANCER CENTERS.....	5N01 C085386-10	250,320
SPARGUR, JON L.	SUPPORT TO THE DIET, NUTRITION AND CANCER PROGRAM.....	5N01 CP95603-01	500,000
ORGANIZATION TOTAL	3	921,671	
CDP ASSOCIATES ZIP CODE 20852			
BROWN, MICHAEL G.	SUPPORT SERVICES FOR UPDATING THE NATIONAL NHLBI PLAN.....	3N01 H082918-04	319,445
COLQUITT, LYNN	PLANNING AND ANALYTICAL SUPPORT SERVICES-NCI.....	5N01 CM97143-10	380,799
TAYLOR, CAROLYN A.	SUPPORT SERVICES FOR THE CANCER CENTERS PROGRAM.....	1N01 C004345-00	158,391
WILLIAMS, RALPH O.	ANALYSIS OF BASIC AND CLINICAL BIOMEDICAL RESEARCH.....	1N01 AM02209-00	96,038
ORGANIZATION TOTAL	4	954,673	
CONTROL DATA CORPORATION ZIP CODE 20852			
SCHMITT, DONALD H.	PROCESSING OF CLINICAL PATIENT RESEARCH DATA.....	2N01 CM67107-10	74,998
ORGANIZATION TOTAL	1	74,998	
COR BEL LABORATORIES ZIP CODE 20852			
HERNANDEZ, DIANA M.	MAINTAIN AN ANIMAL HOLDING FACILITY.....	1N01 CB04336-00	293,100
ORGANIZATION TOTAL	1	293,100	
DAMANS AND ASSOCIATES ZIP CODE 20850			
ANNAN, SAMPSON O.	EVALUATE EFFECTS OF HIGH BLOOD PRESSURE MEDIA MESSAGES.....	1N01 H002924-00	27,965
ORGANIZATION TOTAL	1	27,965	
E G & G, INC.—MASON RESEARCH INSTITUTE ZIP CODE 20852			
KRAMER, ANNE W.	DATA ANALYSES FOR BREAST CANCER TREATMENT PROGRAM.....	3N01 CB74140-11	130,934

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
PATEL, KANTILAL M.....	DATA-PROCESSING SERVICES FOR CANCER BIOASSAY SYSTEM	2N01 CP43257-43	764,156
ORGANIZATION TOTAL	2 895,090		
ENVIRO CONTROL ZIP CODE 20852			
GRAY, ALLAN P.....	NCI-DCT LITERATURE MONITORING SERVICES	1N01 CM07332-00	95,000
LEVETON, JEFF.....	HEALTH HAZARD APPRAISAL IN INDUSTRY	5N01 H092934-01	158,299
LYNCH, NEIL.....	SMOKING AND HEALTH	3N01 CP55666-31	1,860,432
SUMMERS, C W.....	REFERENCE SUPPORT SERVICES-NCI	6N01 CP95662-01	10,000
ORGANIZATION TOTAL	4 2,123,731		
HEWLETT-PACKARD COMPANY ZIP CODE 20850			
NOT AVAILABLE.....	MONITORING UNITS FOR MEDICAL & SURGICAL INTENSIVE CARE	2N01 CL82119-05	53,340
ORGANIZATION TOTAL	1 53,340		
INFORMATICS, INC. ZIP CODE 20852			
WOLFE, MOLLY A.....	PREPARE AND UPDATE CLINICAL PROTOCOL SUMMARIES	1N01 C005509-00	224,872
WOLFE, MOLLY A.....	PREPARE & UPDATE CLINICAL PROTOCOL SUMMARIES.....	1N01 C035509-00	224,872
WOOD, CHERRI.....	PROVIDE NLM EDITING AND KEYBOARDING SERVICES.....	1N01 LM03537-00	410,146
ORGANIZATION TOTAL	3 859,890		
TRACOR, INC.—TRACOR JITCO ZIP CODE 20850			
ANGEL, CHARLES.....	BIOASSAY OF CARCINOGENIC MATERIALS	3N01 CP43350-40	21,429,593
HUFFMAN, RANDALL.....	REFERENCE SUPPORT SERVICE	6N01 CP95602-01M1	3,544
POST, EDWARD.....	OPERATION OF THE RESEARCH RESOURCES INFORMATION CENTER	5N01 RR92114-02	235,635
ROSE, CHARLES S.....	PREPARE SAFETY AND TOXICITY INFORMATION PACKAGES	6N01 CP95621-04	94,003
SCHILLER, DOROTHY.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	3N01 CP95648-03	133,860
SEIFRIED, HAROLD.....	CARCINOGENICITY OF DRUG AND PROCEDURES	6N01 CP05633-01	167,417
ORGANIZATION TOTAL	6 22,064,052		
WESTAT RESEARCH, INC ZIP CODE 20852			
ARNOLD, MARILYN.....	SUPPORT SERVICES FOR RADIATION STUDIES.....	1N01 CP01011-00	413,371
CAHILL, JOHN I.....	SUPPORT SERVICES FOR EPIDEMIOLOGY STUDIES	1N01 CP01044-00	1,354,587
MC KENNA, THOMAS W.....	EPA/NCI SPECIAL SKIN CANCER EPIDEMIOLOGY STUDY	2N01 CP71044-11	9,695
MC KENNA, THOMAS W.....	ROLE OF SACCHARIN IN BLADDER CANCER.....	2N01 CP81017-04	278,662
MC KENNA, THOMAS W.....	NATIONAL CARIES PREVALENCE SURVEY	3N01 DE92421-12	378,545
MORAN, FRANCIS X.....	SUPPORT SERVICES FOR OCCUPATIONAL STUDIES.....	2N01 CP91034-06	605,333
SCHROEDER, ANITA G.....	COMPREHENSIVE DISEASE STATISTICS SURVEY.....	3N01 NS72379-05	362,874
TOLEDO, ANN.....	SUPPORT SERVICES FOR FIELD STUDIES.....	3N01 CP61034-15	98,390
ORGANIZATION TOTAL	8 3,501,457		
SILVER SPRING			
APPLIED MANAGEMENT SCIENCES ZIP CODE 20910			
SKINNER, DOUGLAS E.....	COMPARISON OF FLUORIDES IN CARIES PREVENTION.....	2N01 DE72411-06	76,349
ORGANIZATION TOTAL	1 76,349		
EBON RESEARCH SYSTEMS ZIP CODE 20901			
RICHMAN, LEE.....	STATISTICAL SUPPORT FOR NCI SERUM PANEL.....	2N01 CB74210-04	75,033
ORGANIZATION TOTAL	1 75,033		
MESSER ASSOCIATES ZIP CODE 20910			
LAZEROW, F.....	ESTABLISHING PERSONNEL REQUIREMENTS IN CANCER CONTROL	3N01 CN65192-02	9,632
ORGANIZATION TOTAL	1 9,632		
OPERATIONS RESEARCH ZIP CODE 20910			
SHUSTERMAN, NORMAN.....	BIOMEDICAL COMPUTING DESIGN & IMPLEMENTATION.....	1N01 CP01054-00	708,645

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MARYLAND—Continued			
SHUSTERMAN, NORMAN	DESIGN AND IMPLEMENT COMPUTER PROGRAMS AND SYSTEMS	3N01 CP81060-02	11,644
ORGANIZATION TOTAL	2 720,289		
SIGMA DATA COMPUTING CORPORATION—SIGMA DATA SERVICES CORPORATION ZIP CODE 20910			
MIKKELSON, LINDA	PROGRAMMING AND DATA ENTRY SERVICES NCI/CMS.....	1N01 C005493-00	116,366
ORGANIZATION TOTAL	1 116,366		
SYKESVILLE			
SPRING VALLEY FARM ZIP CODE 21784			
SCHUELER, R L.....	MAINTAIN ANIMAL BREEDING AND HOLDING FACILITY.....	1N01 A102652-00	153,739
ORGANIZATION TOTAL	1 153,739		
TEMPLE HILLS			
ENVIRO CONTROL—BORRISTON RESEARCH LABORATORIES ZIP CODE 20031			
PICCIRILLO, VINCENT J	LONG-TERM INHALATION BIOASSAY OF CIGARETTE SMOKE	5N01 CP05685-01	590,796
ORGANIZATION TOTAL	1 590,796		
TOWSON			
GREATER BALTIMORE MEDICAL CENTER ZIP CODE 21204			
PROUT, THADDEUS E.....	ASPIRIN-MYOCARDIAL INFARCTION STUDY.....	5N01 HV52932-08	10,236
PROUT, THADDEUS E.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82904-04	80,100
ORGANIZATION TOTAL	2 90,336		
WALKERSVILLE			
WHITTAKER CORPORATION—M. A. BIOPRODUCTS ZIP CODE 21793			
PARKER, NORMA L	PREPARE SPECIAL TISSUE CULTURE CELLS	1N01 NS02334-00	99,500
ORGANIZATION TOTAL	1 99,500		
STATE TOTAL	170 98,217,672		
MASSACHUSETTS			
BEDFORD			
MITRE CORPORATION ZIP CODE 01730			
NOT AVAILABLE.....	CABLE COMMUNICATIONS FOR NLM AND LHNBC	2N01 LM94714-04	27,960
ORGANIZATION TOTAL	1 27,960		
BOSTON			
AFFILIATED HOSPITALS CENTER—BOSTON HOSPITAL FOR WOMEN ZIP CODE 02115			
KOCH, JAMES P.....	DEVELOP & TEST NEW CERVICAL CAP & INSERTER	5N01 HD02855-01	428,649
POLK, B FRANK.....	MALFORMATIONS AND FETAL LOSSES IN JUVENILE DIABETES	1N01 HD02839-00	89,087
SCHOENBAUM, STEPHEN C.....	BIRTH CONTROL PRACTICES AND UNDESIRE FERTILITY.....	1N01 HD02822-00	1,343,000
ORGANIZATION TOTAL	3 1,860,736		
AFFILIATED HOSPITALS CENTER—PETER BENT BRIGHAM HOSPITAL ZIP CODE 02115			
BRAUNWALD, EUGENE.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	3N01 HV92921-02	62,528
CARPENTER, CHARLES B	ANALYZE DATA FROM KIDNEY TRANSPLANT STUDY	3N01 A192635-02	40,923

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
KASS, EDWARD H.....	HYPERTENSION DETECTION AND FOLLOW-UP PROGRAM.....	2N01 HV82915-04	525,879
TAYLOR, JAMES O.....	ESTABLISH POPULATIONS FOR EPIDEMIOLOGICAL STUDIES.....	1N01 AG02107-00	293,421
ORGANIZATION TOTAL	4 922,751		
BETH ISRAEL HOSPITAL ZIP CODE 02215			
FREEDBERG, IRWIN M.....	RESPONSE TO THERAPY OF CUTANEOUS HERPES SIMPLEX.....	2N01 AI52530-09	124,820
INGBAR, SIDNEY H.....	ANALYZE RESEARCH PRIORITIES IN ENDOCRINOLOGY.....	3N01 AM72236-12	12,928
ORGANIZATION TOTAL	2 137,748		
BOSTON HEALTH AND HOSPITALS DEPARTMENT ZIP CODE 02118			
ADAMS, WILLIAM H.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB73003-07	238,961
KLEIN, JEROME O.....	VACCINE FOR PREVENTION OF OTITIS MEDIA.....	3N01 AI52536-09	133,867
ORGANIZATION TOTAL	2 372,828		
BOSTON UNIVERSITY ZIP CODE 02215			
BLANCHARD, GORDON C.....	A GUINEA PIG MODEL OF ASTHMA TO RAGWEED POLLEN.....	5N01 RR82148-03	33,361
DAWBER, THOMAS R.....	FRAMINGHAM COHORT SURVEILLANCE AND OFFSPRING STUDY.....	5N01 HV92922-04	965,730
SHAPIRO, SAMUEL.....	ESTROGEN REPLACEMENT AFTER PREMENOPAUSAL OOPHORECTOMY.....	2N01 CB74099-07	41,190
SHAPIRO, SAMUEL.....	STUDY MYOCARDIAL INFARCTION IN RELATION TO VASECTOMY.....	1N01 HD02810-00	286,600
SLONE, DENNIS.....	MYOCARDIAL INFARCTION AND ROLE OF ORAL CONTRACEPTIVES.....	5N01 HD62849-08	12,303
VOKONAS, PANTEL S.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72951-05	110,000
ORGANIZATION TOTAL	6 1,449,184		
CHILDREN'S HOSPITAL MEDICAL CENTER ZIP CODE 02115			
BERNHARD, WILLIAM F.....	CLINICAL EVALUATION OF LEFT VENTRICULAR ASSIST DEVICE.....	3N01 HV53007-08	23,068
LEVITON, ALAN.....	EPIDEMIOLOGY OF LEARNING HANDICAPS IN SCHOOL CHILDREN.....	3N01 NS72377-05	97,627
ORGANIZATION TOTAL	2 120,695		
HARVARD UNIVERSITY ZIP CODE 02115			
BENFARI, ROBERT C.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	5N01 HV22979-12	682,532
BRAUNWALD, EUGENE.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	5N01 HV72940-07	1,250,367
ESSEX, MYRON E.....	IMMUNOTHERAPY IN OUTBRED ANIMAL LYMPHOMA AND LEUKEMIAS.....	2N01 CB64001-04	64,970
ESSEX, MYRON E.....	BIOCHEMICAL CHARACTERIZATION OF FOCCA.....	5N01 CP81004-03	148,000
HERD, J ALAN.....	DEVELOP NONHUMAN PRIMATE MODELS OF HYPERTENSION.....	5N01 HV72980-06	527,349
HERRMANN, JOHN E.....	RAPID DIAGNOSIS OF RESPIRATORY VIRUSES.....	5N01 AI92617-01	65,392
LESUEUR, C ROBIN.....	REGIONAL MEDICAL LIBRARY SERVICES.....	1N01 LM03504-00	415,287
LESUEUR, C ROBIN.....	REGIONAL MEDICAL LIBRARY SERVICES FOR REGION I.....	3N01 LM84715-05	25,000
LOWRIE, EDMUND G.....	NATIONAL COOPERATIVE DIALYSIS STUDY.....	3N01 AM62207-09	994,000
MONSON, RICHARD R.....	FOLLOW-UP FLUOROSCOPICALLY EXAMINED TUBERCULOSIS PATIENT.....	3N01 CP81058-04	275,760
MULDER, CAREL.....	BIOMOLECULAR STUDIES OF HERPESVIRUS SAIMIRI.....	3N01 CP81005-04	99,730
ORGANIZATION TOTAL	11 4,548,387		
JOSLIN DIABETES FOUNDATION ZIP CODE 02215			
AIELLO, LLOYD M.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72145-05	409,587
ORGANIZATION TOTAL	1 409,587		
MASSACHUSETTS EYE AND EAR INFIRMARY ZIP CODE 02114			
MC MEEL, J WALLACE.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	5N01 EY52144-05	53,748
ORGANIZATION TOTAL	1 53,748		
MASSACHUSETTS GENERAL HOSPITAL ZIP CODE 02114			
DENSTAG, JULES L.....	DEVELOP SENSITIVE METHODS TO DETECT HEPATITIS TYPE C.....	5N01 HB92919-01	98,119
FITZPATRICK, THOMAS B.....	ORAL PSORALEN PHOTOCHEMOTHERAPY OF PSORIASIS.....	5N01 AM72200-05	287,413
HARTHORNE, J WARREN.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	2N01 HV32985-14	133,487
HIRSCH, MARTIN S.....	ACTIVATION OF C-PARTICLES & CANCER INDUCTION.....	2N01 CP43222-13	319,290
MALOOFF, FARAAHE.....	RELATIONSHIP BETWEEN THYROID DISEASES AND BREAST CANCER.....	5N01 CB84230-03	171,800
RUBIN, ROBERT.....	SEROEPIDEMIOLOGIC STUDY OF CYTOMEGALOVIRUS INFECTION.....	1N01 AI02643-00	71,851

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
ZAMECNIK, PAUL C.....	SEQUENCING OF RSV 35S RNA.....	3N01 CP71007-06	25,590
ORGANIZATION TOTAL	7 1,107,550		
NEW ENGLAND MEDICAL CENTER HOSPITAL ZIP CODE 02111			
GORBACH, SHERWOOD L.....	RELATION OF INTESTINAL FLORA TO BREAST CANCER IN HUMANS.....	2N01 CB74104-04	21,800
ORGANIZATION TOTAL	1 21,800		
SIDNEY FARBER CANCER INSTITUTE ZIP CODE 02115			
CANELLOS, GEORGE P.....	STUDIES OF PATIENTS WITH DISSEMINATED SOLID TUMORS.....	5N01 CM67037-13	115,128
FREI, EMIL, III.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	2N01 CM43781-15	25,164
FREI, EMIL, III.....	PHASE I STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97276-01	103,795
HASELTINE, WILLIAM A.....	INTEGRATION SITES OF ONCOGENIC VIRUSES.....	3N01 CP71057-03	13,500
HENDERSON, CRAIG I.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07433-01	246,078
PATTERSON, W BRADFORD.....	COMPREHENSIVE CANCER CENTERS COMMUNICATIONS NETWORK.....	3N01 CN55229-13	127,893
SCHLOSSMAN, STUART F.....	IMMUNOLOGIC MONITORING OF THE IMMUNOSUPPRESSED PATIENT.....	5N01 AI02650-01	417,951
YUNIS, EDMOND J.....	REFERENCE HLA LABORATORIES.....	5N01 AI82548-06	27,069
YUNIS, EDMOND J.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	3N01 AI82557-07	66,428
ORGANIZATION TOTAL	9 1,143,006		
TUFTS UNIVERSITY ZIP CODE 02111			
BLAIR, HENRY E.....	PREPARE CERAMIDETRIHEXOSIDASE FROM PLACENTAL TISSUE.....	5N01 NS02339-01	275,156
BLAIR, HENRY E.....	PREPARE GLUCOCEREBROSIDASE FROM HUMAN PLACENTAL TISSUE.....	3N01 NS52321-10	20,000
LEVY, STUART B.....	TESTING OF VECTOR-HOST SYSTEMS IN MAMMALS.....	3N01 AI72529-03	11,993
STOLBACH, LEO L.....	IMMUNODIAGNOSIS FOR EARLY DETECTION OF OVARIAN CANCER.....	2N01 CB64028-04	9,885
ORGANIZATION TOTAL	4 317,034		
UNIVERSITY HOSPITAL ZIP CODE 02118			
RYAN, THOMAS J.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62923-07	189,933
ORGANIZATION TOTAL	1 189,933		
CAMBRIDGE			
ABT ASSOCIATES, INC. ZIP CODE 02138			
KERPELMAN, LARRY.....	EVALUATE REGIONAL MEDICAL LIBRARY NETWORK.....	1N01 LM03538-00	100,000
ORGANIZATION TOTAL	1 100,000		
ARTHUR D. LITTLE, INC. ZIP CODE 02140			
BROOME, MILDRED G.....	DEVELOP PREScreens FOR CRUDE NATURAL PRODUCTS.....	1N01 CM07331-00	112,998
BROOME, MILDRED G.....	CELL CULTURE SCREENING FOR CYTOTOXICITY.....	3N01 CM97288-02	95,335
CLEMENT, JACOB J.....	IN VITRO AND IN VIVO SCREENING OF RADIOSENSITIZERS.....	1N01 CM07257-00	194,121
JOHNSON, RANDALL K.....	SCREEN ANTITUMOR AGENTS & COMBINED CHEMOTHERAPY STUDY.....	1N01 CM07302-00	416,000
JOHNSON, RANDALL K.....	EVALUATION OF COMBINED CHEMOTHERAPY AND MODALITY STUDIES.....	3N01 CM53765-15	84,000
JOHNSON, RANDALL K.....	BIOLOGICAL CHARACTERIZATION OF ANTITUMOR DRUGS.....	5N01 CM87186-06	150,000
SIVAK, ANDREW.....	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS.....	3N01 CP55711-08	324,732
SIVAK, ANDREW.....	ASSAY TO SCREEN CHEMICALS FOR CARCINOGENIC POTENTIAL.....	3N01 CP85677-05	261,785
STRICOFF, R S.....	SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	1N01 CP05673-00	305,453
WODINSKY, ISIDORE.....	IN VIVO SCREENING PROGRAM FOR NIC-DCT.....	1N01 CM07346-00	483,763
YESAIR, DAVID W.....	PHARMACOLGY AND RADIOAUTOGRAPHY OF ANTITUMOR AGENTS.....	5N01 CM87163-03	725,000
ORGANIZATION TOTAL	11 3,153,187		
BOLT BERANEK AND NEWMAN ZIP CODE 02138			
BILOFSKY, HOWARD.....	TABULATE AND ANALYZE IMMUNOGLOBULIN SEQUENCE DATA.....	5N01 RR82158-01	42,378
CASTLEMAN, PAUL A.....	TECHNICAL ASSISTANCE FOR THE PROPHET SYSTEM.....	3N01 RR82118-13	779,984
GREENFELD, NORTON R.....	NLM COMPUTER SCIENCES SUPPORT.....	1N01 LM03545-00	137,532
ORGANIZATION TOTAL	3 959,894		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
SISA, INC. ZIP CODE 02138			
QUICK, JAMES.....	SYNTHESIS AND TESTING OF MALE CONTRACEPTIVE AGENTS.....	1N01 HD02829-00	138,105
RAZDAN, RAJ K.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07354-03	57,136
ORGANIZATION TOTAL	2 195,241		
EVERETT			
AVCO CORPORATION—EVERETT RESEARCH LABORATORY ZIP CODE 02149			
LEDERMAN, DAVID M.....	DEVELOP AN IMPLANTABLE LEFT HEART ASSIST SYSTEM.....	1N01 HV02913-00	1,038,454
MADRAS, PETER.....	BLOOD COMPATIBILITY OF CIRCULATORY ASSIST DEVICES.....	1N01 HV02912-00	142,885
WONG, EDWARD W.....	PROCUREMENT OF PRIMARY REFERENCE MATERIALS.....	5N01 HV92932-03	81,968
ORGANIZATION TOTAL	3 1,263,307		
LOWELL			
UNIVERSITY OF LOWELL ZIP CODE 01854			
BRUCE, JOHN I.....	SUPPLY SCHISTOSOME-INFECTED SNAILS AND MAMMALS.....	1N01 AI02656-00	140,540
ORGANIZATION TOTAL	1 140,540		
NEWTON			
EIC CORPORATION ZIP CODE 02158			
BRUMMER, S BARRY.....	DEVELOP IMPROVED CAPACITOR STIMULATING ELECTRODES.....	2N01 NS82392-03	114,057
BRUMMER, S BARRY.....	ELECTRODE MATERIALS AND THEIR ELECTROCHEMICAL REACTIONS.....	5N01 NS92315-03	30,000
ORGANIZATION TOTAL	2 144,057		
READING			
EQUIFAX, INC.—SYSTEMEDICS, INC. ZIP CODE 01867			
BOWEN, JOHN P.....	LUNG CANCER IN CUBAN MALE IMMIGRANTS.....	1N01 CP05682-00	39,023
GERBER, WAYNE.....	SUPPORT SERVICES FOR NCI RADIATION STUDIES.....	1N01 CP01043-00	233,464
ORGANIZATION TOTAL	2 272,487		
WALTHAM			
AUTOMATIC DATA PROCESSING NETWORK SERVICES ZIP CODE 02154			
MC GEACHIE, JOHN.....	COMPUTER FACILITY FOR CHEMICAL/BIOLOGICAL INFORMATION.....	5N01 RR92107-08	1,148,498
ORGANIZATION TOTAL	1 1,148,498		
COLLABORATIVE RESEARCH, INC. ZIP CODE 02154			
FREIDMAN, ORRIE M.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07358-02	29,483
TAUNTON-RIGBY, ALISON.....	DEVELOPMENT OF ANTIVIRALS.....	5N01 AI92608-03	177,230
ORGANIZATION TOTAL	2 206,713		
GINER, INC. ZIP CODE 02154			
LERNER, HARRY.....	DEVELOP CAPACITOR STIMULATING ELECTRODES.....	2N01 NS82300-02	130,570
ORGANIZATION TOTAL	1 130,570		
SOFTECH, INC. ZIP CODE 02154			
DICKOVER, MEL.....	NLM DOCUMENTATION SUPPORT SERVICES.....	1N01 LM03532-00	177,404
ORGANIZATION TOTAL	1 177,404		
THERMO ELECTRON CORPORATION ZIP CODE 02154			
FRAM, FREEMAN W.....	DEVELOP SYSTEMS TO TRANSMIT ENERGY THROUGH INTACT SKIN.....	1N01 HV02903-00	202,507

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MASSACHUSETTS—Continued			
GERNES, DAVID.....	DEVELOP AN IMPLANTABLE LEFT HEART ASSIST SYSTEM.....	1N01 HV02914-00	1,083,466
KEISER, JOHN M.....	LEFT VENTRICULAR ASSIST DEVICE: CLINICAL EVALUATION.....	3N01 HV53008-10	31,809
LONGFELLOW, DAVID G.....	PURCHASE PHOTOMULTIPLIER TUBE AND BASE.....	1N01 CP05704-00	3,620
NOT AVAILABLE.....	CARCINOGENESIS CONTRACT FOR SPARE PARTS PURCHASE.....	1N01 CP05710-00	1,648
POIRIER, VICTOR C.....	FABRICATION OF CARDIOVASCULAR DEVICES.....	2N01 HV92907-01	292,156
ORGANIZATION TOTAL	6	1,615,206	
WILMINGTON			
BIOTEK, INC. ZIP CODE 01887			
NUWAYSER, ELIE S.....	DEVELOP PROGESTAGEN-CONTAINING MICROCAPSULES.....	1N01 HD02847-00	166,711
ORGANIZATION TOTAL	1	166,711	
CHARLES RIVER BREEDING LABORATORIES ZIP CODE 01887			
FOSTER, HENRY L.....	SUPPORT FOR LONG-TERM RAT COLONY.....	3N01 AG32725-24	128,657
NOT AVAILABLE.....	MAINTAIN A LONG-TERM AGED RAT COLONY.....	5N01 AG02101-02	1,438,553
ORCUTT, ROGER P.....	MONITOR MICROORGANISMS IN ISOLATOR COLONIES.....	5N01 CM87212-02	68,477
OTIS, ALBERT P.....	DEVELOP COLONY OF MULTIGENOTYPIC AGED MOUSE STRAINS.....	5N01 AG72128-08	123,019
OTIS, ALBERT P.....	GENETIC CENTER FOR RODENTS IN BIOCONTAINMENT ENVIRONMENT.....	3N01 CM77141-12	1,854,506
OTIS, ALBERT P.....	PRIMARY GENETIC CENTER.....	5N01 CM87199-02	61,991
OTIS, ALBERT P.....	ESTABLISH AND OPERATE A RODENT PRODUCTION CENTER.....	5N01 CM97229-01	345,480
OTIS, ALBERT P.....	RODENT PRODUCTION COLONIES FOR NCI.....	3N01 CP95617-01	265,977
OTIS, ALBERT P.....	RODENT PRODUCTION COLONIES FOR NCI.....	3N01 CP95641-02	276,073
RICK, IRWIN.....	INBRED STRAINS AND SELECTED HYBRID CROSSES IN RATS.....	3N01 AG62135-08	24,259
ORGANIZATION TOTAL	10	4,586,992	
WORCESTER			
E G & G, INC.—MASON RESEARCH INSTITUTE ZIP CODE 01608			
BOGDEN, ARTHUR E.....	EVALUATION OF CANCER THERAPEUTIC AGENTS.....	3N01 CB43914-11	3,593
BOGDEN, ARTHUR E.....	BIOLOGICAL CHARACTERIZATION STUDIES OF MAMMARY TUMORS.....	3N01 CB74175-05	188,832
BOGDEN, ARTHUR E.....	APPLY SUB-RENAL CAPSULE ASSAY TO DRUG TESTING.....	1N01 CM07325-00	199,757
BOGDEN, ARTHUR E.....	DEVELOPMENT OF NEW IN VIVO TUMOR SYSTEMS.....	3N01 CM57030-13	7,088
BOGDEN, ARTHUR E.....	FROZEN TUMOR BANK.....	3N01 CM87164-06	189,042
BOGDEN, ARTHUR E.....	ROLE OF HORMONAL FACTORS ON MAMMARY TUMORS.....	5N01 CP61052-11	131,120
BRYAN, NANCY.....	CLINICAL DATA RETRIEVAL SERVICES.....	3N01 CM67011-12	230,581
GLADSTONE, MARK B.....	COMPUTER SUPPORT EFFORT FOR RESOURCES MANAGEMENT.....	5N01 CP71001-05	351,288
HAWORTH, STEPHEN R.....	MICROBIAL MUTAGENESIS TESTING.....	5N01 ES92137-04	90,000
LILJA, HERMAN.....	CARCINOGENICITY AND TOXICITY STUDY IN LABORATORY ANIMALS.....	6N01 CP95619-04	1,572,482
NAQVI, REHAN H.....	BIOLOGICAL TESTING FACILITY—CONTRACEPTIVES.....	1N01 HD02846-00	839,980
NAQVI, REHAN H.....	FACILITY TO EVALUATE NEW ANTIFERTILITY DRUGS & DEVICES.....	3N01 HD82813-07	156,490
ROSENKRANTZ, HARRIS.....	TEST IRON CHELATING AGENTS.....	1N01 AM02206-00	64,620
ORGANIZATION TOTAL	13	4,024,873	
STATE TOTAL	115	30,968,627	
MICHIGAN			
ANN ARBOR			
COMMISSION ON PROFESSIONAL AND HOSPITAL ACTIVITIES ZIP CODE 48105			
SEEFRIED, SUSAN.....	COMPLICATIONS LEADING TO CAESAREAN DELIVERY.....	1N01 HD02812-00	29,800
ORGANIZATION TOTAL	1	29,800	
UNIVERSITY OF MICHIGAN AT ANN ARBOR ZIP CODE 48109			
ERFURT, JOHN C.....	HYPERTENSION CONTROL IN THE WORK SETTING.....	5N01 HV82913-02	272,193

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MICHIGAN—Continued			
HIGGINS, MILLICENT W.....	DEVELOP RISK INDEX FOR CHRONIC OBSTRUCTIVE LUNG DISEASE	3N01 HR82927-04	15,197
HISS, ROLAND	CONTINUING EDUCATION IN PULMONARY MEDICINE	3N01 HR62931-04	37,944
KRAUSE, CHARLES.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	5N01 CM87225-04	37,151
LO BUGLIO, ALBERT F.....	NEW DRUG DEVELOPMENT CLINICAL TRIALS IN SOLID TUMORS.....	1N01 CM07405-00	71,431
MAASSAB, H F.....	STUDY OF LIVE INFLUENZA VIRUS VACCINE CANDIDATES	5N01 A172521-06	201,992
MC NAMARA, JAMES A, JR.....	MUSCLE REATTACHMENT/MIGRATION—WITH/WITHOUT SURGERY	5N01 DE52478-06	105,901
MONTO, ARNOLD S.....	EVALUATION OF OCCURRENCE OF INFLUENZA & VACCINE EFFICACY	3N01 A162514-07	273,393
MONTO, ARNOLD S.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER	3N01 A172536-10	95,000
RODGERS, WILLARD L.....	CHANGING PATTERNS OF MARRIAGE AND DIVORCE	1N01 HD02850-00	199,800
WORTMAN, PAUL W.....	EVALUATE THE NIH CONSENSUS DEVELOPMENT PROCESS	1N01 OD02131-00	550,000
ORGANIZATION TOTAL	11 1,860,002		
WARNER LAMBERT COMPANY—PHARMACEUTICAL RESEARCH DIVISION ZIP CODE 48105			
BEARDMORE, WILLIAM	DEVELOP AND DELIVER HUMAN LEUKOCYTE INTERFERON.....	1N01 CM07292-00	895,000
DION, HENRY W.....	NEW FERMENATION ANTINEOPLASTIC DRUG EVALUATION	1N01 CM07379-00	629,750
ORGANIZATION TOTAL	2 1,524,750		
DETROIT			
ASH STEVENS, INC. ZIP CODE 48202			
MARKOVAC, A.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	3N01 CM87204-05	332,965
ORGANIZATION TOTAL	1 332,965		
CHILD RESEARCH CENTER OF MICHIGAN ZIP CODE 48201			
PETERSON, WARD D.....	IDENTIFICATION OF CELL CULTURES	5N01 CP91003-01	154,254
ORGANIZATION TOTAL	1 154,254		
HENRY FORD HOSPITAL ZIP CODE 48202			
BRENEMAN, GERALD M.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72957-06	162,679
KVALE, PAUL A.....	NOCTURNAL OXYGEN THERAPY IN HYPOXIC LUNG DISEASE.....	3N01 HR62944-13	177,598
NIELSEN, DONALD.....	SQUIRREL MONKEY MODEL FOR EFFECTS OF NOISE ON HEARING	5N01 RR82140-02	41,856
ORGANIZATION TOTAL	3 382,133		
MICHIGAN CANCER FOUNDATION ZIP CODE 48201			
BRENNAN, MICHAEL J.....	A COMMUNITY BASED CANCER CONTROL PROGRAM.....	3N01 CN65252-12	3,004,100
BRENNAN, MICHAEL J.....	DETROIT SSMA POPULATION-BASED CANCER REGISTRY.....	2N01 CP61028-16	2,726,794
MC GRATH, CHARLES M.....	EFFECT OF ENVIRONMENTAL FACTORS ON MMTV EXPRESSION	3N01 CP81001-04	148,014
ORGANIZATION TOTAL	3 5,878,908		
SINAI HOSPITAL OF DETROIT ZIP CODE 48235			
KANTROWITZ, ADRIAN.....	DEVELOPMENT OF PERCUTANEOUS ENERGY TRANSMISSION SYSTEMS	5N01 HV82921-02	116,263
ORGANIZATION TOTAL	1 116,263		
WARNER-LAMBERT COMPANY—PARKE, DAVIS AND COMPANY ZIP CODE 48232			
COOK, P D.....	PRODUCTION OF BULK CHEMICALS & DRUGS.....	5N01 CM87124-06	389,505
DION, HENRY W.....	NEW ANTINEOPLASTIC DRUGS	3N01 CM77146-06	50,817
ORGANIZATION TOTAL	2 440,322		
WAYNE STATE UNIVERSITY ZIP CODE 48202			
BAKER, LAURENCE H.....	NEW DRUG DEVELOPMENT CLINICAL TRIALS IN SOLID TUMORS.....	1N01 CM07404-00	74,905
BAKER, LAURENCE H.....	STUDIES IN PATIENTS WITH DISSEMINATED SOLID TUMORS.....	5N01 CM67105-11	34,650
BAKER, LAURENCE H.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97279-01	119,120
FRANK, ROBERT N.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	2N01 EY82104-05	76,475
HAAS, CHARLES.....	THERAPY FOR GASTRIC AND PANCREATIC CARCINOMA PATIENTS.....	1N01 CM07408-00	37,437
MOGHISSI, KAMRAN S.....	ABNORMAL PROTEINS IN SERUM OF ORAL CONTRACEPTIVE USERS.....	1N01 HD02824-00	93,481
ORGANIZATION TOTAL	6 436,068		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MICHIGAN—Continued			
EAST LANSING			
MICHIGAN STATE UNIVERSITY	ZIP CODE 48824		
JONES, JOHN W	HYPERTENSION DETECTION & FOLLOW-UP PROGRAM CENTER	2N01 HV22939-15	79,414
MARGHERIO, RAYMOND R	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	5N01 EY02133-01	237,665
MARGHERIO, RAYMOND R	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	1N01 EY02134-00	103,352
MAYOR, GILBERT H	STUDY OF DIALYSIS ENCEPHALOPATHY	2N01 AM82206-04	104,231
WELSCH, CLIFFORD W	SUPPLY CHEMOPREVENTION RETINOIDS FOR EPITHELIAL CANCER	1N01 CP05717-00	74,969
ORGANIZATION TOTAL	5	599,631	
GRAND RAPIDS			
BUTTERWORTH HOSPITAL	ZIP CODE 49503		
BOWMAN, HAROLD E	SERUM FROM PATIENTS WITH BREAST CANCER LESIONS	3N01 CB74213-05	57,636
ORGANIZATION TOTAL	1	57,636	
HOUGHTON			
MICHIGAN TECHNOLOGICAL UNIVERSITY	ZIP CODE 49931		
ELKHADEM, H S	SYNTHESIZE NUCLEOSIDES AS POTENTIAL ANTICANCER AGENTS	1N01 CM07293-00	100,000
ORGANIZATION TOTAL	1	100,000	
KALAMAZOO			
UPJOHN COMPANY	ZIP CODE 49002		
NEIL, GARY L	NEW FERMENTATION ANTINEOPLASTIC DRUG SCREENING	1N01 CM07380-00	602,403
NEIL, GARY L	NEW ANTINEOPLASTIC DRUG SCREENING	3N01 CM77100-08	183,750
ORGANIZATION TOTAL	2	786,153	
LANSING			
MICHIGAN DEPARTMENT OF PUBLIC HEALTH	ZIP CODE 48906		
HOLMES, RUSSELL E	IMPACT OF STATEWIDE COORDINATION OF HYPERTENSION CONTROL	5N01 HV92914-04	1,632,160
ORGANIZATION TOTAL	1	1,632,160	
MATTAWAN			
INTERNATIONAL RESEARCH AND DEVELOPMENT CORPORATION	ZIP CODE 49071		
BLAIR, MALCOLM	CARCINOGENICITY AND TOXICITY STUDY IN LABORATORY ANIMALS	6N01 CP05700-06	2,965,936
ORGANIZATION TOTAL	1	2,965,936	
ROCHESTER			
OAKLAND UNIVERSITY	ZIP CODE 48063		
REDDY, VENKAT N	ACQUISITION OF BRUNESCENT CATARACTS	1N01 EY02110-00	82,508
ORGANIZATION TOTAL	1	82,508	
ROYAL OAK			
WILLIAM BEAUMONT HOSPITAL	ZIP CODE 48072		
MARGHERIO, RAYMOND R	DIABETIC RETINOPATHY VITRECTOMY STUDY (DRVS)	3N01 EY02115-01	21,000
ORGANIZATION TOTAL	1	21,000	
STATE TOTAL	44	17,400,489	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MINNESOTA			
MINNEAPOLIS			
HENNEPIN COUNTY MEDICAL CENTER ZIP CODE 55415			
RUBENS, ALAN B.....	LANGUAGE RECOVERY PROCESS IN ADULTS WITH APHASIA.....	5N01 NS72378-06	117,289
ORGANIZATION TOTAL	1	117,289	
MOUNT SINAI HOSPITAL ZIP CODE 55404			
BERMAN, REUBEN.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	2N01 HV22937-10	170,763
RANHEIM, PHILLIP J.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72961-06	94,166
ORGANIZATION TOTAL	2	264,929	
UNIVERSITY OF MINNESOTA OF MINNEAPOLIS-SAINT PAUL ZIP CODE 55455			
BARBOSA, JOSE J.....	GENETIC LINKAGE ANALYSIS OF JUVENILE DIABETES MELLITUS.....	2N01 HD82846-03	184,902
BARTSCH, GLENN.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	3N01 EY52147-07	328,705
BLOEDL, JAMES R.....	ABNORMAL MOTOR CONTROL BY ELECTRICAL STIMULATION.....	1N01 NS02338-00	110,697
BLOEDL, JAMES R.....	CEREBELLAR STIMULATION FOR CONTROL OF SEIZURE.....	3N01 NS42332-07	97,143
BUCHWALD, HENRY.....	OPEN LOOP INSULIN DELIVERY DEVICE.....	5N01 AM82217-04	650,888
CROW, RICHARD S.....	ECG CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72949-05	112,947
CROW, RICHARD S.....	ONE-HOUR AMBULATORY ECG ANALYSIS CENTER FOR BHAT.....	5N01 HV92900-01	104,859
FOREMAN, HARRY.....	RISK OF SERIOUS COMPLICATIONS IN JUD WEARERS.....	2N01 HD62805-06	10,855
FRANTZ, IVAN D, JR.....	SUPPORT FOR LIPID RESEARCH CLINIC.....	5N01 HV22915-14	2,104,230
GILBERTSON, VICTOR A.....	SCREENING TECHNIQUE FOR DETECTING EARLY CANCER OF BOWEL.....	5N01 CB53862-06	676,257
GRAMBSCH, P VICTOR.....	NUTRITION CODING CENTER FOR MRFIT AND LRC PROGRAMS.....	3N01 HV62941-03	65,460
GRIMM, RICHARD.....	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE.....	3N01 HV22976-11	699,999
GUMNIT, ROBERT J.....	EPILEPSY INFORMATION TRANSFER.....	1N01 NS02341-00	499,190
KERSEY, JOHN H.....	IMMUNODIAGNOSIS OF LEUKEMIAS AND LYMPHOMAS.....	2N01 CB84261-02	43,584
KERSEY, JOHN H.....	IMMUNODEFICIENCY-CANCER REGISTRY.....	3N01 CP43384-12	90,271
KJELSBERG, MARCUS O.....	STUDY OF PREVENTION OF CORONARY HEART DISEASE.....	2N01 NS02171-12	2,648,000
KNOBLOCK, WILLIAM H.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72131-05	316,894
MUSCOPLAT, CHARLES C.....	IMMUNOLOGIC MECHANISMS OF CATTLE.....	5N01 CB84244-03	87,800
SCHUMAN, LEONARD M.....	RISK OF CANCER IN X-RAY TECHNOLOGISTS.....	1N01 CP01030-00	22,758
SCHUMAN, LEONARD M.....	ENVIRONMENTAL FACTORS IN LEUKEMIA AND LYMPHOMA.....	1N01 CP01033-00	137,385
SCHUMAN, LEONARD M.....	RENAL CELL CARCINOMA WITH CHROMOSOMAL TRANSLOCATION.....	1N01 CP01048-00	34,605
SCHUMAN, LEONARD M.....	LONG TERM MORTALITY STUDY OF MINNESOTA IRON-ORE MINERS.....	2N01 CP91014-03	62,789
SCHUMAN, LEONARD M.....	CANCER MORTALITY STUDIES.....	2N01 CP91021-01	124,122
SCHUMAN, LEONARD M.....	HEALTH STATUS OF AMERICAN MEN.....	2N01 HD72803-05	472,610
SINGER, LEON.....	MAINTAIN SPECIAL MOUSE COLONY FOR FLUORIDE RESEARCH.....	3N01 DE92423-01	22,818
VESLEY, DONALD.....	COURSE ON MICROBIOLOGICAL PRINCIPLES AND TECHNIQUES.....	1N01 AI02654-00	215,524
WATTENBERG, LEE W.....	DOSE RESPONSE STUDIES OF PHENOLIC ANTIOXIDANTS.....	1N01 CP05605-00	137,443
WATTENBERG, LEE W.....	STUDY OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS.....	5N01 CP85613-02	235,018
ORGANIZATION TOTAL	28	10,297,753	
ROCHESTER			
MAYO FOUNDATION ZIP CODE 55901			
AHMANN, DAVID L.....	CHEMOTHERAPY UTILIZING 5-FU, CYTOXAN AND PREDNISONE.....	2N01 CB33899-07	40,000
DAVID, CHELLA S.....	PROCESS AND PREPARE SPECIFIC ALLOANTISERA.....	5N01 AI82564-04	74,070
DISIDHEIM, PAUL.....	BLOOD COMPATIBILITY OF CIRCUATORY ASSIST DEVICES.....	5N01 HV92915-04	137,687
DYCK, PETER J.....	ORAL-FACIAL EVALUATION OF UNTREATED TRIGEMINAL NEURALGIA.....	5N01 DE62497-05	51,300
EAGAN, ROBERT.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	1N01 CM07414-00	51,809
EAGAN, ROBERT.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	2N01 CM71750-05	91,495
FONTANA, R S.....	DETECTION AND LOCALIZATION OF BRONCHOGENIC CARCINOMA.....	5N01 CB53886-08	710,115
FRYE, ROBERT L.....	COLLABORATIVE STUDIES ON CORONARY ARTERY SURGERY.....	2N01 HV32984-12	74,134
GO, VAY L.....	CARCINOEMBRYONIC ANTIGEN IN DIAGNOSIS OF BOWEL CARCINOMA.....	2N01 CB23854-09	54,900
KOVACH, JOHN S.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97273-01	241,289
LEIBER, MICHAEL.....	HUMAN TUMOR STEM CELL CLONING ASSAY & DRUG SCREENING.....	1N01 CM07419-00	204,975
MALKASIAN, GEORGE D.....	LEUKEMIA FOLLOWING CHEMOTHERAPY FOR OVARIAN CANCER.....	1N01 CP01057-00	97,000
MOERTEL, CHARLES G.....	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	2N01 CM43796-12	97,945

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MINNESOTA—Continued			
MOERTEL, CHARLES G.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	2N01 CM57033-10	65,000
MOERTEL, CHARLES G.....	PHASE II STUDIES IN GASTROINTESTINAL CANCER	5N01 CM97268-04	443,749
O'FALLON, WILLIAM W.....	HEALTH STATUS OF AMERICAN MEN.....	2N01 HD72801-04	210,045
PEARSON, GARY R.....	EPSTEIN-BARR VIRUS MARKERS IN NASOPHARYNGEAL TUMORS.....	3N01 CP91006-04	43,340
ROBB, RICHARD A.....	DOSE REDUCTION X-RAY COMPUTED TOMOGRAPHY.....	5N01 CB84235-02	121,306
ROGERS, ROY S.....	RECURRENT APHTHOUS STOMATITIS AND BEHCET'S SYNDROME.....	5N01 DE82414-03	120,680
SCHUTT, ALLAN J.....	NCI SERA BANK FACILITY FOR BREAST CANCER TASK FORCE.....	5N01 CB84296-03	51,400
SCHUTT, ALLAN J.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	2N01 CM43783-11	99,505
SERVICE, F JOHN.....	DEVICES FOR IMPROVED MANAGEMENT OF DIABETES.....	3N01 AM82218-05	257,651
SIKERT, ROBERT G.....	BIBLIOGRAPHIC SERVICE ON CEREBROVASCULAR DISEASES.....	3N01 NS72363-04	2,500
ORGANIZATION TOTAL	23 3,341,895		
STATE TOTAL	54 14,021,866		
MISSISSIPPI			
JACKSON			
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER ZIP CODE 39216			
LANGFORD, HERBERT G.....	HYPERTENSION THERAPY IN THE GENERAL POPULATION.....	2N01 HV12437-15	13,000
STEINBERG, MARTIN H.....	COOPERATIVE STUDY--CLINICAL COURSE OF SICKLE CELL DIS.....	5N01 HB73005-06	256,137
ORGANIZATION TOTAL	2 269,137		
STATE TOTAL	2 269,137		
MISSOURI			
COLUMBIA			
CANCER RESEARCH CENTER ZIP CODE 65201			
RODES, NED D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECTS.....	5N01 CB74138-07	62,117
RODES, NED D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN45095-11	43,735
ORGANIZATION TOTAL	2 105,852		
UNIVERSITY OF MISSOURI-COLUMBIA ZIP CODE 65201			
GRANBERG, DONALD O.....	ABORTION AS SOCIAL ISSUE IN THE UNITED STATES, 1965-1978	2N01 HD82834-05	19,539
HAHN, ALLEN W.....	DEVELOP BIOMATERIALS FOR NEURAL PROSTHESES.....	2N01 NS82393-02	182,989
MILLER, FREDERICK N.....	EFFECTS OF PERITONEAL DIALYSIS ON MICROCIRCULATION	3N01 AM72217-03	55,804
NOLPH, KARL D.....	EVALUATE CONTINUOUS AMBULATORY PERITONEAL DIALYSIS.....	5N01 AM92208-04	300,000
RIDDLE, DONALD L.....	CAENORHABDITIS GENETICS CENTER.....	5N01 AG92113-01	50,277
WAGNER, JOSEPH E.....	OPERATION OF ANIMAL DISEASE DIAGNOSTIC LABORATORY.....	3N01 CM87157-02	86,221
WAGNER, JOSEPH E.....	OPERATION OF SALMONELLA DIAGNOSTIC LABORATORY.....	5N01 CM97211-01	83,965
ORGANIZATION TOTAL	7 778,795		
KANSAS CITY			
MIDWEST ORGAN BANK ZIP CODE 64111			
CROSS, DONALD.....	REFERENCE HLA LABORATORIES.....	5N01 AI82546-06	23,022
ORGANIZATION TOTAL	1 23,022		
MIDWEST RESEARCH INSTITUTE ZIP CODE 64110			
CARSON, BONNIE.....	APPRAISAL OF ENVIRONMENTAL EXPOSURE TO HEAVY METALS.....	3N01 ES82153-01	14,824
EL HAWARI, MONAEM.....	METABOLISM OF PAH IN THE INDUCTION OF MAMMARY TUMORS	5N01 CB84227-04	144,000
ENGEL, JAMES F.....	SYNTHESIS OF POLYCYCLIC HYDROCARBON DERIVATIVES.....	3N01 CP33387-17	73,710
HELTON, DANIEL O.....	ANALYSIS OF CHEMICAL AND PHARMACEUTICAL FORMULATIONS.....	5N01 CM87234-05	250,430
HEYS, J RICHARD.....	SYNTHESIZE SELECTED CHEMICAL CARCINOGENS.....	1N01 CP05719-00	168,615

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
MISSOURI—Continued			
HEYS, J RICHARD	SYNTHESIZE UNLABELED AND RADIOLABELED DES COMPOUNDS	1N01 ES00007-00	72,760
O'CONNELL, KATHLEEN A.....	VARIABLES ASSOCIATED WITH NONSMOKING IN EX-SMOKERS	1N01 HR02917-00	204,670
WILEY, JAMES C, JR	SYNTHESIZE POLYNUCLEAR AROMATIC HYDROCARBONS	1N01 CP05613-00	496,910
WOODHOUSE, E J.....	CHEMICAL SERVICES SUPPORT FOR CARCINOGENESIS TESTING.....	3N01 CP95615-03	1,689,427
ORGANIZATION TOTAL	9	3,115,346	
SAINT LOUIS			
ST. LOUIS REGIONAL MATERNAL AND CHILD HEALTH COUNCIL ZIP CODE 63103			
HILLMAN, LAURA S.....	SIDS RISK FACTOR COOPERATIVE STUDY	2N01 HD72844-05	51,298
ORGANIZATION TOTAL	1	51,298	
ST. LOUIS UNIVERSITY ZIP CODE 63103			
GREEN, MAURICE.....	STUDY OF ONCOGENESIS.....	2N01 CP43359-13	250,000
GREEN, MAURICE.....	STUDY OF ONCOGENESIS.....	3N01 CP61049-05	11,725
KAISER, GEORGE C.....	COLLABORATIVE STUDIES ON CORONARY ARTERY SURGERY	2N01 HV32980-10	188,262
SMITH, KENNETH R, JR.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM57020-07	19,947
VAL-MEJIAS, JESUS E.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	5N01 HV92924-03	54,534
ORGANIZATION TOTAL	5	524,468	
WASHINGTON UNIVERSITY ZIP CODE 63130			
COMMONER, BARRY.....	EFFECT OF DIET ON CARCINOGENIC POTENTIAL OF SECRETIONS.....	5N01 CP85662-05	122,745
GOLDBERG, ANDREW P	EFFECTS OF EXERCISE TRAINING ON HEMODIALYSIS PATIENTS	5N01 AM92221-01	157,240
KARDOS, JOHN L.....	TEST POLYMERS FOR USE IN CIRCULATORY ASSIST DEVICES	1N01 HV02910-00	145,992
MARSHALL, GARLAND R	PROSTAGLANDIN AND KALLIKREIN-KININ SYSTEM ANTAGONISTS.....	5N01 HV72944-03	78,149
ROBERTS, ROBERT	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM/CLINICAL TESTS	5N01 HV72941-05	804,436
SCHONFELD, GUSTAV	SUPPORT FOR LIPID RESEARCH CLINIC	2N01 HV22916-18	845,468
SHREFFLER, DONALD C.....	DEVELOPMENT OF H-2 RECOMBINANT AND MUTANT STRAINS	3N01 CB74154-03	3,304
ZARKOWSKY, HAROLD S.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB73001-05	138,491
ORGANIZATION TOTAL	8	2,295,825	
STATE TOTAL	33	6,894,606	
MONTANA			
HAMILTON			
HAMILTON BIOCHEMICAL RESEARCH LABORATORY ZIP CODE 59840			
PARKER, RENO.....	PRODUCTION OF LIPOPOLYSACCHARIDES (ENDOTOXINS)	2N01 AI72525-06	30,448
ORGANIZATION TOTAL	1	30,448	
STATE TOTAL	1	30,448	
NEBRASKA			
BOYS TOWN			
FATHER FLANAGAN'S BOYS' HOME ZIP CODE 68010			
NETSELL, RONALD	EFFECTIVENESS OF MEDLINE PROVIDED INFORMATION SERVICES.....	1N01 NS02343-00	48,000
ORGANIZATION TOTAL	1	48,000	
OMAHA			
UNIVERSITY OF NEBRASKA SYSTEM—UNIVERSITY OF NEBRASKA MEDICAL CENTER ZIP CODE 68105			
BIRT, DIANE F	THE POSSIBLE INFLUENCE OF DIET IN CARCINOGENESIS	1N01 CP05628-00	113,743

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEBRASKA—Continued			
BRAUDE, ROBERT M	REGIONAL MEDICAL LIBRARY SERVICES	1N01 LM03510-00	221,754
CAVALIERI, ERCOLE L	ENVIRONMENTAL CARCINOGENESIS AND BIOASSAY--SKIN	1N01 CP05620-00	184,870
FRIEDLANDER, WALTER J	SUPPORT FOR CLINICAL NEUROLOGY INFORMATION CENTER	2N01 NS22300-09	68,691
GINGELL, RALPH	ORAL CONTRACEPTIVES EFFECT ON CARCINOGEN METABOLISM	1N01 CP05624-00	61,600
GOLD, BARRY	ACTIVATION AND TRANSPORT OF N-NITROSAMINES	1N01 CP05627-00	53,723
LAWSON, J	ACTION OF TRYPTOPHAN ON THE BLADDER	1N01 CP05622-00	20,016
MALICK, LINDA	MOUSE URINARY BLADDER EPITHELIAL CELL CULTURE	1N01 CP05625-00	26,704
RUSTIA, MARIO	ENVIRONMENTAL CARCINOGENESIS--HORMONAL	1N01 CP05623-00	58,469
SMITH, CARL G	CAUSATION IN INTESTINAL CARCINOGENESIS	1N01 CP05621-00	68,090
TOTH, BELA	CARCINOGENESIS AND BIOLOGICAL ACTION OF HYDRAZINES	3N01 CP05629-02	555,480
ORGANIZATION TOTAL	11	1,433,140	
STATE TOTAL	12	1,481,140	
NEW HAMPSHIRE			
HANOVER			
DARTMOUTH COLLEGE ZIP CODE 03755			
MATHEWS, LOUIS B	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72953-05	20,399
SMITH, KENDALL A	CULTURE TUMOR-SPECIFIC CYTOTOXIC LYMPHOCYTES	2N01 CB74141-06	109,314
ORGANIZATION TOTAL	2	129,713	
KEENE			
MARKEM CORPORATION ZIP CODE 03431			
NELSON, BENJAMIN A	FURNISH A BAR CODE PRINTER	1N01 LM03520-00	15,535
ORGANIZATION TOTAL	1	15,535	
STATE TOTAL	3	145,248	
NEW JERSEY			
BOONTON			
RIVERSIDE HOSPITAL ZIP CODE 07005			
EDWARDS, CHARLES H	IMPLEMENT HOSPICE CONCEPT FOR TERMINAL CANCER PATIENTS	5N01 CN75391-05	624,248
ORGANIZATION TOTAL	1	624,248	
CAMDEN			
INSTITUTE FOR MEDICAL RESEARCH ZIP CODE 08103			
CORIELL, LEWIS L	OPERATE A HUMAN GENETIC MUTANT CELL REPOSITORY	3N01 GM92101-03	609,346
GREENE, ARTHUR E	CHARACTERIZE AND DISTRIBUTE GENETICALLY MARKED CELLS	3N01 AG02100-01	213,277
MC GARRITY, GERARD J	MYCOPLASMA CONTAMINATION TESTING SERVICE	5N01 AG82117-03	50,885
ORGANIZATION TOTAL	3	873,508	
CHERRY HILL			
COMPUTER HORIZONS ZIP CODE 08034			
CARPENTER, MARK	LINK SERIAL HOLDINGS STATEMENTS--MED LABS/INSTITUTIONS	1N01 LM03529-00	99,839
NARIN, FRANCIS	LINKAGE BETWEEN RESEARCH PUBLICATIONS AND NIH FUNDING	3N01 OD32109-21	24,952
ORGANIZATION TOTAL	2	124,791	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW JERSEY—Continued			
RCA CORPORATION—RCA SERVICE COMPANY ZIP CODE 08358			
MC GLYNN, C V	OPERATE AND MAINTAIN AUDIOVISUAL EQUIPMENT	2N01 LM94709-03	461,231
ORGANIZATION TOTAL	1	461,231	
DEEPWATER			
E. I. DUPONT DE NEMOURS AND COMPANY—RESEARCH AND DEVELOPMENT LABORATORY, CHAMBERS WORKS ZIP CODE 08023			
VOGLER, W J	DUPONT CHAMBERS WORKS BLADDER CANCER SCREENING PROGRAM	1N01 CP01038-00	60,480
ORGANIZATION TOTAL	1	60,480	
GLEN RIDGE			
INDIVIDUAL AWARD—JENSEN, ALFRED ZIP CODE 07028			
JENSEN, ALFRED	MURAL PAINTING FOR THE LISTER HILL BUILDING.....	1N01 LM03501-00	53,000
ORGANIZATION TOTAL	1	53,000	
HADDONFIELD			
ANTHROPOMETRICS—ANTHROPOMETRICS HEART CLINIC ZIP CODE 08033			
MORGANROTH, JOEL.....	TWENTY-FOUR HOUR AMBULATORY ECG ANALYSIS CENTER FOR BHAT.....	3N01 HV92902-01	260,456
ORGANIZATION TOTAL	1	260,456	
HIGHLAND PARK			
UNIVERSITY LABORATORIES ZIP CODE 08904			
BERNSTEIN, EUGENE H.....	PRODUCTION OF ONCOGENIC VIRUSES AND ANTISERA	3N01 CP33222-15	230,988
ORGANIZATION TOTAL	1	230,988	
MAYWOOD			
PFIZER, INC. ZIP CODE 07607			
WOLFF, JOHN S, III.....	LARGE SCALE TISSUE CULTURE VIRUS PRODUCTION.....	3N01 CP91018-03	414,300
ORGANIZATION TOTAL	1	414,300	
NEWARK			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY ZIP CODE 07103			
LASSER, NORMAN L.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	5N01 HV33104-14	599,290
RUSH, BENJAMIN F, JR.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05511-00	143,940
RUSH, BENJAMIN F, JR.....	PROGRAM FOR EARLY DETECTION OF BREAST CANCER	3N01 CN35006-14	185,452
ORGANIZATION TOTAL	3	928,682	
NEW JERSEY INSTITUTE OF TECHNOLOGY ZIP CODE 07102			
ALLETUICH, ARNOLD	ELECTRONIC INFORMATION EXCHANGE SYSTEM	1N01 LM03513-00	13,860
ORGANIZATION TOTAL	1	13,860	
NEWARK BETH ISRAEL MEDICAL CENTER ZIP CODE 07112			
KIRSCHNER, MARVIN A.....	DIET, STEROID HORMONE METABOLISM AND BREAST CANCER	5N01 CB84229-03	131,400
ORGANIZATION TOTAL	1	131,400	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW JERSEY—Continued			
PISCATAWAY			
COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—RUTGERS MEDICAL SCHOOL ZIP CODE 08854			
KUO, PETER T.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72968-07	87,890
ORGANIZATION TOTAL	1 87,890		
PRINCETON			
EXCERPTA MEDICA FOUNDATION ZIP CODE 08540			
VINKEN, PIERRE J.....	SUPPORT FOR PUBLICATION OF EPILEPSY ABSTRACTS.....	3N01 NS32303-11	55,000
ORGANIZATION TOTAL	1 55,000		
MATHEMATICA, INC. ZIP CODE 08540			
SMITH, CRAIG.....	CLINICAL TRIALS MONITORING SERVICE.....	5N01 CM97195-02	514,141
ORGANIZATION TOTAL	1 514,141		
OPINION RESEARCH CORPORATION ZIP CODE 08540			
ZDEP, STANLEY.....	SURVEY OF PUBLIC ATTITUDES, RELATED TO BREAST CANCER.....	3N01 C085407-04	34,292
ORGANIZATION TOTAL	1 34,292		
PRINCETON UNIVERSITY ZIP CODE 08540			
COALE, ANSLEY J.....	SUPPORT OF PUBLICATION OF POPULATION INDEX.....	5N01 HD12138-12	122,412
WESTOFF, CHARLES F.....	LONGITUDINAL STUDY OF FERTILITY.....	5N01 HD52819-08	214,398
ORGANIZATION TOTAL	2 336,810		
RAHWAY			
MERCK AND COMPANY ZIP CODE 07065			
HILLEMAN, MAURICE R.....	HSV-2 VACCINE DEVELOPMENT AND CLINICAL TESTING.....	5N01 CP91005-02	767,660
ORGANIZATION TOTAL	1 767,660		
SUMMIT			
OVERLOOK HOSPITAL ZIP CODE 07901			
GREGORY, JOHN J.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72964-08	97,974
ORGANIZATION TOTAL	1 97,974		
TRENTON			
NEW JERSEY GOVERNOR'S CABINET COMMITTEE ON CANCER CONTROL ZIP CODE 08625			
POLLACK, STEWART G.....	FEASIBILITY OF A STATE WIDE CANCER CONTROL ACTIVITY	5N01 C085418-06	80,013
ORGANIZATION TOTAL	1 80,013		
NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION ZIP CODE 08625			
BURKE, THOMAS.....	ENVIRONMENTAL HEALTH DATA BASE FOR NEW JERSEY.....	5N01 CP91048-01	172,825
ORGANIZATION TOTAL	1 172,825		
NEW JERSEY STATE DEPARTMENT OF HEALTH ZIP CODE 08625			
ALTMAN, RONALD.....	ETIOLOGIC STUDIES OF CANCER IN NEW JERSEY	5N01 CP61031-13	424,334
ZISKIN, LEAH Z.....	IMPLEMENT CERVICAL CANCER SCREENING PROGRAM	2N01 CN85424-03	330,000
ORGANIZATION TOTAL	2 754,334		
STATE TOTAL	29 7,077,883		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW MEXICO			
ALBUQUERQUE			
UNIVERSITY OF NEW MEXICO ALBUQUERQUE		ZIP CODE 87131	
BARTOW, SUE A.....	BENIGN BREAST LESIONS IN RISK FOR BREAST CANCER.....	5N01 CB84231-04	100,950
TUNG, KENNETH S.....	IMMUNOPATHOLOGIC CONSEQUENCES OF VASECTOMY.....	3N01 HD32717-12	6,000
WARNER, NOEL L.....	REAGENTS TO CHARACTERIZE HUMAN CELL SUBPOPULATIONS.....	5N01 CB84288-02	97,713
ORGANIZATION TOTAL	3	204,663	
LAS CRUCES			
NEW MEXICO STATE UNIVERSITY AT LAS CRUCES		ZIP CODE 88003	
GRAHAM, CHARLES.....	MAINTENANCE OF CHIMPANZEES FOR CANCER RESEARCH.....	1N01 CP01058-00	48,000
HOBSON, WILLIAM C.....	INVESTIGATE PHYSIOLOGY OF ADRENARCHE USING CHIMPANZEE.....	1N01 HD02861-00	41,567
ORGANIZATION TOTAL	2	89,567	
STATE TOTAL	5	294,230	
NEW YORK			
ALBANY			
NEW YORK STATE DEPARTMENT OF HEALTH		ZIP CODE 12237	
DOUGHERTY, THOMAS J.....	PHASE II STUDY OF PHOTORADIATION THERAPY.....	5N01 CM97311-01	49,912
DOUGLASS, HAROLD O, JR.....	THERAPY FOR GASTRIC & PANCREATIC CARCINOMA PATIENTS.....	1N01 CM07410-00	66,632
DOUGLASS, HAROLD O, JR.....	THERAPY OF PATIENTS WITH PANCREATIC CARCINOMA.....	2N01 CM43794-13	54,000
HOLYOKE, EDWARD D.....	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA.....	2N01 CM43782-12	44,824
JANERICH, DWIGHT T.....	SUDDEN INFANT DEATH SYNDROME RISK FACTOR (COOPERATIVE).....	2N01 HD72841-04	105,736
ORGANIZATION TOTAL	5	321,104	
STATE UNIVERSITY OF NEW YORK		ZIP CODE 12246	
NOT AVAILABLE.....	OPERATE 'MEDLINE' BACKUP COMPUTER SYSTEM.....	2N01 LM03508-01	154,956
ORGANIZATION TOTAL	1	154,956	
UNION COLLEGE AND UNIVERSITY--ALBANY MEDICAL COLLEGE		ZIP CODE 12208	
COULSTON, FREDERICK.....	MAINTENANCE OF CHIMPANZEES FOR CANCER RESEARCH.....	3N01 CP81027-04	12,493
HOBSON, WILLIAM C.....	PHYSIOLOGY OF ADRENARCHE USING THE CHIMPANZEE AS A MODEL.....	5N01 HD92815-06	26,208
HORTON, JOHN.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	2N01 CM57032-11	42,699
KASSOFF, AARON.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72138-07	227,011
MC KNEALLY, MARTIN F.....	INTRAPLEURAL BCG AFTER PRIMARY SURGERY FOR LUNG CANCER.....	2N01 CB53940-08	129,768
SOSA, JULIO.....	COLLABORATIVE STUDIES IN CORONARY ARTERY SURGERY.....	5N01 HV62921-09	123,670
THOMPSON, HOWARD K.....	DEVELOP AND EVALUATE THE CLINFO SYSTEM.....	2N01 RR82108-03	60,947
VAN HEUVEN, WICHARD A.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	3N01 EY52146-05	15,400
ORGANIZATION TOTAL	8	638,196	
AMHERST			
FRONTIER SCIENCE AND TECHNOLOGY RESEARCH FOUNDATION		ZIP CODE 14226	
ZELN, MARVIN.....	CANCER CONTROL PROGRAM FOR CLINICAL COOPERATIVE GROUPS.....	3N01 CN75348-08	3,296,223
ORGANIZATION TOTAL	1	3,296,223	
BINGHAMTON			
OUR LADY OF LOURDES MEMORIAL HOSPITAL		ZIP CODE 13905	
ADAMS, ANDREW B.....	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05529-00	123,600
ORGANIZATION TOTAL	1	123,600	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
BUFFALO			
NEW YORK STATE DEPARTMENT OF HEALTH—ROSWELL PARK MEMORIAL INSTITUTE ZIP CODE 14263			
BELLO, JAKE.....	EVALUATE CHEMICAL CHARACTERIZATION OF POLY ICLC.....	1N01 A102657-00	286,147
CHADHA, K C.....	PRODUCTION OF HUMAN LEUKOCYTE INTERFERON.....	1N01 HB02920-00	233,441
CHU, TSANN M.....	CANCER DIAGNOSIS & CANCER PATIENT MANAGEMENT.....	2N01 CB33858-06	36,130
DAO, THOMAS L.....	STEROID SULFATION & ESTROGEN-BINDING IN BREAST CANCER.....	2N01 CB43900-06	10,053
EVANS, JAMES T.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	2N01 CM57034-15	40,041
HELMSTETTER, CHARLES E.....	ISO-ANTIGENIC TYPING OF MOUSE STRAINS AND TUMORS.....	2N01 CM77101-03	82,083
SCHAFF, NORMAN G.....	TRAINING PROGRAMS FOR DENTAL TECHNICIANS.....	1N01 CN05523-00	219,951
TAKITA, HIROSHI.....	IMMUNOTHERAPY OF SQUAMOUS CELL CARCINOMA.....	2N01 CB64007-06	54,469
ORGANIZATION TOTAL	8	962,315	
RESEARCH FOR HEALTH IN ERIE COUNTY ZIP CODE 14215			
BISSELL, G DONALD.....	COMMUNITY CARIES PREVENTION DEMONSTRATION PROJECT.....	3N01 DE52473-04	1,630
ORGANIZATION TOTAL	1	1,630	
STARKS ASSOCIATES ZIP CODE 14213			
PARSON, JACK.....	PRODUCTION OF BULK CHEMICALS AND DRUGS.....	3N01 CM87203-05	536,960
STARKS, FRED W.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07357-05	77,868
STARKS, FRED W.....	SYNTHESIS OF CANCER CHEMOTHERAPY COMPOUNDS.....	3N01 CM23203-16	4,313
STARKS, FRED W.....	ACQUIRE CHEMICALS & DRUGS FOR CANCER CHEMOTHERAPY.....	5N01 CM87206-05	381,777
ORGANIZATION TOTAL	4	1,000,918	
STATE UNIVERSITY OF NEW YORK AT BUFFALO ZIP CODE 14260			
KOHN, ROBERT M.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72952-05	91,226
STINSON, MURRAY W.....	CROSS-REACTING ANTIGENS/ORAL FLORA ACIDOGENIC BACTERIA.....	5N01 DE72408-05	97,327
ORGANIZATION TOTAL	2	188,553	
CHEEKTOWAGA			
CALSPAN CORPORATION ZIP CODE 14225			
BAIER, ROBERT E.....	MATERIALS COMPATIBLE WITH BLOOD.....	3N01 HV32953-18	3,223
ORGANIZATION TOTAL	1	3,223	
ITHACA			
CORNELL UNIVERSITY ITHACA ZIP CODE 14853			
DE NORONHA, FERNANDO.....	IMMUNOPREVENTION OF CANCER.....	5N01 CP91007-02	177,146
GEORGI, JAY R.....	RADIOLABELLING OF SCHISTOSOME AND FILARIAE.....	5N01 A192619-01	93,662
HAAS, JERE D.....	ULTRASONIC ASSESSMENT OF NUTRITIONAL STATUS.....	3N01 CP85652-05	16,071
HOLMES, DOROTHY F.....	DEVELOP ANIMAL MODEL FOR THE GUILLAIN-BARRE SYNDROME.....	5N01 RR92102-01	48,205
MC MURRY, JOHN E.....	SUPPLY CHEMOPREVENTION RETINOIDS FOR EPITHELIAL CANCER.....	1N01 CP05716-00	104,593
SCOTT, FREDRIC W.....	ANIMAL MODEL FOR ANTIVIRAL EVALUATION.....	5N01 A152527-06	117,625
TENNANT, B C.....	BREEDING FACILITY FOR WOODCHUCKS (MARMOTA MONA).....	1N01 A102651-00	200,482
ORGANIZATION TOTAL	7	757,784	
LAKE PLACID			
TISSUE CULTURE ASSOCIATION—W. ALTON JONES CELL SCIENCE CENTER ZIP CODE 12946			
SMITH, JAMES R.....	IN VITRO ASSESSMENT OF HUMAN CELLULAR AGING.....	5N01 AG72117-05	160,170
ORGANIZATION TOTAL	1	160,170	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
MELVILLE			
LONG ISLAND CANCER COUNCIL	ZIP CODE 11746		
CRAMPTON, RAY	A COMMUNITY-BASED CANCER CONTROL PROGRAM	3N01 CN75389-13	800,000
ORGANIZATION TOTAL	1 800,000		
NEW YORK			
AMERICAN HEALTH FOUNDATION	ZIP CODE 10017		
ARNOLD, CHARLES B	STUDY OF ARRHYTHMIAS IN CORONARY HEART DISEASE	3N01 HV22983-08	78,994
COHEN, LEONARD	DOSE RESPONSE STUDIES OF PHENOLIC ANTIOXIDANTS	1N01 CP05722-00	93,345
HOFFMAN, D.	EVALUATE CARCINOGENIC AGENTS IN CIGARETTE SMOKE	3N01 CP05680-03	232,096
REDDY, BANDARU S	DOSE RESPONSE STUDIES OF PHENOLIC ANTIOXIDANTS	1N01 CP05721-00	116,272
REDDY, BANDARU S	STUDIES OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS	5N01 CP85659-05	163,336
WILLIAMS, GARY M	DOSE RESPONSE STUDIES OF PHENOLIC ANTIOXIDANTS	1N01 CP05723-00	109,040
WILLIAMS, GARY M	CARCINOGENESIS SCREENING USING CELL CULTURE ASSAYS	3N01 CP55705-13	24,930
WYNDER, ERNST L	EPIDEMIOLOGY OF SMOKING RELATED DISEASES	1N01 CP05684-00	152,000
ORGANIZATION TOTAL	8 970,013		
BROOKDALE HOSPITAL MEDICAL CENTER	ZIP CODE 11212		
SHAPIRO, WARREN B	STUDY OF SORBENTS FOR TREATMENT OF ESRD	1N01 AM02216-00	172,903
ORGANIZATION TOTAL	1 172,903		
CATHOLIC MEDICAL CENTER OF BROOKLYN AND QUEENS	ZIP CODE 11432		
MARTIN, DANIEL S.	SCREEN AGENTS AGAINST SPONTANEOUS MURINE MAMMARY TUMORS	3N01 CM67081-10	30,000
ORGANIZATION TOTAL	1 30,000		
CITY UNIVERSITY OF NEW YORK—MOUNT SINAI SCHOOL OF MEDICINE	ZIP CODE 10029		
AUFSES, ARTHUR H, JR.	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA	5N01 CM67096-07	70,000
BEKESI, J GEORGE	TOXICOLOGICAL EFFECTS OF POLYBROMINATED BIPHENYLS	5N01 ES90004-02	473,202
BRUCKNER, HOWARD W	THERAPY FOR GASTRIC & PANCREATIC CARCINOMA PATIENTS	1N01 CM07407-00	74,218
BRUCKNER, HOWARD W	THERAPY OF PATIENTS WITH GASTRIC CARCINOMA	2N01 CM53841-11	99,500
HOLLAND, JAMES F.	CHEMOIMMUNOTHERAPY OF ACUTE MYELOCYTIC LEUKEMIA	2N01 CB43879-10	141,467
OHNUMA, TAKAO	PHASE I STUDIES OF NEW ANTICANCER AGENTS	3N01 CM97275-01	124,266
OHNUMA, TAKAO	IN-DEPTH CLINICAL PHARMACOLOGY STUDIES FOR NCI	5N01 CM97294-02	76,000
PAPATESTAS, ANGELOS E.	DIET AND CHOLESTEROL METABOLISM IN BREAST CANCER	5N01 CB84318-04	225,200
ORGANIZATION TOTAL	8 1,283,853		
COLUMBIA UNIVERSITY	ZIP CODE 10027		
BLOOM, ARTHUR D.	IN VITRO CYTOGENETIC TESTING	5N01 ES90014-02	184,097
ELLISON, SOLON A.	DENTAL PLAQUE AND SALIVA FROM GASTRIC INTUBATED PATIENTS	5N01 DE92422-02	124,057
FELDMAN, CHARLES H.	SELF MANAGEMENT SYSTEMS FOR ASTHMATIC CHILDREN	5N01 HR72973-05	225,753
MELLINS, ROBERT B	EVALUATE & FOLLOW UP SELECTED PARAMETERS IN INFANTS	2N01 HD52856-12	294,979
SPIEGELMAN, SOL	ONCOGENIC RNA VIRUS REPLICATION/HUMAN CANCER RELATION	3N01 CP71016-06	1,004,668
SUCIU-FOCA, NICOLE	ACQUISITION OF HOMOZYGOUS TYPING CELLS	5N01 AI82552-06	107,155
ORGANIZATION TOTAL	6 1,940,709		
CORNELL UNIVERSITY MEDICAL CENTER	ZIP CODE 10021		
JOVANOVIC, LOIS G.	MALFORMATIONS AND FETAL LOSSES IN JUVENILE DIABETES	1N01 HD02842-00	107,746
KARLIN, DAVID B	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	3N01 EY62140-06	43,549
ORGANIZATION TOTAL	2 151,295		
HEALTH INSURANCE PLAN OF NEW YORK CITY	ZIP CODE 10022		
VENET, WANDA	STUDY OF VALUE OF MAMMOGRAPHY	2N01 CP43278-11	314,657
ORGANIZATION TOTAL	1 314,657		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
JEWISH HOSPITAL AND MEDICAL CENTER OF BROOKLYN ZIP CODE 11238			
DOSIK, HARVEY.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB73002-07	528,571
ORGANIZATION TOTAL	1 528,571		
LONG ISLAND JEWISH-HILLSIDE MEDICAL CENTER ZIP CODE 11042			
KRAMER, ROBERT J	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72959-06	107,496
LIPSITZ, PHILIP.....	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42821-11	21,725
ORGANIZATION TOTAL	2 129,221		
MAIMONIDES MEDICAL CENTER ZIP CODE 11219			
LICHSTEIN, EDGAR.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72960-06	94,542
ORGANIZATION TOTAL	1 94,542		
MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES ZIP CODE 10021			
BURCHENAL, JOSEPH H.....	STUDIES OF PATIENTS WITH SOLID DISSEMINATED TUMORS.....	3N01 CM57043-14	77,280
FEIT, CARL.....	COLLECT SERUM SAMPLES FOR CANCER IMMUNODIAGNOSTIC TESTS.....	1N01 CB04350-00	123,176
GOLBEY, ROBERT B	NEW DRUG DEVELOPMENT CLINICAL TRIALS IN SOLID TUMORS.....	1N01 CM07337-00	73,356
HIRSHAUT, YASHAR	ACQUISITION OF HUMAN TUMOR SPECIMENS FOR VIRUS STUDIES.....	2N01 CP61038-06	175,000
LAUGHLIN, JOHN S	CENTER FOR RADIOLOGICAL PHYSICS	1N01 CM05507-00	1,081,921
LAUGHLIN, JOHN S	CANCER CONTROL RADIOLOGIC PHYSICS CENTERS	3N01 CN45057-15	6,000
LIPKIN, MARTIN	LARGE INTESTINE CELL PROLIFERATION/CANCER SUSCEPTIBILITY.....	1N01 CP01050-00	98,000
MELAMED, MYRON R	STUDY OF EARLY DETECTION OF CANCER OF THE LUNGS.....	5N01 CN45007-11	640,485
SCHWARTZ, MORTON K	BIOLOGIC MARKERS IN BREAST CANCER PATIENTS.....	2N01 CB74206-05	30,025
STEARNS, MAUS W, JR.....	THERAPY OF PATIENTS WITH LARGE BOWEL CARCINOMA.....	3N01 CM53844-10	20
STRONG, ELLIOT W	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	5N01 CM87224-04	60,735
TAN, CHARLOTTE T	CLINICAL TRIALS IN PEDIATRIC PATIENTS	6N01 CM07463-01	61,446
YOUNG, CHARLES W, JR.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97274-01	164,365
ORGANIZATION TOTAL	13 2,591,769		
MONTEFIORE HOSPITAL AND MEDICAL CENTER ZIP CODE 10467			
KOSS, LEOPOLD G	SCREENING FOR EARLY ENDOMETRIAL CANCERS.....	5N01 CB84233-03	193,440
WEITZMAN, ELLIOT D	EVALUATE & FOLLOW-UP SELECTED PARAMETERS IN INFANTS.....	3N01 HD52855-07	8,600
ORGANIZATION TOTAL	2 202,040		
NATIONAL NEPHROLOGY FOUNDATION ZIP CODE 10016			
DEANE, NORMAN	STUDY OF THE MULTIPLE USE OF DIALYZERS	5N01 AM92214-01	74,950
ORGANIZATION TOTAL	1 74,950		
NEW YORK ACADEMY OF MEDICINE ZIP CODE 10029			
BRANDON, ALFRED N.....	REGIONAL MEDICAL LIBRARY SERVICES—REGION II.....	2N01 LM64722-14	38,526
KIRKPATRICK, BRETT.....	REGIONAL MEDICAL LIBRARY SERVICES	1N01 LM03517-00	443,177
ORGANIZATION TOTAL	2 481,703		
NEW YORK ACADEMY OF SCIENCES ZIP CODE 10021			
SELIKOFF, IRVING.....	WORKSHOP ON BRAIN TUMORS IN THE CHEMICAL INDUSTRY	1N01 CP01059-00	15,000
ORGANIZATION TOTAL	1 15,000		
NEW YORK BLOOD CENTER ZIP CODE 10021			
SZMUNESS, WOLF	EPIDEMIOLOGY OF VIRAL HEPATITIS IN HEMODIALYSIS UNITS.....	5N01 A162512-16	686,584
SZMUNESS, WOLF	INTERRUPT MATERNAL-INFANT TRANSMISSION OF HEPATITIS B.....	5N01 A182561-06	66,250
WOODS, KEN	PRODUCTION OF HUMAN LEUKOCYTE INTERFERON	1N01 HB02919-00	445,843
ORGANIZATION TOTAL	3 1,198,677		
NEW YORK CITY HEALTH SERVICES ADMINISTRATION ZIP CODE 10013			
PAKTER, JEAN.....	SIDS RISK FACTOR COOPERATIVE STUDY.....	2N01 HD72842-04	104,620
ORGANIZATION TOTAL	1 104,620		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
NEW YORK CITY HEALTH SERVICES ADMINISTRATION—PUBLIC HEALTH RESEARCH INSTITUTE OF CITY OF N Y ZIP CODE 10016			
HIRST, GEORGE K.....	SLOW VIRUS INFECTIONS OF CENTRAL NERVOUS SYSTEM	2N01 NS70082-24	157,451
ORGANIZATION TOTAL	1 157,451		
NEW YORK UNIVERSITY ZIP CODE 10003			
BLUM, RONALD H.....	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	5N01 CM97321-03	61,928
DILLER, LEONARD.....	EARLY INTERVENTION IN REHABILITATION OF CANCER PATIENTS	3N01 CN55188-06	13,897
FRIEDMAN-KIEN, ALVIN E.....	STUDY OF INTERFERON AND VIRUS-INDUCED SKIN LESIONS	5N01 AI02131-15	133,650
GERSHON, ANNE A.....	CLINICAL EVALUATION OF LIVE HERPESVIRUS VACCINE	5N01 AI02639-03	749,171
GLASSMAN, EPHRAIM.....	COLLABORATIVE STUDIES ON CORONARY ARTERY SURGERY	2N01 HV32976-11	102,407
GOLDBERG, BURTON D.....	ISOLATE/CHARACTERIZE ANTIBODIES TO COLLAGEN/PROCOLLAGEN.....	5N01 CB84314-03	71,300
RANSOHOFF, JOSEPH M.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67059-06	89,554
VILCEK, JAN T.....	METHODS OF PRODUCING HUMAN INTERFERON.....	3N01 AI02169-22	28,439
ORGANIZATION TOTAL	8 1,250,346		
NORTH AMERICAN PHILIPS CORPORATION ZIP CODE 10017			
LIEBERT, RICHARD.....	DEVELOP ELECTROPHORETIC DISPLAY CELL	1N01 CB04341-00	495,000
ORGANIZATION TOTAL	1 495,000		
POPULATION COUNCIL ZIP CODE 10017			
MUSTO, NEAL A.....	ISOLATE AND PURIFY RAT ANDROGEN BINDING PROTEIN	1N01 HD02845-00	106,671
ORGANIZATION TOTAL	1 106,671		
ROCKEFELLER UNIVERSITY ZIP CODE 10021			
GOTSCHLICH, EMIL C.....	MENINGOCOCCAL POLYSACCHARIDE VACCINE.....	5N01 AI12502-11	46,735
GRADY, ROBERT W.....	EVALUATION OF NEW IRON-CHELATING DRUGS.....	3N01 AM72233-04	2,500
ORGANIZATION TOTAL	2 49,235		
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH ZIP CODE 10021			
BOYSE, EDWARD A.....	INFLUENCE OF VIRUS-RELATED GENES TO CANCER.....	2N01 CP71003-07	140,000
CHAGANTI, RAJU S.....	IDENTIFY HETEROZYGOUS CARRIERS OF DNA REPAIR DEFECTS.....	5N01 CP85665-02	72,913
CUNNINGHAM-RUNDLES, SUSANNA...	IMMUNOLOGIC RESPONSE OF REGIONAL LYMPH NODE CELLS	5N01 CB84228-03	114,630
DUPONT, BO.....	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 AI82550-05	104,042
FOGH, JORGEN E.....	ISOLATION AND TISSUE CULTURE OF HUMAN TUMOR CELLS.....	5N01 CB43854-09	134,757
HIRSHAUT, YASHAR.....	CANCER IMMUNOTHERAPY	2N01 CB53970-07	115,000
KROWN, SUSAN E.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS	6N01 CM07435-02	361,992
OETTGEN, HERBERT F.....	IMMUNIZATION WITH BCG AND ALLOGENEIC RENAL CANCER CELLS.....	5N01 CB74145-03	133,086
OLD, LLOYD J.....	STUDY LEUKEMOGENESIS IN THE AKR MOUSE.....	2N01 CP81054-03	230,190
PINSKY, CARL M.....	BCG IMMUNOTHERAPY—RECURRENT SUPERFICIAL BLADDER CANCER.....	5N01 CB74146-03	52,978
POLLACK, MARILYN S.....	REFERENCE HLA LABORATORIES	5N01 AI82545-06	21,652
PRENSKY, WOLF.....	STRUCTURE-DISTRIBUTION OF ONCORNAVIRUSES	2N01 CP71059-04	72,270
ROSEN, PAUL P.....	EPIDEMIOLOGY OF MEDULLARY AND LOBULAR BREAST CANCER.....	3N01 CB63997-08	27,069
ROSEN, PAUL P.....	DISSEMINATED CANCER IN INVASIVE MAMMARY CARCINOMA	3N01 CB74097-06	9,811
SCHWARTZ, MORTON K.....	BIOCHEMICAL ANALYSIS OF HUMAN BREAST CYST FLUID.....	5N01 CB53853-08	9,555
STRONG, ELLIOT W.....	LEVAM AS THERAPEUTIC ADJUNCT IN SQUAMOUS CARCINOMA.....	5N01 CB53875-06	85,008
ORGANIZATION TOTAL	16 1,684,953		
ST. LUKE'S-ROOSEVELT HOSPITAL CENTER ZIP CODE 10025			
KEMP, HARVEY G, JR.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	2N01 HV32978-11	79,216
WETHERS, DORIS L.....	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DIS	5N01 HB73006-06	859,261
ORGANIZATION TOTAL	2 938,477		
STATE UNIVERSITY OF NEW YORK—DOWNSTATE MEDICAL CENTER ZIP CODE 11203			
BROWN, AUDREY K.....	PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA	2N01 HD42819-11	61,810
CRAIG, JOHN P.....	RABBIT SKIN AND MOUSE PROTECTION TESTS	5N01 AI92602-02	82,411
HALPERN, MIMI N.....	MODEL OF NEURONAL DIFFERENTIATION DEVELOPMENT AND AGING	5N01 RR82139-02	40,980

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
SCHIFFMAN, GERALD.....	PNEUMOCOCCAL POLYSACCHARIDE REFERENCE LABORATORY	1N01 A102647-00	197,825
ORGANIZATION TOTAL	4 383,026		
STELLA AND CHARLES GUTTMAN BREAST DIAGNOSTIC INSTITUTE ZIP CODE 10016			
STRAX, PHILIP	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05498-00	65,056
ORGANIZATION TOTAL	1 65,056		
YESHIVA UNIVERSITY ZIP CODE 10033			
AUGUST, J THOMAS	STUDY OF MOLECULAR BASIS OF VIRAL CARCINOGENESIS.....	3N01 CP33311-08	7,946
BLAUFOX, MORTON D.....	STUDY OF HYPERTENSION THERAPY	2N01 HV22931-17	271,416
GARTNER, LAWRENCE M.....	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA.....	2N01 HD42822-16	98,726
ROMNEY, SEYMOUR L.....	CORRELATION OF EPIDEMIOLOGIC AND METABOLIC PARAMETERS	3N01 CP65788-13	73,500
SHULMAN, KENNETH M.....	CENTRAL NERVOUS SYSTEM TRAUMA CENTER.....	5N01 NS92313-02	767,716
ORGANIZATION TOTAL	5 1,219,304		
ROCHESTER			
AMERICAN ASSOCIATION FOR CANCER EDUCATION ZIP CODE 14642			
BAKEMEIER, RICHARD F.....	EVALUATE EFFECTIVENESS OF CANCER EDUCATION	5N01 C095464-02	99,996
ORGANIZATION TOTAL	1 99,996		
EASTMAN DENTAL CENTER ZIP CODE 14620			
CURZON, MARTIN E.....	STRONTIUM, LITHIUM, & FLUORINE EFFECT ON DENTAL PLAQUE	3N01 DE72409-07	9,211
LEVERETT, DENNIS H.....	EFFECT OF TOOTH-CLEANING ON SODIUM FLUORIDE RINSE.....	5N01 DE72407-03	15,890
ORGANIZATION TOTAL	2 25,101		
LITRON LABORATORIES, LTD. ZIP CODE 14620			
TOMETSKO, ANDREW M.....	PREPARE DESOCTAPEPTIDE INSULIN AND CHICKEN INSULIN	3N01 AM92205-02	74,714
ORGANIZATION TOTAL	1 74,714		
UNIVERSITY OF ROCHESTER ZIP CODE 14627			
DOUGLAS, R GORDON, JR.....	CLINICALLY TEST BACTERIAL RESPIRATORY VIRUS VACCINES.....	1N01 A102653-00	368,875
HILF, RUSSELL	STUDY METHODS TO PREDICT CHEMOTHERAPY SENSITIVITY	2N01 CB74204-05	9,900
SMITH, DAVID H.....	STUDIES OF HEMOPHILUS INFLUENZAE B VACCINE	5N01 A172523-03	208,402
WHEELLESS, LEON L, JR.....	STUDY A SLIT-SCAN TECHNIQUE FOR CANCER DETECTION	5N01 CB33862-13	422,237
YU, PAUL N.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72966-05	128,641
ORGANIZATION TOTAL	5 1,138,055		
SARANAC LAKE			
TRUDEAU INSTITUTE ZIP CODE 12983			
LEFFORD, MAURICE J.....	MAINTAIN A MYCOBACTERIAL CULTURE COLLECTION	3N01 A152529-06	14,808
ORGANIZATION TOTAL	1 14,808		
STONY BROOK			
STATE UNIVERSITY OF NEW YORK AT STONY BROOK ZIP CODE 11794			
JOHNSON, FRANCIS.....	SYNTHESIS OF C-18 FUNCTIONALIZED STEROIDS.....	1N01 HD02817-00	86,968
LERNER, RAYMOND C.....	OUTCOME OF PREGNANCY FOLLOWING PREVIOUS INDUCED ABORTION	3N01 HD62803-05	10,112
RIPA, LOUIS W.....	EFFICACY OF PRIOR TOOTH-CLEANING ON FLUORIDE TREATMENT.....	5N01 DE92419-01	51,201
ORGANIZATION TOTAL	3 148,281		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NEW YORK—Continued			
SYRACUSE			
BRISTOL-MYERS COMPANY—BRISTOL LABORATORIES ZIP CODE 13201			
BRADNER, WILLIAM T	NEW FERMENTATION ANTINEOPLASTIC DRUG SCREENING	1N01 CM07299-00	502,898
BRADNER, WILLIAM T	NEW ANTINEOPLASTIC DRUG EVALUATION	3N01 CM77147-06	22,833
CLARIDGE, CHARLES A	PRODUCE NOVEL ANTINEOPLASTIC COMPOUNDS	1N01 CM07324-00	221,000
DOYLE, TERRENCE W	SYNTHESIS POTENTIAL ANTICANCER AGENTS	5N01 CM87180-03	209,000
ORGANIZATION TOTAL	4 955,731		
DEVELOPMENT AND EVALUATION ASSOCIATES ZIP CODE 13210			
EGGERT, JOHN D	WORKSHOPS ON NUTRITION COUNSELING IN HYPERLIPIDEMIA	1N01 HV02923-00	40,000
ORGANIZATION TOTAL	1 40,000		
STATE UNIVERSITY OF NEW YORK—UPSTATE MEDICAL CENTER ZIP CODE 13210			
SPRING-MILLS, ELINOR J	STUDY MORPHOLOGY OF NORMAL/ABNORMAL MAMMARY TISSUE	5N01 CB84239-03	80,900
ORGANIZATION TOTAL	1 80,900		
SYRACUSE UNIVERSITY SYRACUSE ZIP CODE 13210			
COUTURE, EDWARD G	PHONATORY AND ARTICULATORY CONTROL IN STUTTERING	1N01 NS02331-00	220,550
ORGANIZATION TOTAL	1 220,550		
VALHALLA			
NEW YORK MEDICAL COLLEGE ZIP CODE 10595			
ROSENKRANZ, HERBERT S	MUTAGENESIS SYSTEMS FOR CARCINOGENESIS SCREENING	3N01 CP65855-10	185,918
ORGANIZATION TOTAL	1 185,918		
STATE TOTAL	157 28,026,768		
NORTH CAROLINA			
CHAPEL HILL			
NORTH CAROLINA HEART ASSOCIATION ZIP CODE 27514			
HIRSCHAUER, PAUL E	COMPREHENSIVE STROKE CENTER	5N01 NS82386-03	570,882
ORGANIZATION TOTAL	1 570,882		
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL ZIP CODE 27514			
COGSWELL, BETTY E	ADOLESCENTS' PERSPECTIVES ON THE HEALTH CARE SYSTEM	5N01 HD82837-02	58,225
HOLMES, DAVID W	COMMUNICATIVE SKILLS IN INFANTILE AUTISM	5N01 NS92305-01	238,164
KAUFMAN, DAVID G	STUDIES OF CARCINOGENESIS IN HUMAN TISSUE	2N01 CP75956-07	179,890
RUSSELL, STEPHEN W	DEPLETION OF MONONUCLEAR PHAGOCYTES IN VIVO	5N01 CB84271-04	78,689
TURCHI, BOONE A	ESTIMATE CHILD-REARING COST IN THE UNITED STATES	5N01 HD92824-01	81,213
WALKER, DAVID H	ROCKY MOUNTAIN SPOTTED FEVER VACCINE TESTING	5N01 AI92613-01	112,245
WILLIAMS, O DALE	STUDY OF HYPERLIPOPROTEINEMIA	5N01 HV12243-19	171,000
ORGANIZATION TOTAL	7 919,426		
DURHAM			
DUKE UNIVERSITY ZIP CODE 27706			
BOLOGNESI, DANI P	RNA TUMOR VIRUS GENOME EXPRESSION IN MALIGNANT CELLS	2N01 CP33308-11	207,910
COBB, FREDERICK R	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM	3N01 HV92923-02	108,044
CRAPO, JAMES D	STUDY LUNGS EXPOSED TO MINERAL FIBERS	1N01 ES00004-00	327,446
DEUBNER, DAVID C	EPIDEMIOLOGY OF PRE- AND POST-MENOPAUSAL BREAST CANCER	3N01 CB63996-05	22,832
HEYMAN, ALBERT	DEVELOP PILOT STROKE DATA BANK NETWORK CENTER	5N01 NS82396-05	138,676

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NORTH CAROLINA—Continued			
JOHNSON, ARMEAD H	NCI HISTOCOMPATIBILITY TESTING CENTER.....	3N01 CB53890-10	99,523
LASZLO, JOHN.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS	6N01 CM07436-01	249,865
MACHEMER, ROBERT.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	1N01 EY02128-00	85,992
MC CARTY, KENNETH S	PREMALIGNANT HUMAN MAMMARY EPITHELIAL HYPERPLASIAS	5N01 CB84223-03	79,675
MC LELLAND, ROBERT.....	EARLY DETECTION OF CANCER OF THE BREAST	2N01 CN45064-08	125,452
ODOM, GUY L	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67010-08	92,606
REIMER, KEITH A.....	ASSESS THERAPY TO PROTECT ISCHEMIC MYOCARDIUM.....	3N01 HV92926-03	60,134
ROBERTSON, J DAVID.....	RECONSTRUCT & TEST A SUPERCONDUCTING ELECTRON MICROSCOPE.....	5N01 GM02116-01	249,067
SPOCK, ALEXANDER.....	PULMONARY CHANGES IN CYSTIC FIBROSIS.....	5N01 HR82929-02	160,755
WELLS, SAMUEL A, JR.....	SCREENING RELATIVES OF PATIENTS WITH MEDULLARY CARCINOMA.....	5N01 CB63994-07	131,550
WILFERT, CATHERINE M.....	EPIDEMIOLOGY OF ROCKY MOUNTAIN SPOTTED FEVER.....	5N01 A192621-02	109,280
ORGANIZATION TOTAL	16	2,248,807	
GREENSBORO			
UNIVERSITY OF NORTH CAROLINA SYSTEM—UNIVERSITY OF NORTH CAROLINA AT GREENSBORO ZIP CODE 27412			
PRICE, DANIEL O.....	HOUSEHOLD STRUCTURE CHANGING PATTERNS—COHORT ANALYSIS	1N01 HD02853-00	21,810
ORGANIZATION TOTAL	1	21,810	
GREENVILLE			
UNIVERSITY OF NORTH CAROLINA SYSTEM—EAST CAROLINA UNIVERSITY ZIP CODE 27834			
TINGELSTAD, JON B.....	BREAST MILK AND FORMULA PROJECT	1N01 ES00005-00	76,345
ORGANIZATION TOTAL	1	76,345	
RALEIGH			
WAKE COUNTY MEDICAL CENTER ZIP CODE 27610			
THULLEN, JAMES D.....	BREAST MILK AND FORMULA PROJECT	1N01 ES00006-00	102,219
ORGANIZATION TOTAL	1	102,219	
RESEARCH TRIANGLE PARK			
NORTHROP CORPORATION—NORTHROP SERVICES ZIP CODE 27709			
ADKINS, B.....	TOXICOLOGY OF ENVIRONMENTAL CHEMICALS.....	5N01 ES90009-02	633,558
SERIO, GARY F.....	OPERATION OF ANIMAL VIRUS SEROLOGICAL LABORATORY.....	3N01 CM07286-01	89,172
ORGANIZATION TOTAL	2	722,730	
RESEARCH TRIANGLE INSTITUTE ZIP CODE 27709			
BONITO, ARTHUR J.....	INTERVIEW STUDY OF WOMEN WHO HAD SPONTANEOUS ABORTION	3N01 ES90011-02	5,842
COOK, CLARENCE E.....	SYNTHESIZE NONCARIOGENIC SWEETENERS	1N01 DE02428-00	178,119
GRIFFITH, JANET D.....	CONSEQUENCES OF REMAINING CHILDLESS.....	5N01 HD92821-01	87,006
KEPLER, JOHN A.....	PREPARATION OF RADIOLABELED MATERIALS.....	5N01 CM97313-01	212,570
LEWIS, S.....	EVALUATE MUTAGEN DETECTION METHODS.....	1N01 ES00002-00	98,359
MARKS, T.....	TERATOGENIC POTENTIAL OF ENVIRONMENTAL AGENTS.....	3N01 ES62127-14	184,711
PITT, COLIN G.....	PREPARE IRON CHELATING AGENTS FOR COOLEY'S ANEMIA.....	1N01 AM02207-00	79,374
PITT, COLIN G.....	BIODEGRADABLE POLYMERS AND CONTRACEPTIVE DRUGS	5N01 HD32741-14	254,688
POOLE, KENNETH W.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62948-07	163,140
POOLE, KENNETH W.....	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM—DATA CENTER	5N01 HV72979-04	314,826
REEL, JERRY R.....	TEST ANTIOVULATORY AND POSTOVULATORY AGENTS.....	1N01 HD02820-00	149,061
SCHINDLER, ANTON.....	DEVELOP AND TEST A PH BARRIER CONTRACEPTIVE DEVICE.....	3N01 HD92845-01	22,152
SELTZMAN, HERBERT.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07352-02	38,574
TAYLOR, HAROLD.....	PREPARATION OF AQUEOUS PLANT EXTRACTS	5N01 CM97261-03	150,000
WANI, MANSUKHLAL C.....	SYNTHESIS OF NON-STEROIDAL ANTIFERTILITY AGENTS.....	1N01 HD02815-00	93,071
WANI, MANSUKHLAL C.....	SYNTHESIZE COMPOUNDS WITH ANTIGLUCOCORTICOID ACTIVITY	1N01 HD02844-00	36,567
WILSON, BLAKE.....	RECEPTORS MEDIATING EFFECTS OF MICROWAVE RADIATION.....	5N01 ES90008-02	51,273
ORGANIZATION TOTAL	17	2,119,333	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
NORTH CAROLINA—Continued			
WINSTON-SALEM			
WAKE FOREST UNIVERSITY	ZIP CODE 27109		
ALEXANDER, EBEN, JR.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67054-07	36,217
CLARKSON, THOMAS B	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS.....	2N01 HV53029-07	185,165
CLARKSON, THOMAS B	PRIMATE MODELS OF ATHEROSCLEROSIS AND HYPERTENSION	5N01 HV72978-05	711,777
ORGANIZATION TOTAL	3	933,159	
STATE TOTAL	49	7,714,711	
OHIO			
ATHENS			
OHIO UNIVERSITY ATHENS	ZIP CODE 45701		
SEATON, WILLIAM.....	EFFECTIVENESS OF MEDLINE PROVIDED INFORMATION SERVICES.....	1N01 NS02342-00	57,742
ORGANIZATION TOTAL	1	57,742	
BEDFORD			
BEN VENUE LABORATORIES	ZIP CODE 44146		
WICKES, GLENN F.....	PRODUCE CLINICAL DOSES OF ANTI-TUMOR AGENTS.....	5N01 CM97298-05	1,430,000
ORGANIZATION TOTAL	1	1,430,000	
BOWLING GREEN			
BOWLING GREEN STATE UNIVERSITY AT BOWLING GREEN	ZIP CODE 43403		
NEAL, ARTHUR G.....	ALIENATION AND FERTILITY CONTROL IN EARLY MARRIAGE YEARS	2N01 HD62833-05	27,606
WOODRUFF, RONNY C.....	DROSOPHILA MUTAGENESIS TESTING.....	5N01 ES90016-02	324,551
ORGANIZATION TOTAL	2	352,157	
CINCINNATI			
CHRIST HOSPITAL	ZIP CODE 45219		
PONS, MARCEL W.....	A STUDY OF CELL SUBSTRATES FOR INFLUENZA VIRUSES	5N01 AI92627-02	53,642
ORGANIZATION TOTAL	1	53,642	
UNIVERSITY OF CINCINNATI AT CINCINNATI	ZIP CODE 45221		
BUNCHER, CHARLES R.....	STATISTICAL SURVEILLANCE OF LUNG CANCER PROJECTS.....	2N01 CB43868-09	193,328
GLUECK, CHARLES J.....	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV22914-12	1,206,000
MOSKOWITZ, MYRON.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05499-00	229,351
MOSKOWITZ, MYRON.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN55310-11	22,787
SHUMRICK, DONALD A	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	5N01 CM87222-03	45,023
SUTHERLAND, JAMES M.....	STUDY OF NEONATAL HYPERBILIRUBINEMIA	2N01 HD42818-13	70,936
ORGANIZATION TOTAL	6	1,767,425	
CLEVELAND			
CASE WESTERN RESERVE UNIVERSITY	ZIP CODE 44106		
HOPFINGER, ANTON J.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS	3N01 CP75927-03	124,142
HOUSER, HAROLD B.....	DIABETES MELLITUS IN THE GILA RIVER INDIAN COMMUNITY	2N01 AM62221-05	51,786
HUBAY, CHARLES A	THERAPY OF CARCINOMA OF BREAST	2N01 CB43990-13	74,700
MORTIMER, J THOMAS.....	FUNCTIONAL NEUROMUSCULAR STIMULATION	5N01 NS02330-04	340,336

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OHIO—Continued			
SPECK, WILLIAM T.....	MICROBIAL MUTAGENESIS TESTING	5N01 ES92136-04	160,299
ORGANIZATION TOTAL	5 751,263		
CLEVELAND CLINIC HOSPITAL ZIP CODE 44106			
BRAUN, WILLIAM E.....	REFERENCE HLA LABORATORIES	5N01 A182544-06	12,909
BRAUN, WILLIAM E.....	PROCURE HLA-A, B AND C LOCI AND B CELL ANTISERA.....	5N01 A182555-07	51,633
ORGANIZATION TOTAL	2 64,542		
COLUMBUS			
AMERICAN CHEMICAL SOCIETY—CHEMICAL ABSTRACTS SERVICE ZIP CODE 43202			
BROWN, CARTER N.....	CHEMICAL ABSTRACTS SERVICE REGISTRY-BASED SERVICES	3N01 LM54739-13	244,506
BROWN, CARTER N.....	CHEMICAL ABSTRACTS SERVICE.....	3N01 LM94721-02	7,329
SEALS, JAMES V.....	DRUG RESEARCH/DEVELOPMENT CHEMICAL INFORMATION SYSTEM	3N01 CM43722-16	529,894
ORGANIZATION TOTAL	3 781,729		
BATTELLE MEMORIAL INSTITUTE ZIP CODE 43201			
HOUCHEMS, DAVID P.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	1N01 CM07266-00	904,825
HOUCHEMS, DAVID P.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	3N01 CM57005-10	4,601
KURTZ, PERRY J.....	THE TOXICOLOGY OF RETINOLIDS	5N01 CP85650-07	271,406
OVEJERA, ARTEMIO.....	SCREENING COMPOUNDS USING HUMAN TUMORS IN ATHYMIC MICE.....	5N01 CM67099-07	495,945
PETERS, ARTHUR C.....	PROTOCOL TOXICOLOGY STUDIES—PRIME CONTRACTOR	3N01 CM43746-41	2,618,500
PETERS, ARTHUR C.....	CARCINOGEN BIOASSAY OF THREE CHEMICALS.....	6N01 CP95653-02	367,249
PETERS, ARTHUR C.....	CARCINOGENICITY AND TOXICITY OF ENVIRONMENTAL CHEMICALS.....	5N01 ES82151-04	990,000
SIMON, RICHARD.....	DEVELOPMENT OF THE LABORATORY ANIMAL DATA BANK.....	5N01 LM94705-08	687,000
ORGANIZATION TOTAL	8 6,339,526		
NORTH AMERICAN PHILIPS CORPORATION—PHILIPS ROXANE LABORATORIES ZIP CODE 43215			
LA ROWE, LOUIS.....	DEVELOPMENT AND PRODUCTION OF SOLID ORAL DOSE FORMS.....	3N01 CM67053-09	99,480
ORGANIZATION TOTAL	1 99,480		
OHIO STATE UNIVERSITY ZIP CODE 43210			
COMER, RONALD.....	FIELD TEST AND EVALUATE ADVANCED TERMINAL SYSTEM.....	1N01 LM03531-00	76,676
GLASER, RONALD.....	EPSTEIN-BARR VIRUS AND NASOPHARYNGEAL CARCINOMA	3N01 CP81021-03	160,900
HART, RONALD W.....	ASSAY FOR GENETIC DAMAGE TO MAMMARY GLAND CELLS	5N01 CB84226-04	134,600
HUNT, WILLIAM E.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67060-06	43,656
MALSPEIS, LOUIS.....	STUDY OF PHARMACOKINETICS OF ANTICANCER DRUGS.....	5N01 CM87161-04	102,158
MALSPEIS, LOUIS.....	DISPOSITION AND METABOLISM OF ANTINEOPLASTIC AGENTS	5N01 CM97264-02	98,327
MISER, JAMES.....	STUDIES OF INDICINE-N-OXIDE WITH PEDIATRIC PATIENTS.....	6N01 CM07464-01	69,537
NEIDHART, JAMES A.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS	6N01 CM07442-01	98,635
OLSEN, RICHARD G.....	IMMUNOPREVENTION OF CANCER.....	5N01 CP91008-01	205,000
SPRECHER, HOWARD W.....	DEVELOPMENT OF PROSTAGLANDIN SYSTEM ANTAGONISTS	5N01 HV82930-02	74,098
ORGANIZATION TOTAL	10 1,063,587		
DAYTON			
KLOPF AUDIO-VIDEO COMPANY ZIP CODE 45414			
KLOPF, RICHARD H.....	FURNISH A VIDEO SIGNAL SYNCHRONIZER.....	1N01 LM03540-00	24,500
ORGANIZATION TOTAL	1 24,500		
MONSANTO COMPANY—DAYTON LABORATORY ZIP CODE 45407			
ELLARD, JAMES A.....	PREPARATION OF BULK CHEMICAL AND DRUGS.....	5N01 CM97255-02	605,340
MC MILLIN, CARL R.....	TEST POLYMERS FOR USE IN CIRCULATORY ASSIST DEVICES	1N01 HV02909-00	208,762
ORGANIZATION TOTAL	2 814,102		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OHIO—Continued			
WRIGHT STATE UNIVERSITY	ZIP CODE 45431		
KEZDI, PAUL.....	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	3N01 HV33108-09	436,704
ORGANIZATION TOTAL	1 436,704		
STATE TOTAL	44 14,036,399		
OKLAHOMA			
OKLAHOMA CITY			
OKLAHOMA MEDICAL RESEARCH FOUNDATION	ZIP CODE 73104		
BRADFORD, REAGAN H.....	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV22932-13	1,474,800
ORGANIZATION TOTAL	1 1,474,800		
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER	ZIP CODE 73190		
HABERMAN, JO ANN D.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05494-00	126,411
HABERMAN, JO ANN D.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN55309-08	28,617
LEVIN, DAVID C.....	STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING.....	5N01 HR72903-08	256,823
ORGANIZATION TOTAL	3 411,851		
STATE TOTAL	4 1,886,651		
OREGON			
CORVALLIS			
OREGON STATE HIGHER EDUCATION SYSTEM—OREGON STATE UNIVERSITY	ZIP CODE 97331		
SINNHUBER, RUSSELL O.....	STUDIES OF NATURAL INHIBITORS OF CHEMICAL CARCINOGENS	5N01 CP85660-03	45,312
ORGANIZATION TOTAL	1 45,312		
PORTLAND			
GOOD SAMARITAN HOSPITAL AND MEDICAL CENTER	ZIP CODE 97210		
CHENOWETH, R G.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY	5N01 EY62141-06	84,668
GOODMAN, MORTON J.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN45088-10	40,960
KLEIN, MICHAEL L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72144-04	26,899
SCHIMSCHOCK, JAMES R.....	A COMPREHENSIVE EPILEPSY PROGRAM	3N01 NS52328-12	30,999
ORGANIZATION TOTAL	4 183,526		
KAISER FOUNDATION HOSPITALS—KAISER FOUNDATION RESEARCH INSTITUTE	ZIP CODE 97215		
GLASS, ANDREW G.....	STUDY ENVIRONMENTAL CANCER—PREPAID HEALTH PLAN.....	3N01 CP81046-05	293,389
ORGANIZATION TOTAL	1 293,389		
MEDICAL RESEARCH FOUNDATION OF OREGON	ZIP CODE 97225		
ALEXANDER, NANCY J.....	EFFECT OF BILATERAL VASECTOMY ON ATHEROSCLEROSIS	5N01 HD82827-02	125,144
ORGANIZATION TOTAL	1 125,144		
OREGON STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF OREGON HEALTH SCIENCES CENTER	ZIP CODE 97201		
LYNN, ROBERT K.....	ANALYZE PCB'S AND DDE IN HUMAN FLUIDS AND TISSUE.....	5N01 ES72126-05	190,000
PRESCOTT, GERALD H.....	COORDINATION OF REGIONAL CYTOGENETIC REGISTRIES.....	2N01 HD32713-16	270,000
YATSU, FRANK M.....	COMPREHENSIVE STROKE CENTER.....	2N01 NS82387-04	497,259
ORGANIZATION TOTAL	3 957,259		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
OREGON—Continued			
PROVIDENCE MEDICAL CENTER	ZIP CODE 97213		
MAURICE, GORDON L	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72965-07	132,000
ORGANIZATION TOTAL	1	132,000	
STATE TOTAL	11	1,736,630	
PENNSYLVANIA			
BETHLEHEM			
LEHIGH UNIVERSITY	ZIP CODE 18015		
HERRENKOHL, ROY C	EPIDEMIOLOGIC STUDIES OF LUNG CANCER	2N01 CP81038-02	77,233
ORGANIZATION TOTAL	1	77,233	
DANVILLE			
INSTITUTE FOR MEDICAL EDUCATION AND RESEARCH	ZIP CODE 17821		
LAUBACH, CHARLES A, JR.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 iV82903-06	70,040
ORGANIZATION TOTAL	1	70,040	
DOYLESTOWN			
DEVELCON ELECTRONICS	ZIP CODE 18901		
NOT AVAILABLE.....	DATA COMMUNICATIONS PORT CONTENDER	1N01 LM03516-00	21,785
PENERGRAPH, GORDON S	SUPPLY AUTOMATIC DATA SWITCH	1N01 LM03535-00	34,890
ORGANIZATION TOTAL	2	56,675	
HERSHEY			
PENNSYLVANIA STATE UNIVERSITY MILTON S. HERSHEY MEDICAL CENTER	ZIP CODE 17033		
BARTLETT, GERALD L	STUDY OF CANCER IMMUNOTHERAPY	2N01 CB33891-08	270,788
RAPP, FRED.....	ONCOGENIC POTENTIAL OF DEFECTIVE HUMAN VIRUSES.....	3N01 CP53516-08	25,000
SANTEN, RICHARD J.....	SUPPRESSION OF ENDOCRINE FUNCTION IN HUMAN BREAST CANCER	2N01 CB53851-07	120,900
ORGANIZATION TOTAL	3	416,688	
PHILADELPHIA			
ALBERT EINSTEIN MEDICAL CENTER	ZIP CODE 19141		
ISARD, HAROLD J	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05516-00	85,911
ISARD, HAROLD J	CANCER CONTROL PROGRAM—RADIATION THERAPY GROUP.....	2N01 CN45058-07	85,990
ORGANIZATION TOTAL	2	171,901	
AMERICAN COLLEGE OF PHYSICIANS	ZIP CODE 19104		
NOT AVAILABLE.....	PUBLISH THE HEPATITIS KNOWLEDGE BASE.....	1N01 LM03512-00	49,619
ORGANIZATION TOTAL	1	49,619	
AMERICAN COLLEGE OF RADIOLOGY—RADIATION ONCOLOGY STUDY CENTER	ZIP CODE 19107		
KRAMER, SIMON.....	CHEMOTHERAPY IN HEAD AND NECK SQUAMOUS CARCINOMA	5N01 CM87219-05	146,594
KRAMER, SIMON.....	CANCER CONTROL PROGRAM—RADIATION THERAPY GROUP.....	3N01 CN75355-07	1,024,495
ORGANIZATION TOTAL	2	1,171,089	
BIOLOGICAL ABSTRACTS	ZIP CODE 19103		
SCHULTZ, LOUISE	ASSIGN CAS REGISTRY NUMBERS TO BIBLIOGRAPHIC REFERENCES.....	1N01 LM03507-00	40,999

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
SCHULTZ, LOUISE	TOXLINE COMPONENT	3N01 LM94700-01	3,517
ORGANIZATION TOTAL	2 44,516		
BOOZ, ALLEN AND HAMILTON—NATIONAL ANALYSTS ZIP CODE 19106			
ROTHSCHILD, BETH B.	SURVEY INCIDENCE, PREVALENCE COSTS OF MULTIPLE SCLEROSIS	1N01 NS02325-00	205,500
ORGANIZATION TOTAL	1 205,500		
CHILDREN'S HOSPITAL OF PHILADELPHIA ZIP CODE 19104			
GILL, FRANCES M.	COOPERATIVE STUDY—CLINICAL COURSE OF SICKLE CELL DISEASE	5N01 HB72997-08	143,296
HENLE, GERTRUDE B.	PROPAGATION AND SEROEPIDEMIOLOGY OF EB VIRUS	2N01 CP33272-11	233,270
MEADOWS, ANNA T.	STUDY ONCOGENESIS AND LATE EFFECTS OF CANCER THERAPY	5N01 CP91049-03	201,629
ORGANIZATION TOTAL	3 578,195		
COLLEGE OF PHYSICIANS OF PHILADELPHIA ZIP CODE 19103			
FULTON, JUNE.	REGIONAL MEDICAL LIBRARY SERVICES	1N01 LM03515-00	295,077
ORGANIZATION TOTAL	1 295,077		
FOX CHASE CANCER CENTER ZIP CODE 19111			
BROWN, DARRELL Q.	SCREEN RADIOPROTECTORS	1N01 CM07330-00	84,869
GOODMAN, ROBERT L.	CLINICAL NEUTRON THERAPY PROGRAM	5N01 CM97314-03	664,720
ORGANIZATION TOTAL	2 749,589		
FRANKLIN INSTITUTE OF THE STATE OF PENNSYLVANIA ZIP CODE 19103			
CAMPBELL, GRAHAM L.	CANCER INFORMATION DISSEMINATION AND ANALYSIS CENTER	3N01 C085404-03	299,514
CAMPBELL, GRAHAM L.	PREPARATION OF SAFETY AND TOXICITY INFORMATION PACKAGES	6N01 CP95658-01	7,417
KLEINSTEIN, BRUCE H.	SCREEN & ABSTRACT PUBLISHED CANCER-RELATED LITERATURE	1N01 C005463-00	1,537,340
PARCHMAN, GERALD.	CANCER INFORMATION DISSEMINATION AND ANALYSIS CENTER	3N01 C085403-04	230,341
ORGANIZATION TOTAL	4 2,074,612		
HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF PHILADELPHIA ZIP CODE 19102			
ANGELAKOS, EVANGELOS T.	NON-HUMAN PRIMATE MODELS OF ARTERIOSCLEROSIS	3N01 HV62905-08	322,217
ORGANIZATION TOTAL	1 322,217		
LANKENAU HOSPITAL ZIP CODE 19151			
HOLMES, WILLIAM L.	SUPPORT FOR CLINICAL CENTER FOR HEART DISEASE	3N01 HV33110-07	50,500
HOLMES, WILLIAM L.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV72958-05	116,598
ORGANIZATION TOTAL	2 167,098		
MEDICAL COLLEGE OF PENNSYLVANIA ZIP CODE 19129			
PAUCKER, KURT.	PRODUCTION OF ANTI-SERA TO INTERFERONS	3N01 AI82568-04	15,218
ORGANIZATION TOTAL	1 15,218		
PHILADELPHIA GERIATRIC CENTER ZIP CODE 19141			
ALTSCHULER, HENRY	COLLECTION OF SERA FROM HIGH-CANCER-RISK POPULATIONS	2N01 CB83914-07	66,306
ORGANIZATION TOTAL	1 66,306		
PHILADELPHIA HEALTH MANAGEMENT CORPORATION ZIP CODE 19106			
FLAHERTY, EUGENIE W.	PSYCHOLOGICAL FACTORS IN FERTILITY REGULATION	5N01 HD82833-02	61,499
ORGANIZATION TOTAL	1 61,499		
TEMPLE UNIVERSITY ZIP CODE 19122			
FORBES, PAUL D.	HAIRLESS MICE FOR UV CARCINOGENESIS STUDIES	3N01 CP85603-05	311,941
TANFER, KORAY	REPRODUCTIVE BEHAVIOR & FERTILITY AMONG UNMARRIED WOMEN	1N01 HD02857-00	298,895
ORGANIZATION TOTAL	2 610,836		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
UNIVERSITY CITY SCIENCE CENTER ZIP CODE 19104			
FORADORI, GEORGE T.....	DATA MANAGEMENT CENTER FOR BREAST CANCER DETECTION	2N01 CN65376-13	1,187,073
ORGANIZATION TOTAL	1	1,187,073	
UNIVERSITY OF PENNSYLVANIA ZIP CODE 19104			
CLARK, WALLACE H, JR.....	SPECIAL PROJECTS IN HEREDITARY CUTANEOUS MELANOMA	2N01 CP91047-02	49,500
MULLEN, JAMES L.....	CHANGES IN BODY COMPOSITION IN CANCER PATIENTS.....	5N01 CP85658-05	115,205
NICOLAOU, KYRIACOS C.....	DEVELOPMENT OF PROSTAGLANDIN SYSTEM ANTAGONIST.....	5N01 HV82931-03	93,118
THORN, RICHARD M.....	IMMUNOPROPHYLAXIS OF BOVINE LYMPHOSARCOMA.....	5N01 CB84243-04	160,012
ORGANIZATION TOTAL	4	417,835	
WILLS EYE HOSPITAL AND RESEARCH INSTITUTE ZIP CODE 19107			
FEDERMAN, JAY L.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	3N01 EY62144-06	10,073
FEDERMAN, JAY L.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72150-06	40,623
ORGANIZATION TOTAL	2	50,696	
PITTSBURGH			
ALLEGHENY HEALTH, EDUCATION AND RESEARCH CORPORATION—ALLEGHENY-SINGER RESEARCH CORPORATION ZIP CODE 15212			
SHRIVASTAVA, PRAKASH N.....	CENTER FOR RADIOLOGICAL PHYSICS	1N01 CN05505-00	948,658
ORGANIZATION TOTAL	1	948,658	
CARNEGIE-MELLON UNIVERSITY ZIP CODE 15213			
OLSON, RICHARD B.....	EFFECT OF REGULATION ON CANCER TREATMENT RESEARCH	5N01 CM87173-04	48,973
ORGANIZATION TOTAL	1	48,973	
EYE AND EAR HOSPITAL OF PITTSBURGH ZIP CODE 15213			
ARAMANY, MOHAMED A.....	TRAINING PROGRAMS FOR DENTAL TECHNICIANS.....	1N01 CN05524-00	210,833
ORGANIZATION TOTAL	1	210,833	
MONTEFIORE HOSPITAL ZIP CODE 15213			
SELKER, ROBERT G.....	THERAPY OF PATIENTS WITH BRAIN TUMORS	3N01 CM67061-07	89,536
YAO, SHANG J.....	OXOLATE ULTRAMICROANALYTICAL METHOD DEVELOPMENT.....	5N01 AM92211-01	47,947
ORGANIZATION TOTAL	2	137,483	
UNIVERSITY OF PITTSBURGH ZIP CODE 15260			
CAGGIULA, ARLENE.....	WORKSHOPS ON NUTRITION COUNSELING IN HYPERLIPIDEMIA.....	1N01 HV02926-00	52,983
DETRE, KATHERINE M.....	COORDINATING CENTER-CORONARY INTERVENTION STUDY.....	5N01 H172947-06	100,451
DETRE, KATHERINE M.....	PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY REGISTRY.....	5N01 HV02906-01	240,999
DRASH, ALLAN L.....	MALFORMATIONS AND FETAL LOSSES IN JUVENILE DIABETES	1N01 HD02841-00	79,392
FISHER, BERNARD.....	PRIMARY BREAST CANCER THERAPY GROUP.....	2N01 CB23876-15	1,089,031
FISHER, BERNARD.....	THERAPY OF PATIENTS WITH COLORECTAL CANCER.....	2N01 CM77177-09	576,425
FISHER, BERNARD.....	NATIONAL SURGICAL ADJUVANT BREAST PROJECT.....	3N01 CN85335-04	608,667
HO, MONTO.....	TREAT PRIMARY GENITAL HERPES WITH INTERFERON.....	1N01 A102661-00	119,189
KULLER, LEWIS H.....	SUPPORT FOR CLINICAL CENTER FOR CORONARY HEART DISEASE.....	5N01 HV33109-09	529,259
OLSON, RICHARD K.....	DEVELOP PORTABLE OPEN-LOOP DEVICES FOR DIABETES	5N01 AM92202-04	305,887
PECKHAM, WILLIAM D.....	DEVELOPMENT OF RADIOIMMUNOASSAY FOR RHESUS MONKEY LH.....	5N01 HD72829-04	108,160
SASHIN, DONALD.....	DEVELOP NONINVASIVE DETECTION OF ATHEROSCLEROTIC LESIONS.....	1N01 HV02929-00	181,251
ORGANIZATION TOTAL	12	3,991,694	
UNIVERSITY PARK			
PENNSYLVANIA STATE UNIVERSITY AT UNIVERSITY PARK ZIP CODE 16802			
DE JONG, GORDON F.....	CHILDLESSNESS AND THE ONE-CHILD FAMILY.....	5N01 HD92807-01	31,562
JURS, PETER C.....	STRUCTURE-ACTIVITY OF CANCER RELATED ENDPOINTS	3N01 CP75926-03	65,915
ORGANIZATION TOTAL	2	97,477	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
PENNSYLVANIA—Continued			
WARMINSTER			
PINKERTON COMPUTER CONSULTANTS	ZIP CODE 18974		
CLAGUE, DENNIS.....	NINCDS PROGRAM INFORMATION SYSTEM.....	5N01 NS92317-04	202,374
ORGANIZATION TOTAL	1 202,374		
WARRINGTON			
POLYSCIENCES, INC.	ZIP CODE 18976		
BOETTNER, FRED.....	ISOLATE ANTITUMOR AGENTS FROM NATURAL SOURCES.....	1N01 CM07300-00	270,800
BOETTNER, FRED.....	LARGE SCALE EXTRACTION AND ISOLATION OF PLANT PRODUCTS.....	3N01 CM77070-05	49,655
ORGANIZATION TOTAL	2 320,455		
STATE TOTAL	62 14,817,459		
RHODE ISLAND			
PROVIDENCE			
BROWN UNIVERSITY	ZIP CODE 02912		
ZIMMERING, STANLEY.....	DROSOPHILA MUTAGENESIS TESTING.....	5N01 ES90015-02	271,846
ORGANIZATION TOTAL	1 271,846		
RHODE ISLAND DEPARTMENT OF HEALTH	ZIP CODE 02908		
SIMEONE, FIORINDO A.....	COMMUNITY-BASED CANCER CONTROL PROGRAM.....	3N01 CN75215-09	265,474
ORGANIZATION TOTAL	1 265,474		
RHODE ISLAND HOSPITAL	ZIP CODE 02902		
CAPONE, ROBERT J.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV82908-06	137,619
CONSTANTINE, HERBERT P.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	3N01 CN45096-12	14,526
ORGANIZATION TOTAL	2 152,145		
STATE TOTAL	4 689,465		
SOUTH CAROLINA			
CHARLESTON			
MEDICAL UNIVERSITY OF SOUTH CAROLINA	ZIP CODE 29403		
GAZES, PETER C.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV82909-04	86,296
ORGANIZATION TOTAL	1 86,296		
COLUMBIA			
UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA	ZIP CODE 29208		
GIESE, WARREN K.....	STUDY OF CORONARY HEART DISEASE.....	5N01 HV42932-08	501,237
ORGANIZATION TOTAL	1 501,237		
STATE TOTAL	2 587,533		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
TENNESSEE			
KNOXVILLE			
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE AT KNOXVILLE ZIP CODE 37916			
BAXTER, JOHN E.....	FIELD TEST AND EVALUATE ADVANCED TERMINAL SYSTEM.....	1N01 LM03534-00	31,000
ORGANIZATION TOTAL	1	31,000	
MEMPHIS			
ST. JUDE CHILDREN'S RESEARCH HOSPITAL ZIP CODE 38101			
WEBSTER, ROBERT G.....	SURVEILLANCE AND ECOLOGY OF ANIMAL INFLUENZA.....	1N01 A102649-00	541,411
WEBSTER, ROBERT G.....	SUPPLY POLYPEPTIDE ANTIGENS OF INFLUENZA VIRUS.....	5N01 A142510-13	176,148
ORGANIZATION TOTAL	2	717,559	
UNIVERSITY OF TENNESSEE SYSTEM—UNIVERSITY OF TENNESSEE CENTER FOR THE HEALTH SCIENCES ZIP CODE 38163			
ROBERTSON, JAMES T.....	THERAPY OF PATIENTS WITH BRAIN TUMORS.....	3N01 CM57021-11	113,015
ORGANIZATION TOTAL	1	113,015	
NASHVILLE			
VANDERBILT UNIVERSITY ZIP CODE 37240			
GRECO, F ANTHONY.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07438-01	94,038
GUENGERICH, F PETER.....	ISOLATE AND PURIFY HUMAN POLYCYCLIC HYDROCARBONS.....	3N01 CP85672-05	59,429
HARTMANN, WILLIAM H.....	BREAST CANCER DETECTION DEMONSTRATION PROJECTS.....	3N01 CN65373-08	20,000
OLDHAM, ROBERT K.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	2N01 CM77122-06	99,500
RABIN, DAVID.....	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS.....	5N01 HD92843-01	146,343
SELL, SARAH H.....	ANTIBODY RESPONSE TO PNEUMOCOCCAL POLYSACCHARIDES.....	5N01 A152538-07	99,288
WRIGHT, PETER F.....	TEST RESPIRATORY VIRUS AND BACTERIAL VACCINES IN INFANTS.....	1N01 A102645-00	448,102
ORGANIZATION TOTAL	7	966,700	
STATE TOTAL	11	1,828,274	
TEXAS			
AUSTIN			
RADIAN CORPORATION ZIP CODE 78758			
KEITH, LAWRENCE H.....	CHEMICAL SERVICES SUPPORT FOR CARCINOGENESIS TESTING.....	3N01 CP95649-01	74,350
KEITH, LAWRENCE H.....	CHEMICAL REPOSITORY FOR MUTAGENICITY SCREENING.....	5N01 ES82144-05	250,000
ORGANIZATION TOTAL	2	324,350	
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS AT AUSTIN ZIP CODE 78712			
FALBO, TONI.....	STUDY CONSEQUENCES OF BEING & HAVING AN ONLY CHILD.....	5N01 HD92830-01	76,941
FOLKERS, KARL.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	5N01 HD02833-01	474,562
FOLKERS, KARL.....	PEPTIDE ANTAGONISTS OF LH-RH AS OVULATION INHIBITORS.....	3N01 HD82820-04	16,951
GROTEVANT, HAROLD D.....	SKILLS AND EGO IDENTITY IN ADOLESCENTS.....	5N01 HD92819-01	72,122
ORGANIZATION TOTAL	4	640,576	
COLLEGE STATION			
TEXAS AGRICULTURAL AND MECHANICAL UNIVERSITY SYSTEM—TEXAS A & M UNIVERSITY ZIP CODE 77843			
MARTELL, ARTHUR E.....	PREPARE IRON CHELATING AGENTS FOR COOLEY'S ANEMIA.....	1N01 AM02208-00	52,402
WOMACK, JAMES E.....	MAPPING OF THE AH LOCUS IN THE MOUSE.....	3N01 HD92839-02	25,263
ORGANIZATION TOTAL	2	77,665	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
TEXAS—Continued			
DALLAS			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS		ZIP CODE 75235	
MILLER, JEAN	REGIONAL MEDICAL LIBRARY SERVICES	1N01 LM03509-00	321,364
UNGER, ROGER H.	HUMAN DIABETES PROGRAM	2N01 AM62219-11	1,094,672
WILLERSON, JAMES T.	THERAPY TO PROTECT ISCHEMIC MYOCARDIUM/CLINICAL TESTS	5N01 HV72942-04	314,815
WILSON, JAMES E.	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM	5N01 HR92903-01	164,662
ORGANIZATION TOTAL	4 1,895,513		
GALVESTON			
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON		ZIP CODE 77550	
BAILEY, BYRON J.	CHEMOTHERAPY TRIAL IN HEAD AND NECK SQUAMOUS CARCINOMA.....	3N01 CM87221-04	98,203
GROSSMAN, ROBERT G.	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92308-03	58,119
GROSSMAN, ROBERT G.	ESTABLISH CENTRAL NERVOUS SYSTEM TRAUMA CENTER	5N01 NS92314-03	504,286
JOHNSON, HOWARD M.	STANDARDIZE & PRODUCE ANTISERA TO IMMUNE INTERFERONS	1N01 AI02659-00	229,645
ORGANIZATION TOTAL	4 890,253		
HOUSTON			
BAYLOR COLLEGE OF MEDICINE		ZIP CODE 77030	
BREWER, EARL J.	TRIAL THERAPY FOR JUVENILE RHEUMATOID ARTHRITIS	1N01 AM02211-00	144,258
BUTEL, JANET S.	EFFECT OF ENVIRONMENTAL FACTORS ON MMTV EXPRESSION	3N01 CP81006-02	156,442
BUTEL, JANET S.	MUMTV EXPRESSION IN MOUSE MAMMARY PRENEOPLASTIC TISSUES	5N01 CP91020-02	164,090
COUCH, ROBERT B.	INFLUENZA RESEARCH CENTER.....	3N01 AI92611-06	1,030,438
HOLLINGER, F. BLAINE	STUDIES WITH HEPATITIS B VACCINE	5N01 AI92609-01	146,230
HOLLINGER, F. BLAINE	DEVELOP SENSITIVE METHODS TO DETECT HEPATITIS TYPE C	5N01 HB92918-02	62,711
INSULL, WILLIAM, JR.	SUPPORT FOR LIPID RESEARCH CLINIC	5N01 HV12156-14	912,440
MELNICK, JOSEPH L.	STUDY THE POSSIBLE VIRAL ETIOLOGY OF HUMAN MALIGNANCIES.....	3N01 CP53526-09	98,897
MILLER, RICHARD R.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82900-06	115,000
NICHOLS, BUFORD L.	HUMAN MILK BANK RESEARCH AND DISTRIBUTION CENTER	2N01 HD82828-07	298,648
STEVENS, PAUL M.	STUDY OF INTERMITTENT POSITIVE PRESSURE BREATHING.....	5N01 HR72905-06	225,706
ORGANIZATION TOTAL	11 3,354,860		
INSTITUTE FOR REHABILITATION AND RESEARCH		ZIP CODE 77030	
HERRON, R. E.	BIOSTEREOMETRIC ASSESSMENT OF NUTRITIONAL STATUS	3N01 CP85618-04	13,000
ORGANIZATION TOTAL	1 13,000		
ST. JOSEPH HOSPITAL		ZIP CODE 77002	
MOORE, DUNCAN L.	BREAST CANCER DETECTION DEMONSTRATION PROJECT.....	2N01 CN55100-08	223,579
ORGANIZATION TOTAL	1 223,579		
ST. LUKE'S EPISCOPAL HOSPITAL		ZIP CODE 77030	
NORMAN, JOHN C.	DEVELOP AN IMPLANTABLE LEFT HEART ASSIST SYSTEM	1N01 HV02915-00	893,361
ORGANIZATION TOTAL	1 893,361		
TEXAS HEART INSTITUTE		ZIP CODE 77025	
NORMAN, JOHN C.	EVALUATION OF MODEL VII LEFT VENTRICULAR ASSIST DEVICE	3N01 HV53006-11	32,053
ORGANIZATION TOTAL	1 32,053		
UNIVERSITY OF HOUSTON SYSTEM—UNIVERSITY OF HOUSTON AT HOUSTON		ZIP CODE 77004	
WELCH, STEVEN C.	SYNTHESIS OF NEW RETINOIDS	3N01 CP75935-06	1,172
ORGANIZATION TOTAL	1 1,172		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON		ZIP CODE 77025	
BUFFLER, PATRICIA A.	ETIOLOGIC STUDY OF RESPIRATORY CANCER IN COASTAL TEXAS	5N01 CP91025-02	514,478

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
TEXAS—Continued			
BUFFLER, PATRICIA A.....	EPIDEMIOLOGY OF LIVER CANCER IN TEXAS.....	3N01 CP91037-06	23,000
DUPONT, HERBERT L.....	ESTABLISH AN INFECTIOUS ENTERIC DISEASE STUDY CENTER.....	1N01 A02662-00	601,214
HAWKINS, C. MORTON.....	COORDINATING CENTER FOR PROPRANOLOL HEART TRIAL.....	5N01 HV72948-08	96,000
ORGANIZATION TOTAL	4 1,234,692		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS SYSTEM CANCER CENTER ZIP CODE 77025			
ANDERSON, DAVID.....	FAMILIAL CANCER IN MELANOMA PATIENTS.....	1N01 CP01051-00	95,852
ARNOTT, MARILYN.....	ISOLATE AND PURIFY HUMAN POLYCYCLIC HYDROCARBONS.....	5N01 CP85671-03	110,613
BECKER, FREDERICK F.....	BIOLOGY OF NEOPLASTIC LIVER LESIONS IN MICE.....	3N01 CP65846-08	138,186
BENJAMIN, ROBERT.....	PHARMACOKINETICS OF ANTICANCER DRUGS.....	5N01 CM87233-04	55,000
BODEY, GERALD P.....	NEW DRUG DEVELOPMENT CLINICAL TRIALS IN SOLID TUMORS.....	1N01 CM07406-00	86,358
BODEY, GERALD P.....	QUANTITATIVE EVALUATION OF PROTECTED ENVIRONMENT.....	3N01 CM53832-10	150,627
BODEY, GERALD P.....	STUDIES OF PATIENTS WITH SOLID DISSEMINATED TUMORS.....	3N01 CM57042-18	85,461
BODEY, GERALD P.....	PHASE I AND PHASE II STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97277-01	181,230
DRANE, JOE B.....	TRAINING PROGRAMS FOR DENTAL TECHNICIANS.....	1N01 CN05522-00	406,791
KEELING, MICHAEL E.....	MAINTENANCE AND BREEDING OF CHIMPANZEES.....	5N01 RS72142-05	139,000
LOO, TI L.....	PHARMACOLOGIC STUDIES OF ANTITUMOR AGENT.....	5N01 CM87185-03	380,000
MC KELVEY, EUGENE M.....	CANCER INFORMATION DISSEMINATION AND ANALYSIS CENTER.....	3N01 C085405-02	255,000
MOUNTAIN, CLIFTON F.....	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	1N01 CM07417-00	47,644
MOUNTAIN, CLIFTON F.....	PATHOLOGY SUPPORT FOR NON-OAT CELL LUNG CANCER.....	3N01 CM77153-04	59,930
PATT, YEHUDA Z.....	IMMUNOTHERAPY OF DISSEMINATED HUMAN CANCER.....	2N01 CB33888-13	112,866
SAMUELS, MELVIN L.....	OPTIMAL NUTRITIONAL SUPPORT AS ADJUNCT TO CANCER THERAPY.....	3N01 CP65866-06	5,500
SHALEK, ROBERT J.....	CENTER FOR RADIOLOGICAL PHYSICS.....	1N01 CN05506-00	509,763
STOVALL, MARILYN.....	STUDIES OF IATROGENIC CANCER AND RADIATION DOSIMETRY.....	1N01 CP01047-00	99,710
STRONG, LOUIS C.....	MORBIDITY IN CHILDHOOD CANCER SURVIVORS AND OFFSPRING.....	1N01 CP01035-00	498,890
SULLIVAN, MARGARET.....	CLINICAL TRIALS IN PEDIATRIC PATIENTS.....	6N01 CM07342-01	69,519
WHARTON, J. TAYLOR.....	STUDY OF CHEMOTHERAPY OF OVARIAN CARCINOMA.....	5N01 CM33710-15	110,000
ORGANIZATION TOTAL	21 3,597,940		
SAN ANTONIO			
CANCER THERAPY AND RESEARCH CENTER ZIP CODE 78229			
VON HOFF, DANIEL.....	APPLY HUMAN STEM CELL CLONING ASSAY TO DRUG SCREENING.....	1N01 CM07327-00	181,059
ORGANIZATION TOTAL	1 181,059		
SOUTHWEST FOUNDATION FOR RESEARCH AND EDUCATION ZIP CODE 78284			
CUMMINS, I. B.....	MAINTAIN CHIMPANZEES FOR HEPATITIS RESEARCH.....	5N01 HB92910-02	164,183
MC GILL, HENRY C, JR.....	NONHUMAN PRIMATE MODELS OF ATHEROSCLEROSIS/HYPERTENSION.....	2N01 HV53030-08	286,800
RAO, PEMMARAJU N.....	OFF-SITE QUICK REACTION SYNTHETIC CHEMISTRY.....	6N01 CM07356-02	52,246
RAO, PEMMARAJU N.....	SYNTHETIC CHEMICAL FACILITY.....	5N01 HD82823-02	166,014
ROGERS, WALTER.....	INHALATION TESTING OF CIGARETTE SMOKE IN BABOONS.....	1N01 CP05683-00	64,854
ORGANIZATION TOTAL	5 734,097		
SOUTHWEST RESEARCH INSTITUTE ZIP CODE 78228			
MANGOLD, DONALD J.....	RETINOLIDS FOR LABORATORY DIETS.....	5N01 CP85601-04	46,800
MANGOLD, DONALD J.....	DEVELOPMENT OF ORALLY-ACTIVE DOSAGE FORMS FOR STEROIDS.....	5N01 HD72831-05	280,883
ORGANIZATION TOTAL	2 327,683		
SOUTHWEST TEXAS METHODIST HOSPITAL ZIP CODE 78229			
WHITECAR, JOHN P, JR.....	CLINICAL ONCOLOGY PROGRAM.....	3N01 CN75396-03	11,501
ORGANIZATION TOTAL	1 11,501		
UNIVERSITY OF TEXAS SYSTEM—UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO ZIP CODE 78284			
GATES, GEORGE A.....	ADENOIDECTOMY/TYMPANOTOMY TUBES FOR OTITIS MEDIA.....	1N01 NS02328-00	364,442
HARRIS, STEVEN C.....	BREAST CARCINOMA INTRALESIONAL IMMUNOTHERAPY TREATMENT.....	3N01 CB84248-03	89,009

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract		Contract No.	Dollars
TEXAS—Continued				
MC GUIRE, WILLIAM L.....	BIOCHEMICAL MECH OF ENDOCRINE INDUCED CANCER REGRESSION		5N01 CB23862-10	119,900
ORGANIZATION TOTAL	3	573,351		
STATE TOTAL	69	15,006,705		
UTAH				
LOGAN				
UTAH STATE HIGHER EDUCATION SYSTEM—UTAH STATE UNIVERSITY ZIP CODE 84322				
KLEINSCHUSTER, STEPHEN J.....	IMMUNOPROPHYLAXIS OF 'CANCER EYE' IN CATTLE		3N01 CB74155-06	87,189
ORGANIZATION TOTAL	1	87,189		
SALT LAKE CITY				
HOLY CROSS HOSPITAL ZIP CODE 84102				
RIEKHOF, F TEMPEL	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY		1N01 EY02120-00	70,837
ORGANIZATION TOTAL	1	70,837		
SALT LAKE CLINIC RESEARCH FOUNDATION ZIP CODE 84102				
BARKER, ALLAN H.....	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL		5N01 HV72969-06	160,000
ORGANIZATION TOTAL	1	160,000		
UTAH STATE HIGHER EDUCATION SYSTEM—UNIVERSITY OF UTAH ZIP CODE 84112				
CASTLE, C HILMON	HYPERTENSION THERAPY IN THE GENERAL POPULATION		2N01 HV12435-18	176,577
LYON, JOSEPH L.....	EPIDEMIOLOGICAL INVESTIGATION OF CANCER IN UTAH		2N01 CP43382-11	463,033
OVERALL, JAMES C, JR	RECURRENT HERPES VIRUS HOMINIS INFECTION		2N01 AI52532-11	178,426
RIEKHOF, F TEMPEL	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY		3N01 EY72149-05	101,169
SCHOENBERG, ANDREW A.....	DEVELOP TRANSDUCER FOR SENSORY FEEDBACK—PARALYZED EXTR		1N01 NS02335-00	111,999
SWINYARD, EWART A.....	PHARMACOLOGICAL EVALUATION OF ANTI-CONVULSANTS		3N01 NS52302-10	322,000
ORGANIZATION TOTAL	6	1,353,204		
STATE TOTAL	9	1,671,230		
VERMONT				
BURLINGTON				
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE ZIP CODE 05405				
DOLIN, RAPHAEL	TEST RESPIRATORY VIRUS AND BACTERIAL VACCINES		1N01 AI02646-00	219,310
KRAKOFF, IRWIN H	PHASE I STUDIES OF NEW ANTICANCER AGENTS		3N01 CM97278-01	92,133
ORGANIZATION TOTAL	2	311,443		
STATE TOTAL	2	311,443		
VIRGINIA				
ALEXANDRIA				
RUHL ASSOCIATES ZIP CODE 22302				
WHITING, MARJORIE.....	DIETARY AND NUTRITIONAL SURVEYS AND CANCER EPIDEMIOLOGY		3N01 CP65789-03	6,502
ORGANIZATION TOTAL	1	6,502		

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued			
VALUE SYSTEMS ENGINEERING	ZIP CODE 22303		
DEAN, CHARLES.....	DRUG DISTRIBUTION AND PROTOCOL MONITORING SYSTEM.....	3N01 CM87192-03	196,419
SANFACON, THOMAS J.....	OPERATE DIP BIOLOGICAL DATA PROCESSING SYSTEM.....	1N01 CM07251-00	890,938
ORGANIZATION TOTAL	2	1,087,357	
ANNANDALE			
JWK INTERNATIONAL CORPORATION	ZIP CODE 22003		
SCHEIRER, MARY A.....	SOCIETAL CONSEQUENCES OF ADOLESCENT CHILDBEARING.....	1N01 HD02837-00	90,845
ORGANIZATION TOTAL	1	90,845	
ARLINGTON			
AMERICAN BLOOD COMMISSION	ZIP CODE 22209		
HAYES, SUZANNE.....	REGIONAL BLOOD BANKING SERVICES.....	2N01 HB62967-10	132,849
ORGANIZATION TOTAL	1	132,849	
ANALYTIC SERVICES, INC.	ZIP CODE 22202		
BLACKMON, PAUL W.....	EVALUATE NIH CLINICAL CENTER CLINICAL INFO SYSTEM.....	1N01 CL02117-00	164,970
ORGANIZATION TOTAL	1	164,970	
CONTROL SYSTEMS RESEARCH	ZIP CODE 22209		
PYKE, HAROLD.....	NATIONAL DIABETES INFORMATION CLEARINGHOUSE.....	5N01 AM82221-09	292,010
PYKE, HAROLD.....	CANCER INFORMATION CLEARINGHOUSE AND ALLIED SERVICES.....	1N01 C005473-00	317,704
ORGANIZATION TOTAL	2	609,714	
EVALUATION TECHNOLOGIES	ZIP CODE 22201		
PETERSON, RALPH.....	CERVICAL CANCER SCREENING PROGRAM DATA SUPPORT PROJECT.....	2N01 CN95437-05	596,941
ORGANIZATION TOTAL	1	596,941	
GENERAL ELECTRIC COMPANY—SPACE DIVISION	ZIP CODE 22202		
KIRSCHBAUM, JACOB C.....	MEDLARS II IMPROVEMENTS.....	1N01 LM03525-00	128,971
ORGANIZATION TOTAL	1	128,971	
HERNER & COMPANY	ZIP CODE 22209		
LUNIN, LOIS.....	MULTI-AXIS CODING SYSTEM FOR NIA DOCUMENTS.....	1N01 AG02130-00	156,919
NOT AVAILABLE.....	INDEX & KEYBOARD CANCER-RELATED MTGS & DISS ABSTRACTS.....	1N01 C005465-00	152,280
OCKERMAN, LYNN.....	EDIT DESCRIPTIVE/BIBLIOGRAPHIC DATA—BIOMEDICAL JOURNALS.....	1N01 LM03528-00	62,039
ORGANIZATION TOTAL	3	371,238	
INTERAMERICA RESEARCH ASSOCIATES	ZIP CODE 22209		
SANDERS, JAMES B.....	DIGESTIVE DISEASES INFORMATION CLEARINGHOUSE.....	1N01 AM02210-00	91,215
ORGANIZATION TOTAL	1	91,215	
KAPPA SYSTEMS	ZIP CODE 22209		
CALVERT, GENE.....	PLAN & IMPLEMENT NATIONAL HIGH BLOOD PRESSURE EDUCATION.....	1N01 HV02930-00	2,196,548
HART, CAROL.....	NATIONAL CANCER PROGRAM INFORMATION CLEARINGHOUSE.....	3N01 C075351-14	89,949
LERNER, CHARLES S.....	NATIONAL HIGH BLOOD PRESSURE EDUCATION PROGRAM.....	3N01 HV82923-07	156,349
ORGANIZATION TOTAL	3	2,442,846	
ROBERT SLYE ELECTRONICS	ZIP CODE 22201		
CONLEY, JAMES.....	DESIGN & INSTALL AUDIOVISUAL SYSTEMS FOR LHCA.....	3N01 LM94722-01	407,388
ORGANIZATION TOTAL	1	407,388	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued			
XEROX CORPORATION ZIP CODE 22209			
TRAYNOR, DAVID L.....	OVERHAUL OF A XEROX MACHINE.....	1N01 LM03503-00	14,681
ORGANIZATION TOTAL	1	14,681	
CHARLOTTESVILLE			
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE ZIP CODE 22903			
BROWN, JAY C.....	LARGE SCALE PREPARATION OF VSV.....	2N01 NS82391-02	84,904
DREIFUSS, FRITZ E.....	STUDY PROPERTIES OF ETHOSUXIMIDE AND CLONAZEPAM.....	3N01 NS92196-13	24,500
JANE, JOHN A.....	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA.....	5N01 NS92307-03	110,198
WANEBO, HAROLD J.....	CHARACTERIZE SOLUBLE ANTIGEN-ANTIBODY COMPLEXES.....	3N01 CB84262-05	108,227
ORGANIZATION TOTAL	4	327,829	
HERNDON			
EXPERIMENTAL PATHOLOGY LABORATORIES ZIP CODE 22070			
ACKERMAN, LARRY J.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	3N01 CP95647-02	333,237
COCKRELL, BEVERLY.....	PROCESSING CULTURED TISSUES AND CELLS.....	6N01 CP95645-02	137,186
FERRELL, JOHN F.....	PATHOLOGY SUPPORT FOR CARCINOGENESIS TESTING PROGRAM.....	3N01 CP95618-02	309,923
ORGANIZATION TOTAL	3	780,346	
MC LEAN			
EMMES CORPORATION ZIP CODE 22101			
NOVAK, JOEL W.....	SUPPORT THE GASTROINTESTINAL TUMOR STUDY GROUP.....	3N01 CM87193-04	307,142
ORGANIZATION TOTAL	1	307,142	
FLOW GENERAL—FLOW LABORATORIES ZIP CODE 22102			
ADKINS, HARRY F.....	STORAGE AND DISTRIBUTION OF CLINICAL DRUGS.....	3N01 CM67088-09	303,096
DORIAN, CHARLES L.....	DISTRIBUTE DRUGS FOR CANCER CHEMOTHERAPY.....	5N01 CM97254-04	374,021
EDY, VICTOR.....	RESEARCH & PRODUCE HUMAN FIBROBLAST INTERFERON.....	1N01 CM07370-00	2,071,081
MILLER, RODNEY T.....	REPOSITORY CENTER FOR RESEARCH REAGENTS.....	5N01 A182542-11	437,304
POTASH, LOUIS.....	OPERATION OF A VIRUS VACCINE PRODUCTION LABORATORY.....	1N01 A102638-00	383,469
SULLIVAN, RUDOLPH R.....	MAINTENANCE AND BREEDING OF RABBITS.....	5N01 A182565-03	168,219
ORGANIZATION TOTAL	6	3,737,190	
JRB ASSOCIATES ZIP CODE 22101			
CUMMING, PAUL D.....	EVALUATE IMPACT OF ADENINE ON BLOOD BANKING.....	5N01 HB92911-01	96,869
DANZEISEN, RICHARD N.....	NCI BUDGET AND FISCAL PROJECTION MODEL.....	1N01 C004347-00	202,043
HILDRETH, RICHARD F.....	TECHNICAL SUPPORT SERVICES FOR THE ICRDB PROGRAM.....	5N01 C085383-04	472,854
HILDRETH, RICHARD F.....	INFORMATION SYSTEM FOR CARCINOGENESIS EXTRAMURAL PROGRAM.....	1N01 CP05639-00	59,414
HILDRETH, RICHARD F.....	PREPARATION OF SAFETY AND TOXICITY INFORMATION PACKAGES.....	6N01 CP95660-01	7,650
NOVOTNEY, LAURENCE C.....	MINCDS PROGRAM INFORMATION SYSTEM.....	3N01 NS82301-05	24,900
ORGANIZATION TOTAL	6	863,730	
MITRE CORPORATION ZIP CODE 22102			
DUNCAN, ROGER A.....	COMPUTER SYSTEMS R & D SUPPORT.....	1N01 LM03526-00	95,746
ORGANIZATION TOTAL	1	95,746	
RESTON			
RAGEN PRECISION INDUSTRIES—RAGEN INFORMATION SYSTEMS ZIP CODE 22091			
LOPATA, JEFFREY.....	PROVIDE DISPLAY DEVICE FOR INFORMATION SYSTEM.....	1N01 LM03533-00	42,371
ORGANIZATION TOTAL	1	42,371	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued			
RICHMOND			
RICHMOND COLD STORAGE COMPANY	ZIP CODE 23223		
ATKINS, WARNER	STORE EXPERIMENTAL CIGARETTES & TOBACCO PRODUCTS	1N01 CP05706-00	10,000
ORGANIZATION TOTAL	1	10,000	
VIRGINIA COMMONWEALTH UNIVERSITY ZIP CODE 23284			
MAURER, HAROLD M.	STUDY OF PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA	2N01 HD42820-18	89,906
MILLER, J DOUGLAS	DEVELOP PILOT DATA BANK NETWORK IN TRAUMATIC COMA	5N01 NS92306-02	145,881
RICHARDSON, DAVID W.	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82906-04	95,131
SAGAR, KIRAN B	NONINVASIVE DIAGNOSIS OF PULMONARY EMBOLISM	5N01 HR92905-01	65,098
ORGANIZATION TOTAL	4	396,016	
SPRINGFIELD			
REVLON, INC.—MELOY LABORATORIES	ZIP CODE 22151		
BLACKMAN, KENNETH E.	GROWTH OF NORMAL AND TUMOR VIRUS CELLS	3N01 CB74139-05	9,572
BLACKMAN, KENNETH E.	SERVICE FOR THE LABORATORY OF TUMOR VIRUS GENETICS	1N01 CP01013-00	360,000
BLACKMAN, KENNETH E.	SERVICE FOR THE LABORATORY OF VIRAL CARCINOGENESIS	1N01 CP01018-00	284,000
BLACKMAN, KENNETH E.	SERVICE FOR THE LABORATORY OF VIRAL CARCINOGENESIS	3N01 CP01019-01	409,502
BLACKMAN, KENNETH E.	SPONTANEOUS & VIRUS INDUCED NEOPLASTIC TRANSFORMATION	3N01 CP43236-27	476,749
GRAY, GEORGE	TISSUE CULTURE VIRUS PRODUCTION FOR CANCER RESEARCH	1N01 CP01020-00	693,434
HOWK, RICHARD S.	MOLECULAR BIOLOGY STUDIES OF TUMOR VIRUSES	1N01 CB04342-00	244,968
KORTRIGHT, KENNETH H.	RADIOIMMUNOASSAY OF IMMUNOGLOBULIN MOLECULES	5N01 CB63932-08	123,709
LUBINIECKI, ANTHONY S.	SKIN FIBROBLAST REPOSITORY FOR HIGH RISK CANCER	5N01 CP91000-02	127,562
MICHAELS, ANGELA	NCI IMMUNODIAGNOSTIC REFERENCE CENTER	2N01 CB63976-09	260,247
MITSCHELEN, JONATHAN	PREPARATION AND ANALYSIS OF LIPOPROTEINS	5N01 H132926-13	312,577
SLY, LEWIS D	FACILITY FOR NONHUMAN PRIMATES FOR VIRAL HEPATITIS	3N01 A102640-05	608,669
SLY, LEWIS D	SUPPORT FOR ANIMAL-CARE FACILITY	3N01 A132504-18	16,540
SLY, LEWIS D	STUDY TRANSPLACENTAL CARCINOGENESIS IN PRIMATES	5N01 CP95622-01	230,000
SLY, LEWIS D	ANIMAL CARE & ISOLATION FOR INFECTIOUS DISEASE STUDIES	2N01 NS72375-12	303,905
VERNA, JOHN E	DEVELOP AND DELIVER LEUKOCYTE INTERFERON	1N01 CM07378-00	989,520
VERNA, JOHN E	SPONTANEOUS AND VIRUS-INDUCED NEOPLASTIC TRANSFORMATION	3N01 CP43207-27	481,577
VERNA, JOHN E	MOLECULAR STUDY OF CARCINOMA OF THE BREAST	3N01 CP43223-20	417,317
ORGANIZATION TOTAL	18	6,349,848	
VIENNA			
GENERAL TELEPHONE AND ELECTRONICS CORPORATION—GTE TELENET COMMUNICATIONS CORPORATION	ZIP CODE 22180		
NOT AVAILABLE	TELECOMMUNICATIVE SERVICE	3N01 LM74722-12	139,470
ORGANIZATION TOTAL	1	139,470	
HAZLETON LABORATORIES CORPORATION	ZIP CODE 22180		
BOWLES, CHARLES A	PRECLINICAL ANIMAL BONE MARROW TRANSPLANTATION	5N01 CM87156-03	276,000
BOYD, DALE D	STUDY OF IMMUNIZATION TO CARIES	5N01 DE42434-19	202,814
BOYD, DALE D	OPERATION OF A DOMESTIC RHESUS MONKEY BREEDING COLONY	3N01 RR02113-01	223,495
BOYD, DALE D	MAINTAIN A BREEDING COLONY OF RHESUS MONKEYS	5N01 RR62150-05	154,748
COATE, WILLIAM B	CIGARETTE SMOKE—EFFECTS OF NICOTINE & MONOXIDE	1N01 CP05679-00	278,160
COATE, WILLIAM B	RESPIRATORY IMPAIRMENT FROM EXPOSURE TO CIGARETTE SMOKE	3N01 CP43310-04	6,309
DALGARD, DANIEL W	INDUCED TUMORS IN NONHUMAN PRIMATES	2N01 CM97217-04	500,000
GARGUS, JAMES L	SCREENING OF AGENTS FOR CANCER CHEMOTHERAPY	3N01 CM23704-04	5,205
GARGUS, JAMES L	SERVICE FOR THE LABORATORY OF VIRAL CARCINOGENESIS	1N01 CP01017-00	326,650
GARGUS, JAMES L	BIOASSAY OF CIGARETTE-SMOKE CONDENSATES	3N01 CP43320-02	3,429
PIPER, CHARLES	PREPARATION OF GONADAL CELLS AND CELL FRACTIONS	2N01 HD952836-02	116,700
RUTTER, HENRY A, JR	BIOLOGICAL EFFECTS OF INGESTED ASBESTOS IN RATS	5N01 ES52158-14	953,272

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director		Purpose of contract	Contract No.	Dollars
VIRGINIA—Continued				
VALERIO, DAVID A.....		VIRUSES & EXPERIMENTAL ONCOGENESIS OF HUMAN CANCER.....	3N01 CP61024-14	541,716
ORGANIZATION TOTAL	13	3,588,498		
STATE TOTAL	78	22,783,703		
WASHINGTON				
BELLINGHAM				
WESTERN WASHINGTON UNIVERSITY ZIP CODE 98225				
CVETKOVICH, GEORGE T.....		PSYCHOSOCIAL ANTECEDENTS OF ADOLESCENT PREGNANCY.....	5N01 HD92800-02	114,461
ORGANIZATION TOTAL	1	114,461		
RICHLAND				
BATTELLE MEMORIAL INSTITUTE—PACIFIC NORTHWEST LABORATORIES ZIP CODE 99352				
WILDING, RAYMOND E.....		FATE OF HEAVY METALS AND COMPLEXES IN SOILS AND PLANTS.....	5N01 ES82150-03	107,840
ORGANIZATION TOTAL	1	107,840		
SEATTLE				
BATTELLE MEMORIAL INSTITUTE ZIP CODE 98105				
PERRIN, EDWARD B.....		VASECTOMY AND CORONARY HEART DISEASE.....	1N01 HD02809-00	247,229
ORGANIZATION TOTAL	1	247,229		
ELECTROCHEMICAL TECHNOLOGY CORPORATION ZIP CODE 98107				
BECK, THEODORE R.....		EVALUATION OF ELECTRODE MATERIALS.....	1N01 NS02316-00	102,730
ORGANIZATION TOTAL	1	102,730		
FRED HUTCHINSON CANCER RESEARCH CENTER ZIP CODE 98104				
BRESLOW, NORMAN E.....		CENTRALIZED CANCER PATIENT DATA SYSTEM.....	5N01 C075325-09	582,993
HILL, LUCIUS D.....		ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	3N01 CM77148-08	96,912
THOMAS, DAVID B.....		EVALUATE RECEPTOR ASSAY OF HUMAN BREAST CANCER.....	1N01 CB04338-00	105,073
THOMPSON, DONOVAN J.....		SUPPORT FOR A CANCER SURVEILLANCE SYSTEM.....	2N01 CP61059-06	691,493
WRIGHT, PETER W.....		ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER.....	1N01 CM07336-00	94,385
WRIGHT, PETER W.....		CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07445-01	235,280
ORGANIZATION TOTAL	6	1,806,136		
PACIFIC NORTHWEST RESEARCH FOUNDATION ZIP CODE 98104				
SCRIBNER, JOHN D.....		PHYSICO-CHEMICAL PARAMETERS IN STRUCTURE-ACTIVITY.....	3N01 CP85628-02	71,842
ORGANIZATION TOTAL	1	71,842		
UNIVERSITY OF WASHINGTON ZIP CODE 98195				
ANDERSEN, NIELS H.....		PROVIDE POSTOVULATORY PROSTANOID ANTIFERTILITY AGENTS.....	1N01 HD02814-00	64,692
ANDERSEN, NIELS H.....		ARACHIDONATE ANTAGONISTS.....	5N01 HV82933-03	92,345
BUCHANAN, THOMAS M.....		DEVELOP A VACCINE FOR GONORRHEA.....	5N01 A192618-02	112,142
DALING, JANET R.....		BIRTH CONTROL AND THE RISK OF INFERTILITY.....	1N01 HD02821-00	480,700
FEFER, ALEXANDER.....		CELLULAR IMMUNOTHERAPY OF MURINE TUMORS.....	2N01 CB84247-03	216,586
FINCH, CLEMENT A.....		RED CELL DISTRIBUTIONS IN CYANATE-TREATED BLOOD.....	3N01 HB62962-07	23,014
FISHER, LLOYD D.....		COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	5N01 HV32973-16	2,875,367
GRIFFIN, THOMAS W.....		CLINICAL NEUTRON THERAPY PROGRAM.....	5N01 CM97282-03	3,301,523
JOHNSTON, RICHARD P.....		THERMAL ENGINE SYSTEM DEVELOPMENT.....	5N01 HV92908-06	1,588,076
KINYOUN, JAMES L.....		EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72134-05	171,199
KNOPP, ROBERT H.....		MALFORMATIONS AND FETAL LOSSES IN JUVENILE DIABETES.....	1N01 HD02843-00	177,855
KNOPP, ROBERT H.....		SUPPORT FOR LIPID RESEARCH CLINIC.....	2N01 HV12157-16	1,152,000

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
WASHINGTON—Continued			
LOCKARD, JOAN S.....	STUDY EXPERIMENTAL ANTIEPILEPTIC DRUGS.....	3N01 NS12282-24	300,500
OPPENHEIMER, GERALD.....	REGIONAL MEDICAL LIBRARY SERVICES.....	1N01 LM03505-00	322,583
PETERSON, DONALD R.....	SIDS RISK FACTOR COOPERATIVE STUDY.....	2N01 HD72839-05	267,902
SILVERSTEIN, FRED E.....	ENDOSCOPIC CONTROL OF GI BLEEDING—PATIENTS/ANIMALS.....	3N01 AM52211-07	62,802
STAMATOYANNOPOULOS, GEORGE.....	DEVELOPMENT OF SOMATIC CELL MUTATION SYSTEMS IN HUMANS.....	5N01 ES90002-02	199,552
VAN ARSDEL, PAUL P, JR.....	SKIN TEST PENICILLIN DERIVATIVES IN HOSPITALIZED ADULTS.....	2N01 AI92633-02	18,666
WARD, ARTHUR A, JR.....	COMPREHENSIVE EPILEPSY PROGRAM.....	3N01 NS62341-08	1,140,764
WOOTTON, PETER B.....	CENTER FOR RADIOLOGICAL PHYSICS.....	1N01 CN05503-00	691,301
ORGANIZATION TOTAL	20	13,259,569	
VIRGINIA MASON RESEARCH CENTER ZIP CODE 98101			
CARLILE, THOMAS.....	LONG-TERM FOLLOW-UP OF BREAST CANCER SCREENING.....	1N01 CN05496-00	117,478
ORGANIZATION TOTAL	1	117,478	
VANCOUVER			
SOUTHWEST WASHINGTON HOSPITALS ZIP CODE 98668			
HEITSCH, RICHARD.....	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05525-00	123,150
ORGANIZATION TOTAL	1	123,150	
WALLA WALLA			
ST. MARY COMMUNITY HOSPITAL ZIP CODE 99362			
CONNELL, ROBERT M.....	IMPLEMENTATION OF CLINICAL ONCOLOGY PROGRAM.....	2N01 CN75395-04	46,992
ORGANIZATION TOTAL	1	46,992	
STATE TOTAL	34	15,997,427	
WEST VIRGINIA			
HUNTINGTON			
MARSHALL UNIVERSITY ZIP CODE 25701			
BELSHE, ROBERT R.....	TEST RESPIRATORY VIRUS AND BACTERIAL VACCINES.....	1N01 AI02644-00	274,251
ORGANIZATION TOTAL	1	274,251	
STATE TOTAL	1	274,251	
WISCONSIN			
MADISON			
HARLAN INDUSTRIES—HARLAN-SPRAGUE DAWLEY ZIP CODE 53711			
HARLAN, HAL P.....	OPERATE GENETIC PRODUCTION CENTER FOR RODENTS.....	1N01 CM07362-00	430,910
RICHARDSON, DALE M.....	PRIMARY GENETIC CENTER FOR RODENTS.....	3N01 CM87232-06	79,383
ORGANIZATION TOTAL	2	510,293	
RALSTON PURINA COMPANY—RALTECH SCIENTIFIC SERVICES ZIP CODE 53704			
STATZ, DU WAYNE.....	PREPARATION OF PLANT EXTRACTS.....	5N01 CM87182-03	125,000
ORGANIZATION TOTAL	1	125,000	
UNIVERSITY OF WISCONSIN SYSTEM—UNIVERSITY OF WISCONSIN-MADISON ZIP CODE 53706			
BORDEN, ERNEST C.....	CLINICAL EVALUATION OF BIOLOGICAL RESPONSE MODIFIERS.....	6N01 CM07434-01	235,956
BRESNICK, GEORGE H.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72139-05	283,203

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
WISCONSIN—Continued			
BUMPASS, LARRY L.....	CONSEQUENCES FOR CHILDREN OF CHANGING MARITAL PATTERNS.....	1N01 HD02852-00	215,117
CAMERON, JOHN R.....	CENTER FOR RADIOLOGICAL PHYSICS.....	1N01 CN05504-00	840,984
DAVIS, HUGH L.....	STUDIES OF NEW ANTICANCER AGENTS.....	3N01 CM97280-02	66,601
DAVIS, MATTHEW D.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	5N01 EY52148-07	139,694
DAVIS, MATTHEW D.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	5N01 EY72148-06	810,514
MYERS, FRANK L.....	EVALUATE EARLY VITRECTOMY IN DIABETIC RETINOPATHY.....	5N01 EY52140-06	74,876
PITOT, HENRY C.....	DNA REPAIR STUDIES IN CULTURED HEPATOCYTES.....	2N01 CP85609-07	52,797
SIH, CHARLES J.....	SCREENING OF NEW MATERIALS FOR CYTOTOXICITY.....	5N01 CM97289-03	74,035
VALENCIA, RUBY.....	DROSOPHILA MUTAGENESIS TESTING.....	5N01 ES90012-03	334,013
ZACHMAN, RICHARD D.....	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS.....	5N01 HR62952-07	26,730
ORGANIZATION TOTAL	12	3,154,520	
MARSHFIELD			
MARSHFIELD MEDICAL FOUNDATION ZIP CODE 54449			
GREENLAW, ROBERT H.....	COMMUNITY HOSPITAL ONCOLOGY PROGRAM-PLANNING.....	1N01 CN05530-00	117,480
MYERS, WILLIAM O.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	2N01 HV32981-13	80,917
ORGANIZATION TOTAL	2	198,397	
MILWAUKEE			
ALDRICH CHEMICAL COMPANY ZIP CODE 53233			
SZABO, WILLIAM.....	PREPARATION OF BULK CHEMICALS AND DRUGS.....	3N01 CM87202-04	311,285
ORGANIZATION TOTAL	1	311,285	
BLOOD CENTER OF SOUTHEASTERN WISCONSIN ZIP CODE 53233			
DUQUESNOY, RENE J.....	REFERENCE HLA LABORATORIES.....	5N01 AI82543-07	28,604
DUQUESNOY, RENE J.....	CHARACTERIZE HLA ANTIGENS OF DONOR'S LYMPHOCYTES.....	1N01 CB04337-00	97,467
ORGANIZATION TOTAL	2	126,071	
MEDICAL COLLEGE OF WISCONSIN ZIP CODE 53226			
FLEISHER, DANIEL S.....	PRIMARY PHYSICIANS' KNOWLEDGE OF RESPIRATORY DISEASES.....	1N01 HR02902-00	113,977
GROSSBERG, SIDNEY E.....	STANDARDIZE & PRODUCE ANTISERA TO IMMUNE INTERFERONS.....	1N01 AI02658-00	275,949
MILBRATH, JOHN R.....	BREAST CANCER DETECTION DEMONSTRATION PROJECT FOLLOW-UP.....	1N01 CN05492-00	95,415
REESER, FREDERICK.....	EVALUATE EARLY TREATMENT OF DIABETIC RETINOPATHY.....	2N01 EY72136-05	153,492
RIMM, ALFRED A.....	EPIDEMIOLOGY OF VASECTOMY AND ATHEROSCLEROSIS.....	1N01 HD02806-00	86,000
TRISTANI, FELIX E.....	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY.....	2N01 HV32982-09	54,911
ORGANIZATION TOTAL	6	779,744	
MOUNT SINAI MEDICAL CENTER ZIP CODE 53233			
BORTIN, MORTIMER M.....	INTERNATIONAL BONE MARROW TRANSPLANT REGISTRY.....	1N01 AI02648-00	99,000
ORGANIZATION TOTAL	1	99,000	
STATE TOTAL	27	5,304,310	
PUERTO RICO			
SAN JUAN			
PUERTO RICO DEPARTMENT OF HEALTH ZIP CODE 00908			
MARTINEZ, ISIDRO.....	CANCER SURVEY IN THE PUERTO RICO AREA.....	2N01 CP43386-12	146,626
ORGANIZATION TOTAL	1	146,626	
UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES ZIP CODE 00936			
BERROCAL, JOSE.....	EVALUATE EARLY TREATMENT IN DIABETIC RETINOPATHY.....	2N01 EY82103-05	65,776

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director	Purpose of contract	Contract No.	Dollars
PUERTO RICO—Continued			
GARCIA-PALMIERI, MARIO R	EPIDEMIOLOGICAL STUDIES OF CORONARY HEART DISEASE	5N01 HV42902-10	186,160
KERBER, WILLIAM T.....	DOMESTIC SQUIRREL MONKEY PRODUCTION	3N01 RR52133-08	33,000
MEIER, GILBERT W.....	BEHAVIOR, ECOLOGY AND REPRODUCTION OF NONHUMAN PRIMATES	2N01 RR72115-06	150,000
ORGANIZATION TOTAL	4 434,936		
STATE TOTAL	5 581,562		
OTHER COUNTRIES			
AUSTRALIA			
SYDNEY			
ROYAL NORTH SHORE HOSPITAL			
NELSON, D S.....	INHIBIT MACROPHAGE FUNCTION OR INFLAMMATORY RESPONSES.....	5N01 CB84251-02	61,595
ORGANIZATION TOTAL	1 61,595		
SYDNEY HOSPITAL			
HERSEY, PETER.....	DIAGNOSTIC APPLICATIONS OF ANTIBODIES TO MELANOMA	2N01 CB74120-04	53,222
ORGANIZATION TOTAL	1 53,222		
UNIVERSITY OF SYDNEY			
MILTON, GERALD W.....	MALIGNANT MELANOMA AMONG WOMEN ON CONTRACEPTIVE STEROIDS	2N01 HD82804-02	21,984
ORGANIZATION TOTAL	1 21,984		
COUNTRY TOTAL	3 136,801		
AUSTRIA			
VIENNA			
VIENNA UNIVERSITY			
KUNZE, MICHAEL.....	INTERNATIONAL EPIDEMIOLOGY STUDY—VIENNA, AUSTRIA.....	1N01 CP05641-00	57,983
ORGANIZATION TOTAL	1 57,983		
COUNTRY TOTAL	1 57,983		
BELGIUM			
BRUSSELS			
EUROPEAN ORGANIZATION FOR RESEARCH ON TREATMENT OF CANCER			
ATASSI, GHANEM.....	IN VIVO SCREENING PROGRAM	1N01 CM07350-00	247,865
ATASSI, GHANEM.....	IN VIVO SCREENING FOR ANTICANCER ACTIVITY	3N01 CM57040-06	79,500
TAGNON, HENRI J.....	CANCER CHEMOTHERAPY RESEARCH COLLABORATIVE OFFICE.....	3N01 CM53840-08	93,900
ORGANIZATION TOTAL	3 421,265		
COUNTRY TOTAL	3 421,265		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CANADA			
CHALK RIVER			
ATOMIC ENERGY OF CANADA, LTD.—CHALK RIVER NUCLEAR LABORATORIES			
PATERSON, MALCOLM C	DNA REPAIR IN GENETIC SYNDROMES AND HIGH CANCER RISK	5N01 CP81002-02	119,172
ORGANIZATION TOTAL	1	119,172	
GUELPH			
UNIVERSITY OF GUELPH			
HEROLD, EDWARD S	CONTRACEPTIVE ATTITUDES OF UNMARRIED ADOLESCENT FEMALES	5N01 HD92809-01	14,119
ORGANIZATION TOTAL	1	14,119	
HALIFAX			
DALHOUSIE UNIVERSITY			
RAUTAHARJU, P. M.	ECG CENTER FOR PREVENTION OF HEART DISEASE	2N01 HV42911-09	259,538
ORGANIZATION TOTAL	1	259,538	
HAMILTON			
MC MASTER UNIVERSITY			
WITELSON, SANDRA F	BRAIN ASYMMETRY & PSYCHOLOGICAL CHARACTERISTICS	3N01 NS62344-06	50,270
ORGANIZATION TOTAL	1	50,270	
MONTREAL			
MONTREAL GENERAL HOSPITAL			
SKAMENE, EMIL	MACROPHAGE ACTIVATION	5N01 CB84269-02	104,900
ORGANIZATION TOTAL	1	104,900	
MONTREAL HEART INSTITUTE			
BOURASSA, MARTIAL G	COLLABORATIVE STUDIES OF CORONARY ARTERY SURGERY	2N01 HV32983-13	101,237
THEROUX, PIERRE A	CLINICAL CENTER FOR PROPRANOLOL HEART TRIAL	5N01 HV82910-03	117,128
ORGANIZATION TOTAL	2	218,365	
QUEBEC			
LAVAL UNIVERSITY			
LABRIE, FERNAND	CLINICAL PHARMACOLOGY OF LH/FSH-RH ANALOGS	1N01 HD02800-00	280,300
ORGANIZATION TOTAL	1	280,300	
TORONTO			
HOSPITAL FOR SICK CHILDREN			
ALBISSER, ANTHONY M	PORTABLE INSULIN DELIVERY SYSTEMS FOR DIABETES	5N01 AM92201-03	1,229,541
ORGANIZATION TOTAL	1	1,229,541	
ONTARIO CANCER INSTITUTE			
FELD, RONALD	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER	1N01 CM07418-00	137,747
FELD, RONALD	ADJUVANT TRIALS IN RESECTABLE NON-OAT CELL LUNG CANCER	3N01 CM77152-06	129,350
FELD, RONALD	NUTRITION AS ADJUNCT TO CHEMOTHERAPY IN LUNG CANCER	5N01 CM97267-02	228,055
SIMINOVITCH, LOUIS	SUPPLY OF MUTANT VERTEBRATE CELLS	2N01 CP43331-13	103,221
ORGANIZATION TOTAL	4	598,373	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
CANADA—Continued			
TORONTO WESTERN HOSPITAL			
OREOPOULOS, DIMITRIOS G.....	CONTINUOUS AMBULATORY PERITONEAL DIALYSIS (CAPD).....	5N01 AM82213-02	195,217
ORGANIZATION TOTAL	1	195,217	
UNIVERSITY OF TORONTO			
LITTLE, ALICK	LIPID RESEARCH CLINIC	2N01 HV22917-12	423,781
ORGANIZATION TOTAL	1	423,781	
VANCOUVER			
UNIVERSITY OF BRITISH COLUMBIA			
KUTNEY, JAMES P	PLANT AND CELL CULTURE SOURCE FOR ANTINEOPLASTIC AGENTS.....	5N01 CM87236-03	89,000
ORGANIZATION TOTAL	1	89,000	
WINNIPEG			
UNIVERSITY OF MANITOBA			
ANTHONISEN, NICHOLAS R	NOCTURNAL OXYGEN THERAPY IN CHRONIC HYPOXIC LUNG DISEASE.....	2N01 HR62943-09	36,000
ANTHONISEN, NICHOLAS R	INTERMITTENT POSITIVE PRESSURE BREATHING CLINICAL STUDY	5N01 HR72902-05	202,850
RIGATTO, HENRIQUE	EVALUATE ANTENATAL STEROID THERAPY IN NEONATAL RDS	5N01 HR62949-11	172,827
ORGANIZATION TOTAL	3	411,677	
COUNTRY TOTAL	19	3,994,253	
COLOMBIA			
CALI			
UNIVERSITY OF VALLE			
CUELLO, CARLOS	GEOGRAPHICAL PATHOLOGY AND EPIDEMIOLOGY OF CANCER.....	2N01 CP33286-11	50,692
ORGANIZATION TOTAL	1	50,692	
COUNTRY TOTAL	1	50,692	
FINLAND			
HELSINKI			
CENTRAL PUBLIC HEALTH LABORATORY			
MAKELA, P HELENA	FIELD TRIAL OF MENINGOCOCCUS VACCINE.....	3N01 AI52502-13	10,000
ORGANIZATION TOTAL	1	10,000	
COUNTRY TOTAL	1	10,000	
FRANCE			
LYON			
WORLD HEALTH ORGANIZATION—INTERNATIONAL AGENCY FOR RESEARCH ON CANCER			
AGTHE, C	THE EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN.....	3N01 CP45608-18	387,206
BARTSCH, H	SIGNIFICANCE OF EXPERIMENTAL CARCINOGENESIS DATA.....	3N01 CP55630-15	316,059
ESTEVE, JACQUES	CANCER MORTALITY RELATED TO OCCUPATION AND SOCIAL CLASS.....	2N01 CP71015-05	59,041
HIGGINSON, JOHN.....	NASOPHARYNGEAL CARCINOMA & BURKITT'S LYMPHOMA.....	3N01 CP91009-03	206,125

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director		Purpose of contract	Contract No.	Dollars
FRANCE—Continued				
LINSELL, C A		CASE CONTROL STUDY OF LUNG CANCER IN CUBAN WOMEN.....	1N01 CP05647-00	45,483
MUIR, CALVIN S.....		CLEARINGHOUSE FOR ON-GOING WORK IN CANCER EPIDEMIOLOGY	2N01 C055195-08	102,810
ORGANIZATION TOTAL	6	1,116,724		
PARIS				
NATIONAL CENTER FOR SCIENTIFIC RESEARCH				
DE THE, G BLAUDIN.....		NASOPHARYNGEAL CARCINOMA AND ASSOCIATED TUMORS	5N01 CP91035-01	198,420
ORGANIZATION TOTAL	1	198,420		
VILLEJUIF				
GUSTAVE ROUSSY INSTITUTE				
FLAMANT, ROBERT.....		INTERNATIONAL EPIDEMIOLOGY STUDY--VILLEJUIF, FRANCE	1N01 CP05642-00	85,154
ORGANIZATION TOTAL	1	85,154		
COUNTRY TOTAL	8	1,400,298		
GERMANY BERLIN				
BERLIN				
SCHERING, INC.				
HOROWSKI, REINHARD		LONG-ACTING INJECTABLE CONTRACEPTIVE AGENT	3N01 HD52817-09	88,782
ORGANIZATION TOTAL	1	88,782		
COUNTRY TOTAL	1	88,782		
GERMANY FED R				
HEIDELBERG				
GERMAN CANCER RESEARCH CENTER				
SCHMAHL, DIETRICH		INTERNATIONAL EPIDEMIOLOGY STUDY--HEIDELBERG, GERMANY	1N01 CP05643-00	33,200
ORGANIZATION TOTAL	1	33,200		
COUNTRY TOTAL	1	33,200		
GHANA				
LEGON				
UNIVERSITY OF GHANA				
NKRUMAH, F K		EVALUATION OF THE VIRAL ETIOLOGY OF BURKITT'S LYMPHOMA	5N01 CP91002-02	75,343
ORGANIZATION TOTAL	1	75,343		
COUNTRY TOTAL	1	75,343		

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ISRAEL			
BEERSHEBA			
BEN-GURION UNIVERSITY OF THE NEGEV			
NAGGAN, LECHAIM	WESTERN INFANT FEEDING PATTERNS IN NOMADIC POPULATIONS.....	1N01 HD02859-00	290,659
ORGANIZATION TOTAL	1	290,659	
JERUSALEM			
HADASSAH UNIVERSITY HOSPITAL			
STEIN, YECHESKIEL.....	LIPID RESEARCH CLINIC	5N01 HV53015-16	291,925
ORGANIZATION TOTAL	1	291,925	
HEBREW UNIVERSITY OF JERUSALEM			
MENCZEL, JACOB.....	OSTEOPOROSIS AND FRACTURE RESEARCH	3N01 AM32204-16	91,860
ORGANIZATION TOTAL	1	91,860	
ISRAELI MINISTRY OF HEALTH—CENTER OF REGISTRATION OF CANCER AND ALLIED DISEASES			
KATZ, LEAH H.....	CANCER INCIDENCE STUDY & REGISTRY ASSESSMENT	2N01 CP33351-09	125,820
ORGANIZATION TOTAL	1	125,820	
REHOVOT			
WEIZMANN INSTITUTE OF SCIENCE			
SHAPIRO, DAVID.....	PRODUCE RADIOLABELLED GLYCOLIPIDS	5N01 NS02333-01	110,588
ORGANIZATION TOTAL	1	110,588	
TEL AVIV			
TEL AVIV UNIVERSITY			
WITZ, ISAAC P.....	EARLY DETECTION OF ANTIBODIES TO SYNGENEIC MOUSE TUMORS	2N01 CB74134-03	95,310
ORGANIZATION TOTAL	1	95,310	
TEL HASHOMER			
CHAIM SHEBA MEDICAL CENTER			
MODAN, BARUCH	EPIDEMIOLOGY OF BENIGN BREAST DISEASE.....	2N01 CB74102-05	48,963
MODAN, BARUCH	RADIATION RISK IN ISRAELI CHILDREN WITH TINEA CAPITIS	1N01 CP01042-00	122,600
ORGANIZATION TOTAL	2	171,563	
COUNTRY TOTAL	8	1,177,725	
ITALY			
MILAN			
MARIO NEGRI INSTITUTE FOR PHARMACOLOGICAL RESEARCH			
GARATTINI, SILVIO	COLLECTION AND SCREENING OF ANTINEOPLASTIC AGENTS	3N01 CM33720-10	34,712
GARATTINI, SILVIO	ANTINEOPLASTIC DRUG KINETICS	3N01 CM67064-04	12,598
GARATTINI, SILVIO	SCREENING ANTICANCER AGENTS IN EUROPE.....	5N01 CM97250-02	75,000
GARATTINI, SILVIO	EVALUATE AGENTS FOR TREATING ANOREXIA IN CANCER	2N01 CP85604-04	64,472
ORGANIZATION TOTAL	4	186,782	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
ITALY—Continued			
NATIONAL INSTITUTE FOR THE STUDY AND CARE OF TUMORS			
BERRINO, FRANCO.....	INTERNATIONAL EPIDEMIOLOGY STUDY--MILAN, ITALY.....	1N01 CP05644-00	44,115
VERONESI, UMBERTO.....	MULTIMODAL TREATMENT OF PRIMARY BREAST CARCINOMA.....	1N01 CM07338-00	145,500
VERONESI, UMBERTO.....	STUDY OF CANCER AND BRAIN TUMORS.....	2N01 CM33714-15	71,500
VERONESI, UMBERTO.....	COORDINATING CENTER FOR THE CLINICAL STUDY OF MELANOMA.....	3N01 CM43726-10	165,505
ORGANIZATION TOTAL	4	426,620	
PAVIA			
UNIVERSITY OF PAVIA			
PAOLETTI, PIETRO.....	THERAPY OF PATIENTS WITH BRAIN TUMORS.....	3N01 CM67056-06	42,230
ORGANIZATION TOTAL	1	42,230	
ROME			
MONTEVERDE HOSPITAL			
VISCO, GIUSEPPE.....	INTERNATIONAL EPIDEMIOLOGY STUDY--ROME, ITALY.....	1N01 CP05645-00	65,282
ORGANIZATION TOTAL	1	65,282	
COUNTRY TOTAL	10	720,914	
JAPAN			
NAGOYA			
AICHI CANCER CENTER			
NISHIZUKA, YASUAKI.....	PERINATAL ALTERATIONS INFLUENCE ON CARCINOGENESIS.....	3N01 CP55650-11	22,970
ORGANIZATION TOTAL	1	22,970	
TOKYO			
INSTITUTE OF MICROBIAL CHEMISTRY			
UMEZAWA, HAMAO.....	POTENTIAL ANTITUMOR AGENTS FROM MICROBIAL ORIGIN.....	3N01 CM57009-07	165,000
ORGANIZATION TOTAL	1	165,000	
INTERNATIONAL MEDICAL INFORMATION CENTER			
FUJIKAWA, MASANOBU.....	INTERACTION BETWEEN THE ICRDB PROGRAM AND ASIA.....	2N01 CO75362-05	161,865
ORGANIZATION TOTAL	1	161,865	
JAPANESE FOUNDATION FOR CANCER RESEARCH			
SAKURAI, YOSHIO.....	CANCER LIAISON OFFICE IN JAPAN.....	2N01 CM22054-12	56,000
ORGANIZATION TOTAL	1	56,000	
KYOWA, HAKKO, KOGYO, CO. LTD.			
MASANARA, MISAWA.....	PLANT AND CELL CULTURE SOURCE FOR ANTINEOPLASTIC AGENTS.....	5N01 CM87190-02	100,000
ORGANIZATION TOTAL	1	100,000	
YAMANOUCHI PHARMACEUTICAL COMPANY			
KAWATA, HIRITSU.....	DEVELOPMENT AND PRODUCTION OF PARENTERAL DOSAGE FORMS.....	5N01 CM97307-02	210,000
ORGANIZATION TOTAL	1	210,000	
COUNTRY TOTAL	6	715,835	

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

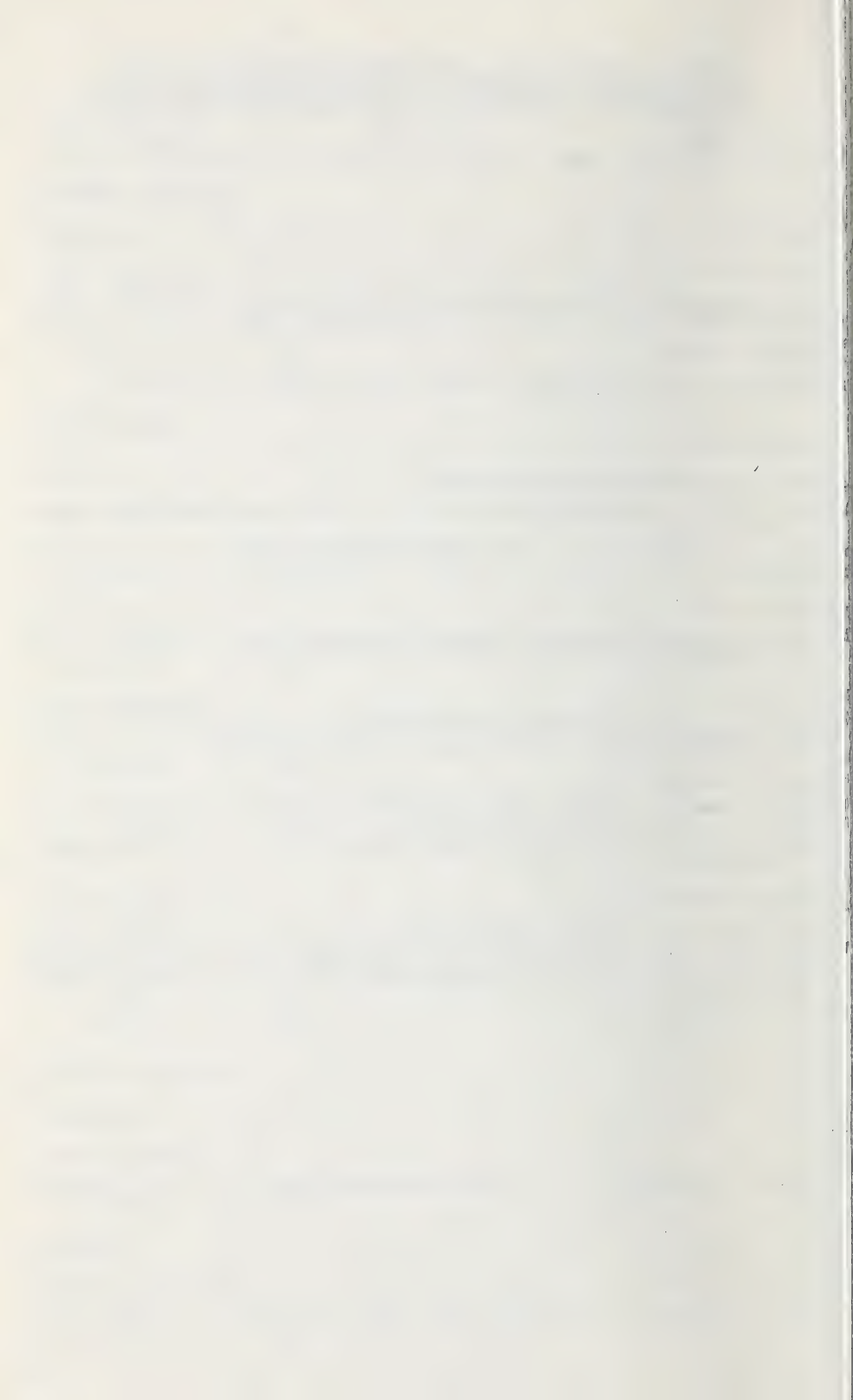
Project director	Purpose of contract	Contract No.	Dollars
NETHERLANDS			
AMSTERDAM			
NETHERLANDS CANCER INSTITUTE			
BOOT, LOURENS M	IMMUNOGENETIC STUDY OF BREAST CANCER AND LEUKEMIA	3N01 CP33368-08	90,000
RUMKE, PHILIP	SPERM IMMUNOLOGY	3N01 HD52834-06	5,010
ORGANIZATION TOTAL	2	95,010	
LEIDEN			
STATE UNIVERSITY OF LEIDEN			
VAN ROOD, JON J.	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	5N01 AI82549-05	62,050
VAN ROOD, JON J.	ACQUISITION OF HOMOZYGOUS TYPING CELLS.....	3N01 AI82553-10	30,870
ORGANIZATION TOTAL	2	92,920	
COUNTRY TOTAL	4	187,930	
NORWAY			
BERGEN			
UNIVERSITY OF BERGEN			
BJELKE, ERIK	ANALYSIS OF NORWEGIAN DIETARY SURVEY DATE.....	5N01 CP91043-03	81,963
ORGANIZATION TOTAL	1	81,963	
TRONDHEIM			
UNIVERSITY OF TRONDHEIM			
BAKKETEIG, LEIV S	OUTCOME OF SUCCESSIVE PREGNANCIES FOR NORWEGIAN WOMEN.....	3N01 HD82826-02	5,150
ORGANIZATION TOTAL	1	5,150	
COUNTRY TOTAL	2	87,113	
PORTUGAL			
LISBON			
PORTUGAL MINISTRY OF PUBLIC WELFARE			
DA MOTTA, LUIZ A	ASSESS THOROTRAST CASE/CONTROL FILES—RECOMMEND ACTION	1N01 CP05635-00	5,000
ORGANIZATION TOTAL	1	5,000	
COUNTRY TOTAL	1	5,000	
SWEDEN			
GOTHENBURG			
GOTHENBURG UNIVERSITY			
LINDAHL, TOMAS.....	BIOMOLECULAR RELATIONSHIP OF HERPES VIRUS AND CANCER	5N01 CP81020-02	106,880
ORGANIZATION TOTAL	1	106,880	

**Table 2.—NIH Research and Development Contracts, by Area,
Organization, and Project Director, Fiscal Year 1980—Continued**

Project director	Purpose of contract	Contract No.	Dollars
SWEDEN—Continued			
STOCKHOLM			
CAROLINE INSTITUTE			
KLEIN, EVA.....	IN VITRO IMMUNIZATION WITH AUTOCHTHONOUS HUMAN TUMOR.....	2N01 CB74144-03	65,000
KLEIN, GEORGE.....	ETIOLOGY OF HUMAN CANCER RNA & DNA VIRUSES.....	2N01 CP33316-09	220,000
ORGANIZATION TOTAL	2	285,000	
COUNTRY TOTAL	3	391,880	
SWITZERLAND			
GENEVA			
INTERNATIONAL UNION AGAINST CANCER			
GRASSI, GUY E.....	INTERNATIONAL SCIENTIST INFORMATION EXCHANGE PROGRAM.....	5N01 CO65341-12	602,076
WARWICK, G P.....	SUPPORT OF THE NCI INTERNATIONAL PROGRAMS.....	2N01 CO75377-07	255,380
ORGANIZATION TOTAL	2	857,456	
UNIVERSITY OF GENEVA			
ORCI, LELIO.....	CONDUCTING MORPHOLOGICAL STUDIES OF DIABETES.....	3N01 AM72213-06	5,200
ORGANIZATION TOTAL	1	5,200	
WORLD HEALTH ORGANIZATION			
KUPKA, KAREL.....	PREPARE AN INTERNATIONAL NOMENCLATURE OF DISEASES.....	5N01 RG62129-06	50,000
PERKINS, F T.....	DEVELOP AN INTERNATIONAL PRIMATE PROGRAM.....	1N01 RS02124-00	95,000
ORGANIZATION TOTAL	2	145,000	
COUNTRY TOTAL	5	1,007,656	
TANZANIA			
DAR ES SALAAM			
MUHIMBILI MEDICAL CENTER			
LUANDE, GIDEON J.....	CHEMOPREVENTION OF SKIN CANCER IN ALBINOS.....	1N01 CM07344-00	125,000
ORGANIZATION TOTAL	1	125,000	
COUNTRY TOTAL	1	125,000	
UNITED KINGDOM			
CAMBRIDGE			
UNIVERSITY OF CAMBRIDGE			
CHIVERS, DAVID J.....	DEVELOP A PRIMATE RESEARCH PROGRAM IN MALAYSIA.....	3N01 CO85409-04	320,226
ORGANIZATION TOTAL	1	320,226	
EDINBURGH			
INVERESK RESEARCH INTERNATIONAL			
MC GREGOR, DOUGLAS.....	MICROBIAL SYSTEMS AS PREScreens FOR CHEMICAL CARCINOGENS.....	3N01 CP75858-08	194,290
ORGANIZATION TOTAL	1	194,290	

Table 2.—NIH Research and Development Contracts, by Area, Organization, and Project Director, Fiscal Year 1980—Continued

Project director		Purpose of contract	Contract No.	Dollars
GLASGOW				
RUCHILL HOSPITAL				
GILLIS, CHARLES R.....		INTERNATIONAL EPIDEMIOLOGY STUDY—GLASGOW, SCOTLAND.....	1N01 CP05646-00	45,000
ORGANIZATION TOTAL	1	45,000		
UNIVERSITY OF GLASGOW				
JARRETT, WILLIAM F.....		CARCINOGENS AND PAPILLOMA VIRUSES IN CATTLE CANCER.....	2N01 CP81022-03	65,096
ORGANIZATION TOTAL	1	65,096		
LEATHERHEAD				
BRITISH FOOD MANUFACTURING INDUSTRIES RESEARCH ASSOCIATION				
WALTERS, CLIFFORD L.....		N-NITROSO COMPOUNDS AND PRECURSORS IN THE ENVIRONMENT.....	3N01 CP43337-11	43,064
ORGANIZATION TOTAL	1	43,064		
LONDON				
BROMPTON HOSPITAL				
TURNER-WARWICK, MARGARET.....		HISTOCOMPATIBILITY IN HYPERSENSITIVITY LUNG DISEASES.....	3N01 HR62935-04	5,609
ORGANIZATION TOTAL	1	5,609		
CITY UNIVERSITY				
WAKE, W C.....		DEVELOP BIOMATERIALS FOR NEURAL PROSTHESES.....	2N01 NS82394-02	58,520
ORGANIZATION TOTAL	1	58,520		
MEDICAL RESEARCH COUNCIL				
GREGORIADIS, GREGORY.....		LIPOSOMAL ENCAPSULATION OF ANTITUMOR AGENTS.....	5N01 CM87171-02	24,000
KIRK, DAVID N.....		STEROID COLLECTION FOR MEDICAL RESEARCH.....	3N01 AM50032-20	58,172
PARSONS, JOHN A.....		DEVICES FOR IMPROVED MANAGEMENT OF DIABETES.....	5N01 AM92200-02	361,644
ORGANIZATION TOTAL	3	443,816		
UNIVERSITY OF LONDON				
ADAMS, GERALD E.....		SYNTHESIS OF RADIOSENSITIZING AGENTS.....	3N01 CM77139-05	52,500
HARRAP, KENNETH R.....		DEVELOPMENT OF SYSTEM FOR COLLECTING ANTICANCER AGENTS.....	5N01 CM43736-13	105,000
HICKS, R MARIAN.....		SUPPLY CHEMOPREVENTION RETINOIDS FOR EPITHELIAL CANCER.....	1N01 CP05602-00	182,726
HICKS, R MARIAN.....		STUDIES OF CARCINOGENESIS IN HUMAN TISSUES.....	2N01 CP75955-09	157,975
ORGANIZATION TOTAL	4	498,201		
COUNTRY TOTAL	14	1,673,822		



APPENDIX

Notes on Selected Organizations

Organizations appearing in more than one geographical location or requiring a clarifying comment are listed below in alphabetic sequence. Comments on certain foundations or on organizations whose names have changed since last year appear after the name of the organization.

United States

Affiliated Hospitals Center--Boston (2 units), Mass.
American College of Radiology--Chicago, Ill.; Philadelphia, Penn.
Ampex Corporation--Redwood City, Calif.; Bethesda, Md.
Battelle Memorial Institute--Columbus, Ohio; Richland, Seattle, Wash.
Booz, Allen and Hamilton--Bethesda, Md.; Philadelphia, Pa.
Boston Health and Hospitals Department (may include awards to Mallory Institute of Pathology Foundation)--Boston, Mass.
CDP Associates--La Jolla, Calif.; Rockville, Md.
College of Medicine and Dentistry of New Jersey--Newark, Piscataway, N.J.
Cornell University--Ithaca, New York, N.Y.
E G & G Inc.--Rockville, Md.; Worcester, Mass.
Enviro Control--Rockville, Temple Hills, Md.
General Telephone and Electronics Corporation--GTE Telenet Communications Corporation (formerly shown as Telenet Communications Corporation, Washington, D.C.)--Vienna, Va.
General Tire and Rubber Company--Folsom (2 units), Calif.
Geomet Technologies (formerly shown as Geomet, Inc.)--Gaithersburg, Md.
Georgia Department of Human Resources--Atlanta, Claxton, Ga. (The unit at Claxton was formerly shown as Evans County Health Department.)
Harlan Industries--Cumberland, Ind.; Madison, Wisc. (The unit in Madison was formerly shown as Dexter Corp.--ARS/Sprague Dawley.)
Indiana University--Bloomington, Indianapolis, Ind.
Institute for Rehabilitation and Research (formerly shown as Texas Institute for Rehabilitation and Research.)--Houston, Texas.
Intel Corporation--Phoenix, Ariz.; Sunnyvale, Calif.
Kaiser Foundation Hospitals--Los Angeles, Oakland, Calif.; Portland, Oreg.
Los Angeles County Health Services Department--Los Angeles, Torrance, Calif.
Loyola University--Chicago--Chicago, Maywood, Ill.
Mitre Corporation--Bedford, Mass.; McLean, Va.

New York City Health Services Administration (may include awards to Medical and Health Research Association of New York City)--New York (2 Units), N.Y.
 New York State Department of Health (may include awards to Health Research Inc.)--Albany, Buffalo, N.Y.
 North American Philips Corporation--New York, N.Y.; Columbus, Ohio
 Northwestern University--Chicago, Evanston, Ill.
 Operations Research--Bethesda, Silver Spring, Md.
 Oregon State Higher Education System--Corvallis, Portland, Oreg.
 Pennsylvania State University--Hershey, University Park, Penn.
 State University of New York--Albany, Buffalo, New York, Stony Brook, Syracuse, N.Y.
 State University System of Florida--Gainesville, Tallahassee, Tampa, Fla.
 Thoratec Laboratories Corporation (formerly shown in Emeryville)--Berkeley, Calif.
 University of Alabama System--Birmingham, University, Ala.
 University of California--Davis, Irvine, La Jolla, Los Angeles, Riverside, San Francisco, Santa Cruz, Calif.
 The unit in La Jolla may include awards to Friends of Psychiatric Research of San Diego.
 University of Connecticut--Farmington, Storrs, Conn.
 University of Illinois--Chicago, Rockford, Urbana, Ill.
 University of Kansas--Kansas City, Lawrence, Kansas.
 University of Maryland System--Baltimore, College Park, Maryland.
 University of North Carolina System--Chapel Hill, Greensboro, Greenville, N.C.
 University of Tennessee System--Knoxville, Memphis, Tenn.
 University of Texas System--Austin, Dallas, Galveston, Houston (2 units), San Antonio, Texas.
 University System of Georgia--Athens, Atlanta, Augusta, Ga.
 Utah State Higher Education System--Logan, Salt Lake City, Utah.
 Value Systems Engineering (formerly shown as Value Engineering Company)--Alexandria, Va.
 Warner-Lambert Company--Ann Arbor, Detroit, Mich.
 Westinghouse Electric Corporation--Baltimore, Columbia, Md.
 Whittaker Corporation--Bethesda, Walkersville, Md.
 Xerox Corporation--Pasadena, Calif; Arlington, Va.

Other Countries

World Health Organization--Lyon, France; Geneva, Switzerland.

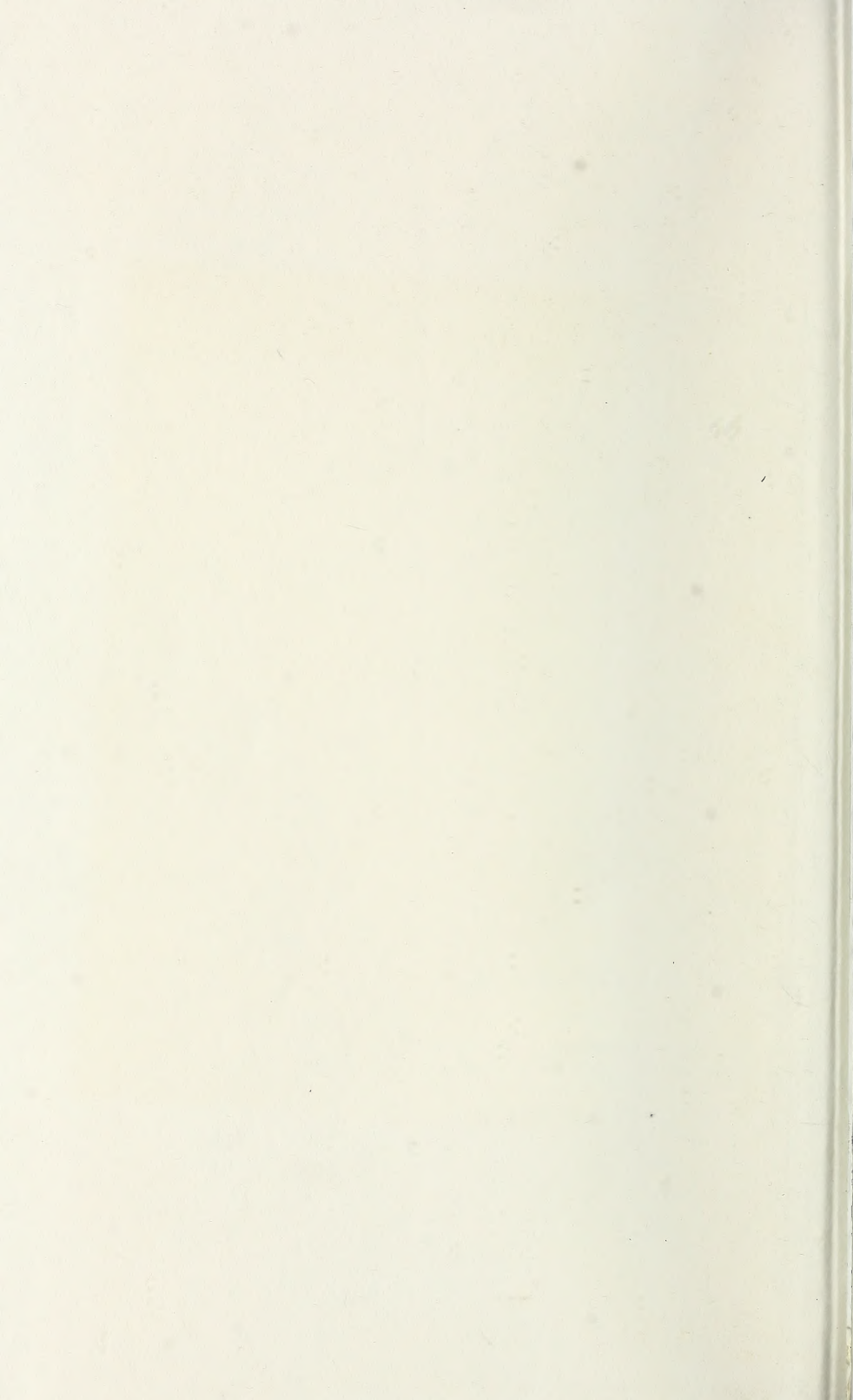
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